



REDWING
ECOLOGICAL SERVICES, INC.

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October 20, 2016

Mr. David Baldrige
Chief, South Section Regulatory Branch
U.S. Army Corps of Engineers
Louisville District
600 Dr. Martin Luther King, Jr. Place
Louisville, Kentucky 40202

**Subject: Request for Jurisdictional Determination
6406 Leisure Lane Property
Jefferson County, Kentucky
Redwing Project No.: 16-149**

Dear Mr. Baldrige:

On behalf of Mr. Dan Tingle, Redwing Ecological Services, Inc. (Redwing) is pleased to submit this request to the U.S. Army Corps of Engineers (USACE) for a Jurisdictional Determination (JD) on the proposed 6406 Leisure Lane property located in southern Jefferson County, Kentucky. The approximately 13-acre study area is located 0.3 mile east of the intersection of Cooper Chapel Road and Leisure Lane (Figure 1). The site primarily consists of maintained lawn, open field, and wetland (Figure 2). Based on the delineation, jurisdictional waters of the U.S. present within the study area include approximately 2.05 acres of wetland and 0.6 acre of open water pond.

METHODOLOGY

The goal of this survey is to determine the location and extent of jurisdictional waters of the U.S., including wetlands within the study area using a combination of in-house research and field evaluation. In-house research included review of the United States Geological Survey (USGS) topographic quadrangle map, aerial photography, United States Department of Agriculture (USDA) Soil Survey Geographic Database for Jefferson County, Kentucky, and FEMA floodplain mapping. Following review of these materials, Redwing wetland scientists conducted a field delineation of the site on October 6, 2016. The wetland delineation of the site was accomplished through documentation of the presence/absence of hydric soils, wetland hydrology, and hydrophytic vegetation per the Routine On-Site Determination Method as defined in the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region*

(Version 2.0, April 2012). The presence of open waters, such as streams and ponds, within the study area was made based on evaluations of ordinary high water mark (OHWM), defined bed and bank features, and flow regime. Intermittent streams were designated based on a seasonal groundwater influence supplemented by rainfall runoff. Ephemeral streams were identified based on minimal stream flow resulting from rainfall runoff only and no groundwater influence.

RESULTS

Water/wetland features identified within the study area include 2.05 acres of wetland and 0.6 acre of open water pond. The identified waters/wetlands are depicted on Figure 3 and described below. Soil, hydrology, and vegetation data were formally collected at eight points throughout the study area (Figure 3) and Wetland Determination Data Forms are attached as Appendix A. A draft Preliminary Jurisdictional Determination Form for the waters/wetlands is presented in Appendix B. Jurisdictional waters/wetlands have not been verified by the USACE.

Feature	Area (ac)	Status*	Quality
Wetland 1	2.05	Jurisdictional	Poor
Wetland Total	2.05		
Open Water 1	0.6	Jurisdictional	Poor
Open Water Total	0.6		
Jurisdictional Features Total	2.11		

*These water/wetland features have not been verified by the USACE.

Wetland: Wetland 1 (2.05 acres) is an emergent and scrub-shrub wetland located within the study area. The emergent portion is located in an open field and the scrub-shrub portion is located around Open Water 1. Wetland 1 is considered jurisdictional because it drains off the property into an unnamed tributary of Pennsylvania Run.

Open Water: Open Water 1 (0.6 acre) is an open water pond located in the central portion of the study area. Open Water 1 drains into Wetland 1 on its southwest side along an overflow channel. Open Water 1 is considered jurisdictional because of the connection to Wetland 1 and an unnamed tributary of Pennsylvania Run. The National Wetlands Inventory identifies the open water feature as Palustrine, Unconsolidated Bottom, Permanently Flooded, Diked/Impounded (PuBhh).

Soil, hydrology, and vegetation data were collected on Routine Wetland Determination Forms (Appendix A) at eight locations within the study area (Figure 3) and are discussed below.

Soils: The Jefferson County Soil Survey maps the study area as being underlain by Robertsville silt loam and Urban land-Udothents complex (Figure 4). The Robertsville soil series, which is the primary soil component within the study area, is listed on the Hydric Soils List for Jefferson County as a hydric soil. Hydric soil indicators were observed at seven data points within or adjacent to the wetlands, and included the depleted matrix (F3) and the redox dark surface (F6) hydric soil indicators.

Hydrology: The main sources of hydrology to the study area include precipitation, surface runoff, and stormwater drainage from adjacent properties. The property is not located within the 100-Year floodplain (Figure 5). Hydrology indicators were observed within the wetlands and included oxidized rhizospheres on living root channels, saturation visible on aerial, geomorphic position, and the FAC-neutral test.

Vegetation: The study area consists mainly of maintained lawn, open field, and wetland (Figure 2). The maintained lawn species consist of tall fescue (*Schedonorus arundinaceus*), common dandelion (*Taraxacum officinale*), white clover (*Trifolium repens*), and English plantain (*Plantago lanceolata*). These species are listed as obligate upland (UPL) and facultative upland (FACU) in the *Eastern Mountains and Piedmont 2016 Final Regional Wetland Plant List* (RWPL).

The open field, which dominates the site, includes: tall fescue, yellow nutsedge (*Cyperus esculentas*), Canada goldenrod (*Solidago canadensis*), broomsedge (*Andropogon virginicus*), green ash (*Fraxinus pennsylvanica*), and hairy white aster (*Symphyotrichum pilosum*). These species are listed as FACU, facultative (FAC), and facultative wetland (FACW) in the RWPL.

Common species observed in the emergent and scrub-shrub wetland include narrow leaf cattail (*Typha angustifolia*), green bulrush (*Scirpus atrovirens*), yellow nutsedge, black willow (*Salix nigra*), moneywort (*Lysimachia nummularia*), yellow foxtail (*Setaria pumila*), tall fescue, Frank's sedge (*Carex frankii*), fox sedge (*Carex vulpinoidea*), and common beggar ticks (*Bidens frondosa*). These species are listed as FACU, FAC, FACW, and obligate wetland (OBL) in the RWPL.

SUMMARY

Based on the delineation, jurisdictional waters of the U.S. located within the study area include approximately 2.05 acres of wetland and 0.6 acre of open water. We respectfully request USACE concurrence with the results of this delineation. Please contact Bridget Carnahan or Neil Guthals at (502) 625-3009 with any questions regarding this report or the overall project.

Sincerely,



Bridget G. Carnahan
Staff Biologist



Neil A. Guthals
Senior Ecologist

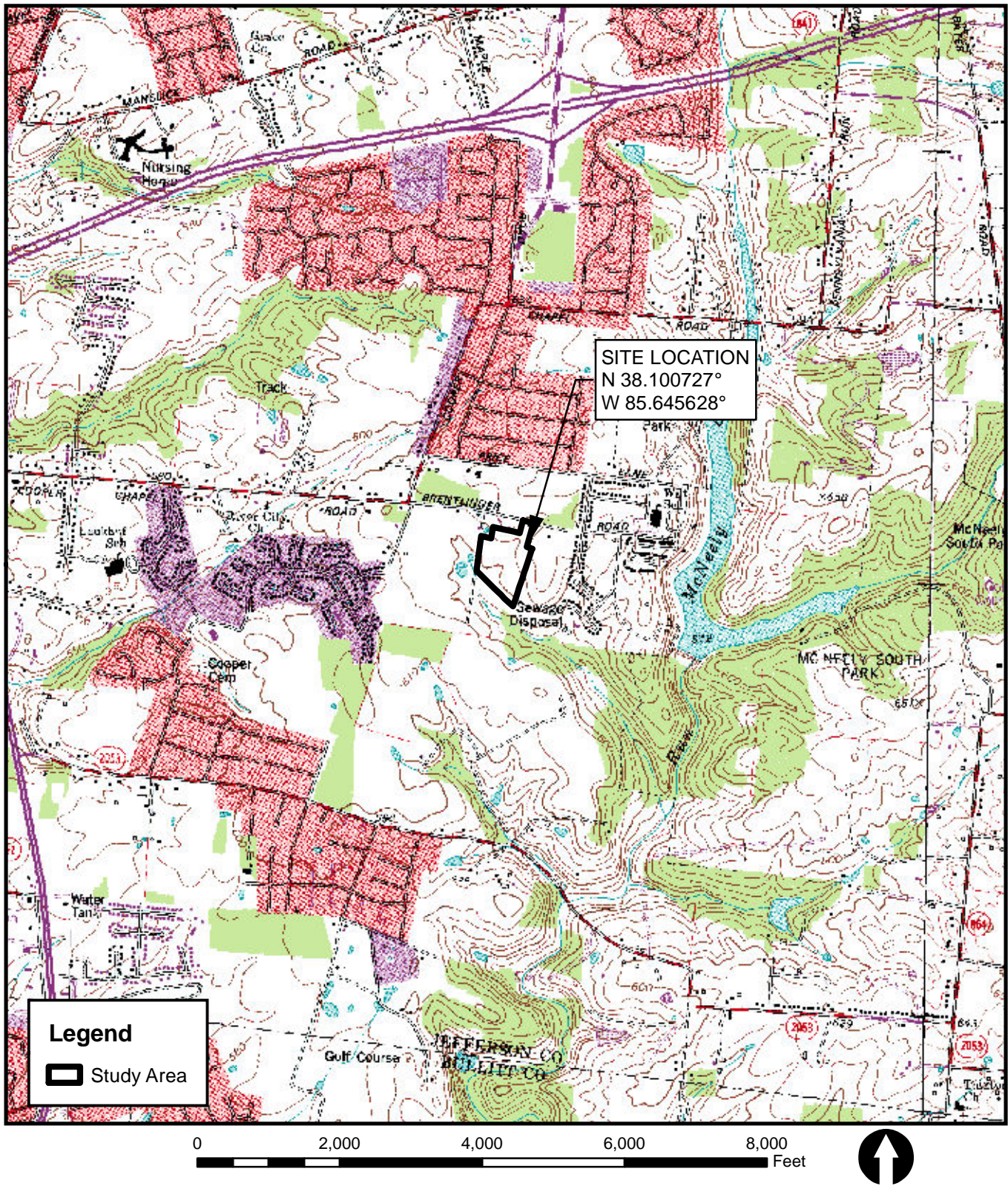
P:\2016 Projects\16-149-Leisure Lane Recon\Reports\JD Request_6406 Leisure Lane.doc

cc: Mr. Dan Tingle

Attachments: Figures
Photographs
Appendix A – Wetland Determination Data Forms
Appendix B – Preliminary Jurisdictional Determination Form

FIGURES

Source: USGS 7.5-minute Topographic Map - Brooks and Mount Washington, Kentucky Quadrangles.



P:\2016 Projects\16-149-Leisure Lane Recon\Figures\Site Location.mxd, 10-19-2016, temp

6406 LEISURE LANE PROPERTY
JEFFERSON COUNTY, KENTUCKY



SITE LOCATION MAP

REVISED DATE: 10-19-16

DRAWN BY: BGC/NAG

FIGURE 1

Source: World Imagery - Esri and the GIS User Community (2014).



Legend
Study Area

0 400 800 1,200 1,600 Feet



6406 LEISURE LANE PROPERTY
JEFFERSON COUNTY, KENTUCKY



AERIAL PHOTOGRAPH MAP

REVISED DATE: 10-19-16 DRAWN BY: EDB/NAG

FIGURE 2

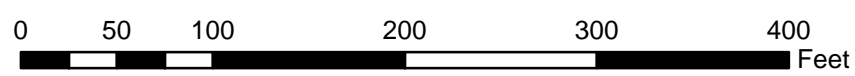
P:\2016 Projects\16-149-Leisure Lane Recon\Figures\Aerial.mxd, 10-19-2016, temp

Source: World Imagery - Esri and the GIS User Community (2015).




Legend

- Study Area
- Approximate Open Water (0.6 acre)
- Wetland (2.05 acres)
- Wetland Determination Data Point



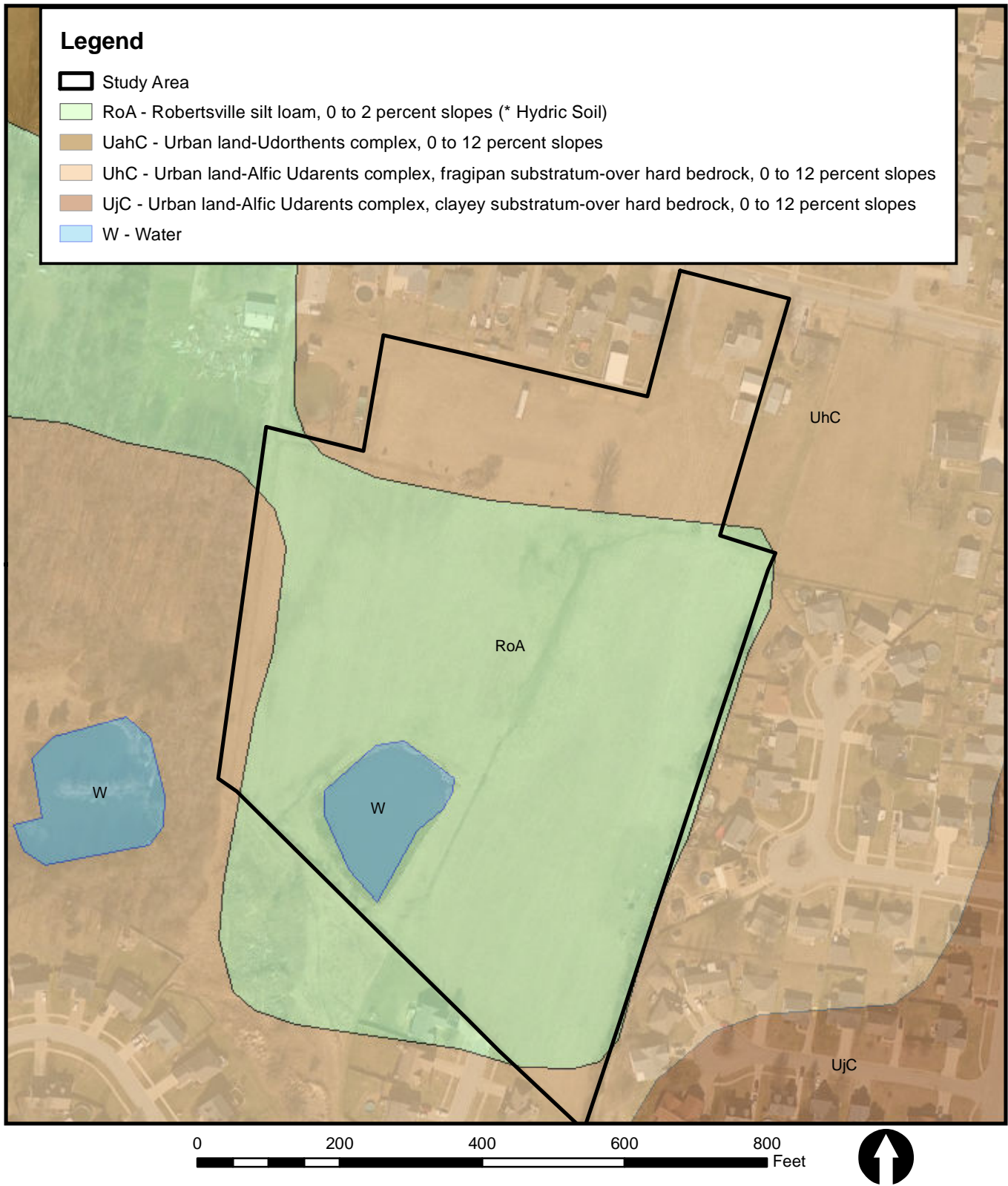
NOTE: JURISDICTIONAL WATER/WETLAND BOUNDARIES WERE DELINEATED BY REDWING WETLAND SCIENTISTS ON OCTOBER 6, 2016. THESE BOUNDARIES HAVE NOT BEEN VERIFIED BY THE U.S. ARMY CORPS OF ENGINEERS. USE OF THIS MAP IS FOR PRELIMINARY PLANNING PURPOSES ONLY.



<p>6406 LEISURE LANE PROPERTY JEFFERSON COUNTY, KENTUCKY</p>	 <p>REDWING ECOLOGICAL SERVICES, INC.</p>	<p>WATER/WETLAND LOCATION MAP</p>
REVISED DATE: 10-19-16	DRAWN BY: BGC/EDB/NAC	FIGURE 3

P:\2016 Projects\16-149-Leisure Lane Recomp\Figures\Water\Wetland Location Map.mxd, 10-19-2016, temp

Source: World Imagery - Esri and the GIS User Community (2014); Soil Survey Geographic (SSURGO) database for Jefferson County, Kentucky (2008).



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6406 LEISURE LANE PROPERTY
JEFFERSON COUNTY, KENTUCKY



SOIL SURVEY MAP

REVISED DATE: 10-19-16

DRAWN BY: BGC/NAG

FIGURE 4

Source: World Imagery - Esri and the GIS User Community (2014);FEMA DFIRM Flood Data, Jefferson County, Kentucky (2010).



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6406 LEISURE LANE PROPERTY
JEFFERSON COUNTY, KENTUCKY



FEMA FLOODPLAIN MAP

REVISED DATE: 10-19-16

DRAWN BY: EDB/NAG

FIGURE 5

PHOTOGRAPHS



Photograph 1: View of the old field habitat typical across most the study area. September 15, 2016.



Photograph 2: View of the maintained lawn habitat that surrounds the residence located in the northern portion of the study area. October 6, 2016.



Photograph 3: View of the emergent portion of Wetland 1 located near the southern boundary of the study area. October 6, 2016.



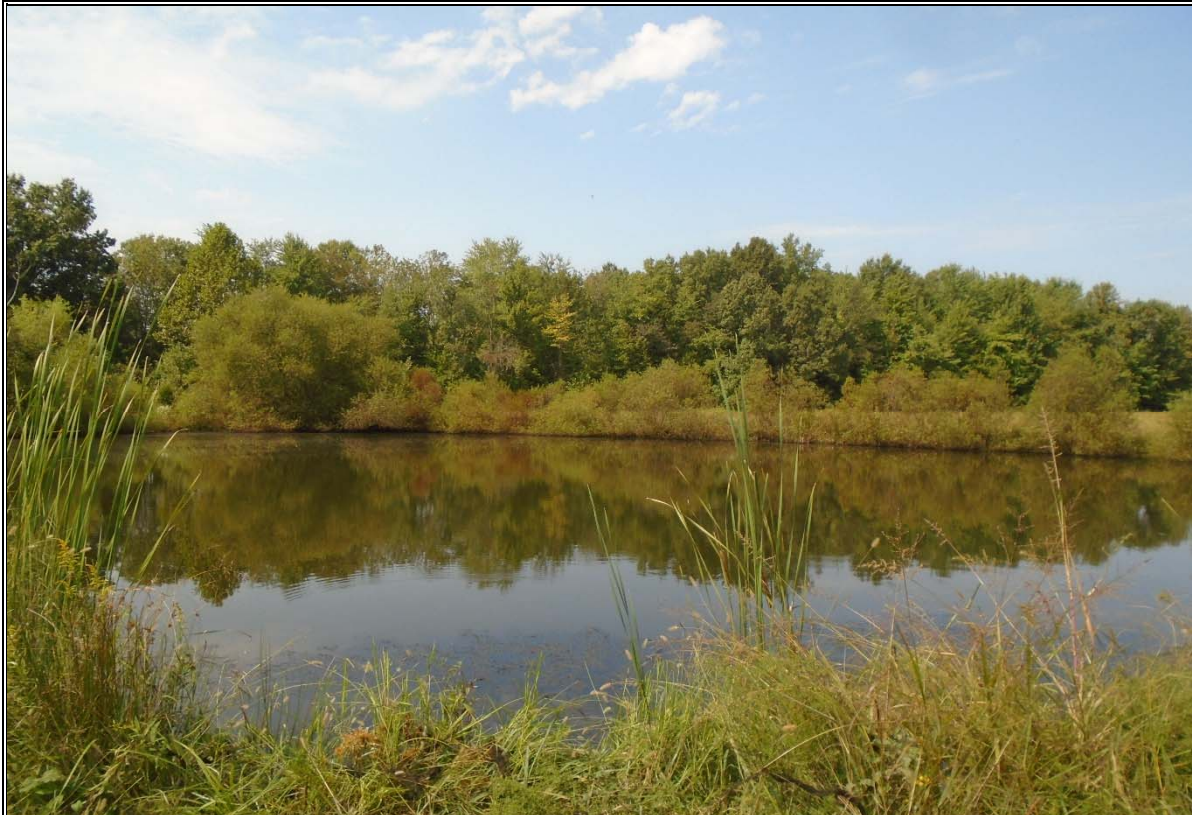
Photograph 4: View of Wetland 1 at the overflow for Open Water 1. October 6, 2016.



Photograph 5: View of the emergent portion of Wetland 1 located in the northern half of the study area. October 6, 2016.



Photograph 6: View of the emergent portion of Wetland 1 located in the northwest corner of the site. The wetland appears to receive flow from an offsite open water feature located immediately north of the site. October 6, 2016.



Photograph 7: View of Open Water 1 which receives flow from Wetland 1 and overflows into Wetland 1 as it exits the property near the southwest corner of the study area. The scrub-shrub portion of the wetland is located around the open water. September 15, 2016.



Photograph 8: View of the northern portion of the study area facing east. October 6, 2016.

APPENDIX A

WETLAND DETERMINATION DATA FORMS

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont

Project/Site: 6406 Leisure Lane Property City/County: Jefferson Sampling Date: 10/06/16
 Applicant/Owner: Mr. Dan Tingle State: Kentucky Sampling Point: DP 1
 Investigator(s): S. Brower, B. Carnahan Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): pond fringe Local relief (concave, convex, none): none Slope (%): 0
 Subregion (LRR or MLRA) LRR N Lat.: 38.10039° N Long.: 85.64596° W Datum: _____
 Soil Map Unit Name: RoA - Robertsville silt loam, 0 to 2 percent slopes NWI Classification: not identified
 Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal circumstances" present? Yes
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u>Yes</u> Hydric soil present? <u>Yes</u> Wetland hydrology present? <u>Yes</u>	Is the Sampled Area within a Wetland? <u>Yes</u>
Remarks: (Explain alternative procedures here or in a separate report.) Point taken within southern portion of Wetland 1.	

HYDROLOGY

Wetland Hydrology Indicators			
Primary Indicators (minimum of one is required; check all that apply)		Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input checked="" type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)	
		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)	

Field Observations: Surface water present? Yes _____ No <u>X</u> Depth (inches): <u>N/A</u> Water table present? Yes _____ No <u>X</u> Depth (inches): <u>N/A</u> Saturation present? Yes _____ No <u>X</u> Depth (inches): <u>N/A</u> (includes capillary fringe)	Wetland hydrology present? <u>Yes</u>
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Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Four Strata) -- Use scientific names of plants

Sampling Point: DP 1

Tree Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		0 =	Total Cover	
Sapling/Shrub Stratum	Plot Size (15')	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		0 =	Total Cover	
Herb Stratum	Plot Size (5')	Absolute % Cover	Dominant Species	Indicator Status
1	<i>Lysimachia nummularia</i>	40	Yes	FACW
2	<i>Cyperus esculentus</i>	35	Yes	FACW
3	<i>Schedonorus arundinaceus</i>	35	Yes	FACU
4	<i>Carex frankii</i>	15	No	OBL
5	<i>Carex vulpinoidea</i>	10	No	OBL
6	<i>Paspalum notatum</i>	10	No	FACU
7	<i>Bidens frondosa</i>	5	No	FACW
8	<i>Acalypha rhomboidea</i>	2	No	FACU
9	<i>Erechtites hieraciifolius</i>	2	No	FACU
10				
11				
12				
13				
14				
15				
		154 =	Total Cover	
Woody Vine Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
		0 =	Total Cover	

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 66.67% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species _____

FACW species _____

FAC species _____

FACU species _____

UPL species _____

Column totals _____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

1 - Rapid test for hydrophytic vegetation

2 - Dominance test is >50%

3 - Prevalence index is ≤3.0*

4 - Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)

Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Four Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? Yes

Remarks: (Include photo numbers here or on a separate sheet)

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-0.5	10YR 3/2	100					silty clay loam	
0.5-4	10YR 4/2	90	5YR 4/6	10	C	PL/M	silty clay loam	
4-8	10YR 6/2	90	7.5YR 5/6	10	C	PL/M	silty clay loam	
8-13	2.5Y 5/1	85	10YR 5/6	15	C	M	silty clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains - ²Location: PL=Lining, M=Matrix

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils:
<input type="checkbox"/> Histisol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) (LRR N) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Muck Mineral (S1) (LRR,N MLRA 147, 148) <input type="checkbox"/> Sandy Gley Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S9) (MLRA 147, 148) <input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N MLRA 136) <input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148) <input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147)
	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> (MLRA 147, 148) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> (MLRA 136, 147) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
	<p>*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic</p>

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric soil present? <u>Yes</u>
---------------------------------------------------------------------------------	---------------------------------

Remarks:

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont

Project/Site: 6406 Leisure Lane Property City/County: Jefferson Sampling Date: 10/06/16
 Applicant/Owner: Mr. Dan Tingle State: Kentucky Sampling Point: DP 2
 Investigator(s): S. Brower, B. Carnahan Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): open field Local relief (concave, convex, none): none Slope (%): 0
 Subregion (LRR or MLRA) LRR N Lat.: 38.10045° N Long.: 85.64594° W Datum: _____
 Soil Map Unit Name: RoA - Robertsville silt loam, 0 to 2 percent slopes NWI Classification: not identified
 Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal circumstances" present? _____ Yes
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u> No </u> Hydric soil present? <u> Yes </u> Wetland hydrology present? <u> No </u>	Is the Sampled Area within a Wetland? <u> No </u>
Remarks: (Explain alternative procedures here or in a separate report.) Upland point taken adjacent to Wetland 1.	

HYDROLOGY

Wetland Hydrology Indicators			
Primary Indicators (minimum of one is required; check all that apply)		Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)	
		<input type="checkbox"/> FAC-Neutral Test (D5)	
Field Observations:		Wetland hydrology present? <u> No </u>	
Surface water present? Yes _____ No <u> X </u> Depth (inches): <u> N/A </u>			
Water table present? Yes _____ No <u> X </u> Depth (inches): <u> N/A </u>			
Saturation present? Yes _____ No <u> X </u> Depth (inches): <u> N/A </u> (includes capillary fringe)			
Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

VEGETATION (Four Strata) -- Use scientific names of plants

Sampling Point: DP 2

Tree Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		0 =	Total Cover	

Sapling/Shrub Stratum	Plot Size (15')	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		0 =	Total Cover	

Herb Stratum	Plot Size (5')	Absolute % Cover	Dominant Species	Indicator Status
1	<i>Schedonorus arundinaceus</i>	60	Yes	FACU
2	<i>Setaria faberi</i>	60	Yes	UPL
3	<i>Cyperus esculentus</i>	10	No	FACW
4	<i>Panicum anceps</i>	10	No	FAC
5	<i>Fraxinus pennsylvanica</i>	5	No	FACW
6	<i>Solanum carolinense</i>	5	No	FACU
7	<i>Symphotrichum pilosum</i>	5	No	FAC
8	<i>Andropogon virginicus</i>	2	No	FACU
9	<i>Vernonia gigantea</i>	2	No	FAC
10				
11				
12				
13				
14				
15				
		159 =	Total Cover	

Woody Vine Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
		0 =	Total Cover	

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 0.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species _____

FACW species _____

FAC species _____

FACU species _____

UPL species _____

Column totals _____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

____ 1 - Rapid test for hydrophytic vegetation

____ 2 - Dominance test is >50%

____ 3 - Prevalence index is ≤3.0*

____ 4 - Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)

____ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Four Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? No

Remarks: (Include photo numbers here or on a separate sheet)

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	10YR 4/2	97	7.5Y 5/6	3	C	M	silty clay loam	
3-12	10YR 4/1	82	7.5YR 6/6	10	C	M	silty clay loam	
			10YR 5/6	5	C	M		
			5YR 5/6	3	C	M		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains - ²Location: PL=Lining, M=Matrix

Hydric Soil Indicators:

Indicators for Problematic Hydric Soils:

- | | | |
|-------------------------------------------------------------------|--------------------------------------------------------------------------------|--------------------------------------------------------------|
| <input type="checkbox"/> Histisol (A1) | <input type="checkbox"/> Dark Surface (S7) | <input type="checkbox"/> 2 cm Muck (A10) (MLRA 147) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Polyvalue Below Surface (S9) (MLRA 147, 148) | <input type="checkbox"/> Coast Prairie Redox (A16) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148) | <input type="checkbox"/> (MLRA 147, 148) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) | <input type="checkbox"/> Piedmont Floodplain Soils (F19) |
| <input type="checkbox"/> Stratified Layers (A5) | <input checked="" type="checkbox"/> Depleted Matrix (F3) | <input type="checkbox"/> (MLRA 136, 147) |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR N) | <input type="checkbox"/> Redox Dark Surface (F6) | <input type="checkbox"/> Very Shallow Dark Surface (TF12) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Depressions (F8) | |
| <input type="checkbox"/> Sandy Muck Mineral (S1) (LRR,N) | <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N) | |
| <input type="checkbox"/> (MLRA 147, 148) | <input type="checkbox"/> (MLRA 136) | |
| <input type="checkbox"/> Sandy Gley Matrix (S4) | <input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122) | |
| <input type="checkbox"/> Sandy Redox (S5) | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148) | |
| <input type="checkbox"/> Stripped Matrix (S6) | <input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147) | |

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric soil present? Yes

Remarks:

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont

Project/Site: 6406 Leisure Lane Property City/County: Jefferson Sampling Date: 10/06/16
 Applicant/Owner: Mr. Dan Tingle State: Kentucky Sampling Point: DP 3
 Investigator(s): S. Brower, B. Carnahan Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): open field Local relief (concave, convex, none): none Slope (%): 0
 Subregion (LRR or MLRA) LRR N Lat.: 38.10109° N Long.: 85.64567° W Datum: _____
 Soil Map Unit Name: RoA - Robertsville silt loam, 0 to 2 percent slopes NWI Classification: not identified
 Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal circumstances" present? Yes
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u>Yes</u> Hydric soil present? <u>Yes</u> Wetland hydrology present? <u>No</u>	Is the Sampled Area within a Wetland? <u>No</u>
Remarks: (Explain alternative procedures here or in a separate report.) Upland point taken adjacent to Wetland 1.	

HYDROLOGY

Wetland Hydrology Indicators			
Primary Indicators (minimum of one is required; check all that apply)		Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)	
		<input type="checkbox"/> FAC-Neutral Test (D5)	
Field Observations:		Wetland hydrology present? <u>No</u>	
Surface water present? Yes _____ No <u>X</u> Depth (inches): <u>N/A</u>			
Water table present? Yes _____ No <u>X</u> Depth (inches): <u>N/A</u>			
Saturation present? Yes _____ No <u>X</u> Depth (inches): <u>N/A</u>			
(includes capillary fringe)			
Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

VEGETATION (Four Strata) -- Use scientific names of plants

Sampling Point: DP 3

Tree Stratum		Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
			0 =	Total Cover	
Sapling/Shrub Stratum		Plot Size (15')	Absolute % Cover	Dominant Species	Indicator Status
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
			0 =	Total Cover	
Herb Stratum		Plot Size (5')	Absolute % Cover	Dominant Species	Indicator Status
1	<i>Setaria pumila</i>		60	Yes	FAC
2	<i>Schedonorus arundinaceus</i>		35	Yes	FACU
3	<i>Lysimachia nummularia</i>		25	No	FACW
4	<i>Panicum anceps</i>		20	No	FAC
5	<i>Conoclinium coelestinum</i>		15	No	FAC
6	<i>Cyperus esculentus</i>		10	No	FACW
7	<i>Fraxinus pennsylvanica</i>		5	No	FACW
8	<i>Pyrus calleryana</i>		5	No	UPL
9	<i>Vernonia gigantea</i>		5	No	FAC
10	<i>Acer rubrum</i>		2	No	FAC
11	<i>Andropogon virginicus</i>		2	No	FACU
12	<i>Solanum carolinense</i>		2	No	FACU
13					
14					
15					
			186 =	Total Cover	
Woody Vine Stratum		Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status
1					
2					
3					
4					
5					
			0 =	Total Cover	

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 50.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species _____

FACW species _____

FAC species _____

FACU species _____

UPL species _____

Column totals _____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

1 - Rapid test for hydrophytic vegetation

2 - Dominance test is >50%

3 - Prevalence index is ≤3.0*

4 - Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)

_____ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Four Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? Yes

Remarks: (Include photo numbers here or on a separate sheet)

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10YR 4/2	90	5YR 4/6	10	C	M	silty clay loam	
4-10	10YR 6/1	90	10YR 5/6	5	C	M	silt loam	
			5YR 5/6	3	C	M		
			7.5YR 2.5/1	2	D	M		
10-14	10YR 6/2	60	7.5YR 5/6	40	C	M	silty clay loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains - ²Location: PL=Lining, M=Matrix

Hydric Soil Indicators:

Indicators for Problematic Hydric Soils:

- | | | |
|-------------------------------------------------------------------|--------------------------------------------------------------------------------|--------------------------------------------------------------|
| <input type="checkbox"/> Histisol (A1) | <input type="checkbox"/> Dark Surface (S7) | <input type="checkbox"/> 2 cm Muck (A10) (MLRA 147) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Polyvalue Below Surface (S9) (MLRA 147, 148) | <input type="checkbox"/> Coast Prairie Redox (A16) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148) | <input type="checkbox"/> (MLRA 147, 148) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) | <input type="checkbox"/> Piedmont Floodplain Soils (F19) |
| <input type="checkbox"/> Stratified Layers (A5) | <input checked="" type="checkbox"/> Depleted Matrix (F3) | <input type="checkbox"/> (MLRA 136, 147) |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR N) | <input type="checkbox"/> Redox Dark Surface (F6) | <input type="checkbox"/> Very Shallow Dark Surface (TF12) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Depressions (F8) | |
| <input type="checkbox"/> Sandy Muck Mineral (S1) (LRR,N) | <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N) | |
| <input type="checkbox"/> (MLRA 147, 148) | <input type="checkbox"/> (MLRA 136) | |
| <input type="checkbox"/> Sandy Gley Matrix (S4) | <input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122) | |
| <input type="checkbox"/> Sandy Redox (S5) | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148) | |
| <input type="checkbox"/> Stripped Matrix (S6) | <input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147) | |

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric soil present? Yes

Remarks:

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont

Project/Site: 6406 Leisure Lane Property City/County: Jefferson Sampling Date: 10/06/16
 Applicant/Owner: Mr. Dan Tingle State: Kentucky Sampling Point: DP 4
 Investigator(s): S. Brower, B. Carnahan Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): open field Local relief (concave, convex, none): none Slope (%): 0
 Subregion (LRR or MLRA) LRR N Lat.: 38.10118° N Long.: 85.64554° W Datum: _____
 Soil Map Unit Name: RoA - Robertsville silt loam, 0 to 2 percent slopes NWI Classification: not identified
 Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal circumstances" present? Yes
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u>Yes</u> Hydric soil present? <u>Yes</u> Wetland hydrology present? <u>Yes</u>	Is the Sampled Area within a Wetland? <u>Yes</u>
Remarks: (Explain alternative procedures here or in a separate report.) Point taken within northeastern portion of Wetland 1.	

HYDROLOGY

Wetland Hydrology Indicators			
Primary Indicators (minimum of one is required; check all that apply)		Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)	
		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)	
Field Observations:		Wetland hydrology present? <u>Yes</u>	
Surface water present? Yes _____ No <u>X</u> Depth (inches): <u>N/A</u>	Water table present? Yes _____ No <u>X</u> Depth (inches): <u>N/A</u>		
Saturation present? Yes _____ No <u>X</u> Depth (inches): <u>N/A</u>	(includes capillary fringe)		
Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

VEGETATION (Four Strata) -- Use scientific names of plants

Sampling Point: DP 4

Tree Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		0 =	Total Cover	

Sapling/Shrub Stratum	Plot Size (15')	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		0 =	Total Cover	

Herb Stratum	Plot Size (5')	Absolute % Cover	Dominant Species	Indicator Status
1	<i>Typha latifolia</i>	40	Yes	OBL
2	<i>Ludwigia palustris</i>	20	Yes	OBL
3	<i>Lysimachia nummularia</i>	20	Yes	FACW
4	<i>Schedonorus arundinaceus</i>	15	No	FACU
5	<i>Juncus effusus</i>	5	No	FACW
6	<i>Rumex crispus</i>	5	No	FAC
7				
8				
9				
10				
11				
12				
13				
14				
15				
		105 =	Total Cover	

Woody Vine Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
		0 =	Total Cover	

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 100.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species

FACW species

FAC species

FACU species

UPL species

Column totals (B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

 1 - Rapid test for hydrophytic vegetation

X 2 - Dominance test is >50%

 3 - Prevalence index is ≤3.0*

 4 - Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)

 Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Four Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? Yes

Remarks: (Include photo numbers here or on a separate sheet)

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-12	10YR 3/2	95	5YR 4/6	5	C	PL/M	silty clay loam	
12-14	10YR 4/1	70	7.5YR 5/6	20	C	M	silty clay loam	
			10YR 5/2	5	D	M		
			7.5YR 2.5/2	5	D	M		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains - ²Location: PL=Lining, M=Matrix

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils:
<input type="checkbox"/> Histisol (A1)	<input type="checkbox"/> Dark Surface (S7)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S9) (MLRA 147, 148)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)
<input type="checkbox"/> Sandy Muck Mineral (S1) (LRR,N MLRA 147, 148)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N MLRA 136)
<input type="checkbox"/> Sandy Gley Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147)
	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)
	<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148)
	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 136, 147)
	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
	<input type="checkbox"/> Other (Explain in Remarks)
	*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric soil present? <u>Yes</u>
---------------------------------------------------------------------------------	---------------------------------

Remarks:

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont

Project/Site: 6406 Leisure Lane Property City/County: Jefferson Sampling Date: 10/06/16
 Applicant/Owner: Mr. Dan Tingle State: Kentucky Sampling Point: DP 5
 Investigator(s): S. Brower, B. Carnahan Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): open field Local relief (concave, convex, none): none Slope (%): 0
 Subregion (LRR or MLRA) LRR N Lat.: 38.10134° N Long.: 85.64589° W Datum: _____
 Soil Map Unit Name: RoA - Robertsville silt loam, 0 to 2 percent slopes NWI Classification: not identified
 Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal circumstances" present? Yes
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u>Yes</u> Hydric soil present? <u>Yes</u> Wetland hydrology present? <u>Yes</u>	Is the Sampled Area within a Wetland? <u>Yes</u>
Remarks: (Explain alternative procedures here or in a separate report.) Point taken within the north-central portion of Wetland 1.	

HYDROLOGY

Wetland Hydrology Indicators			
Primary Indicators (minimum of one is required; check all that apply)		Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)	
		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)	

Field Observations: Surface water present? Yes _____ No <u>X</u> Depth (inches): <u>N/A</u> Water table present? Yes _____ No <u>X</u> Depth (inches): <u>N/A</u> Saturation present? Yes _____ No <u>X</u> Depth (inches): <u>N/A</u> (includes capillary fringe)	Wetland hydrology present? <u>Yes</u>
Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

VEGETATION (Four Strata) -- Use scientific names of plants

Sampling Point: DP 5

Tree Stratum		Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
			0 =	Total Cover	

Sapling/Shrub Stratum		Plot Size (15')	Absolute % Cover	Dominant Species	Indicator Status
1	<i>Salix nigra</i>		5	Yes	OBL
2					
3					
4					
5					
6					
7					
8					
9					
10					
			5 =	Total Cover	

Herb Stratum		Plot Size (5')	Absolute % Cover	Dominant Species	Indicator Status
1	<i>Scirpus atrovirens</i>		60	Yes	OBL
2	<i>Lysimachia nummularia</i>		25	Yes	FACW
3	<i>Cyperus esculentus</i>		15	No	FACW
4	<i>Panicum anceps</i>		10	No	FAC
5	<i>Setaria pumila</i>		10	No	FAC
6	<i>Conoclinium coelestinum</i>		5	No	FAC
7	<i>Fraxinus pennsylvanica</i>		5	No	FACW
8	<i>Symphotrichum pilosum</i>		2	No	FAC
9					
10					
11					
12					
13					
14					
15					
			132 =	Total Cover	

Woody Vine Stratum		Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status
1					
2					
3					
4					
5					
			0 =	Total Cover	

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 100.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species _____

FACW species _____

FAC species _____

FACU species _____

UPL species _____

Column totals _____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

1 - Rapid test for hydrophytic vegetation

2 - Dominance test is >50%

3 - Prevalence index is ≤3.0*

4 - Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)

Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Four Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? Yes

Remarks: (Include photo numbers here or on a separate sheet)

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5	10YR 6/1	70	5YR 4/6	20	C	PL/M	silty clay	
			2.5Y 4/2+	10	C	M		
5-14	2.5Y 5/1	76	10YR 6/6	10	C	M	silty clay loam	
			7.5YR 4/6	10	C	PL/M		
			5YR 3/2	4	C	M		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains - ²Location: PL=Lining, M=Matrix

Hydric Soil Indicators:

Indicators for Problematic Hydric Soils:

- Histisol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Muck Mineral (S1) (LRR,N MLRA 147, 148)
- Sandy Gley Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S9) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N MLRA 136)
- Umbric Surface (F13) (MLRA 136, 122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127, 147)

- 2 cm Muck (A10) (MLRA 147)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 136, 147)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric soil present? Yes

Remarks:

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont

Project/Site: 6406 Leisure Lane Property City/County: Jefferson Sampling Date: 10/06/16
 Applicant/Owner: Mr. Dan Tingle State: Kentucky Sampling Point: DP 6
 Investigator(s): S. Brower, B. Carnahan Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): open field Local relief (concave, convex, none): none Slope (%): 0
 Subregion (LRR or MLRA) LRR N Lat.: 38.10136° N Long.: 85.64561° W Datum: _____
 Soil Map Unit Name: RoA - Robertsville silt loam, 0 to 2 percent slopes NWI Classification: not identified
 Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal circumstances" present? _____ Yes
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u>Yes</u> Hydric soil present? <u>No</u> Wetland hydrology present? <u>No</u>	Is the Sampled Area within a Wetland? <u>No</u>
Remarks: (Explain alternative procedures here or in a separate report.) Upland point taken adjacent to Wetland 1.	

HYDROLOGY

Wetland Hydrology Indicators			
Primary Indicators (minimum of one is required; check all that apply)		Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)	
		<input type="checkbox"/> FAC-Neutral Test (D5)	
Field Observations:		Wetland hydrology present? <u>No</u>	
Surface water present? Yes _____ No <u>X</u> Depth (inches): <u>N/A</u>	Water table present? Yes _____ No <u>X</u> Depth (inches): <u>N/A</u>		
Saturation present? Yes _____ No <u>X</u> Depth (inches): <u>N/A</u>	(includes capillary fringe)		
Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

VEGETATION (Four Strata) -- Use scientific names of plants

Sampling Point: DP 6

Tree Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		0 =	Total Cover	

Sapling/Shrub Stratum	Plot Size (15')	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		0 =	Total Cover	

Herb Stratum	Plot Size (5')	Absolute % Cover	Dominant Species	Indicator Status
1	<i>Conoclinium coelestinum</i>	40	Yes	FAC
2	<i>Setaria pumila</i>	40	Yes	FAC
3	<i>Schedonorus arundinaceus</i>	20	No	FACU
4	<i>Solanum carolinense</i>	15	No	FACU
5	<i>Andropogon virginicus</i>	10	No	FACU
6	<i>Apocynum cannabinum</i>	10	No	FACU
7	<i>Tridens flavus</i>	10	No	FACU
8	<i>Cyperus esculentus</i>	5	No	FACW
9	<i>Calystegia sepium</i>	2	No	FAC
10	<i>Vernonia gigantea</i>	2	No	FAC
11				
12				
13				
14				
15				
		154 =	Total Cover	

Woody Vine Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
		0 =	Total Cover	

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 100.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species _____

FACW species _____

FAC species _____

FACU species _____

UPL species _____

Column totals _____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

1 - Rapid test for hydrophytic vegetation

2 - Dominance test is >50%

3 - Prevalence index is ≤3.0*

4 - Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)

Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Four Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? Yes

Remarks: (Include photo numbers here or on a separate sheet)

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-7	10YR 3/3	68	10YR 4/2	30	D	M	silty clay loam	
			7.5YR 4/6	2	C	PL/M		
7-14	10YR 5/3	85	10YR 4/2	10	D	M	silt loam	
			7.5YR 5/6	5	C	PL/M		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains - ²Location: PL=Lining, M=Matrix

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils:
<input type="checkbox"/> Histisol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) (LRR N) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Muck Mineral (S1) (LRR,N MLRA 147, 148) <input type="checkbox"/> Sandy Gley Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S9) (MLRA 147, 148) <input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N MLRA 136) <input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148) <input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147)
	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147) <input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 136, 147) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
	*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric soil present? <u> No </u>
---------------------------------------------------------------------------------	----------------------------------------

Remarks:

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont

Project/Site: 6406 Leisure Lane Property City/County: Jefferson Sampling Date: 10/06/16
 Applicant/Owner: Mr. Dan Tingle State: Kentucky Sampling Point: DP 7
 Investigator(s): S. Brower, B. Carnahan Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): open field Local relief (concave, convex, none): none Slope (%): 0
 Subregion (LRR or MLRA) LRR N Lat.: 38.10123° N Long.: 85.64684° W Datum: _____
 Soil Map Unit Name: UhC - Urban land-Alflic udarents, fragipan substratum-over hard bedrock, 0 to 12 percent NWI Classification: not identified
 Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal circumstances" present? Yes
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u>Yes</u> Hydric soil present? <u>Yes</u> Wetland hydrology present? <u>Yes</u>	Is the Sampled Area within a Wetland? <u>Yes</u>
Remarks: (Explain alternative procedures here or in a separate report.) Point taken within the wettern portion of Wetland 1.	

HYDROLOGY

Wetland Hydrology Indicators			
Primary Indicators (minimum of one is required; check all that apply)		Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)	
		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)	

Field Observations: Surface water present? Yes _____ No <u>X</u> Depth (inches): <u>N/A</u> Water table present? Yes _____ No <u>X</u> Depth (inches): <u>N/A</u> Saturation present? Yes _____ No <u>X</u> Depth (inches): <u>N/A</u> (includes capillary fringe)	Wetland hydrology present? <u>Yes</u>
Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

VEGETATION (Four Strata) -- Use scientific names of plants

Sampling Point: DP 7

Tree Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		0 =	Total Cover	

Sapling/Shrub Stratum	Plot Size (15')	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		0 =	Total Cover	

Herb Stratum	Plot Size (5')	Absolute % Cover	Dominant Species	Indicator Status
1	<i>Scirpus atrovirens</i>	60	Yes	OBL
2	<i>Carex vulpinoidea</i>	30	Yes	OBL
3	<i>Lysimachia nummularia</i>	20	No	FACW
4	<i>Bidens frondosa</i>	10	No	FACW
5	<i>Schedonorus arundinaceus</i>	10	No	FACU
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
		130 =	Total Cover	

Woody Vine Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
		0 =	Total Cover	

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 100.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species

FACW species

FAC species

FACU species

UPL species

Column totals (B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

 1 - Rapid test for hydrophytic vegetation

X 2 - Dominance test is >50%

 3 - Prevalence index is ≤3.0*

 4 - Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)

 Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Four Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? Yes

Remarks: (Include photo numbers here or on a separate sheet)

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10YR 3/3	100					silty clay loam	
4-13	10YR 4/2	90	7.5YR 5/6	10	C	PL/M	silty clay loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains - ²Location: PL=Lining, M=Matrix

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils:
<input type="checkbox"/> Histisol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) (LRR N) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Muck Mineral (S1) (LRR,N MLRA 147, 148) <input type="checkbox"/> Sandy Gley Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S9) (MLRA 147, 148) <input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N MLRA 136) <input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148) <input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147)

2 cm Muck (A10) (MLRA 147)
 Coast Prairie Redox (A16)
 (MLRA 147, 148)
 Piedmont Floodplain Soils (F19)
 (MLRA 136, 147)
 Very Shallow Dark Surface (TF12)
 Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric soil present? <u>Yes</u>
---------------------------------------------------------------------------------	---------------------------------

Remarks:

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont

Project/Site: 6406 Leisure Lane Property City/County: Jefferson Sampling Date: 10/06/16
 Applicant/Owner: Mr. Dan Tingle State: Kentucky Sampling Point: DP 8
 Investigator(s): S. Brower, B. Carnahan Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): open field Local relief (concave, convex, none): none Slope (%): 0
 Subregion (LRR or MLRA) LRR N Lat.: 38.10125° N Long.: 85.64668° W Datum: _____
 Soil Map Unit Name: RoA - Robertsville silt loam, 0 to 2 percent slopes NWI Classification: not identified
 Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal circumstances" present? _____
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u>No</u> Hydric soil present? <u>Yes</u> Wetland hydrology present? <u>No</u>	Is the Sampled Area within a Wetland? <u>No</u>
Remarks: (Explain alternative procedures here or in a separate report.) Upland point taken adjacent to Wetland 1.	

HYDROLOGY

Wetland Hydrology Indicators			
Primary Indicators (minimum of one is required; check all that apply)		Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)	
		<input type="checkbox"/> FAC-Neutral Test (D5)	
Field Observations:		Wetland hydrology present? <u>No</u>	
Surface water present? Yes _____ No <u>X</u> Depth (inches): <u>N/A</u>	Water table present? Yes _____ No <u>X</u> Depth (inches): <u>N/A</u>		
Saturation present? Yes _____ No <u>X</u> Depth (inches): <u>N/A</u>	(includes capillary fringe)		
Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

VEGETATION (Four Strata) -- Use scientific names of plants

Sampling Point: DP 8

Tree Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		0 =	Total Cover	
Sapling/Shrub Stratum	Plot Size (15')	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		0 =	Total Cover	
Herb Stratum	Plot Size (5')	Absolute % Cover	Dominant Species	Indicator Status
1	<i>Andropogon virginicus</i>	60	Yes	FACU
2	<i>Setaria pumila</i>	25	Yes	FAC
3	<i>Fraxinus pennsylvanica</i>	15	No	FACW
4	<i>Panicum anceps</i>	15	No	FAC
5	<i>Cyperus esculentus</i>	10	No	FACW
6	<i>Acer rubrum</i>	5	No	FAC
7	<i>Liquidambar styraciflua</i>	5	No	FAC
8	<i>Symphotrichum pilosum</i>	5	No	FAC
9	<i>Acalypha rhomboidea</i>	2	No	FACU
10	<i>Desmodium paniculatum</i>	2	No	FACU
11				
12				
13				
14				
15				
		144 =	Total Cover	
Woody Vine Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
		0 =	Total Cover	

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 50.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species _____

FACW species _____

FAC species _____

FACU species _____

UPL species _____

Column totals _____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

1 - Rapid test for hydrophytic vegetation

2 - Dominance test is >50%

3 - Prevalence index is ≤3.0*

4 - Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)

_____ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Four Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? No

Remarks: (Include photo numbers here or on a separate sheet)

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-14	10YR 4/2	85	7.5YR 5/6	15	C	PL/M	silty clay loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains - ²Location: PL=Lining, M=Matrix

Hydric Soil Indicators:

Indicators for Problematic Hydric Soils:

- | | | |
|-------------------------------------------------------------------|--------------------------------------------------------------------------------|--------------------------------------------------------------|
| <input type="checkbox"/> Histisol (A1) | <input type="checkbox"/> Dark Surface (S7) | <input type="checkbox"/> 2 cm Muck (A10) (MLRA 147) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Polyvalue Below Surface (S9) (MLRA 147, 148) | <input type="checkbox"/> Coast Prairie Redox (A16) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148) | <input type="checkbox"/> (MLRA 147, 148) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) | <input type="checkbox"/> Piedmont Floodplain Soils (F19) |
| <input type="checkbox"/> Stratified Layers (A5) | <input checked="" type="checkbox"/> Depleted Matrix (F3) | <input type="checkbox"/> (MLRA 136, 147) |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR N) | <input type="checkbox"/> Redox Dark Surface (F6) | <input type="checkbox"/> Very Shallow Dark Surface (TF12) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Depressions (F8) | |
| <input type="checkbox"/> Sandy Muck Mineral (S1) (LRR,N) | <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N) | |
| <input type="checkbox"/> (MLRA 147, 148) | <input type="checkbox"/> (MLRA 136) | |
| <input type="checkbox"/> Sandy Gley Matrix (S4) | <input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122) | |
| <input type="checkbox"/> Sandy Redox (S5) | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148) | |
| <input type="checkbox"/> Stripped Matrix (S6) | <input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147) | |

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric soil present? Yes

Remarks:

Empty box for remarks.

APPENDIX B

**PRELIMINARY JURISDICTIONAL
DETERMINATION FORM**

ATTACHMENT

PRELIMINARY JURISDICTIONAL DETERMINATION FORM

BACKGROUND INFORMATION

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

B. NAME AND ADDRESS OF PERSON REQUESTING PRELIMINARY JD:

Permittee:

Mr. Dan Tingle
20841 8th Avenue West
Cudjoe Key, FL 33042
(502) 930-5417
dan.tingle@att.net

Represented by:

Redwing Ecological Services, Inc.
Attn: Mr. Neil Guthals
1139 South Fourth Street
Louisville, KY 40203
(502) 625-3009
nguthals@redwingeco.com

C. DISTRICT OFFICE, FILE NAME, AND NUMBER:

D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION: The approximately 13-acre study area is located 0.3 mile east of the intersection of Cooper Chapel Road and Leisure Lane.

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

State: Kentucky County/parish/borough: Jefferson City: Louisville
Center coordinates of site (lat/long in degree decimal format):
Lat. 38.100727° N, Long. 85.645628° W

Name of nearest waterbody: Pennsylvania Run

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

Non-wetland waters: linear feet 0.6 acre
Cowardin Class: PuBhh

Wetlands 2.05 acres

Cowardin Class: PEM1/PSS1

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

Tidal:
Non-Tidal:

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

- Office (Desk) Determination. Date:
 Field Determination. Date(s):

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

2. In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "pre-construction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an approved JD for the activity, the permit applicant is hereby made aware of the following: (1) the permit applicant has elected to seek a permit authorization based on a preliminary JD, which does not make an official determination of jurisdictional waters; (2) that the applicant has the option to request an approved JD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an approved JD could possibly result in less compensatory mitigation being required or different special conditions; (3) that the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) that the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) that undertaking any activity in reliance upon the subject permit authorization without requesting an approved JD constitutes the applicant's acceptance of the use of the preliminary JD, but that either form of JD will be processed as soon as is

practicable; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a preliminary JD constitutes agreement that all wetlands and other water bodies on the site affected in any way by that activity are jurisdictional waters of the United States, and precludes any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an approved JD or a preliminary JD, that JD will be processed as soon as is practicable. Further, an approved JD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331, and that in any administrative appeal, jurisdictional issues can be raised (see 33 C.F.R. 331.5(a)(2)). If, during that administrative appeal, it becomes necessary to make an official determination whether CWA jurisdiction exists over a site, or to provide an official delineation of jurisdictional waters on the site, the Corps will provide an approved JD to accomplish that result, as soon as is practicable.

This preliminary JD finds that there “*may be*” waters of the United States on the subject project site, and identifies all aquatic features on the site that could be affected by the proposed activity, based on the following information:

SUPPORTING DATA. Data reviewed for preliminary JD (check all that apply) - checked items should be included in case file and, where checked and requested, appropriately reference sources below):

- Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant.
- Data sheets prepared/submitted by or on behalf of the applicant/consultant.
 - Office concurs with data sheets/delineation report.
 - Office does not concur with data sheets/delineation report.
- Data sheets prepared by the Corps: .
- Corps navigable waters' study: .
- U.S. Geological Survey Hydrologic Atlas: .
 - USGS NHD data.
 - USGS 8 and 11 digit HUC maps.
- U.S. Geological Survey map(s). Cite scale & quad names: 1:24,000 – Brooks and Mount Washington; Kentucky Quadrangles.
- USDA Natural Resources Conservation Service Soil Survey. Citation: Soil Survey Geographic Database for Jefferson County, Kentucky (2008)
- National wetlands inventory map(s). Cite name: USFWS National Wetlands Inventory
- State/Local wetland inventory map(s): .
- FEMA/FIRM maps: FEMA DFIRM Flood Data for Jefferson County (2010),
- 100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)
- Photographs: Aerial (Name & Date): World Imagery – ESRI and the GIS User Community (2014).
or Other (Name & Date): Site photographs – September 15, 2016 and October 6, 2016.
- Previous determination(s). File no. and date of response letter: .
- Other information (please specify): .

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

Signature and date of
Regulatory Project Manager
(REQUIRED)

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

Site number	Latitude	Longitude	Cowardin Class	Estimated amount of aquatic resource in review area	Class of aquatic resource
Wetland 1	38.101252° N	85.645759° W	PEM1/PSS1	2.05 acres	non-section 10 – wetland
Open Water 1	38.100161° N	85.646258° W	PuBHh	0.6 acre	non-section 10 – non-wetland

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: Mindel Scott		File Number: LRL-2026-1050	Date: 31 AUG 21
Attached is:		See Section below	
	INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)	A	
	PROFFERED PERMIT (Standard Permit or Letter of permission)	B	
	PERMIT DENIAL	C	
X	APPROVED JURISDICTIONAL DETERMINATION	D	
	PRELIMINARY JURISDICTIONAL DETERMINATION	E	

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at http://www.usace.army.mil/CECW/Pages/reg_materials.aspx or Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **OBJECT:** If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **APPEAL:** If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- **ACCEPT:** You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- **APPEAL:** If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact:

Sarah Atherton
US Army Corps of Engineers – Louisville District
PO Box 59, Rm 752
Attn: CELRL-RDS
Louisville, KY 40201-0059
(502) 315-6711

If you only have questions regarding the appeal process you may also contact:

U.S. Army Corps of Engineers
Great Lakes and Ohio River Division
ATTN: Ms. Suzanne Chubb
Appeal Review Officer
550 Main Street, Room 10-714
Cincinnati, OH 45202-3222
TEL (513) 684-7261; FAX (513) 684-2460

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15-day notice of any site investigation, and will have the opportunity to participate in all site investigations.

Signature of appellant or agent.

Date:

Telephone number:



U.S. ARMY CORPS OF ENGINEERS
REGULATORY PROGRAM
APPROVED JURISDICTIONAL DETERMINATION FORM (INTERIM)
NAVIGABLE WATERS PROTECTION RULE

I. ADMINISTRATIVE INFORMATION

Completion Date of Approved Jurisdictional Determination (AJD): August 31, 2021

ORM Number: LRL-2016-1050-sea

Associated JDs: AJD dated December 1, 2017

Review Area Location¹:

State/Territory: KY City: Louisville County/Parish/Borough: Jefferson County

Center Coordinates of Review Area: Latitude 38.100727 Longitude -85.645628

II. FINDINGS

A. Summary: Check all that apply. At least one box from the following list **MUST** be selected. Complete the corresponding sections/tables and summarize data sources.

- The review area is comprised entirely of dry land (i.e., there are no waters or water features, including wetlands, of any kind in the entire review area). Rationale: N/A or describe rationale.
- There are “navigable waters of the United States” within Rivers and Harbors Act jurisdiction within the review area (complete table in section II.B).
- There are “waters of the United States” within Clean Water Act jurisdiction within the review area (complete appropriate tables in section II.C).
- There are waters or water features excluded from Clean Water Act jurisdiction within the review area (complete table in section II.D).

B. Rivers and Harbors Act of 1899 Section 10 (§ 10)²

§ 10 Name	§ 10 Size	§ 10 Criteria	Rationale for § 10 Determination
N/A	N/A	N/A	N/A

C. Clean Water Act Section 404

Territorial Seas and Traditional Navigable Waters ((a)(1) waters)³

(a)(1) Name	(a)(1) Size	(a)(1) Criteria	Rationale for (a)(1) Determination
N/A	N/A	N/A	N/A

Tributaries ((a)(2) waters):

(a)(2) Name	(a)(2) Size	(a)(2) Criteria	Rationale for (a)(2) Determination
N/A	N/A	N/A	N/A

Lakes and ponds, and impoundments of jurisdictional waters ((a)(3) waters):

(a)(3) Name	(a)(3) Size	(a)(3) Criteria	Rationale for (a)(3) Determination
N/A	N/A	N/A	N/A

Adjacent wetlands ((a)(4) waters):

(a)(4) Name	(a)(4) Size	(a)(4) Criteria	Rationale for (a)(4) Determination
N/A	N/A	N/A	N/A

¹ Map(s)/Figure(s) are attached to the AJD provided to the requestor.

² If the navigable water is not subject to the ebb and flow of the tide and included on the District's list of Rivers and Harbors Act Section 10 navigable waters list, do NOT use this document to make the determination. The District must continue to follow the procedure outlined in 33 CFR part 329.14 to make a Rivers and Harbors Act Section 10 navigability determination.

³ A stand-alone TNW determination is completed independently of a request for an AJD. A stand-alone TNW determination is conducted for a specific segment of river or stream or other type of waterbody, such as a lake, where independent upstream or downstream limits or lake borders are established. A stand-alone TNW determination should be completed following applicable guidance and should NOT be documented on the AJD form.

⁴ Some excluded waters, such as (b)(2) and (b)(4), may not be specifically identified on the AJD form unless a requestor specifically asks a Corps district to do so. Corps Districts may, in case-by-case instances, choose to identify some or all of these waters within the review area.

⁵ Because of the broad nature of the (b)(1) exclusion and in an effort to collect data on specific types of waters that would be covered by the (b)(1) exclusion, four sub-categories of (b)(1) exclusions were administratively created for the purposes of the AJD Form. These four sub-categories are not new exclusions, but are simply administrative distinctions and remain (b)(1) exclusions as defined by the NWPR.



U.S. ARMY CORPS OF ENGINEERS
REGULATORY PROGRAM
APPROVED JURISDICTIONAL DETERMINATION FORM (INTERIM)
NAVIGABLE WATERS PROTECTION RULE

D. Excluded Waters or Features

Excluded waters ((b)(1) – (b)(12))⁴:

Exclusion Name	Exclusion Size	Exclusion ⁵	Rationale for Exclusion Determination
NWPR Open Water Pond	0.6 acres	(b)(1) Lake/pond or impoundment that does not contribute surface water flow directly or indirectly to an (a)(1) water and is not inundated by flooding from an (a)(1)-(a)(3) water in a typical year	NWPR Open Water Pond does not contribute surface water flow directly or indirectly to an (a)(1) water and is not inundated by flooding from an (a)(1)-(a)(3) water in a typical year.
NWPR Wetland 1	2.05 acres	(b)(1) Non-adjacent wetland	NWPR Wetland 1 does not physically abut an (a)(1)-(a)(3) water and is not inundated by water from an (a)(1)-(a)(3) water in a typical year.

III. SUPPORTING INFORMATION

A. Select/enter all resources that were used to aid in this determination and attach data/maps to this document and/or references/citations in the administrative record, as appropriate.

Information submitted by, or on behalf of, the applicant/consultant: Appendix 1 – Request for Corps Jurisdictional Determination dated February 22, 2021.

This information is not sufficient for purposes of this AJD.

Rationale: Did not include delineation amounts of the aquatic resources. Used information form previously submitted Request for Jurisdictional Determination dated October 20, 2016.

___ Data sheets prepared by the Corps: *Title(s) and/or date(s)*.

___ Photographs: (*NA, aerial, other, aerial and other*) *Title(s) and/or date(s)*.

___ Corps Site visit(s) conducted on: *Date(s)*.

Previous Jurisdictional Determinations (AJDs or PJDs): LRL-2016-1050-sea dated December 1, 2017.

___ Antecedent Precipitation Tool: *provide detailed discussion in Section III.B.*

___ USDA NRCS Soil Survey: *Title(s) and/or date(s)*.

___ USFWS NWI maps: *Title(s) and/or date(s)*.

___ USGS topographic maps: *Title(s) and/or date(s)*.

Other data sources used to aid in this determination:

Data Source (select)	Name and/or date and other relevant information
USGS Sources	N/A.
USDA Sources	N/A.
NOAA Sources	N/A.
USACE Sources	N/A.
State/Local/Tribal Sources	N/A.
Other Sources	N/A.

B. Typical year assessment(s): N/A

C. Additional comments to support AJD: N/A

¹ Map(s)/Figure(s) are attached to the AJD provided to the requestor.

² If the navigable water is not subject to the ebb and flow of the tide or included on the District's list of Rivers and Harbors Act Section 10 navigable waters list, do NOT use this document to make the determination. The District must continue to follow the procedure outlined in 33 CFR part 329.14 to make a Rivers and Harbors Act Section 10 navigability determination.

³ A stand-alone TNW determination is completed independently of a request for an AJD. A stand-alone TNW determination is conducted for a specific segment of river or stream or other type of waterbody, such as a lake, where independent upstream or downstream limits or lake borders are established. A stand-alone TNW determination should be completed following applicable guidance and should NOT be documented on the AJD form.

⁴ Some excluded waters, such as (b)(2) and (b)(4), may not be specifically identified on the AJD form unless a requestor specifically asks a Corps district to do so. Corps Districts may, in case-by-case instances, choose to identify some or all of these waters within the review area.

⁵ Because of the broad nature of the (b)(1) exclusion and in an effort to collect data on specific types of waters that would be covered by the (b)(1) exclusion, four sub-categories of (b)(1) exclusions were administratively created for the purposes of the AJD Form. These four sub-categories are not new exclusions, but are simply administrative distinctions and remain (b)(1) exclusions as defined by the NWPR.



DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, LOUISVILLE DISTRICT
600 DR. MARTIN LUTHER KING JR PL
LOUISVILLE, KY 40202

August 31, 2021

Regulatory Division
South Branch
ID No. LRL-2016-1050-sea

Mr. David Mindel
Mindel Scott
5151 Jefferson Blvd, 2nd Floor
Louisville, Kentucky 40219

Dear Mr. Mindel:

This is in regard to a jurisdictional determination (JD) request dated February 22, 2021, that waters located at 6406 Leisure Lane be reevaluated under the Navigable Waters Protection Rule published in the Federal Register on April 21, 2020. The JD request is located in Louisville, Jefferson County, Kentucky (Latitude: 38.100727° N and Longitude: 85.645628°W).

The U. S. Army Corps of Engineers exercises regulatory authority under Section 10 of the Rivers and Harbors Act of 1899 (33 USC 403) and Section 404 of the Clean Water Act (33 USC 1344) for certain activities in "waters of the United States (U.S.)". These waters include all waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce.

Based on a review of the submitted information, we have determined that the identified NWPR Open Water Pond and NWPR Wetland 1, are excluded from regulation under Section 404 of the Clean Water Act. As such, these features are not considered to be "waters of the U.S." and are not regulated under Section 404 of the Clean Water Act. However, this determination does not relieve you of the responsibility to comply with applicable state law. We urge you to contact the Kentucky Division of Water, 300 Sower Boulevard, Frankfort, Kentucky 40601 to determine the applicability of state law to your project.

This letter contains an approved JD for your subject site. If you object to this determination, you may request an administrative appeal under Corps regulations at 33 CFR Part 331. Enclosed you will find a Notification of Appeal Process (NAP) fact sheet and Request for Appeal (RFA) form. If you request to appeal this determination, you must submit a completed RFA form to the Lakes and Rivers Division Office at the following address:

U.S. Army Engineer Division,
ATTN: Regulatory Appeal Review Officer, CELRD-PD-REG
550 Main Street - Room 10-714
Cincinnati, Ohio 45202-3222

In order for an RFA to be accepted by the Corps, the Corps must determine that it is complete, that it meets the criteria for appeal under 33 CFR Part 331.5, and that it has been received by the Division Office within 60 days of the date of the NAP. Should you decide to submit an RFA form, it must be received at the above address by **November 1, 2021**. It is not necessary to submit an RFA form to the Division office if you do not object to the determination in this letter.

This approved JD is valid for a 5-year period from the date of this letter unless new information warrants revision of the determination before the expiration date. Our comments on this project area limited to only those effects, which may fall within our area of jurisdiction, and thus does not obviate the need to obtain other permits from State or Local agencies. Lack of comments on other environmental aspects should not be construed as either concurrence or nonconcurrence with stated environmental impacts.

The delineation included herein has been conducted to identify the location and extent of the aquatic resource boundaries and/or the jurisdictional status of aquatic resources for purposes of the Clean Water Act for the particular site identified in this request. This delineation and/or jurisdictional determination may not be valid for the Wetland Conservation Provisions of the Food Security Act of 1985, as amended. If you or your tenant are USDA program participants, or anticipate participation in USDA programs, you should discuss the applicability of a certified wetland determination with the local USDA service center prior to starting work.

If you have any questions concerning this matter, please contact us by writing to the District Regulatory Office at the above address, ATTN: CELRL-RDS, or contact me directly at (502) 315-6711 or Sarah.E.Atherton@usace.army.mil. Any correspondence on this matter should refer to our ID Number LRL-2016-1050-sea.

Sincerely,

Sarah Atherton
Project Manager, South Branch
Regulatory Division

Enclosure