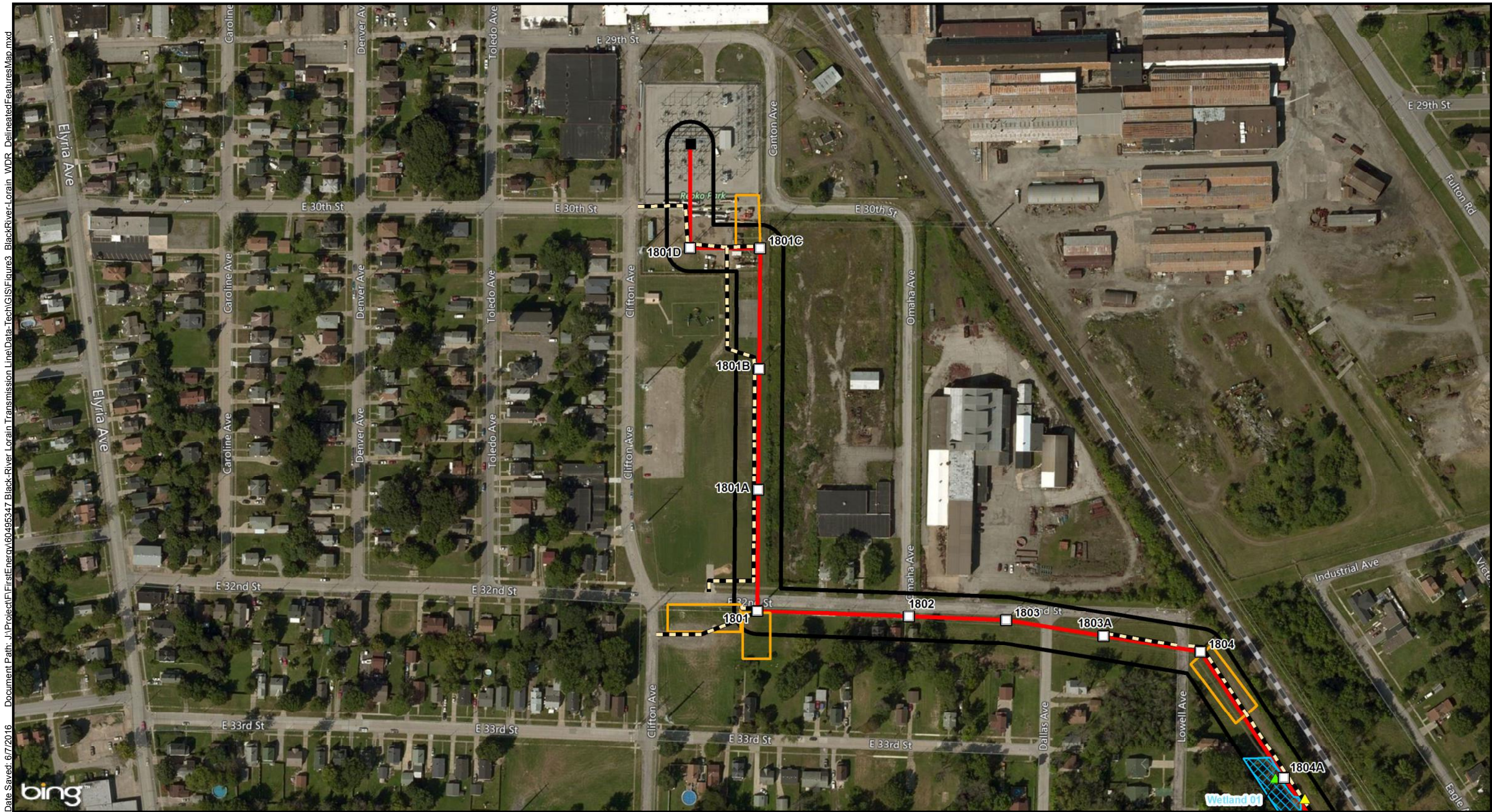
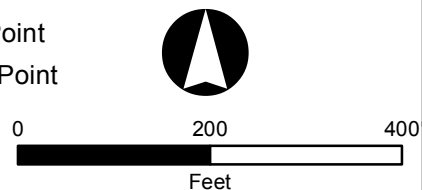


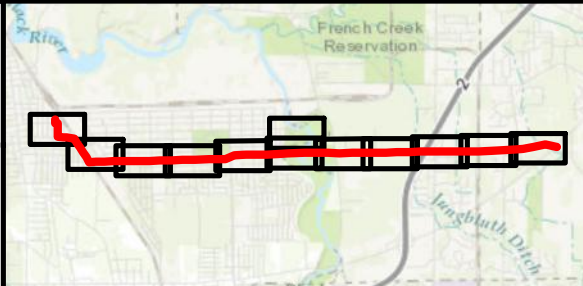


LEGEND

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| ■ Existing Substation | — Delineated Stream (HHEI) | ▲ Upland Data Point |
| □ Existing Structure | — Delineated Stream (QHEI) | ▲ Wetland Data Point |
| — Existing Black River-Lorain 138 kV Transmission Line | — Delineated Pond | |
| — Project 100-Foot Survey Boundary | — Delineated Wetland | |
| — Proposed Access Road | — Delineated Wetland Outside ROW | |
| — Proposed Pull Site | | |



BASE MAP SOURCE:
ArcGIS Online, Bing Maps Aerial

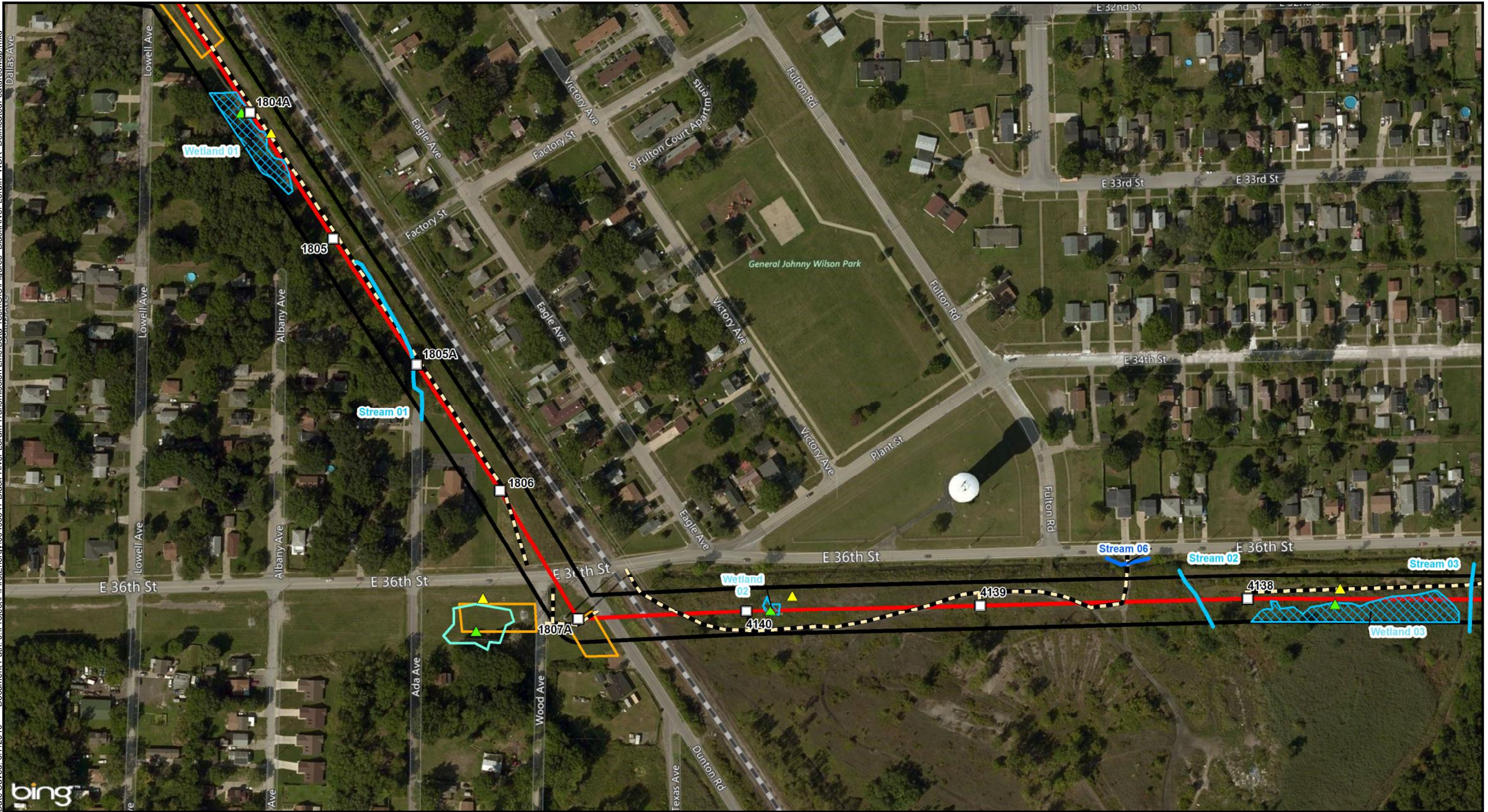


Black River-Lorain 138 kV
Transmission Line Rebuild Project

FIGURE 3A
WETLAND DELINEATION AND
STREAM ASSESSMENT MAP

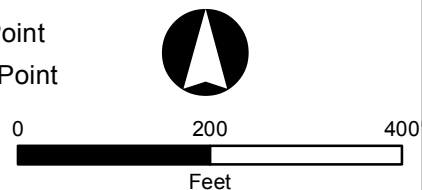
JOB NO. 60495347





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| ■ Existing Substation | — Delineated Stream (HHEI) | ▲ Upland Data Point |
| □ Existing Structure | — Delineated Stream (QHEI) | ▲ Wetland Data Point |
| — Existing Black River-Lorain 138 kV Transmission Line | ■ Delineated Pond | |
| — Project 100-Foot Survey Boundary | ■ Delineated Wetland | |
| — Proposed Access Road | ■ Delineated Wetland Outside ROW | |
| ■ Proposed Pull Site | | |



BASE MAP SOURCE:
ArcGIS Online, Bing Maps Aerial

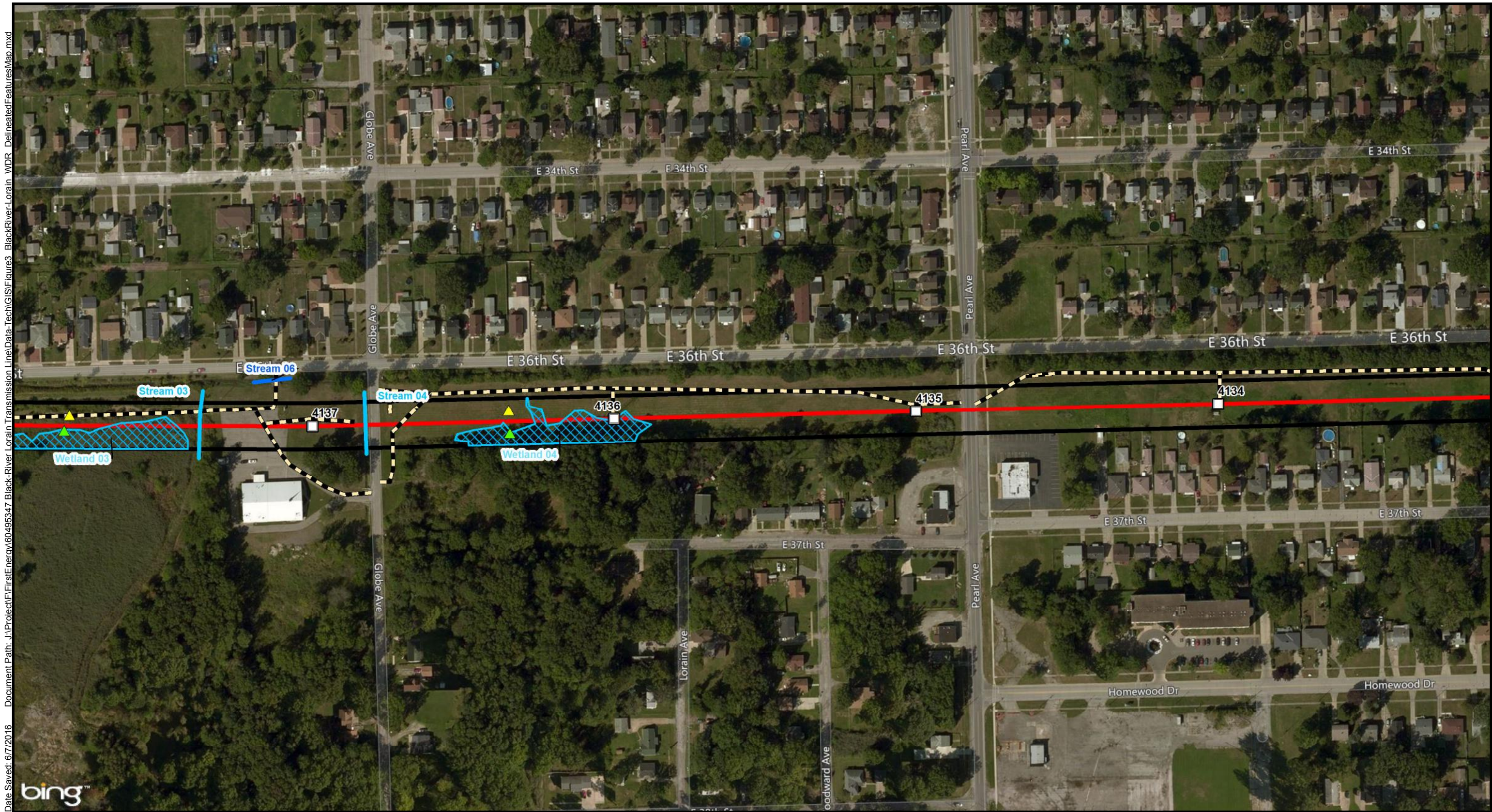


Black River-Lorain 138 kV
Transmission Line Rebuild Project

FIGURE 3B
WETLAND DELINEATION AND
STREAM ASSESSMENT MAP

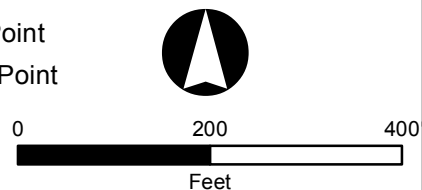
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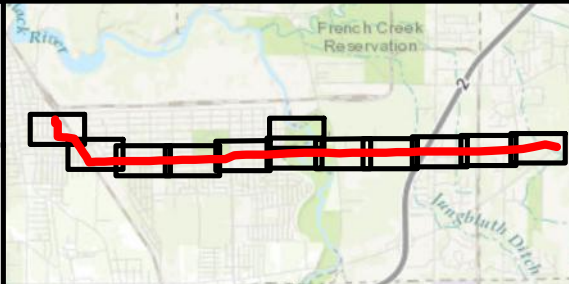


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| ■ Existing Substation | — Delineated Stream (HHEI) | ▲ Upland Data Point |
| □ Existing Structure | — Delineated Stream (QHEI) | ▲ Wetland Data Point |
| — Existing Black River-Lorain 138 kV Transmission Line | — Delineated Pond | |
| — Project 100-Foot Survey Boundary | — Delineated Wetland | |
| — Proposed Access Road | — Delineated Wetland Outside ROW | |
| — Proposed Pull Site | | |



BASE MAP SOURCE:
ArcGIS Online, Bing Maps Aerial

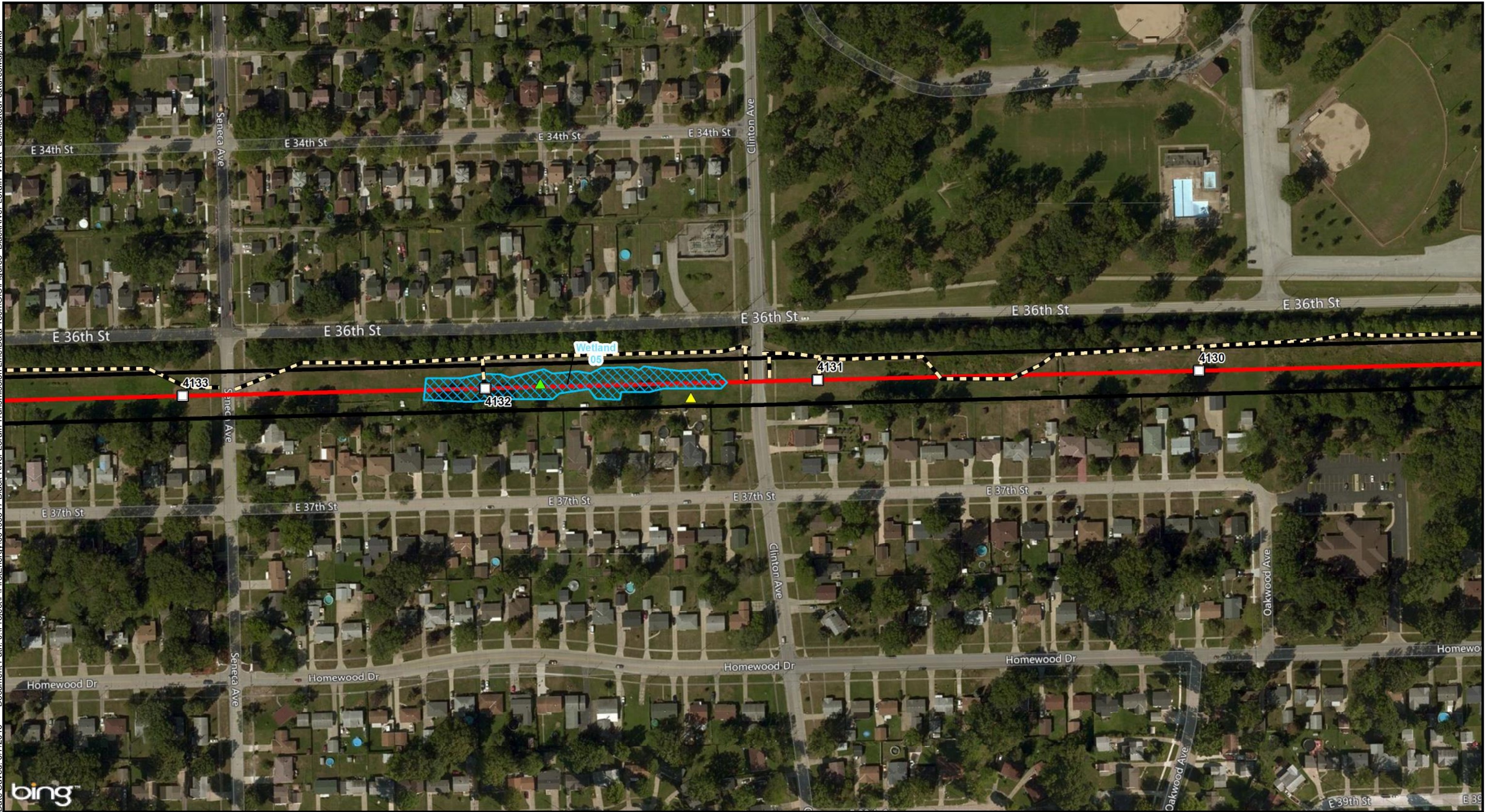


Black River-Lorain 138 kV
Transmission Line Rebuild Project

FIGURE 3C
WETLAND DELINEATION AND
STREAM ASSESSMENT MAP

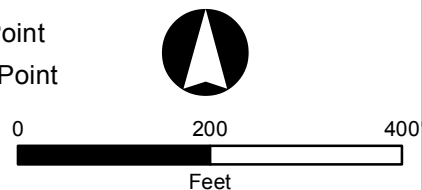
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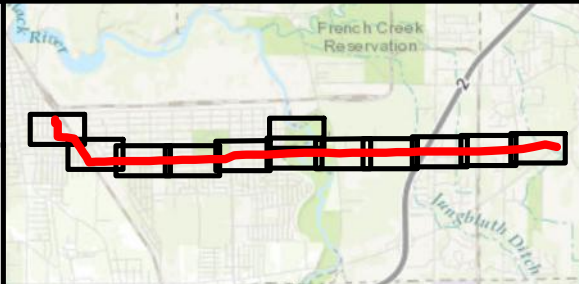


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| ■ Existing Substation | — Delineated Stream (HHEI) | ▲ Upland Data Point |
| □ Existing Structure | — Delineated Stream (QHEI) | ▲ Wetland Data Point |
| — Existing Black River-Lorain 138 kV Transmission Line | ■ Delineated Pond | |
| — Project 100-Foot Survey Boundary | ■ Delineated Wetland | |
| — Proposed Access Road | ■ Delineated Wetland Outside ROW | |
| ■ Proposed Pull Site | | |



BASE MAP SOURCE:
ArcGIS Online, Bing Maps Aerial

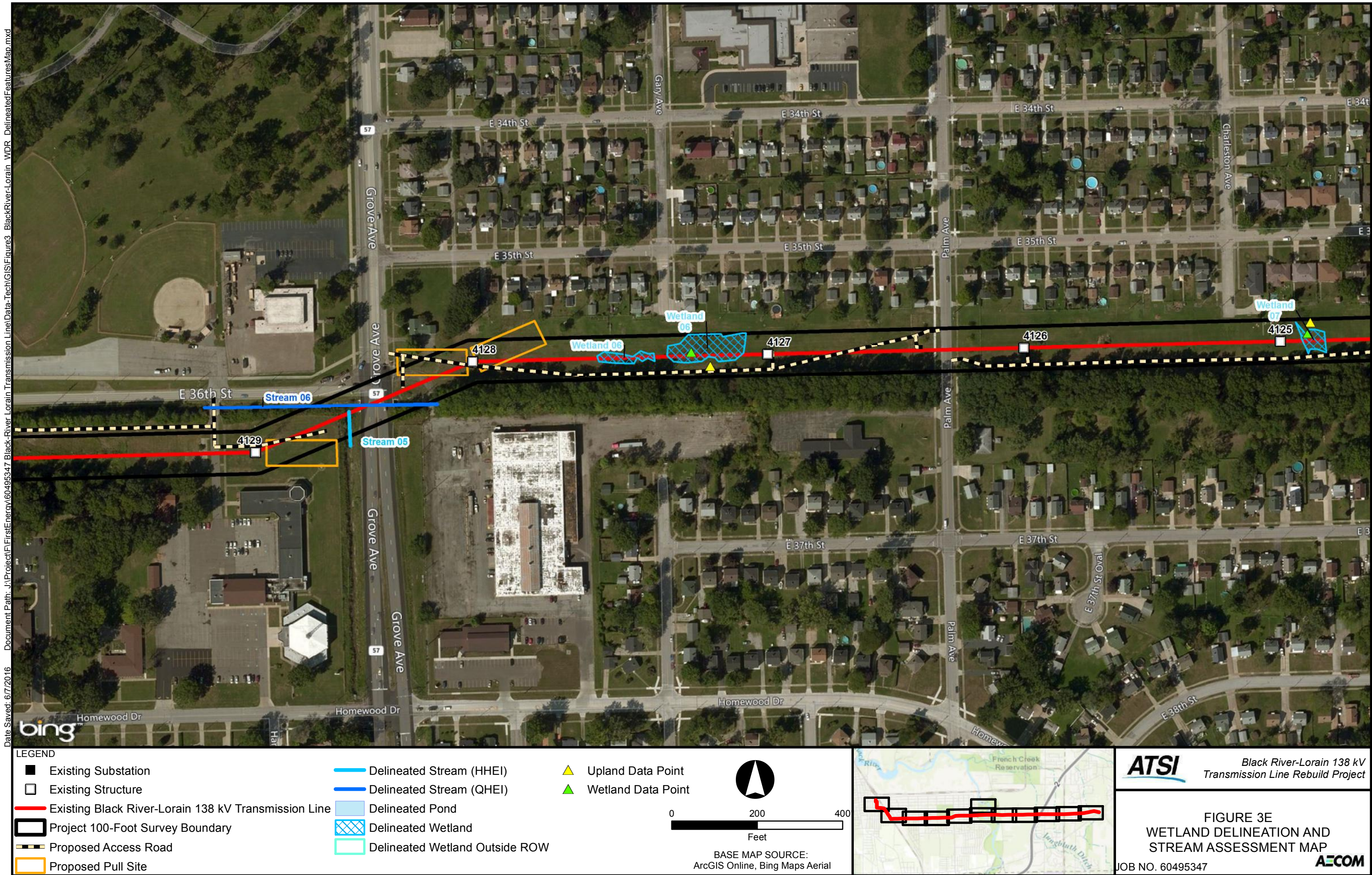


Black River-Lorain 138 kV
Transmission Line Rebuild Project

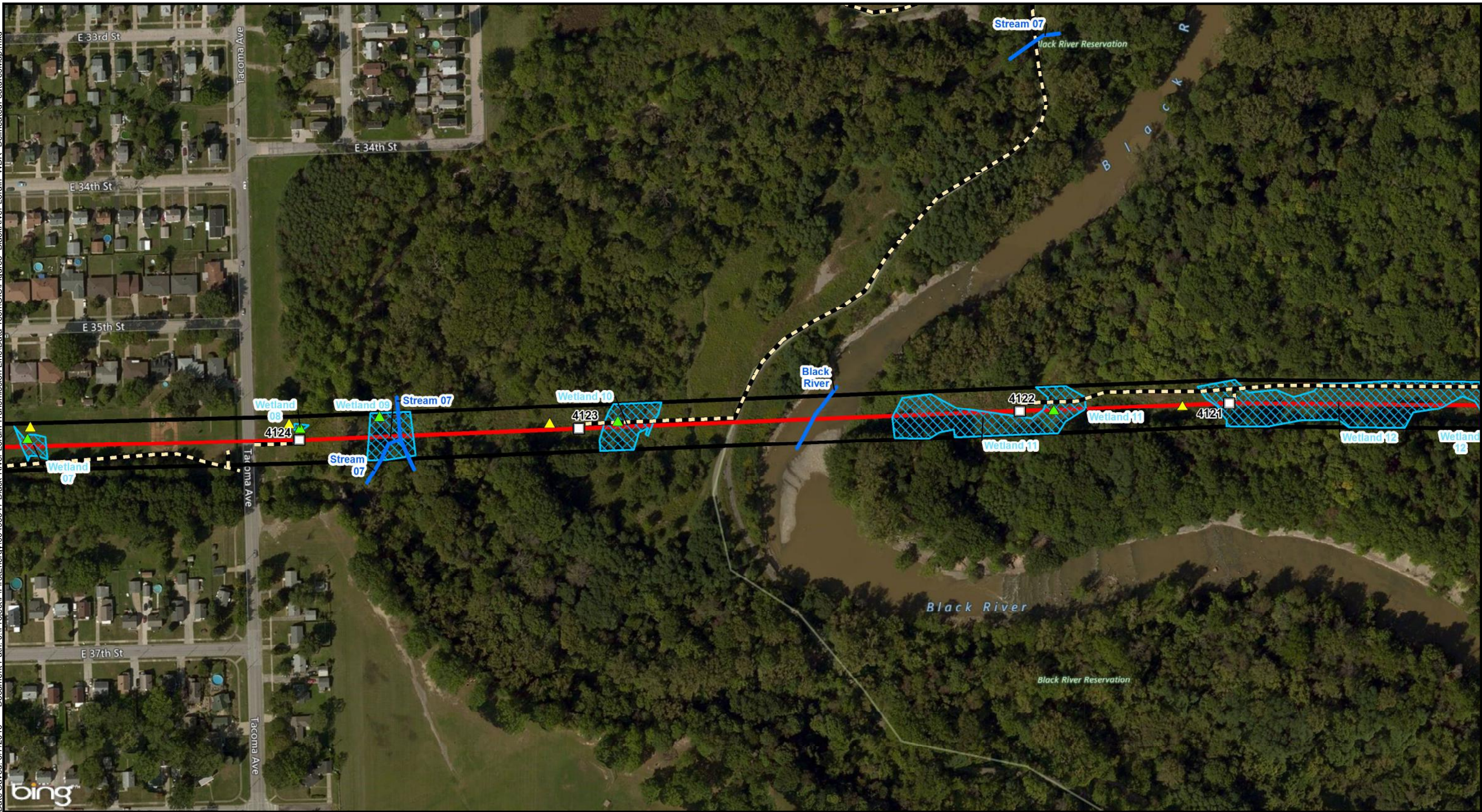
FIGURE 3D
WETLAND DELINEATION AND
STREAM ASSESSMENT MAP

JOB NO. 60495347



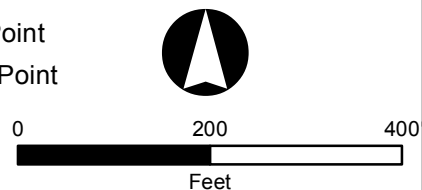


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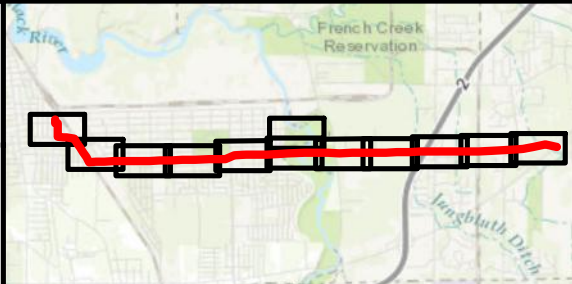


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| ■ Existing Substation | — Delineated Stream (HHEI) | ▲ Upland Data Point |
| □ Existing Structure | — Delineated Stream (QHEI) | ▲ Wetland Data Point |
| — Existing Black River-Lorain 138 kV Transmission Line | — Delineated Pond | |
| — Project 100-Foot Survey Boundary | — Delineated Wetland | |
| — Proposed Access Road | — Delineated Wetland Outside ROW | |
| — Proposed Pull Site | | |



BASE MAP SOURCE:
ArcGIS Online, Bing Maps Aerial



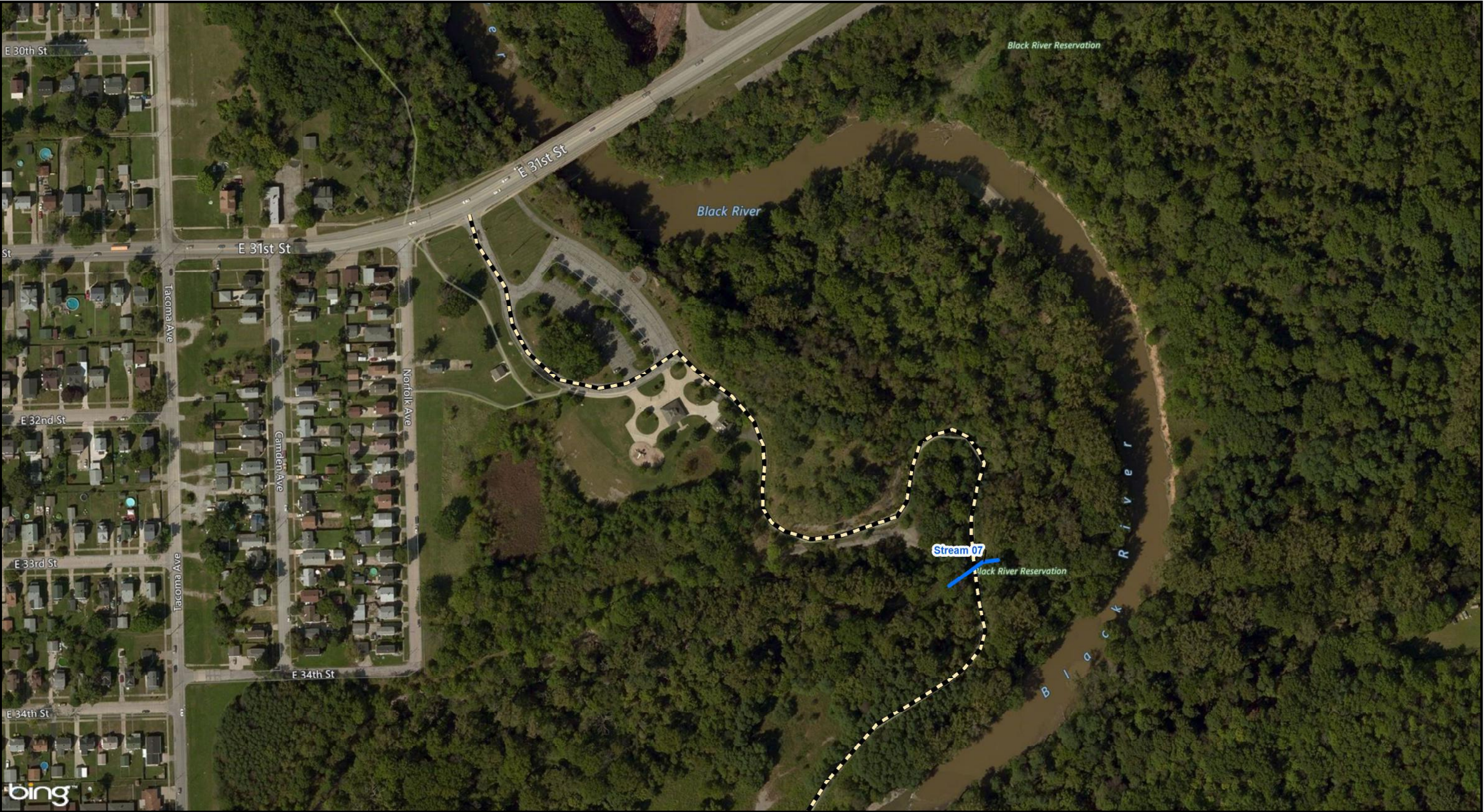
Black River-Lorain 138 kV
Transmission Line Rebuild Project

FIGURE 3F
WETLAND DELINEATION AND
STREAM ASSESSMENT MAP

JOB NO. 60495347

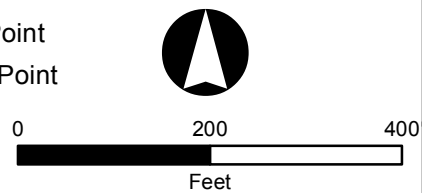


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| ■ Existing Substation | — Delineated Stream (HHEI) | ▲ Upland Data Point |
| □ Existing Structure | — Delineated Stream (QHEI) | ▲ Wetland Data Point |
| — Existing Black River-Lorain 138 kV Transmission Line | ■ Delineated Pond | |
| ▭ Project 100-Foot Survey Boundary | ▨ Delineated Wetland | |
| — Proposed Access Road | □ Delineated Wetland Outside ROW | |
| ▭ Proposed Pull Site | | |



BASE MAP SOURCE:
ArcGIS Online, Bing Maps Aerial



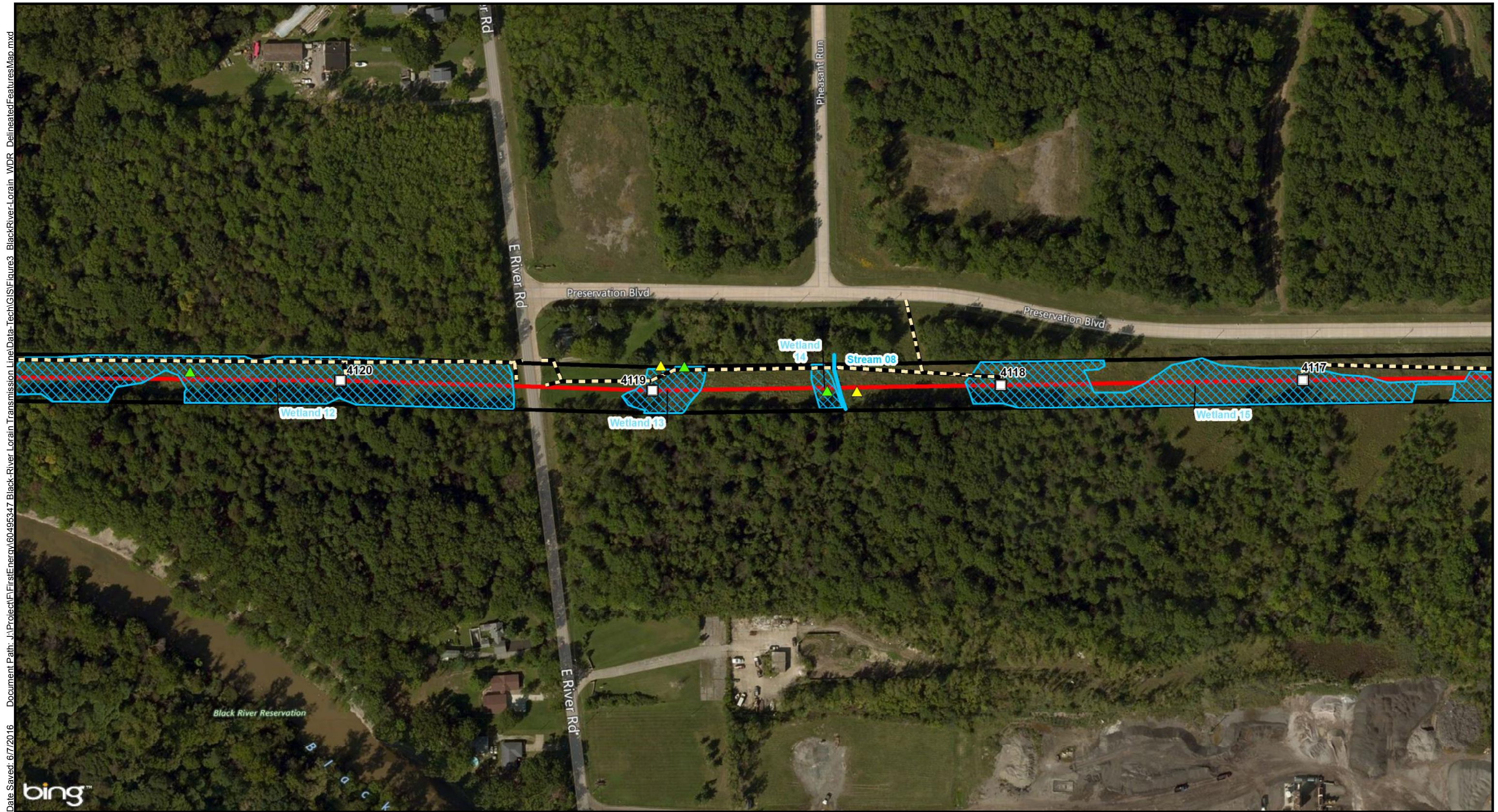
Black River-Lorain 138 kV
Transmission Line Rebuild Project

FIGURE 3G
WETLAND DELINEATION AND
STREAM ASSESSMENT MAP

JOB NO. 60495347

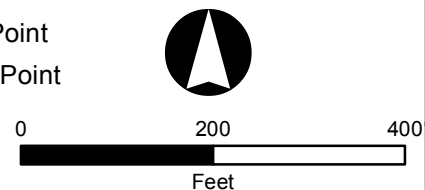


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| Existing Substation | Delineated Stream (HHEI) | Upland Data Point |
| Existing Structure | Delineated Stream (QHEI) | Wetland Data Point |
| Existing Black River-Lorain 138 kV Transmission Line | Delineated Pond | |
| Project 100-Foot Survey Boundary | Delineated Wetland | |
| Proposed Access Road | Delineated Wetland Outside ROW | |
| Proposed Pull Site | | |



BASE MAP SOURCE:
ArcGIS Online, Bing Maps Aerial



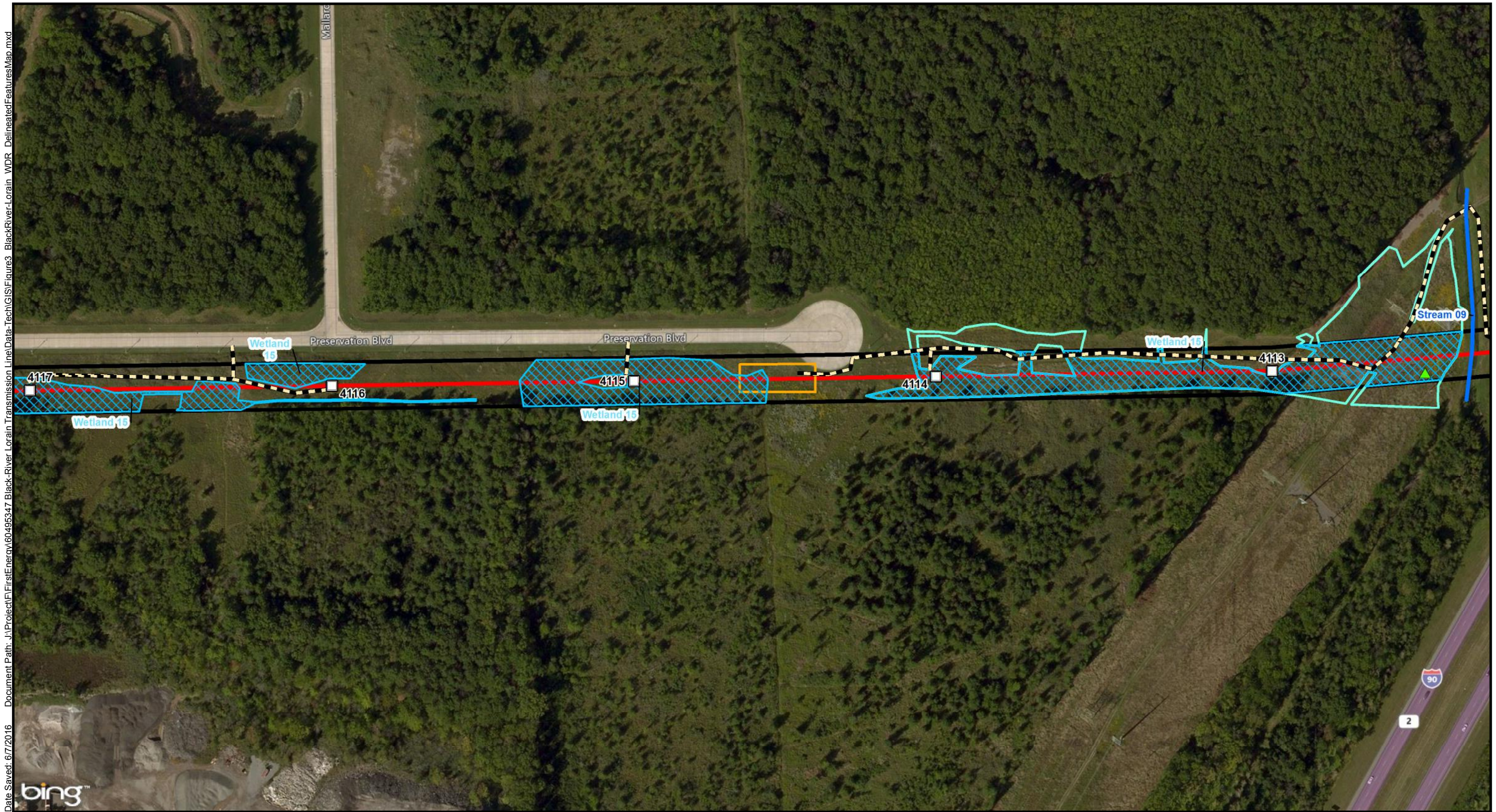
Black River-Lorain 138 kV
Transmission Line Rebuild Project

FIGURE 3H
WETLAND DELINEATION AND
STREAM ASSESSMENT MAP

JOB NO. 60495347

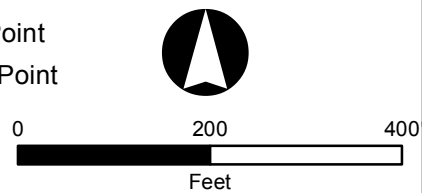


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| ■ Existing Substation | — Delineated Stream (HHEI) | ▲ Upland Data Point |
| □ Existing Structure | — Delineated Stream (QHEI) | ▲ Wetland Data Point |
| — Existing Black River-Lorain 138 kV Transmission Line | ■ Delineated Pond | |
| — Project 100-Foot Survey Boundary | ■ Delineated Wetland | |
| — Proposed Access Road | — Delineated Wetland Outside ROW | |
| — Proposed Pull Site | | |



BASE MAP SOURCE:
ArcGIS Online, Bing Maps Aerial

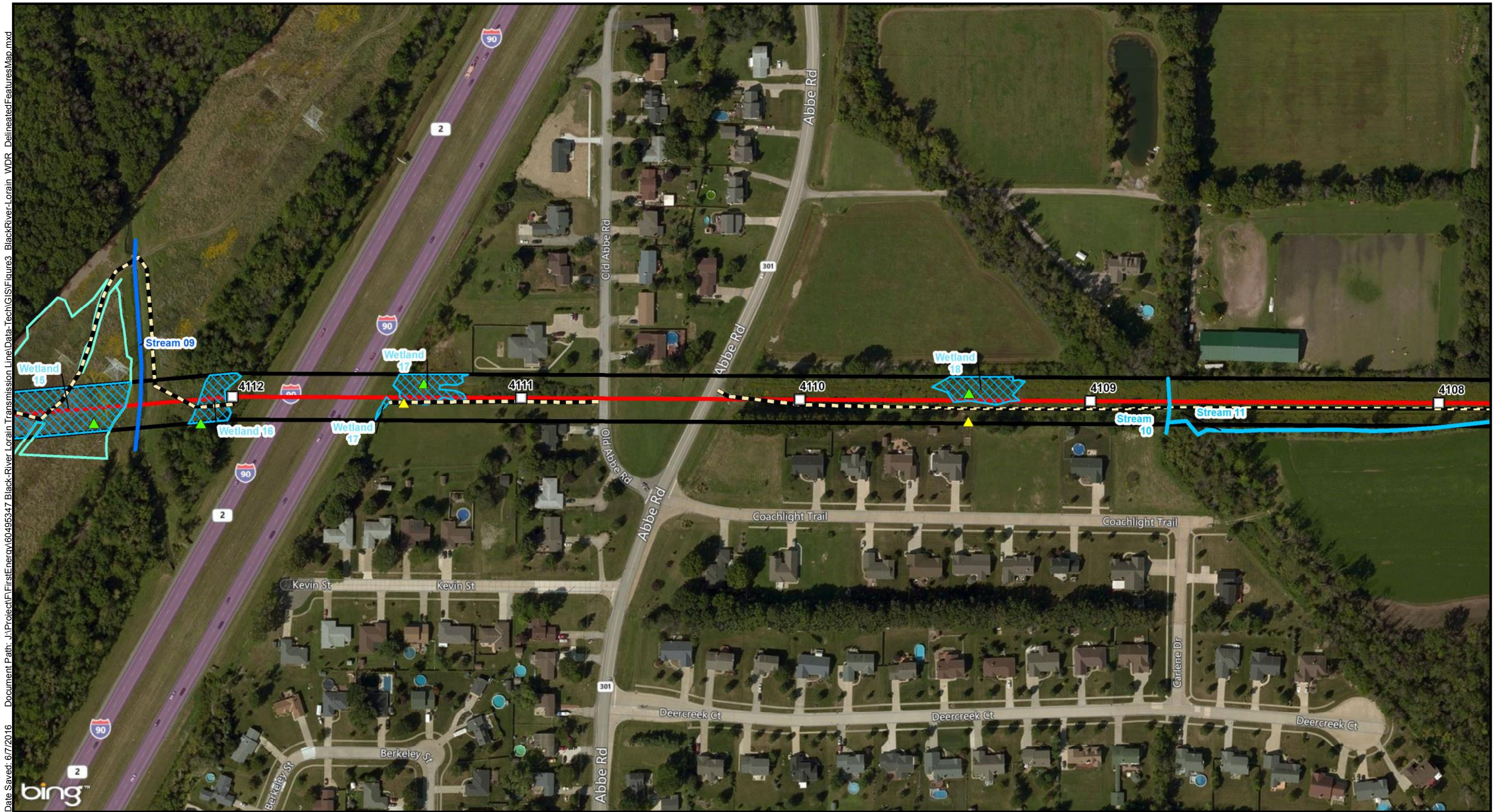


Black River-Lorain 138 kV
Transmission Line Rebuild Project

FIGURE 3I
WETLAND DELINEATION AND
STREAM ASSESSMENT MAP

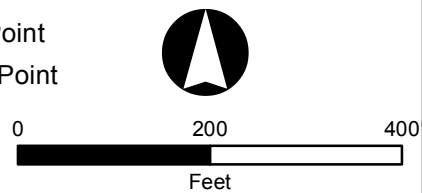
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| ■ Existing Substation | — Delineated Stream (HHEI) | ▲ Upland Data Point |
| □ Existing Structure | — Delineated Stream (QHEI) | ▲ Wetland Data Point |
| — Existing Black River-Lorain 138 kV Transmission Line | — Delineated Pond | |
| — Project 100-Foot Survey Boundary | — Delineated Wetland | |
| — Proposed Access Road | — Delineated Wetland Outside ROW | |
| — Proposed Pull Site | | |



BASE MAP SOURCE:
ArcGIS Online, Bing Maps Aerial



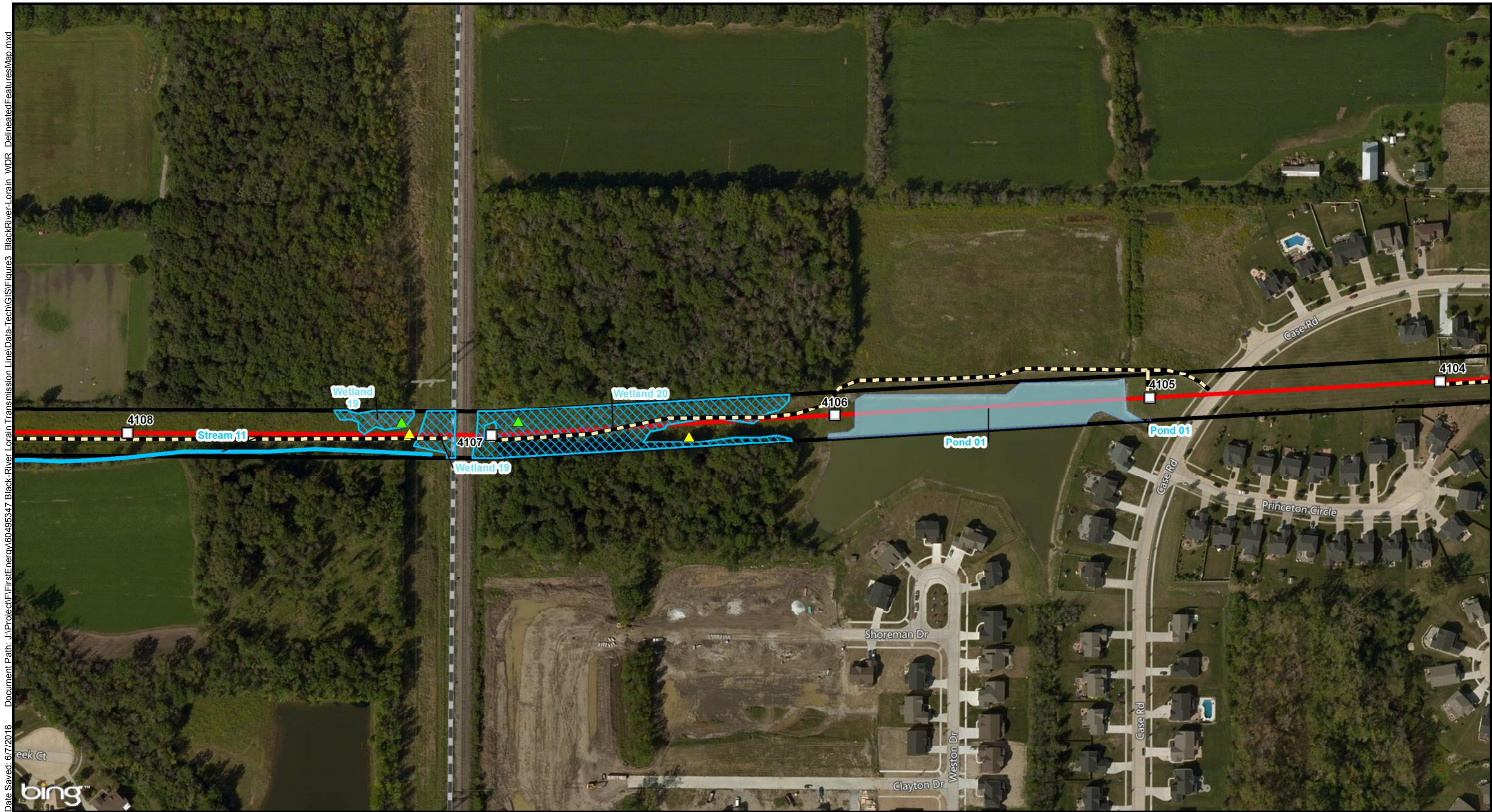
Black River-Lorain 138 kV
Transmission Line Rebuild Project

FIGURE 3J
WETLAND DELINEATION AND
STREAM ASSESSMENT MAP

JOB NO. 60495347



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| Existing Substation | Delineated Stream (HHEI) | Upland Data Point |
| Existing Structure | Delineated Stream (QHEI) | Wetland Data Point |
| Existing Black River-Lorain 138 kV Transmission Line | Delineated Pond | |
| Project 100-Foot Survey Boundary | Delineated Wetland | |
| Proposed Access Road | Delineated Wetland Outside ROW | |
| Proposed Pull Site | | |



0 200 400
Feet

BASE MAP SOURCE:
ArcGIS Online, Bing Maps Aerial



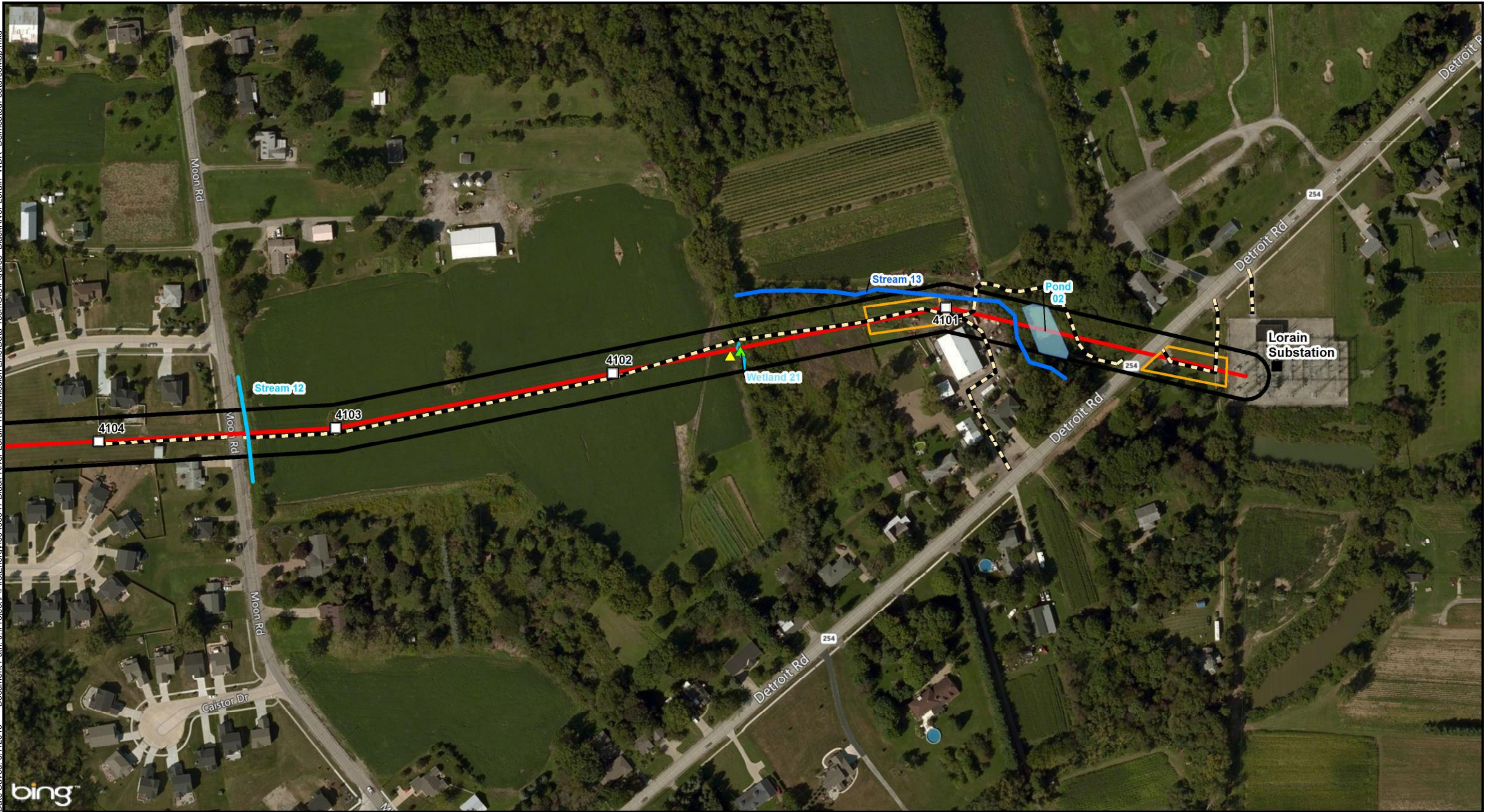
Black River-Lorain 138 kV
Transmission Line Rebuild Project

FIGURE 3K
WETLAND DELINEATION AND
STREAM ASSESSMENT MAP

JOB NO. 60495347



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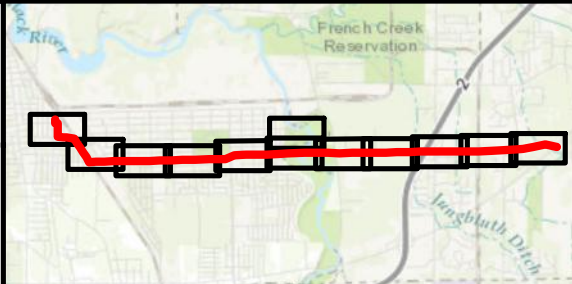
LEGEND

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| Existing Substation | Delineated Stream (HHEI) | Upland Data Point |
| Existing Structure | Delineated Stream (QHEI) | Wetland Data Point |
| Existing Black River-Lorain 138 kV Transmission Line | Delineated Pond | |
| Project 100-Foot Survey Boundary | Delineated Wetland | |
| Proposed Access Road | Delineated Wetland Outside ROW | |
| Proposed Pull Site | | |



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Feet

BASE MAP SOURCE:
ArcGIS Online, Bing Maps Aerial



Black River-Lorain 138 kV
Transmission Line Rebuild Project

FIGURE 3L
WETLAND DELINEATION AND
STREAM ASSESSMENT MAP

JOB NO. 60495347



APPENDIX A

U.S. ARMY CORPS OF ENGINEERS WETLAND & UPLAND FORMS

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Black River-Lorain 138kV Tline
City/County: Lorain/Lorain
Sampling Date: 22-Apr-16
Applicant/Owner: FirstEnergy
State: OH
Sampling Point: w-mdt4/22/2016-01
Investigator(s): M.Thomayer, B.Otto
Section, Township, Range: S. T. 7N R. 17W
Landform (hillslope, terrace, etc.): Flat
Local relief (concave, convex, none): concave
Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA): MLRA 139 in LRR R
Lat.: 41.440243
Long.: -82.152160
Datum: NAD 83
Soil Map Unit Name: Ama
NWI classification: NA

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
Are Vegetation ☐ , **Soil** ☐ , **or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes ☒ No ☐
Are Vegetation ☐ , **Soil** ☐ , **or Hydrology** ☐ **naturally problematic?** (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	Is the Sampled Area within a Wetland? Yes ☒ No ☐
Remarks: (Explain alternative procedures here or in a separate report.) PSS/PEM (50/50) wetland in ROW	

Hydrology

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of 2 required)	
☒ Surface Water (A1) ☒ High Water Table (A2) ☒ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☒ Sparsely Vegetated Concave Surface (B8)	☒ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ Marl Deposits (B15) ☒ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	☐ Surface Soil Cracks (B6) ☒ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☐ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☒ Microtopographic Relief (D4) ☒ FAC-neutral Test (D5)	
Field Observations: Surface Water Present? Yes ☒ No ☐ Depth (inches): 1 Water Table Present? Yes ☒ No ☐ Depth (inches): 11 Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 1 Wetland Hydrology Present? Yes ☒ No ☐			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: pockets of inundation			

VEGETATION - Use scientific names of plantsSampling Point: w-mdt4/22/2016-01

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	0	☐	_____	
2. _____	0	☐	_____	
3. _____	0	☐	_____	
4. _____	0	☐	_____	
5. _____	0	☐	_____	
6. _____	0	☐	_____	
7. _____	0	☐	_____	
		0	= Total Cover	
Sapling/Shrub Stratum (Plot size: _____)				
1. <i>Cornus alba</i>	10	☒	FACW	
2. <i>Cornus amomum</i>	10	☒	FACW	
3. _____	0	☐	_____	
4. _____	0	☐	_____	
5. _____	0	☐	_____	
6. _____	0	☐	_____	
7. _____	0	☐	_____	
		20	= Total Cover	
Herb Stratum (Plot size: _____)				
1. <i>Phalaris arundinacea</i>	90	☒	FACW	
2. <i>Dichanthelium clandestinum</i>	10	☐	FACW	
3. _____	0	☐	_____	
4. _____	0	☐	_____	
5. _____	0	☐	_____	
6. _____	0	☐	_____	
7. _____	0	☐	_____	
8. _____	0	☐	_____	
9. _____	0	☐	_____	
10. _____	0	☐	_____	
11. _____	0	☐	_____	
12. _____	0	☐	_____	
		100	= Total Cover	
Woody Vine Stratum (Plot size: _____)				
1. _____	0	☐	_____	
2. _____	0	☐	_____	
3. _____	0	☐	_____	
4. _____	0	☐	_____	
		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: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>120</u>	x 2 = <u>240</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>120</u> (A)	<u>240</u> (B)

 Prevalence Index = B/A = 2.000

Hydrophytic Vegetation Indicators:
☒ **Rapid Test for Hydrophytic Vegetation**
☒ **Dominance Test is > 50%**
☒ **Prevalence Index is ≤3.0**¹
☐ **Morphological Adaptations**¹ (Provide supporting data in Remarks or on a separate sheet)
☐ **Problematic Hydrophytic Vegetation**¹ (Explain)

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

Definitions of 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 (1m) tall..

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

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

Hydrophytic Vegetation Present? Yes ☒ No ☐

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil

Sampling Point: w-mdt4/22/2016-01

[illegible]

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Black River-Lorain 138kV Tline **City/County:** Lorain/Lorain **Sampling Date:** 22-Apr-16

Applicant/Owner: FirstEnergy **State:** OH **Sampling Point:** upl-mdt4/22/2016-1

Investigator(s): M.Thomayer, B.Otto **Section, Township, Range:** S. T. 7N R. 17W

Landform (hillslope, terrace, etc.): Flat **Local relief (concave, convex, none):** convex **Slope:** 0.0 % / 0.0 °

Subregion (LRR or MLRA): MLRA 139 in LRR R **Lat.:** 41.440123 **Long.:** -82.151941 **Datum:** NAD 83

Soil Map Unit Name: Ama **NWI classification:** NA

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐ , **Soil** ☒ , **or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes ☒ No ☐

Are Vegetation ☐ , **Soil** ☐ , **or Hydrology** ☐ **naturally problematic?** (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc

Hydrophytic Vegetation Present? Yes ☐ No ☒	Is the Sampled Area within a Wetland? Yes ☐ No ☒
Hydric Soil Present? Yes ☐ No ☒	
Wetland Hydrology Present? Yes ☐ No ☒	
Remarks: (Explain alternative procedures here or in a separate report.) upland plot in ROW adjacent to wetland on old industrial area	

Hydrology

Wetland Hydrology Indicators:		Secondary Indicators (minimum of 2 required)	
Primary Indicators (minimum of one required; check all that apply)			
☐ Surface Water (A1)	☐ Water-Stained Leaves (B9)	☐ Surface Soil Cracks (B6)	
☐ High Water Table (A2)	☐ Aquatic Fauna (B13)	☐ Drainage Patterns (B10)	
☐ Saturation (A3)	☐ Marl Deposits (B15)	☐ Moss Trim Lines (B16)	
☐ Water Marks (B1)	☐ Hydrogen Sulfide Odor (C1)	☐ Dry Season Water Table (C2)	
☐ Sediment Deposits (B2)	☐ Oxidized Rhizospheres along Living Roots (C3)	☐ Crayfish Burrows (C8)	
☐ Drift deposits (B3)	☐ Presence of Reduced Iron (C4)	☐ Saturation Visible on Aerial Imagery (C9)	
☐ Algal Mat or Crust (B4)	☐ Recent Iron Reduction in Tilled Soils (C6)	☐ Stunted or Stressed Plants (D1)	
☐ Iron Deposits (B5)	☐ Thin Muck Surface (C7)	☐ Geomorphic Position (D2)	
☐ Inundation Visible on Aerial Imagery (B7)	☐ Other (Explain in Remarks)	☐ Shallow Aquitard (D3)	
☐ Sparsely Vegetated Concave Surface (B8)		☐ Microtopographic Relief (D4)	
		☐ FAC-neutral Test (D5)	
Field Observations:			
Surface Water Present?	Yes ☐ No ☒	Depth (inches):	
Water Table Present?	Yes ☐ No ☒	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes ☐ No ☒	Depth (inches):	
Wetland Hydrology Present? Yes ☐ No ☒			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

VEGETATION - Use scientific names of plants

Sampling Point: upl-mdt4/22/2016-1

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	0	☐	_____	Number of Dominant Species That are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of dominant Species That Are OBL, FACW, or FAC: <u>40.0%</u> (A/B)
2. _____	0	☐	_____	
3. _____	0	☐	_____	
4. _____	0	☐	_____	
5. _____	0	☐	_____	
6. _____	0	☐	_____	
7. _____	0	☐	_____	
0 = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>60</u> x 3 = <u>180</u> FACU species <u>30</u> x 4 = <u>120</u> UPL species <u>10</u> x 5 = <u>50</u> Column Totals: <u>100</u> (A) <u>350</u> (B) Prevalence Index = B/A = <u>3.500</u>
Sapling/Shrub Stratum (Plot size: _____)				
1. <i>Elaeagnus umbellata</i>	10	☒	UPL	
2. <i>Aesculus flava</i>	10	☒	FACU	
3. _____	0	☐	_____	
4. _____	0	☐	_____	
5. _____	0	☐	_____	
6. _____	0	☐	_____	
7. _____	0	☐	_____	
20 = Total Cover				
Herb Stratum (Plot size: _____)				Hydrophytic Vegetation Indicators: ☐ Rapid Test for Hydrophytic Vegetation ☐ Dominance Test is > 50% ☐ Prevalence Index is ≤3.0 ¹ ☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ☐ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <i>Rosa multiflora</i>	20	☒	FACU	
2. <i>Poa sp.</i>	20	☒	FAC	
3. <i>Solidago sp.</i>	40	☒	FAC	
4. _____	0	☐	_____	
5. _____	0	☐	_____	
6. _____	0	☐	_____	
7. _____	0	☐	_____	
8. _____	0	☐	_____	
9. _____	0	☐	_____	
10. _____	0	☐	_____	
11. _____	0	☐	_____	
12. _____	0	☐	_____	
80 = Total Cover				
Woody Vine Stratum (Plot size: _____)				Definitions of 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 (1m) tall.. Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine - All woody vines greater than 3.28 ft in height.
1. _____	0	☐	_____	
2. _____	0	☐	_____	
3. _____	0	☐	_____	
4. _____	0	☐	_____	
0 = Total Cover				
0 = Total Cover				Hydrophytic Vegetation Present? Yes ☐ No ☒

Remarks: (Include photo numbers here or on a separate sheet.)
 poa sp 20, solidago sp 40

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil

Sampling Point: upl-mdt4/22/2016-1

[illegible]

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Black River-Lorain 138kV Tline
City/County: Lorain/Lorain
Sampling Date: 22-Apr-16
Applicant/Owner: FirstEnergy
State: OH
Sampling Point: w-mdt4/22/2016-02
Investigator(s): M.Thomayer, B.Otto
Section, Township, Range: S. T. 7N R. 17W
Landform (hillslope, terrace, etc.): Flat
Local relief (concave, convex, none): concave
Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA): MLRA 139 in LRR R
Lat.: 41.437297
Long.: -82.148040
Datum: NAD 83
Soil Map Unit Name: Ama
NWI classification: NA

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
Are Vegetation ☐ , **Soil** ☒ , **or Hydrology** ☒ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes ☐ No ☒
Are Vegetation ☐ , **Soil** ☐ , **or Hydrology** ☐ **naturally problematic?** (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	Is the Sampled Area within a Wetland? Yes ☒ No ☐
Remarks: (Explain alternative procedures here or in a separate report.) PEM wetland in ROW; area is disturbed and appears to formerly be an industrial site	

Hydrology

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of 2 required)	
☒ Surface Water (A1) ☒ High Water Table (A2) ☒ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☒ Sparsely Vegetated Concave Surface (B8)	☒ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ Marl Deposits (B15) ☒ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	☐ Surface Soil Cracks (B6) ☒ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☐ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☒ Microtopographic Relief (D4) ☒ FAC-neutral Test (D5)	
Field Observations: Surface Water Present? Yes ☒ No ☐ Depth (inches): 1 Water Table Present? Yes ☒ No ☐ Depth (inches): 11 Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 1 Wetland Hydrology Present? Yes ☒ No ☐			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: pockets of inundation			

VEGETATION - Use scientific names of plants

Sampling Point: w-mdt4/22/2016-02

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	0	☐	_____	Number of Dominant Species That are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
2. _____	0	☐	_____	
3. _____	0	☐	_____	
4. _____	0	☐	_____	
5. _____	0	☐	_____	
6. _____	0	☐	_____	
7. _____	0	☐	_____	
0 = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species <u>75</u> x 1 = <u>75</u> FACW species <u>15</u> x 2 = <u>30</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>90</u> (A) <u>105</u> (B) Prevalence Index = B/A = <u>1.167</u>
Sapling/Shrub Stratum (Plot size: _____)				
1. _____	0	☐	_____	
2. _____	0	☐	_____	
3. _____	0	☐	_____	
4. _____	0	☐	_____	
5. _____	0	☐	_____	
6. _____	0	☐	_____	
7. _____	0	☐	_____	
0 = Total Cover				
Herb Stratum (Plot size: _____)				Hydrophytic Vegetation Indicators: ☒ Rapid Test for Hydrophytic Vegetation ☒ Dominance Test is > 50% ☒ Prevalence Index is ≤3.0 ¹ ☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ☐ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <i>Phalaris arundinacea</i>	10	☐	FACW	
2. <i>Phragmites australis</i>	5	☐	FACW	
3. <i>Juncus effusus</i>	70	☒	OBL	
4. <i>Lythrum salicaria</i>	5	☐	OBL	
5. _____	0	☐	_____	
6. _____	0	☐	_____	
7. _____	0	☐	_____	
8. _____	0	☐	_____	
9. _____	0	☐	_____	
10. _____	0	☐	_____	
11. _____	0	☐	_____	
12. _____	0	☐	_____	
90 = Total Cover				
Woody Vine Stratum (Plot size: _____)				Definitions of 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 (1m) tall.. Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine - All woody vines greater than 3.28 ft in height.
1. _____	0	☐	_____	
2. _____	0	☐	_____	
3. _____	0	☐	_____	
4. _____	0	☐	_____	
0 = Total Cover				
Hydrophytic Vegetation Present? Yes ☒ No ☐				Remarks: (Include photo numbers here or on a separate sheet.)

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil

Sampling Point: w-mdt4/22/2016-02

[illegible]

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Black River-Lorain 138kV Tline
City/County: Lorain/Lorain
Sampling Date: 22-Apr-16
Applicant/Owner: FirstEnergy
State: OH
Sampling Point: upl-mdt4/22/2016-2
Investigator(s): M.Thomayer, B.Otto
Section, Township, Range: S. T. 7N R. 17W
Landform (hillslope, terrace, etc.): Flat
Local relief (concave, convex, none): convex
Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA): MLRA 139 in LRR R
Lat.: 41.437381
Long.: -82.147870
Datum: NAD 83
Soil Map Unit Name: Ama
NWI classification: NA

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
Are Vegetation ☐ , **Soil** ☒ , **or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes ☐ No ☒
Are Vegetation ☐ , **Soil** ☐ , **or Hydrology** ☐ **naturally problematic?** (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	Is the Sampled Area within a Wetland? Yes ☐ No ☒
Remarks: (Explain alternative procedures here or in a separate report.) upland plot in ROW adjacent to wetland on old industrial area	

Hydrology

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of 2 required)	
☐ Surface Water (A1) ☐ High Water Table (A2) ☐ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Sparsely Vegetated Concave Surface (B8)	☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ Marl Deposits (B15) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	☐ Surface Soil Cracks (B6) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☐ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☐ FAC-neutral Test (D5)	
Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☐ No ☒ Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches): _____			
Wetland Hydrology Present? Yes ☐ No ☒			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

VEGETATION - Use scientific names of plants

Sampling Point: upl-mdt4/22/2016-2

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____	0	☐	_____	Number of Dominant Species That are OBL, FACW, or FAC: <u>2</u> (A)	
2. _____	0	☐	_____	Total Number of Dominant Species Across All Strata: <u>2</u> (B)	
3. _____	0	☐	_____	Percent of dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)	
4. _____	0	☐	_____		
5. _____	0	☐	_____		
6. _____	0	☐	_____		
7. _____	0	☐	_____		
				Prevalence Index worksheet:	
				Total % Cover of: _____ Multiply by: _____	
				OBL species <u>0</u> x 1 = <u>0</u>	
				FACW species <u>0</u> x 2 = <u>0</u>	
				FAC species <u>90</u> x 3 = <u>270</u>	
				FACU species <u>0</u> x 4 = <u>0</u>	
				UPL species <u>0</u> x 5 = <u>0</u>	
				Column Totals: <u>90</u> (A) <u>270</u> (B)	
				Prevalence Index = B/A = <u>3.000</u>	
				Hydrophytic Vegetation Indicators:	
				☐ Rapid Test for Hydrophytic Vegetation	
				☒ Dominance Test is > 50%	
				☒ Prevalence Index is ≤3.0 ¹	
				☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
				☐ Problematic Hydrophytic Vegetation ¹ (Explain)	
				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
				Definitions of 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 (1m) tall..	
				Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.	
				Woody vine - All woody vines greater than 3.28 ft in height.	
				Hydrophytic Vegetation Present? Yes ☒ No ☐	
Remarks: (Include photo numbers here or on a separate sheet.)					
poa sp 20, solidago sp 70					

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil

Sampling Point: upl-mdt4/22/2016-2

[illegible]

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Black River-Lorain 138kV Tline
City/County: Lorain/Lorain
Sampling Date: 22-Apr-16
Applicant/Owner: FirstEnergy
State: OH
Sampling Point: w-mdt4/22/2016-3
Investigator(s): M.Thomayer, B.Otto
Section, Township, Range: S. T. 7N R. 17W
Landform (hillslope, terrace, etc.): Flat
Local relief (concave, convex, none): rolling
Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA): MLRA 139 in LRR R
Lat.: 41.437321
Long.: -82.143617
Datum: NAD 83
Soil Map Unit Name: Ama
NWI classification: NA

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
Are Vegetation ☐ , **Soil** ☒ , **or Hydrology** ☒ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes ☐ No ☒
Are Vegetation ☐ , **Soil** ☐ , **or Hydrology** ☐ **naturally problematic?** (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	Is the Sampled Area within a Wetland? Yes ☒ No ☐
Remarks: (Explain alternative procedures here or in a separate report.) PEM wetland along ROW edge; area is disturbed and appears to formerly be an industrial site	

Hydrology

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of 2 required)	
☒ Surface Water (A1) ☒ High Water Table (A2) ☒ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Sparsely Vegetated Concave Surface (B8)	☒ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ Marl Deposits (B15) ☒ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	☐ Surface Soil Cracks (B6) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☐ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☒ FAC-neutral Test (D5)	
Field Observations:			
Surface Water Present? Yes ☒ No ☐ Water Table Present? Yes ☒ No ☐ Saturation Present? (includes capillary fringe) Yes ☒ No ☐	Depth (inches): 2 Depth (inches): 4 Depth (inches): 0	Wetland Hydrology Present? Yes ☒ No ☐	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: pockets of inundation			

VEGETATION - Use scientific names of plantsSampling Point: w-mdt4/22/2016-3

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	0	☐	_____	
2. _____	0	☐	_____	
3. _____	0	☐	_____	
4. _____	0	☐	_____	
5. _____	0	☐	_____	
6. _____	0	☐	_____	
7. _____	0	☐	_____	
0 = Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				
1. _____	0	☐	_____	
2. _____	0	☐	_____	
3. _____	0	☐	_____	
4. _____	0	☐	_____	
5. _____	0	☐	_____	
6. _____	0	☐	_____	
7. _____	0	☐	_____	
0 = Total Cover				
Herb Stratum (Plot size: _____)				
1. <i>Phragmites australis</i>	100	☒	FACW	
2. _____	0	☐	_____	
3. _____	0	☐	_____	
4. _____	0	☐	_____	
5. _____	0	☐	_____	
6. _____	0	☐	_____	
7. _____	0	☐	_____	
8. _____	0	☐	_____	
9. _____	0	☐	_____	
10. _____	0	☐	_____	
11. _____	0	☐	_____	
12. _____	0	☐	_____	
100 = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____	0	☐	_____	
2. _____	0	☐	_____	
3. _____	0	☐	_____	
4. _____	0	☐	_____	
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: 1 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>100</u>	x 2 = <u>200</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>200</u> (B)

Prevalence Index = B/A = 2.000

Hydrophytic Vegetation Indicators:

☒ **Rapid Test for Hydrophytic Vegetation**

☒ **Dominance Test is > 50%**

☒ **Prevalence Index is ≤3.0** ¹

☐ **Morphological Adaptations** ¹ (Provide supporting data in Remarks or on a separate sheet)

☐ **Problematic Hydrophytic Vegetation** ¹ (Explain)

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

Definitions of 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 (1m) tall..

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

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

Hydrophytic Vegetation Present? Yes ☒ No ☐

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

[illegible]

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Black River-Lorain 138kV Tline
City/County: Lorain/Lorain
Sampling Date: 22-Apr-16
Applicant/Owner: FirstEnergy
State: OH
Sampling Point: upl-mdt4/22/2016-3
Investigator(s): M.Thomayer, B.Otto
Section, Township, Range: S. T. 7N R. 17W
Landform (hillslope, terrace, etc.): Flat
Local relief (concave, convex, none): convex
Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA): MLRA 139 in LRR R
Lat.: 41.437412
Long.: -82.143573
Datum: NAD 83
Soil Map Unit Name: Ama
NWI classification: NA

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
Are Vegetation ☐ , **Soil** ☒ , **or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes ☐ No ☒
Are Vegetation ☐ , **Soil** ☐ , **or Hydrology** ☐ **naturally problematic?** (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc

Hydrophytic Vegetation Present? Yes ☐ No ☒ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	Is the Sampled Area within a Wetland? Yes ☐ No ☒
Remarks: (Explain alternative procedures here or in a separate report.) upland plot in ROW adjacent to wetland on old industrial area	

Hydrology

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of 2 required)	
☐ Surface Water (A1) ☐ High Water Table (A2) ☐ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Sparsely Vegetated Concave Surface (B8)	☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ Marl Deposits (B15) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	☐ Surface Soil Cracks (B6) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☐ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☐ FAC-neutral Test (D5)	
Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☐ No ☒ Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches): _____			
Wetland Hydrology Present? Yes ☐ No ☒			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

VEGETATION - Use scientific names of plantsSampling Point: upl-mdt4/22/2016-3

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____	0	☐	_____	Number of Dominant Species That are OBL, FACW, or FAC: <u>1</u> (A)	
2. _____	0	☐	_____	Total Number of Dominant Species Across All Strata: <u>2</u> (B)	
3. _____	0	☐	_____	Percent of dominant Species That Are OBL, FACW, or FAC: <u>50.0%</u> (A/B)	
4. _____	0	☐	_____		
5. _____	0	☐	_____		
6. _____	0	☐	_____		
7. _____	0	☐	_____		
				Prevalence Index worksheet:	
				Total % Cover of: _____ Multiply by: _____	
				OBL species <u>0</u> x 1 = <u>0</u>	
				FACW species <u>30</u> x 2 = <u>60</u>	
				FAC species <u>0</u> x 3 = <u>0</u>	
				FACU species <u>5</u> x 4 = <u>20</u>	
				UPL species <u>70</u> x 5 = <u>350</u>	
				Column Totals: <u>105</u> (A) <u>430</u> (B)	
				Prevalence Index = B/A = <u>4.095</u>	
				Hydrophytic Vegetation Indicators:	
				☐ Rapid Test for Hydrophytic Vegetation	
				☐ Dominance Test is > 50%	
				☐ Prevalence Index is ≤ 3.0 ¹	
				☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
				☐ Problematic Hydrophytic Vegetation ¹ (Explain)	
				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
				Definitions of 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 (1m) tall..	
				Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.	
				Woody vine - All woody vines greater than 3.28 ft in height.	
				Hydrophytic Vegetation Present? Yes ☐ No ☒	
Remarks: (Include photo numbers here or on a separate sheet.)					

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil

Sampling Point: upl-mdt4/22/2016-3

[illegible]

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Black River-Lorain 138kV Tline **City/County:** Lorain **Sampling Date:** 21-Apr-16
Applicant/Owner: FirstEnergy **State:** OH **Sampling Point:** w-mdt4/21/2016-8
Investigator(s): M.Thomayer, B.Otto **Section, Township, Range: S.** **T.** 7N **R.** 17W
Landform (hillslope, terrace, etc.): Flat **Local relief (concave, convex, none):** concave **Slope:** 0.0 % / 0.0 °
Subregion (LRR or MLRA): MLRA 139 in LRR R **Lat.:** 41.437305 **Long.:** -82.139731 **Datum:** NAD 83
Soil Map Unit Name: AmA **NWI classification:** N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
Are Vegetation ☐ , **Soil** ☐ , **or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes ☒ No ☐
Are Vegetation ☐ , **Soil** ☐ , **or Hydrology** ☐ **naturally problematic?** (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	Is the Sampled Area within a Wetland? Yes ☒ No ☐
Remarks: (Explain alternative procedures here or in a separate report.) PEM wetland in mowed ROW	

Hydrology

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of 2 required)	
☒ Surface Water (A1) ☐ High Water Table (A2) ☒ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☒ Sparsely Vegetated Concave Surface (B8)	☒ Water-Stained Leaves (B9) ☒ Aquatic Fauna (B13) ☐ Marl Deposits (B15) ☐ Hydrogen Sulfide Odor (C1) ☒ Oxidized Rhizospheres along Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	☐ Surface Soil Cracks (B6) ☒ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☐ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☒ Microtopographic Relief (D4) ☒ FAC-neutral Test (D5)	
Field Observations: Surface Water Present? Yes ☒ No ☐ Depth (inches): 4 Water Table Present? Yes ☐ No ☒ Depth (inches): Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 0			
Wetland Hydrology Present? Yes ☒ No ☐			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: saturated throughout and mostly inundated			

VEGETATION - Use scientific names of plantsSampling Point: w-mdt4/21/2016-8

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	0	☐	_____	
2. _____	0	☐	_____	
3. _____	0	☐	_____	
4. _____	0	☐	_____	
5. _____	0	☐	_____	
6. _____	0	☐	_____	
7. _____	0	☐	_____	
Sapling/Shrub Stratum (Plot size: _____)	0	= Total Cover		
1. _____	0	☐	_____	
2. _____	0	☐	_____	
3. _____	0	☐	_____	
4. _____	0	☐	_____	
5. _____	0	☐	_____	
6. _____	0	☐	_____	
7. _____	0	☐	_____	
Herb Stratum (Plot size: _____)	0	= Total Cover		
1. <i>Lysimachia nummularia</i>	10	☐	FACW	
2. <i>Eleocharis acicularis</i>	10	☐	OBL	
3. <i>Phalaris arundinacea</i>	60	☒	FACW	
4. _____	0	☐	_____	
5. _____	0	☐	_____	
6. _____	0	☐	_____	
7. _____	0	☐	_____	
8. _____	0	☐	_____	
9. _____	0	☐	_____	
10. _____	0	☐	_____	
11. _____	0	☐	_____	
12. _____	0	☐	_____	
Woody Vine Stratum (Plot size: _____)	80	= Total Cover		
1. _____	0	☐	_____	
2. _____	0	☐	_____	
3. _____	0	☐	_____	
4. _____	0	☐	_____	
	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: 1 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>10</u>	x 1 = <u>10</u>
FACW species <u>70</u>	x 2 = <u>140</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>80</u> (A)	<u>150</u> (B)

Prevalence Index = B/A = 1.875

Hydrophytic Vegetation Indicators:

☒ **Rapid Test for Hydrophytic Vegetation**

☒ **Dominance Test is > 50%**

☒ **Prevalence Index is ≤3.0** ¹

☐ **Morphological Adaptations** ¹ (Provide supporting data in Remarks or on a separate sheet)

☐ **Problematic Hydrophytic Vegetation** ¹ (Explain)

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

Definitions of 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 (1m) tall..

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

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

Hydrophytic Vegetation Present? Yes ☒ No ☐

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil

Sampling Point: w-mdt4/21/2016-8

[illegible]

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Black River-Lorain 138kV Tline
City/County: Lorain
Sampling Date: 21-Apr-16
Applicant/Owner: FirstEnergy
State: OH
Sampling Point: upl-mdt4/21/2016-8
Investigator(s): M.Thomayer, B.Otto
Section, Township, Range: S. T. 7N R. 17W
Landform (hillslope, terrace, etc.): Flat
Local relief (concave, convex, none): convex
Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA): MLRA 139 in LRR R
Lat.: 41.437429
Long.: -82.140129
Datum: NAD 83
Soil Map Unit Name: AmA
NWI classification: N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
Are Vegetation ☐ , **Soil** ☐ , **or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes ☒ No ☐
Are Vegetation ☐ , **Soil** ☐ , **or Hydrology** ☐ **naturally problematic?** (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc

Hydrophytic Vegetation Present? Yes ☐ No ☒ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	Is the Sampled Area within a Wetland? Yes ☐ No ☒
Remarks: (Explain alternative procedures here or in a separate report.) in ROW adjacent to wetland	

Hydrology

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of 2 required)	
☐ Surface Water (A1) ☐ High Water Table (A2) ☐ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Sparsely Vegetated Concave Surface (B8)	☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ Marl Deposits (B15) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	☐ Surface Soil Cracks (B6) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☐ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☐ FAC-neutral Test (D5)	
Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☐ No ☒ Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches): _____			
Wetland Hydrology Present? Yes ☐ No ☒			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

VEGETATION - Use scientific names of plantsSampling Point: upl-mdt4/21/2016-8

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____	0	☐	_____	Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)	
2. _____	0	☐	_____	Total Number of Dominant Species Across All Strata: <u>1</u> (B)	
3. _____	0	☐	_____	Percent of dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)	
4. _____	0	☐	_____		
5. _____	0	☐	_____		
6. _____	0	☐	_____		
7. _____	0	☐	_____		
<u>0</u> = Total Cover				Prevalence Index worksheet:	
Sapling/Shrub Stratum (Plot size: _____)				Total % Cover of: _____ Multiply by: _____	
1. _____	0	☐	_____	OBL species <u>0</u>	x 1 = <u>0</u>
2. _____	0	☐	_____	FACW species <u>0</u>	x 2 = <u>0</u>
3. _____	0	☐	_____	FAC species <u>0</u>	x 3 = <u>0</u>
4. _____	0	☐	_____	FACU species <u>0</u>	x 4 = <u>0</u>
5. _____	0	☐	_____	UPL species <u>0</u>	x 5 = <u>0</u>
6. _____	0	☐	_____	Column Totals: <u>0</u>	(A) <u>0</u> (B)
7. _____	0	☐	_____	Prevalence Index = B/A = <u>0.000</u>	
<u>0</u> = Total Cover				Hydrophytic Vegetation Indicators:	
Herb Stratum (Plot size: _____)				☐ Rapid Test for Hydrophytic Vegetation ☐ Dominance Test is > 50% ☐ Prevalence Index is ≤3.0 ¹ ☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ☐ Problematic Hydrophytic Vegetation ¹ (Explain)	
1. _____	0	☐	_____	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
2. _____	0	☐	_____	Definitions of Vegetation Strata:	
3. _____	0	☐	_____	Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.	
4. _____	0	☐	_____	Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall..	
5. _____	0	☐	_____	Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.	
6. _____	0	☐	_____	Woody vine - All woody vines greater than 3.28 ft in height.	
7. _____	0	☐	_____		
8. _____	0	☐	_____		
9. _____	0	☐	_____		
10. _____	0	☐	_____		
11. _____	0	☐	_____		
12. _____	0	☐	_____		
<u>0</u> = Total Cover					
Woody Vine Stratum (Plot size: _____)					
1. _____	0	☐	_____		
2. _____	0	☐	_____		
3. _____	0	☐	_____		
4. _____	0	☐	_____		
<u>0</u> = Total Cover					
Hydrophytic Vegetation Present? Yes ☐ No ☒					
Remarks: (Include photo numbers here or on a separate sheet.) poa sp 100, white clover 20, dandelion 10					

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil

Sampling Point: upl-mdt4/21/2016-8

[illegible]

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Black River-Lorain 138kV Tline
City/County: Lorain
Sampling Date: 21-Apr-16
Applicant/Owner: FirstEnergy
State: OH
Sampling Point: w-mdt4/21/2016-9
Investigator(s): M.Thomayer, B.Otto
Section, Township, Range: S. T. 7N R. 17W
Landform (hillslope, terrace, etc.): Flat
Local relief (concave, convex, none): concave
Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA): MLRA 139 in LRR R
Lat.: 41.437546
Long.: -82.129179
Datum: NAD 83
Soil Map Unit Name: AmA
NWI classification: N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
Are Vegetation ☐ , **Soil** ☐ , **or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes ☒ No ☐
Are Vegetation ☐ , **Soil** ☐ , **or Hydrology** ☐ **naturally problematic?** (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	Is the Sampled Area within a Wetland? Yes ☒ No ☐
Remarks: (Explain alternative procedures here or in a separate report.) PEM wetland in mowed ROW	

Hydrology

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of 2 required)	
☐ Surface Water (A1) ☐ High Water Table (A2) ☒ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Sparsely Vegetated Concave Surface (B8)	☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ Marl Deposits (B15) ☐ Hydrogen Sulfide Odor (C1) ☒ Oxidized Rhizospheres along Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	☐ Surface Soil Cracks (B6) ☒ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☐ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☒ Microtopographic Relief (D4) ☒ FAC-neutral Test (D5)	
Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☐ No ☒ Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 4 Wetland Hydrology Present? Yes ☒ No ☐			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

VEGETATION - Use scientific names of plantsSampling Point: w-mdt4/21/2016-9

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____	0	☐	_____	Number of Dominant Species That are OBL, FACW, or FAC: <u>1</u> (A)	
2. _____	0	☐	_____	Total Number of Dominant Species Across All Strata: <u>1</u> (B)	
3. _____	0	☐	_____	Percent of dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)	
4. _____	0	☐	_____		
5. _____	0	☐	_____		
6. _____	0	☐	_____		
7. _____	0	☐	_____		
0 = Total Cover				Prevalence Index worksheet:	
Sapling/Shrub Stratum (Plot size: _____)				Total % Cover of: _____ Multiply by: _____	
1. _____	0	☐	_____	OBL species <u>0</u> x 1 = <u>0</u>	
2. _____	0	☐	_____	FACW species <u>100</u> x 2 = <u>200</u>	
3. _____	0	☐	_____	FAC species <u>0</u> x 3 = <u>0</u>	
4. _____	0	☐	_____	FACU species <u>0</u> x 4 = <u>0</u>	
5. _____	0	☐	_____	UPL species <u>0</u> x 5 = <u>0</u>	
6. _____	0	☐	_____	Column Totals: <u>100</u> (A) <u>200</u> (B)	
7. _____	0	☐	_____	Prevalence Index = B/A = <u>2.000</u>	
0 = Total Cover					
Herb Stratum (Plot size: _____)				Hydrophytic Vegetation Indicators:	
1. <i>Phalaris arundinacea</i>	100	☒	FACW	☒ Rapid Test for Hydrophytic Vegetation	
2. _____	0	☐	_____	☒ Dominance Test is > 50%	
3. _____	0	☐	_____	☒ Prevalence Index is ≤3.0 ¹	
4. _____	0	☐	_____	☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
5. _____	0	☐	_____	☐ Problematic Hydrophytic Vegetation ¹ (Explain)	
6. _____	0	☐	_____	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
7. _____	0	☐	_____		
8. _____	0	☐	_____		
9. _____	0	☐	_____		
10. _____	0	☐	_____	Definitions of Vegetation Strata:	
11. _____	0	☐	_____	Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.	
12. _____	0	☐	_____	Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall..	
100 = Total Cover				Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.	
Woody Vine Stratum (Plot size: _____)				Woody vine - All woody vines greater than 3.28 ft in height.	
1. _____	0	☐	_____		
2. _____	0	☐	_____		
3. _____	0	☐	_____		
4. _____	0	☐	_____		
0 = Total Cover					
Remarks: (Include photo numbers here or on a separate sheet.)					

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil

Sampling Point: w-mdt4/21/2016-9

[illegible]

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Black River-Lorain 138kV Tline
City/County: Lorain
Sampling Date: 21-Apr-16
Applicant/Owner: FirstEnergy
State: OH
Sampling Point: upl-mdt4/21/2016-9
Investigator(s): M.Thomayer, B.Otto
Section, Township, Range: S. _____ T. 7N R. 17W
Landform (hillslope, terrace, etc.): Flat
Local relief (concave, convex, none): convex
Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA): MLRA 139 in LRR R
Lat.: 41.437466
Long.: -82.128215
Datum: NAD 83
Soil Map Unit Name: AmA
NWI classification: N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
Are Vegetation ☐ , **Soil** ☐ , **or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes ☒ No ☐
Are Vegetation ☐ , **Soil** ☐ , **or Hydrology** ☐ **naturally problematic?** (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc

Hydrophytic Vegetation Present? Yes ☐ No ☒ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☐ No ☒	Is the Sampled Area within a Wetland? Yes ☐ No ☒
Remarks: (Explain alternative procedures here or in a separate report.) in ROW adjacent to wetland	

Hydrology

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of 2 required)	
☐ Surface Water (A1) ☐ High Water Table (A2) ☐ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Sparsely Vegetated Concave Surface (B8)	☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ Marl Deposits (B15) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	☐ Surface Soil Cracks (B6) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☐ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☐ FAC-neutral Test (D5)	
Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☐ No ☒ Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches): _____			
Wetland Hydrology Present? Yes ☐ No ☒			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

VEGETATION - Use scientific names of plants

Sampling Point: upl-mdt4/21/2016-9

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____	0	☐	_____	Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)	
2. _____	0	☐	_____	Total Number of Dominant Species Across All Strata: <u>1</u> (B)	
3. _____	0	☐	_____	Percent of dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)	
4. _____	0	☐	_____		
5. _____	0	☐	_____		
6. _____	0	☐	_____		
7. _____	0	☐	_____		
				Prevalence Index worksheet:	
				Total % Cover of: _____ Multiply by: _____	
				OBL species <u>0</u> x 1 = <u>0</u>	
				FACW species <u>0</u> x 2 = <u>0</u>	
				FAC species <u>0</u> x 3 = <u>0</u>	
				FACU species <u>0</u> x 4 = <u>0</u>	
				UPL species <u>0</u> x 5 = <u>0</u>	
				Column Totals: <u>0</u> (A) <u>0</u> (B)	
				Prevalence Index = B/A = <u>0.000</u>	
				Hydrophytic Vegetation Indicators:	
				☐ Rapid Test for Hydrophytic Vegetation	
				☐ Dominance Test is > 50%	
				☐ Prevalence Index is ≤3.0 ¹	
				☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
				☐ Problematic Hydrophytic Vegetation ¹ (Explain)	
				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
				Definitions of 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 (1m) tall..	
				Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.	
				Woody vine - All woody vines greater than 3.28 ft in height.	
				Hydrophytic Vegetation Present? Yes ☐ No ☒	
Remarks: (Include photo numbers here or on a separate sheet.)					
poa sp 60, white clover 40, dandelion 20					

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil

Sampling Point: upl-mdt4/21/2016-9

[illegible]

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Black River-Lorain 138kV Tline **City/County:** Lorain **Sampling Date:** 21-Apr-16
Applicant/Owner: FirstEnergy **State:** OH **Sampling Point:** w-mdt4/21/2016-5
Investigator(s): M.Thomayer, B.Otto **Section, Township, Range: S.** **T.** 7N **R.** 17W
Landform (hillslope, terrace, etc.): Flat **Local relief (concave, convex, none):** concave **Slope:** 0.0 % / 0.0 °
Subregion (LRR or MLRA): MLRA 139 in LRR R **Lat.:** 41.438306 **Long.:** -82.11712 **Datum:** NAD 83
Soil Map Unit Name: AmA **NWI classification:** N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
Are Vegetation ☐ , **Soil** ☐ , **or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes ☒ No ☐
Are Vegetation ☐ , **Soil** ☐ , **or Hydrology** ☐ **naturally problematic?** (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	Is the Sampled Area within a Wetland? Yes ☒ No ☐
Remarks: (Explain alternative procedures here or in a separate report.) PEM wetland in mowed ROW	

Hydrology

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of 2 required)	
☒ Surface Water (A1) ☐ High Water Table (A2) ☒ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Sparsely Vegetated Concave Surface (B8)	☒ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ Marl Deposits (B15) ☐ Hydrogen Sulfide Odor (C1) ☒ Oxidized Rhizospheres along Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	☐ Surface Soil Cracks (B6) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☐ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☒ Microtopographic Relief (D4) ☒ FAC-neutral Test (D5)	
Field Observations: Surface Water Present? Yes ☒ No ☐ Depth (inches): 4 Water Table Present? Yes ☐ No ☒ Depth (inches): Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 0			
Wetland Hydrology Present? Yes ☒ No ☐			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: saturated throughout with pockets of inundation			

VEGETATION - Use scientific names of plantsSampling Point: w-mdt4/21/2016-5

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	0	☐	_____	
2. _____	0	☐	_____	
3. _____	0	☐	_____	
4. _____	0	☐	_____	
5. _____	0	☐	_____	
6. _____	0	☐	_____	
7. _____	0	☐	_____	
0 = Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				
1. _____	0	☐	_____	
2. _____	0	☐	_____	
3. _____	0	☐	_____	
4. _____	0	☐	_____	
5. _____	0	☐	_____	
6. _____	0	☐	_____	
7. _____	0	☐	_____	
0 = Total Cover				
Herb Stratum (Plot size: _____)				
1. <i>Lysimachia nummularia</i>	80	☒	FACW	
2. _____	0	☐	_____	
3. _____	0	☐	_____	
4. _____	0	☐	_____	
5. _____	0	☐	_____	
6. _____	0	☐	_____	
7. _____	0	☐	_____	
8. _____	0	☐	_____	
9. _____	0	☐	_____	
10. _____	0	☐	_____	
11. _____	0	☐	_____	
12. _____	0	☐	_____	
80 = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____	0	☐	_____	
2. _____	0	☐	_____	
3. _____	0	☐	_____	
4. _____	0	☐	_____	
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: 1 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>80</u>	x 2 = <u>160</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>80</u> (A)	<u>160</u> (B)
Prevalence Index = B/A = <u>2.000</u>	

Hydrophytic Vegetation Indicators:

☒ **Rapid Test for Hydrophytic Vegetation**

☒ **Dominance Test is > 50%**

☒ **Prevalence Index is ≤3.0** ¹

☐ **Morphological Adaptations** ¹ (Provide supporting data in Remarks or on a separate sheet)

☐ **Problematic Hydrophytic Vegetation** ¹ (Explain)

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

Definitions of 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 (1m) tall..

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

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

Hydrophytic Vegetation Present? Yes ☒ No ☐

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

[illegible]

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Black River-Lorain 138kV Tline
City/County: Lorain
Sampling Date: 21-Apr-16
Applicant/Owner: FirstEnergy
State: OH
Sampling Point: upl-mdt4/21/2016-5
Investigator(s): M.Thomayer, B.Otto
Section, Township, Range: S. T. 7N R. 17W
Landform (hillslope, terrace, etc.): Flat
Local relief (concave, convex, none): convex
Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA): MLRA 139 in LRR R
Lat.: 41.438204
Long.: -82.116956
Datum: NAD 83
Soil Map Unit Name: AmA
NWI classification: N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
Are Vegetation ☐ , **Soil** ☐ , **or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes ☒ No ☐
Are Vegetation ☐ , **Soil** ☐ , **or Hydrology** ☐ **naturally problematic?** (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc

Hydrophytic Vegetation Present? Yes ☐ No ☒ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	Is the Sampled Area within a Wetland? Yes ☐ No ☒
Remarks: (Explain alternative procedures here or in a separate report.) in ROW adjacent to wetland	

Hydrology

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of 2 required)	
☐ Surface Water (A1) ☐ High Water Table (A2) ☐ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Sparsely Vegetated Concave Surface (B8)	☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ Marl Deposits (B15) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	☐ Surface Soil Cracks (B6) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☐ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☐ FAC-neutral Test (D5)	
Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☐ No ☒ Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches): _____			
Wetland Hydrology Present? Yes ☐ No ☒			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

VEGETATION - Use scientific names of plantsSampling Point: upl-mdt4/21/2016-5

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____	0	☐	_____	Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)	
2. _____	0	☐	_____	Total Number of Dominant Species Across All Strata: <u>1</u> (B)	
3. _____	0	☐	_____	Percent of dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)	
4. _____	0	☐	_____		
5. _____	0	☐	_____		
6. _____	0	☐	_____		
7. _____	0	☐	_____		
	0	= Total Cover			
Sapling/Shrub Stratum (Plot size: _____)					
1. _____	0	☐	_____	Total % Cover of: _____ Multiply by: _____	
2. _____	0	☐	_____	OBL species <u>0</u> x 1 = <u>0</u>	
3. _____	0	☐	_____	FACW species <u>0</u> x 2 = <u>0</u>	
4. _____	0	☐	_____	FAC species <u>0</u> x 3 = <u>0</u>	
5. _____	0	☐	_____	FACU species <u>0</u> x 4 = <u>0</u>	
6. _____	0	☐	_____	UPL species <u>0</u> x 5 = <u>0</u>	
7. _____	0	☐	_____	Column Totals: <u>0</u> (A) <u>0</u> (B)	
	0	= Total Cover		Prevalence Index = B/A = <u>0.000</u>	
Herb Stratum (Plot size: _____)					
1. _____	0	☐	_____	Hydrophytic Vegetation Indicators: ☐ Rapid Test for Hydrophytic Vegetation ☐ Dominance Test is > 50% ☐ Prevalence Index is ≤3.0 ¹ ☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ☐ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
2. _____	0	☐	_____		
3. _____	0	☐	_____		
4. _____	0	☐	_____		
5. _____	0	☐	_____		
6. _____	0	☐	_____		
7. _____	0	☐	_____		
8. _____	0	☐	_____		
9. _____	0	☐	_____		
10. _____	0	☐	_____		
11. _____	0	☐	_____		
12. _____	0	☐	_____		
	0	= Total Cover			
Woody Vine Stratum (Plot size: _____)					
1. _____	0	☐	_____	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 (1m) tall.. Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine - All woody vines greater than 3.28 ft in height.	
2. _____	0	☐	_____		
3. _____	0	☐	_____		
4. _____	0	☐	_____		
	0	= Total Cover			
Hydrophytic Vegetation Present? Yes ☐ No ☒					
Remarks: (Include photo numbers here or on a separate sheet.) poa sp 100, white clover 20					

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil

Sampling Point: upl-mdt4/21/2016-5

[illegible]

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Black River-Lorain 138kV Tline
City/County: Lorain
Sampling Date: 21-Apr-16
Applicant/Owner: FirstEnergy
State: OH
Sampling Point: w-mdt4/21/2016-6
Investigator(s): M.Thomayer, B.Otto
Section, Township, Range: S. T. 7N R. 17W
Landform (hillslope, terrace, etc.): Flat
Local relief (concave, convex, none): concave
Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA): MLRA 139 in LRR R
Lat.: 41.438355
Long.: -82.11181
Datum: NAD 83
Soil Map Unit Name: AmA
NWI classification: N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
Are Vegetation ☐ , **Soil** ☐ , **or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes ☒ No ☐
Are Vegetation ☐ , **Soil** ☐ , **or Hydrology** ☐ **naturally problematic?** (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	Is the Sampled Area within a Wetland? Yes ☒ No ☐
Remarks: (Explain alternative procedures here or in a separate report.) PEM wetland in mowed ROW	

Hydrology

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of 2 required)	
☒ Surface Water (A1) ☐ High Water Table (A2) ☒ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Sparsely Vegetated Concave Surface (B8)	☒ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ Marl Deposits (B15) ☐ Hydrogen Sulfide Odor (C1) ☒ Oxidized Rhizospheres along Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	☐ Surface Soil Cracks (B6) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☐ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☒ Microtopographic Relief (D4) ☒ FAC-neutral Test (D5)	
Field Observations: Surface Water Present? Yes ☒ No ☐ Depth (inches): 4 Water Table Present? Yes ☐ No ☒ Depth (inches): Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 0 Wetland Hydrology Present? Yes ☒ No ☐			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: saturated throughout with pockets of inundation			

VEGETATION - Use scientific names of plantsSampling Point: w-mdt4/21/2016-6

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	0	☐	_____	
2. _____	0	☐	_____	
3. _____	0	☐	_____	
4. _____	0	☐	_____	
5. _____	0	☐	_____	
6. _____	0	☐	_____	
7. _____	0	☐	_____	
0 = Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				
1. _____	0	☐	_____	
2. _____	0	☐	_____	
3. _____	0	☐	_____	
4. _____	0	☐	_____	
5. _____	0	☐	_____	
6. _____	0	☐	_____	
7. _____	0	☐	_____	
0 = Total Cover				
Herb Stratum (Plot size: _____)				
1. <i>Lysimachia nummularia</i>	80	☒	FACW	
2. <i>Eleocharis acicularis</i>	20	☒	OBL	
3. _____	0	☐	_____	
4. _____	0	☐	_____	
5. _____	0	☐	_____	
6. _____	0	☐	_____	
7. _____	0	☐	_____	
8. _____	0	☐	_____	
9. _____	0	☐	_____	
10. _____	0	☐	_____	
11. _____	0	☐	_____	
12. _____	0	☐	_____	
100 = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____	0	☐	_____	
2. _____	0	☐	_____	
3. _____	0	☐	_____	
4. _____	0	☐	_____	
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: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>20</u>	x 1 = <u>20</u>
FACW species <u>80</u>	x 2 = <u>160</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>180</u> (B)
Prevalence Index = B/A = <u>1.800</u>	

Hydrophytic Vegetation Indicators:

☒ **Rapid Test for Hydrophytic Vegetation**

☒ **Dominance Test is > 50%**

☒ **Prevalence Index is ≤3.0** ¹

☐ **Morphological Adaptations** ¹ (Provide supporting data in Remarks or on a separate sheet)

☐ **Problematic Hydrophytic Vegetation** ¹ (Explain)

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

Definitions of 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 (1m) tall..

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

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

Hydrophytic Vegetation Present? Yes ☒ No ☐

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil

Sampling Point: w-mdt4/21/2016-6

[illegible]

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Black River-Lorain 138kV Tline
City/County: Lorain
Sampling Date: 21-Apr-16
Applicant/Owner: FirstEnergy
State: OH
Sampling Point: upl-mdt4/21/2016-6
Investigator(s): M.Thomayer, B.Otto
Section, Township, Range: S. _____ T. 7N R. 17W
Landform (hillslope, terrace, etc.): Flat
Local relief (concave, convex, none): convex
Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA): MLRA 139 in LRR R
Lat.: 41.438467
Long.: -82.111834
Datum: NAD 83
Soil Map Unit Name: AmA
NWI classification: N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
Are Vegetation ☐ , **Soil** ☐ , **or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes ☒ No ☐
Are Vegetation ☐ , **Soil** ☐ , **or Hydrology** ☐ **naturally problematic?** (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc

Hydrophytic Vegetation Present? Yes ☐ No ☒ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	Is the Sampled Area within a Wetland? Yes ☐ No ☒
Remarks: (Explain alternative procedures here or in a separate report.) in ROW adjacent to wetland	

Hydrology

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of 2 required)	
☐ Surface Water (A1) ☐ High Water Table (A2) ☐ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Sparsely Vegetated Concave Surface (B8)	☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ Marl Deposits (B15) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	☐ Surface Soil Cracks (B6) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☐ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☐ FAC-neutral Test (D5)	
Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☐ No ☒ Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches): _____			
Wetland Hydrology Present? Yes ☐ No ☒			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

VEGETATION - Use scientific names of plantsSampling Point: upl-mdt4/21/2016-6

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____	0	☐	_____	Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)	
2. _____	0	☐	_____	Total Number of Dominant Species Across All Strata: <u>1</u> (B)	
3. _____	0	☐	_____	Percent of dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)	
4. _____	0	☐	_____		
5. _____	0	☐	_____		
6. _____	0	☐	_____		
7. _____	0	☐	_____		
				Prevalence Index worksheet:	
				Total % Cover of: _____ Multiply by: _____	
				OBL species <u>0</u> x 1 = <u>0</u>	
				FACW species <u>0</u> x 2 = <u>0</u>	
				FAC species <u>0</u> x 3 = <u>0</u>	
				FACU species <u>0</u> x 4 = <u>0</u>	
				UPL species <u>0</u> x 5 = <u>0</u>	
				Column Totals: <u>0</u> (A) <u>0</u> (B)	
				Prevalence Index = B/A = <u>0.000</u>	
				Hydrophytic Vegetation Indicators:	
				☐ Rapid Test for Hydrophytic Vegetation	
				☐ Dominance Test is > 50%	
				☐ Prevalence Index is ≤3.0 ¹	
				☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
				☐ Problematic Hydrophytic Vegetation ¹ (Explain)	
				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
				Definitions of 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 (1m) tall..	
				Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.	
				Woody vine - All woody vines greater than 3.28 ft in height.	
				Hydrophytic Vegetation Present? Yes ☐ No ☒	
Remarks: (Include photo numbers here or on a separate sheet.)					
poa sp 100, white clover 20					

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil

Sampling Point: upl-mdt4/21/2016-6

[illegible]

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Black River-Lorain 138kV Tline **City/County:** Lorain **Sampling Date:** 21-Apr-16
Applicant/Owner: FirstEnergy **State:** OH **Sampling Point:** w-mdt4/21/2016-7
Investigator(s): M.Thomayer, B.Otto **Section, Township, Range:** S. T. 7N R. 17W
Landform (hillslope, terrace, etc.): Flat **Local relief (concave, convex, none):** concave **Slope:** 0.0 % / 0.0 °
Subregion (LRR or MLRA): MLRA 139 in LRR R **Lat.:** 41.438456 **Long.:** -82.109719 **Datum:** NAD 83
Soil Map Unit Name: AmA **NWI classification:** N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
Are Vegetation ☐ , **Soil** ☐ , **or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes ☒ No ☐
Are Vegetation ☐ , **Soil** ☐ , **or Hydrology** ☐ **naturally problematic?** (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	Is the Sampled Area within a Wetland? Yes ☒ No ☐
Remarks: (Explain alternative procedures here or in a separate report.) PEM wetland in mowed ROW	

Hydrology

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of 2 required)	
☐ Surface Water (A1) ☐ High Water Table (A2) ☒ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☒ Sparsely Vegetated Concave Surface (B8)	☒ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ Marl Deposits (B15) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	☐ Surface Soil Cracks (B6) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☐ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☒ Microtopographic Relief (D4) ☒ FAC-neutral Test (D5)	
Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☐ No ☒ Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 3 Wetland Hydrology Present? Yes ☒ No ☐			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: saturated throughout			

Dominance Test worksheet:			
Number of Dominant Species That are OBL, FACW, or FAC: <u>1</u> (A)			
Total Number of Dominant Species Across All Strata: <u>1</u> (B)			
Percent of dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)			
Prevalence Index worksheet:			
Total % Cover of: Multiply by:			
OBL species	<u>0</u>	x 1 =	<u>0</u>
FACW species	<u>70</u>	x 2 =	<u>140</u>
FAC species	<u>0</u>	x 3 =	<u>0</u>
FACU species	<u>0</u>	x 4 =	<u>0</u>
UPL species	<u>0</u>	x 5 =	<u>0</u>
Column Totals:	<u>70</u>	(A)	<u>140</u> (B)
Prevalence Index = B/A = <u>2.000</u>			
Hydrophytic Vegetation Indicators:			
☒ Rapid Test for Hydrophytic Vegetation			
☒ Dominance Test is > 50%			
☒ Prevalence Index is ≤3.0 ¹			
☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)			
☐ Problematic Hydrophytic Vegetation ¹ (Explain)			
¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.			
Definitions of 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 (1m) tall..			
Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.			
Woody vine - All woody vines greater than 3.28 ft in height.			
Hydrophytic Vegetation Present? Yes ☒ No ☐			

Tree Stratum (Plot size: _____)			
	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	<u>0</u>	☐	_____
2. _____	<u>0</u>	☐	_____
3. _____	<u>0</u>	☐	_____
4. _____	<u>0</u>	☐	_____
5. _____	<u>0</u>	☐	_____
6. _____	<u>0</u>	☐	_____
7. _____	<u>0</u>	☐	_____
<u>0</u> = Total Cover			

Sapling/Shrub Stratum (Plot size: _____)			
	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	<u>0</u>	☐	_____
2. _____	<u>0</u>	☐	_____
3. _____	<u>0</u>	☐	_____
4. _____	<u>0</u>	☐	_____
5. _____	<u>0</u>	☐	_____
6. _____	<u>0</u>	☐	_____
7. _____	<u>0</u>	☐	_____
<u>0</u> = Total Cover			

Herb Stratum (Plot size: _____)			
	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	<u>0</u>	☐	_____
2. _____	<u>0</u>	☐	_____
3. <i>Cornus alba</i>	<u>70</u>	☒	FACW
4. _____	<u>0</u>	☐	_____
5. _____	<u>0</u>	☐	_____
6. _____	<u>0</u>	☐	_____
7. _____	<u>0</u>	☐	_____
8. _____	<u>0</u>	☐	_____
9. _____	<u>0</u>	☐	_____
10. _____	<u>0</u>	☐	_____
11. _____	<u>0</u>	☐	_____
12. _____	<u>0</u>	☐	_____
<u>70</u> = Total Cover			

Woody Vine Stratum (Plot size: _____)			
	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	<u>0</u>	☐	_____
2. _____	<u>0</u>	☐	_____
3. _____	<u>0</u>	☐	_____
4. _____	<u>0</u>	☐	_____
<u>0</u> = Total Cover			

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil

Sampling Point: w-mdt4/21/2016-7

[illegible]

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Black River-Lorain 138kV Tline
City/County: Lorain
Sampling Date: 21-Apr-16
Applicant/Owner: FirstEnergy
State: OH
Sampling Point: upl-mdt4/21/2016-4/7
Investigator(s): M.Thomayer, B.Otto
Section, Township, Range: S. T. 7N R. 17W
Landform (hillslope, terrace, etc.): Flat
Local relief (concave, convex, none): convex
Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA): MLRA 139 in LRR R
Lat.: 41.43848
Long.: -82.109803
Datum: NAD 83
Soil Map Unit Name: AmA
NWI classification: N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
Are Vegetation ☐ , **Soil** ☐ , **or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes ☒ No ☐
Are Vegetation ☐ , **Soil** ☐ , **or Hydrology** ☐ **naturally problematic?** (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc

Hydrophytic Vegetation Present? Yes ☐ No ☒ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	Is the Sampled Area within a Wetland? Yes ☐ No ☒
Remarks: (Explain alternative procedures here or in a separate report.) in ROW adjacent to wetland	

Hydrology

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) ☐ Surface Water (A1) ☐ High Water Table (A2) ☐ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Sparsely Vegetated Concave Surface (B8) ☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ Marl Deposits (B15) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)		Secondary Indicators (minimum of 2 required) ☐ Surface Soil Cracks (B6) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☐ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☐ FAC-neutral Test (D5)
Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☐ No ☒ Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches): _____		Wetland Hydrology Present? Yes ☐ No ☒
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

VEGETATION - Use scientific names of plantsSampling Point: upl-mdt4/21/2016-4/7

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____	0	☐	_____	Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)	
2. _____	0	☐	_____	Total Number of Dominant Species Across All Strata: <u>1</u> (B)	
3. _____	0	☐	_____	Percent of dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)	
4. _____	0	☐	_____		
5. _____	0	☐	_____		
6. _____	0	☐	_____		
7. _____	0	☐	_____		
0 = Total Cover				Prevalence Index worksheet:	
Sapling/Shrub Stratum (Plot size: _____)				Total % Cover of: _____ Multiply by: _____	
1. _____	0	☐	_____	OBL species <u>0</u> x 1 = <u>0</u>	
2. _____	0	☐	_____	FACW species <u>0</u> x 2 = <u>0</u>	
3. _____	0	☐	_____	FAC species <u>0</u> x 3 = <u>0</u>	
4. _____	0	☐	_____	FACU species <u>0</u> x 4 = <u>0</u>	
5. _____	0	☐	_____	UPL species <u>0</u> x 5 = <u>0</u>	
6. _____	0	☐	_____	Column Totals: <u>0</u> (A) <u>0</u> (B)	
7. _____	0	☐	_____	Prevalence Index = B/A = <u>0.000</u>	
0 = Total Cover					
Herb Stratum (Plot size: _____)				Hydrophytic Vegetation Indicators:	
1. _____	0	☐	_____	☐ Rapid Test for Hydrophytic Vegetation	
2. _____	0	☐	_____	☐ Dominance Test is > 50%	
3. _____	0	☐	_____	☐ Prevalence Index is ≤3.0 ¹	
4. _____	0	☐	_____	☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
5. _____	0	☐	_____	☐ Problematic Hydrophytic Vegetation ¹ (Explain)	
6. _____	0	☐	_____	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
7. _____	0	☐	_____	Definitions of Vegetation Strata:	
8. _____	0	☐	_____	Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.	
9. _____	0	☐	_____	Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall..	
10. _____	0	☐	_____	Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.	
11. _____	0	☐	_____	Woody vine - All woody vines greater than 3.28 ft in height.	
12. _____	0	☐	_____		
0 = Total Cover					
Woody Vine Stratum (Plot size: _____)					
1. _____	0	☐	_____		
2. _____	0	☐	_____		
3. _____	0	☐	_____		
4. _____	0	☐	_____		
0 = Total Cover					
				Hydrophytic Vegetation Present? Yes ☐ No ☒	

Remarks: (Include photo numbers here or on a separate sheet.)
 poa sp 60, white clover 30, dandelion 10

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil

Sampling Point: upl-mdt4/21/2016-4/7

[illegible]

This foregoing document was electronically filed with the Public Utilities

Commission of Ohio Docketing Information System on

7/11/2016 1:22:19 PM

in

Case No(s). 16-1180-EL-BLN

Summary: Letter of Notification Application for a Certificate of Environmental Compatibility and Public Need (Part 4 of 6) electronically filed by Mr. Robert J Schmidt on behalf of American Transmission Systems Inc.