

12-6-A (1-7)
 B (1-7)
 C (1-7)

**TETLP - OPEN PROJECT
 WETLAND SUMMARY**

OPEN Facility: 30" 36" MP: 2249+00 Compressor Station
 Observers: Rick Paggett / Mikelychwala Date: 07/18/2012
 Town: Smithfield County: Jefferson
 Crossing Type(s) Wetland Waterbody Crossing Name: C12-6 (A:1-7) (B:1-7) (C:1-7)

NWI Class outside existing utility corridor: NWI Class inside existing utility corridor: PEM Other NWI Classes: _____

Representative Wetland Vegetation (by NWI Class):

- PEM
- Water plantain (*Alisma* sp.)
 - Polygonum hydropiper*
 - Asclepias incarnata*
 - Scirpus cyperinus*
 - Carex vulpinoidea*
 - Lycopus virginicus*
 - Eleocharis*
 - Eriocaulon septangulare*
 - Carex flacca*

Invasive Plants: *Lythrum s.* _____ % *Phragmites a.* _____ % *Phalaris a.* _____ % *Ranunculus f.* _____ % *Rhamnus f.* _____ % None
 Invasive Aquatics: *Myriophyllum s.* _____ % *Najas m.* _____ % *Potamogeton c.* _____ % *Typha a.f.* _____ % None

Representative Wetland Hydrology

___ Permanently Flooded (Depth _____) Seasonally Flooded (Depth 8" ^{dry @ time of survey but showed evidence of seasonal flooding}) ___ Saturated (Depth to _____)

Other Indicators: ___ Silt Deposition ___ Water-Staining Water Marks ^{historic} ___ Drift Lines ___ Surface Scouring
 Drainage Patterns ___ Buttressed Trees ___ Elevated Roots ___ Oxidized Roots

HGM Class:

___ Riverine Depressional ___ Slope ___ Mineral Soil Flat ___ Organic Soil Flat ___ Estuarine Fringe ___ Lacustrine Fringe

Subclass and description:

Representative Wetland Soils:

Mineral
 ___ Organic (Histic or Histosol)

| Depth | Horizon | Color | Redox Features | Texture |
|----------|----------------|-----------|----------------|---------|
| 0-10" | B ₁ | 2.5Y/10/1 | 7.5" IR 5/4 | SLoam |
| 10"-15"+ | B ₂ | 5Y/6/1 | 10Y 7/1 | FSLoam |
| | B _c | R3/4 | | FL |

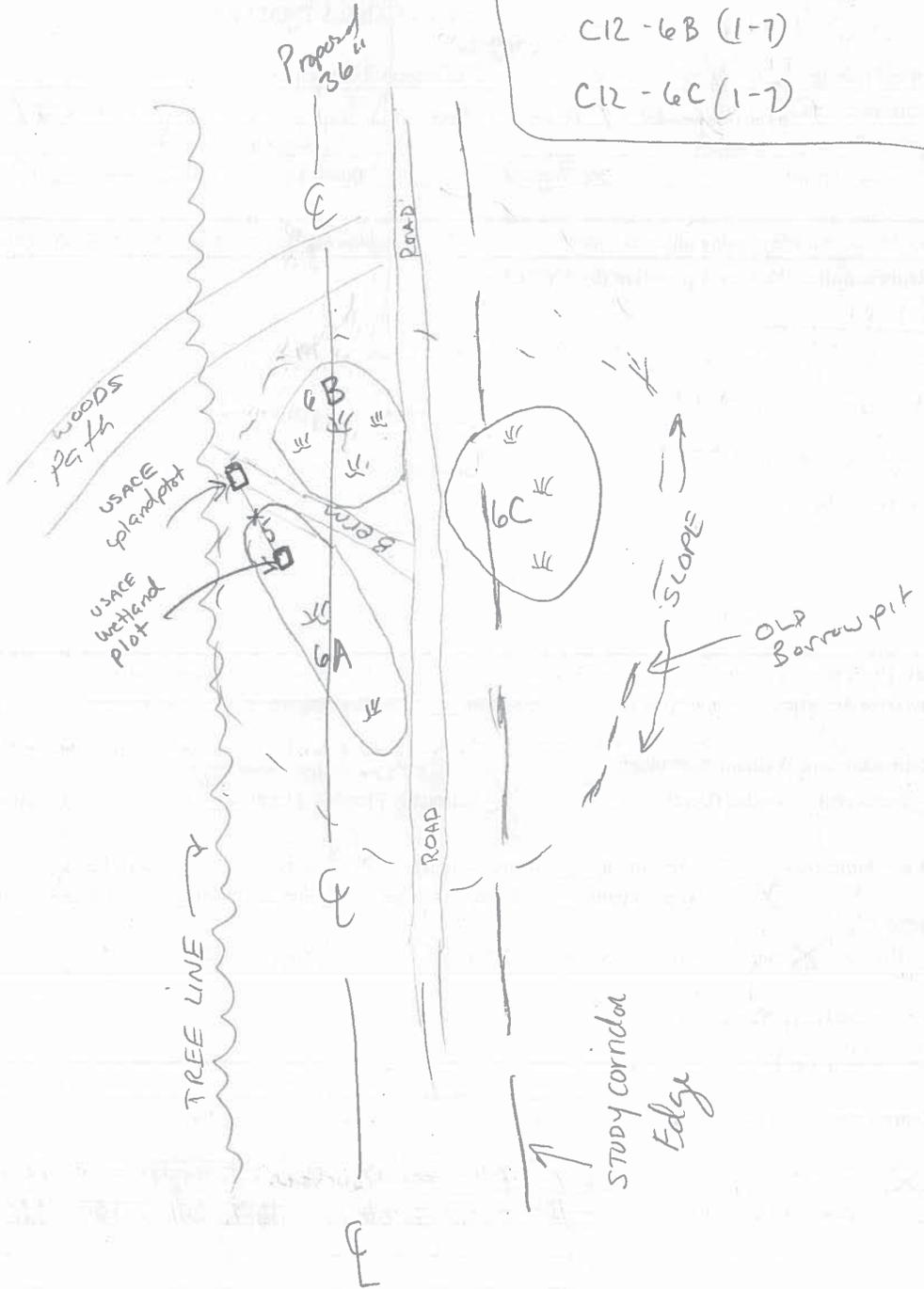
General Wetland Description

- 3 isolated but adjacent wetlands within an old borrow pit.
- They are separated by fill road and fill berm.
- Evidence of standing water during year sufficient to allow aquatic plants to grow.

Wetland Complex
C12-6A (1-7)
C12-6B (1-7)
C12-6C (1-7)



STUDY CORRIDOR PLATE



Wildlife Observations/Sign (e.g., tracks/trails, dams, dens, nests,):

Sketch Checklist:

Wetland ID# = C12-6

North arrow.

Detailed sketch of wetland boundary and flagging sequence.

Natural and man-made features – roads, culverts, outcrops, structures, etc.

Photo locations.

Location of important wildlife sign.

Field Office Map Review: Initials _____ Date _____

2249 +00

C12-6A-5

Wetland plot

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: OPEN City/County: Smithfield/Jefferson Sampling Date: 7/18/2012
 Applicant/Owner: TETLP State: GA Sampling Point: C12-6A-5
 Investigator(s): Rick Paquette / Mike Lychwa Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): manmade depression Local relief (concave, convex, none): concave Slope (%): 0
 Subregion (LRR or MLRA): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: _____ NWI classification: PEM

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

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

| | |
|---|--|
| Hydrophytic Vegetation Present? <u>Yes</u> _____ No _____ | Is the Sampled Area within a Wetland? <u>Yes</u> <u>X</u> No _____ |
| Hydric Soil Present? <u>Yes</u> _____ No _____ | |
| Wetland Hydrology Present? <u>Yes</u> _____ No _____ | |
| Remarks: | |

HYDROLOGY

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

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: C-12-6A-5

| Tree Stratum (Plot size: <u>30'</u>) | Absolute % Cover | Dominant Species? | Indicator Status |
|--|------------------|-------------------|------------------|
| 1. <u>Ulmus americana</u> | <u>15</u> | <u>X</u> | <u>FACW</u> |
| 2. _____ | _____ | _____ | _____ |
| 3. _____ | _____ | _____ | _____ |
| 4. _____ | _____ | _____ | _____ |
| 5. _____ | _____ | _____ | _____ |
| 6. _____ | _____ | _____ | _____ |
| 7. _____ | _____ | _____ | _____ |
| 8. _____ | _____ | _____ | _____ |
| <u>15</u> = Total Cover | | | |
| Sapling/Shrub Stratum (Plot size: <u>15'</u>) | Absolute % Cover | Dominant Species? | Indicator Status |
| 1. <u>Green Ash (Fraxinus pennsylvanica)</u> | <u>15%</u> | <u>X</u> | <u>FACW</u> |
| 2. <u>Common raspberry (Rubus idaeus)</u> | <u>20'</u> | <u>S</u> | <u>FAC</u> |
| 3. <u>Black raspberry (Rubus occidentalis)</u> | <u>15'</u> | <u>X</u> | <u>FPL</u> |
| 4. _____ | _____ | _____ | _____ |
| 5. _____ | _____ | _____ | _____ |
| 6. _____ | _____ | _____ | _____ |
| 7. _____ | _____ | _____ | _____ |
| 8. _____ | _____ | _____ | _____ |
| 9. _____ | _____ | _____ | _____ |
| 10. _____ | _____ | _____ | _____ |
| <u>50</u> = Total Cover | | | |
| Herb Stratum (Plot size: <u>5'</u>) | Absolute % Cover | Dominant Species? | Indicator Status |
| 1. <u>Carex vulpinoidea</u> | <u>65</u> | <u>X</u> | <u>OBL</u> |
| 2. <u>Carex lupulina</u> | <u>70</u> | <u>X</u> | <u>OBL</u> |
| 3. <u>Lycopodium virginicum</u> | <u>25</u> | _____ | <u>OBL</u> |
| 4. <u>Curly dock (Rumex crispus)</u> | <u>11</u> | _____ | <u>FAC</u> |
| 5. <u>Wingstem (Verbesia alternifolia)</u> | <u>10</u> | _____ | <u>FAC</u> |
| 6. <u>Impatiens pallida</u> | <u>5</u> | _____ | <u>FACW</u> |
| 7. _____ | _____ | _____ | _____ |
| 8. _____ | _____ | _____ | _____ |
| 9. _____ | _____ | _____ | _____ |
| 10. _____ | _____ | _____ | _____ |
| 11. _____ | _____ | _____ | _____ |
| 12. _____ | _____ | _____ | _____ |
| <u>176</u> = Total Cover | | | |
| Woody Vine Stratum (Plot size: <u>—</u>) | Absolute % Cover | Dominant Species? | Indicator Status |
| 1. _____ | _____ | _____ | _____ |
| 2. _____ | _____ | _____ | _____ |
| 3. _____ | _____ | _____ | _____ |
| 4. _____ | _____ | _____ | _____ |
| 5. _____ | _____ | _____ | _____ |
| 6. _____ | _____ | _____ | _____ |
| <u>0</u> = Total Cover | | | |

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 83.33 (A/B)

Prevalence Index worksheet:

Total % Cover of: _____ Multiply by:

OBL species _____ x 1 = _____

FACW species _____ x 2 = _____

FAC species _____ x 3 = _____

FACU species _____ x 4 = _____

UPL species _____ x 5 = _____

Column Totals: _____ (A) _____ (B)

Prevalence Index = B/A = _____

- Hydrophytic Vegetation Indicators:**
- 1 - Rapid Test for Hydrophytic Vegetation
 - 2 - Dominance Test is >50%
 - 3 - Prevalence Index is ≤3.0¹
 - 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 - Problematic Hydrophytic Vegetation¹ (Explain)
- ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

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

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

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

Woody 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.)

2249 +00

C12-6A-5
upland
plot

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: OPEN City/County: Smithfield / Jefferson Sampling Date: 7/18/2012
Applicant/Owner: TETLP State: OH Sampling Point: C12-6A-5
Investigator(s): Rick Pagett / Mike Lynch Section, Township, Range: Smithfield upland
Landform (hillslope, terrace, etc.): hill Local relief (concave, convex, none): convex Slope (%): 0-3
Subregion (LRR or MLRA): _____ Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: _____ NWI classification: _____

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? NO Are "Normal Circumstances" present? Yes No _____
Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? NO (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 <input checked="" type="checkbox"/> | Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/> |
| Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> | |
| Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/> | |
| Remarks: <u>Upland</u> | |

HYDROLOGY

| | | |
|---|---|--|
| Wetland Hydrology Indicators: <u>NONE</u> | | Secondary Indicators (minimum of two required) |
| Primary Indicators (minimum of one is required; check all that apply) | | |
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> True Aquatic Plants (B14) | <input type="checkbox"/> Surface Soil Cracks (B6) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) | <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) | <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Water Marks (B1) | <input type="checkbox"/> Presence of Reduced Iron (C4) | <input type="checkbox"/> Moss Trim Lines (B16) |
| <input type="checkbox"/> Sediment Deposits (B2) | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) | <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Drift Deposits (B3) | <input type="checkbox"/> Thin Muck Surface (C7) | <input type="checkbox"/> Crayfish Burrows (C8) |
| <input type="checkbox"/> Algal Mat or Crust (B4) | <input type="checkbox"/> Other (Explain in Remarks) | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Iron Deposits (B5) | | <input type="checkbox"/> Stunted or Stressed Plants (D1) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | | <input type="checkbox"/> Geomorphic Position (D2) |
| <input type="checkbox"/> Water-Stained Leaves (B9) | | <input type="checkbox"/> Shallow Aquitard (D3) |
| <input type="checkbox"/> Aquatic Fauna (B13) | | <input type="checkbox"/> Microtopographic Relief (D4) |
| | | <input type="checkbox"/> FAC-Neutral Test (D5) |

| | |
|---|---|
| Field Observations: | |
| Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ | Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/> |
| Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ | |
| Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ | |

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

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: 75

| Tree Stratum (Plot size: <u>30'</u>) | Absolute % Cover | Dominant Species? | Indicator Status | |
|---|------------------|-------------------|------------------|--|
| 1. <u>Black Locust (Robinia pseudoacacia)</u> | <u>35</u> | <u>X</u> | <u>FACW</u> | 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>6</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>16</u> (A/B) |
| 2. <u>Carya ovata</u> | <u>25</u> | <u>X</u> | <u>FACW</u> | |
| 3. <u>Ulmus americana</u> | <u>10</u> | | <u>FACW</u> | |
| 4. <u>Prunus serotina</u> | | | | |
| 5. _____ | | | | |
| 6. _____ | | | | |
| 7. _____ | | | | |
| 8. _____ | | | | |
| <u>70</u> = Total Cover | | | | Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____ |
| Sapling/Shrub Stratum (Plot size: <u>15'</u>) | | | | |
| 1. <u>Black raspberry (Rubus allegheniensis)</u> | <u>20</u> | <u>X</u> | <u>FACW</u> | |
| 2. <u>Rosa multiflora</u> | <u>30</u> | <u>X</u> | <u>FACW</u> | |
| 3. <u>Common raspberry (Rubus idaeus)</u> | <u>10</u> | | <u>FAC</u> | |
| 4. _____ | | | | |
| 5. _____ | | | | |
| 6. _____ | | | | |
| 7. _____ | | | | |
| 8. _____ | | | | |
| <u>60</u> = Total Cover | | | | |
| Herb Stratum (Plot size: <u>5'</u>) | | | | |
| 1. <u>Wingstem (Verbesina alternifolia)</u> | <u>40</u> | <u>X</u> | <u>FAC</u> | |
| 2. <u>Tall bellflower (Campanulastrum americanum)</u> | <u>10</u> | | <u>FACW</u> | |
| 3. <u>Common dewberry (Rubus hispidus)</u> | <u>5</u> | | <u>FACW</u> | |
| 4. _____ | | | | |
| 5. _____ | | | | |
| 6. _____ | | | | |
| 7. _____ | | | | |
| 8. _____ | | | | |
| 9. _____ | | | | |
| 10. _____ | | | | |
| 11. _____ | | | | |
| 12. _____ | | | | |
| <u>55</u> = Total Cover | | | | |
| Woody Vine Stratum (Plot size: <u>30'</u>) | | | | |
| 1. <u>Summer grape (Vitis aestivalis)</u> | <u>5</u> | <u>X</u> | <u>FACW</u> | |
| 2. _____ | | | | |
| 3. _____ | | | | |
| 4. _____ | | | | |
| 5. _____ | | | | |
| 6. _____ | | | | |
| _____ = Total Cover | | | | |
| Remarks: (Include photo numbers here or on a separate sheet.) | | | | Hydrophytic Vegetation Present? Yes _____ (No) <u>X</u> |
| | | | | Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. |

| | | |
|--------------------|--|--|
| Version 5.0 | Ohio Rapid Assessment Method for Wetlands 10 Page Form for Wetland Categorization | |
| | Background Information Scoring Boundary Worksheet Narrative Rating Field Form Quantitative Rating ORAM Summary Worksheet Wetland Categorization Worksheet | Ohio EPA, Division of Surface Water Final: February 1, 2001 |

Instructions

The investigator is *STRONGLY URGED* to read the Manual for Using the Ohio Rapid Assessment Method for Wetlands for further elaboration and discussion of the questions below prior to using the rating forms.

The Narrative Rating is designed to categorize a wetland or to provide alerts to the Rater based on the presence or possible presence of threatened or endangered species. The presence or proximity of such species is often an indicator of the quality and lack of disturbance of the wetland being evaluated. In addition, it is designed to categorize certain wetlands as very low quality (Category 1) or very high quality (Category 3) regardless of the wetland's score on the Quantitative Rating. In addition, the Narrative Rating also alerts the investigator that a particular wetland *may* be a Category 3 wetland, again, regardless of the wetland's score on the Quantitative Rating.

It is *VERY IMPORTANT* to properly and thoroughly answer each of the questions in the ORAM in order to properly categorize a wetland. To *properly* answer all the questions, the boundaries of the wetland being assessed must be correctly identified. Refer to Scoring Boundary worksheet and the User's Manual for a discussion of how to determine the "scoring boundaries." In some instances, the scoring boundaries may differ from the "jurisdictional boundaries."

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories. The most recent version of this document is posted on Ohio EPA's Division of Surface Water web page at: <http://www.epa.ohio.gov/dsw/wetlands/WetlandEcologySection.aspx>

Background Information

| | | | |
|--|--------------------------------------|--|--|
| Name: | Katie Caron | | |
| Date: | 12/17/13 | | |
| Affiliation: | TRC | | |
| Address: | 6 Ashley Drive, Scarborough ME 04074 | | |
| Phone Number: | 207 314 5303 | | |
| e-mail address: | kcaron@trcsolutions.com | | |
| Name of Wetland: | C12-6 | | |
| Vegetation Communit(ies): | PEM | | |
| HGM Class(es): | depressional | | |
| Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc. | see attached map | | |
| | | | |
| Lat/Long or UTM Coordinate | -80.82713 40.2062 | | |
| USGS Quad Name | Dillonvale | | |
| County | JEFFERSON | | |
| Township | SMITHFIELD | | |
| Section and Subsection | OH35T0080N0030W019 | | |
| Hydrologic Unit Code | 50301060205 | | |
| Site Visit | 7/18/13 | | |
| National Wetland Inventory Map | | | |
| Ohio Wetland Inventory Map | | | |
| Soil Survey | | | |
| Delineation report/map | | | |

| | |
|---|-------------|
| Name of Wetland: C12-6 | |
| Wetland Size (acres, hectares): | 0.01 |
| <p>Sketch: Include north arrow, relationship with other surface waters, vegetation zones, etc. see attached map and sketch</p> | |
| <p>Comments, Narrative Discussion, Justification of Category Changes:</p> <p>Three closed depressional PEM wetland in very close proximity to each other. Wetlands are separated by fill road and berm. Vegetation within the wetlands are dominated by <i>Carex lupulina</i>, <i>Carex vulpinoides</i>, <i>Rubus ideaus</i>, <i>Rubus occidentalis</i>, <i>Ulmus americana</i> and <i>Fraxinus pensylvanica</i>. Soils within the wetlands are depleted and there is saturation to the surface. A total of 0.06 acres of wetland were surveyed and 0.01 acres of wetland will be impacted.</p> | |
| Final score : 29 | Category: 1 |

Scoring Boundary Worksheet

INSTRUCTIONS. The initial step in completing the ORAM is to identify the “scoring boundaries” of the wetland being rated. In many instances this determination will be relatively easy and the scoring boundaries will coincide with the “jurisdictional boundaries.” For example, the scoring boundary of an isolated cattail marsh located in the middle of a farm field will likely be the same as that wetland’s jurisdictional boundaries. In other instances, however, the scoring boundary will not be as easily determined. Wetlands that are small or isolated from other surface waters often form large contiguous areas or heterogeneous complexes of wetland and upland. In separating wetlands for scoring purposes, the hydrologic regime of the wetland is the main criterion that should be used. Boundaries between contiguous or connected wetlands should be established where the volume, flow, or velocity of water moving through the wetland changes significantly. *Areas with a high degree of hydrologic interaction should be scored as a single wetland.* In determining a wetland’s scoring boundaries, use the guidelines in the ORAM Manual Section 5.0. In certain instances, it may be difficult to establish the scoring boundary for the wetland being rated. These problem situations include wetlands that form a patchwork on the landscape, wetlands divided by artificial boundaries like property fences, roads, or railroad embankments, wetlands that are contiguous with streams, lakes, or rivers, and estuarine or coastal wetlands. These situations are discussed below, however, it is recommended that Rater contact Ohio EPA, Division of Surface Water, 401/Wetlands Section if there are additional questions or a need for further clarification of the appropriate scoring boundaries of a particular wetland.

| # | Steps in properly establishing scoring boundaries | done? | not applicable |
|---------------|---|-------|----------------|
| Step 1 | Identify the wetland area of interest. This may be the site of a proposed impact, a reference site, conservation site, etc. | Y | |
| Step 2 | Identify the locations where there is physical evidence that hydrology changes rapidly. Such evidence includes both natural and human-induced changes including, constrictions caused by berms or dikes, points where the water velocity changes rapidly at rapids or falls, points where significant inflows occur at the confluence of rivers, or other factors that may restrict hydrologic interaction between the wetlands or parts of a single wetland. | Y | |
| Step 3 | Delineate the boundary of the wetland to be rated such that all areas of interest that are contiguous to and within the areas where the hydrology does not change significantly, i.e. areas that have a high degree of hydrologic interaction are included within the scoring boundary. | Y | |
| Step 4 | Determine if artificial boundaries, such as property lines, state lines, roads, railroad embankments, etc., are present. These should not be used to establish scoring boundaries unless they coincide with areas where the hydrologic regime changes. | Y | X |
| Step 5 | In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately. | Y | X |
| Step 6 | Consult ORAM Manual Section 5.0 for how to establish scoring boundaries for wetlands that form a patchwork on the landscape, divided by artificial boundaries, contiguous to streams, lakes or rivers, or for dual classifications. | Y | X |

End of Scoring Boundary Determination. Begin Narrative Rating on next page.

Narrative Rating

INSTRUCTIONS. Answer each of the following questions. Questions 1, 2, 3 and 4 should be answered based on information obtained from the site visit or the literature *and* by submitting a Data Services Request to the Ohio Department of Natural Resources, Division of Natural Areas and Preserves, Natural Heritage Data Services, 1889 Fountain Square Court, Building F-1, Columbus, Ohio 43224, 614-265-6453 (phone), 614-265-3096 (fax), <http://www.dnr.state.oh.us/dnap>. The remaining questions are designed to be answered primarily by the results of the site visit. Refer to the User's Manual for descriptions of these wetland types. Note: "Critical habitat" is legally defined in the Endangered Species Act and is the geographic area containing physical or biological features essential to the conservation of a listed species or as an area that may require special management considerations or protection. The Rater should contact the Region 3 Headquarters or the Columbus Ecological Services Office for updates as to whether critical habitat has been designated for other federally listed threatened or endangered species. "Documented" means the wetland is listed in the appropriate State of Ohio database.

| # | Question | Circle one | |
|----|---|---|--|
| 1 | Critical Habitat. Is the wetland in a township, section, or subsection of a United States Geological Survey 7.5 minute Quadrangle that has been designated by the U.S. Fish and Wildlife Service as "critical habitat" for any threatened or endangered plant or animal species? Note: as of January 1, 2001, of the federally listed endangered or threatened species which can be found in Ohio, the Indiana Bat has had critical habitat designated (50 CFR 17.95(a)) and the piping plover has had critical habitat proposed (65 FR 41812 July 6, 2000). | YES Wetland should be evaluated for possible Category 3 status Go to Question 2 | <input checked="" type="radio"/> NO Go to Question 2 |
| 2 | Threatened or Endangered Species. Is the wetland known to contain an individual of, or documented occurrences of federal or state-listed threatened or endangered plant or animal species? | YES Wetland is a Category 3 wetland. Go to Question 3 | <input checked="" type="radio"/> NO Go to Question 3 |
| 3 | Documented High Quality Wetland. Is the wetland on record in Natural Heritage Database as a high quality wetland? | YES Wetland is a Category 3 wetland Go to Question 4 | <input checked="" type="radio"/> NO Go to Question 4 |
| 4 | Significant Breeding or Concentration Area. Does the wetland contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas? | YES Wetland is a Category 3 wetland Go to Question 5 | <input checked="" type="radio"/> NO Go to Question 5 |
| 5 | Category 1 Wetlands. Is the wetland less than 0.5 hectares (1 acre) in size and hydrologically isolated and either 1) comprised of vegetation that is dominated (greater than eighty per cent areal cover) by <i>Phalaris arundinacea</i> , <i>Lythrum salicaria</i> , or <i>Phragmites australis</i> , or 2) an acidic pond created or excavated on mined lands that has little or no vegetation? | YES Wetland is a Category 1 wetland Go to Question 6 | <input checked="" type="radio"/> NO Go to Question 6 |
| 6 | Bogs. Is the wetland a peat-accumulating wetland that 1) has no significant inflows or outflows, 2) supports acidophilic mosses, particularly <i>Sphagnum</i> spp., 3) the acidophilic mosses have >30% cover, 4) at least one species from Table 1 is present, and 5) the cover of invasive species (see Table 1) is <25%? | YES Wetland is a Category 3 wetland Go to Question 7 | <input checked="" type="radio"/> NO Go to Question 7 |
| 7 | Fens. Is the wetland a carbon accumulating (peat, muck) wetland that is saturated during most of the year, primarily by a discharge of free flowing, mineral rich, ground water with a circumneutral ph (5.5-9.0) and with one or more plant species listed in Table 1 and the cover of invasive species listed in Table 1 is <25%? | YES Wetland is a Category 3 wetland Go to Question 8a | <input checked="" type="radio"/> NO Go to Question 8a |
| 8a | "Old Growth Forest." Is the wetland a forested wetland and is the forest characterized by, but not limited to, the following characteristics: overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); little or no evidence of human-caused understory disturbance during the past 80 to 100 years; an all-aged structure and multilayered canopies; aggregations of canopy trees interspersed with canopy gaps; and significant numbers of standing dead snags and downed logs? | YES Wetland is a Category 3 wetland. Go to Question 8b | <input checked="" type="radio"/> NO Go to Question 8b |

| | | | |
|-----------|---|---|---|
| 8b | Mature forested wetlands. Is the wetland a forested wetland with 50% or more of the cover of upper forest canopy consisting of deciduous trees with large diameters at breast height (dbh), generally diameters greater than 45cm (17.7in) dbh? | YES Wetland should be evaluated for possible Category 3 status. Go to Question 9a | NO Go to Question 9a |
| 9a | Lake Erie coastal and tributary wetlands. Is the wetland located at an elevation less than 575 feet on the USGS map, adjacent to this elevation, or along a tributary to Lake Erie that is accessible to fish? | YES Go to Question 9b | NO Go to Question 10 |
| 9b | Does the wetland's hydrology result from measures designed to prevent erosion and the loss of aquatic plants, i.e. the wetland is partially hydrologically restricted from Lake Erie due to lakeward or landward dikes or other hydrological controls? | YES Wetland should be evaluated for possible Category 3 status Go to Question 10 | NO Go to Question 9c |
| 9c | Are Lake Erie water levels the wetland's primary hydrological influence, i.e. the wetland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These include sandbar deposition wetlands, estuarine wetlands, river mouth wetlands, or those dominated by submersed aquatic vegetation. | YES Go to Question 9d | NO Go to Question 10 |
| 9d | Does the wetland have a predominance of native species within its vegetation communities, although non-native or disturbance tolerant native species can also be present? | YES Wetland is a Category 3 wetland Go to Question 10 | NO Go to Question 9e |
| 9e | Does the wetland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities? | YES Wetland should be evaluated for possible Category 3 status Go to Question 10 | NO Go to Question 10 |
| 10 | Lake Plain Sand Prairies (Oak Openings) Is the wetland located in Lucas, Fulton, Henry, or Wood Counties and can the wetland be characterized by the following description: the wetland has a sandy substrate with interspersed organic matter, a water table often within several inches of the surface, and often with a dominance of the gramineous vegetation listed in Table 1 (woody species may also be present). The Ohio Department of Natural Resources Division of Natural Areas and Preserves can provide assistance in confirming this type of wetland and its quality. | YES Wetland is a Category 3 wetland. Go to Question 11 | NO Go to Question 11 |
| 11 | Relict Wet Prairies. Is the wetland a relict wet prairie community dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marion Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties), and portions of western Ohio Counties (e.g. Darke, Mercer, Miami, Montgomery, Van Wert etc.). | YES Wetland should be evaluated for possible Category 3 status Complete Quantitative Rating | NO Complete Quantitative Rating |

Table 1. Characteristic plant species.

| invasive/exotic spp | fen species | bog species | Oak Opening species | wet prairie species |
|------------------------------|---------------------------------------|--|---------------------------------|----------------------------------|
| <i>Lythrum salicaria</i> | <i>Zygadenus elegans var. glaucus</i> | <i>Calla palustris</i> | <i>Carex cryptolepis</i> | <i>Calamagrostis canadensis</i> |
| <i>Myriophyllum spicatum</i> | <i>Cacalia plantaginea</i> | <i>Carex atlantica var. capillacea</i> | <i>Carex lasiocarpa</i> | <i>Calamagrostis stricta</i> |
| <i>Najas minor</i> | <i>Carex flava</i> | <i>Carex echinata</i> | <i>Carex stricta</i> | <i>Carex atherodes</i> |
| <i>Phalaris arundinacea</i> | <i>Carex sterilis</i> | <i>Carex oligosperma</i> | <i>Cladium mariscoides</i> | <i>Carex buxbaumii</i> |
| <i>Phragmites australis</i> | <i>Carex stricta</i> | <i>Carex trisperma</i> | <i>Calamagrostis stricta</i> | <i>Carex pellita</i> |
| <i>Potamogeton crispus</i> | <i>Deschampsia caespitosa</i> | <i>Chamaedaphne calyculata</i> | <i>Calamagrostis canadensis</i> | <i>Carex sartwellii</i> |
| <i>Ranunculus ficaria</i> | <i>Eleocharis rostellata</i> | <i>Decodon verticillatus</i> | <i>Quercus palustris</i> | <i>Gentiana andrewsii</i> |
| <i>Rhamnus frangula</i> | <i>Eriophorum viridicarinarum</i> | <i>Eriophorum virginicum</i> | | <i>Helianthus grosseserratus</i> |
| <i>Typha angustifolia</i> | <i>Gentianopsis spp.</i> | <i>Larix laricina</i> | | <i>Liatris spicata</i> |
| <i>Typha xglauca</i> | <i>Lobelia kalmii</i> | <i>Nemopanthus mucronatus</i> | | <i>Lysimachia quadriflora</i> |
| | <i>Parnassia glauca</i> | <i>Scheuchzeria palustris</i> | | <i>Lythrum alatum</i> |
| | <i>Potentilla fruticosa</i> | <i>Sphagnum spp.</i> | | <i>Pycnanthemum virginianum</i> |
| | <i>Rhamnus alnifolia</i> | <i>Vaccinium macrocarpon</i> | | <i>Silphium terebinthinaceum</i> |
| | <i>Rhynchospora capillacea</i> | <i>Vaccinium corymbosum</i> | | <i>Sorghastrum nutans</i> |
| | <i>Salix candida</i> | <i>Vaccinium oxycoccos</i> | | <i>Spartina pectinata</i> |
| | <i>Salix myricoides</i> | <i>Woodwardia virginica</i> | | <i>Solidago riddellii</i> |
| | <i>Salix serissima</i> | <i>Xyris difformis</i> | | |
| | <i>Solidago ohioensis</i> | | | |
| | <i>Tofieldia glutinosa</i> | | | |
| | <i>Triglochin maritimum</i> | | | |
| | <i>Triglochin palustre</i> | | | |

End of Narrative Rating. Begin Quantitative Rating on next page.

Site: C12-6

Rater(s): Rick Paquette, Mike Lychwala

Date: 7/18/13

| | |
|------------|----------|
| 0 | 0 |
| max 6 pts. | subtotal |

Metric 1. Wetland Area (size).

Select one size class and assign score.

- >50 acres (>20.2ha) (6 pts)
- 25 to <50 acres (10.1 to <20.2ha) (5 pts)
- 10 to <25 acres (4 to <10.1ha) (4 pts)
- 3 to <10 acres (1.2 to <4ha) (3 pts)
- 0.3 to <3 acres (0.12 to <1.2ha) (2pts)
- 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
- <0.1 acres (0.04ha) (0 pts)

| | |
|-------------|----------|
| 8 | 8 |
| max 14 pts. | subtotal |

Metric 2. Upland buffers and surrounding land use.

2a. Calculate average buffer width. Select only one and assign score. Do not double check.

- WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)
- MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)
- NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)
- VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. Intensity of surrounding land use. Select one or double check and average.

- VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)
- LOW. Old field (>10 years), shrub land, young second growth forest. (5)
- MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)
- HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)

| | |
|-------------|----------|
| 6 | 14 |
| max 30 pts. | subtotal |

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply.

- High pH groundwater (5)
- Other groundwater (3)
- Precipitation (1)
- Seasonal/Intermittent surface water (3)
- Perennial surface water (lake or stream) (5)

3c. Maximum water depth. Select only one and assign score.

- >0.7 (27.6in) (3)
- 0.4 to 0.7m (15.7 to 27.6in) (2)
- <0.4m (<15.7in) (1)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

- None or none apparent (12)
- Recovered (7)
- Recovering (3)
- Recent or no recovery (1)

3b. Connectivity. Score all that apply.

- 100 year floodplain (1)
- Between stream/lake and other human use (1)
- Part of wetland/upland (e.g. forest), complex (1)
- Part of riparian or upland corridor (1)

3d. Duration inundation/saturation. Score one or dbl check.

- Semi- to permanently inundated/saturated (4)
- Regularly inundated/saturated (3)
- Seasonally inundated (2)
- Seasonally saturated in upper 30cm (12in) (1)

| Check all disturbances observed | |
|---|---|
| <input type="checkbox"/> ditch | <input type="checkbox"/> point source (nonstormwater) |
| <input type="checkbox"/> tile | <input checked="" type="checkbox"/> filling/grading |
| <input type="checkbox"/> dike | <input type="checkbox"/> road bed/RR track |
| <input type="checkbox"/> weir | <input checked="" type="checkbox"/> dredging |
| <input type="checkbox"/> stormwater input | <input checked="" type="checkbox"/> other <u>historic coal mining</u> |

| | |
|-------------|----------|
| 9 | 23 |
| max 20 pts. | subtotal |

Metric 4. Habitat Alteration and Development.

4a. Substrate disturbance. Score one or double check and average.

- None or none apparent (4)
- Recovered (3)
- Recovering (2)
- Recent or no recovery (1)

4b. Habitat development. Select only one and assign score.

- Excellent (7)
- Very good (6)
- Good (5)
- Moderately good (4)
- Fair (3)
- Poor to fair (2)
- Poor (1)

4c. Habitat alteration. Score one or double check and average.

- None or none apparent (9)
- Recovered (6)
- Recovering (3)
- Recent or no recovery (1)

| Check all disturbances observed | |
|---|---|
| <input type="checkbox"/> mowing | <input type="checkbox"/> shrub/sapling removal |
| <input type="checkbox"/> grazing | <input type="checkbox"/> herbaceous/aquatic bed removal |
| <input type="checkbox"/> clearcutting | <input type="checkbox"/> sedimentation |
| <input type="checkbox"/> selective cutting | <input checked="" type="checkbox"/> dredging |
| <input type="checkbox"/> woody debris removal | <input type="checkbox"/> farming |
| <input type="checkbox"/> toxic pollutants | <input type="checkbox"/> nutrient enrichment |

| |
|--------------------|
| 23 |
| subtotal this page |

| | | |
|--------------------|---|----------------------|
| Site: C12-6 | Rater(s): Rick Paquette, Mike Lychwala | Date: 7/18/13 |
|--------------------|---|----------------------|

23

subtotal first page

| | |
|-------------|----------|
| 0 | 23 |
| max 10 pts. | subtotal |

Metric 5. Special Wetlands.

Check all that apply and score as indicated.

- Bog (10)
- Fen (10)
- Old growth forest (10)
- Mature forested wetland (5)
- Lake Erie coastal/tributary wetland-unrestricted hydrology (10)
- Lake Erie coastal/tributary wetland-restricted hydrology (5)
- Lake Plain Sand Prairies (Oak Openings) (10)
- Relict Wet Prairies (10)
- Known occurrence state/federal threatened or endangered species (10)
- Significant migratory songbird/water fowl habitat or usage (10)
- Category 1 Wetland. See Question 1 Qualitative Rating (-10)

| | |
|-------------|----------|
| 6 | 29 |
| max 20 pts. | subtotal |

Metric 6. Plant communities, interspersions, microtopography.

6a. Wetland Vegetation Communities.

Score all present using 0 to 3 scale.

- 0 Aquatic bed
- 2 Emergent
- 1 Shrub
- 0 Forest
- 0 Mudflats
- 0 Open water
- 0 Other _____

6b. horizontal (plan view) Interspersion.

Select only one.

- High (5)
- Moderately high(4)
- Moderate (3)
- Moderately low (2)
- Low (1)
- None (0)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage

- Extensive >75% cover (-5)
- Moderate 25-75% cover (-3)
- Sparse 5-25% cover (-1)
- Nearly absent <5% cover (0)
- Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- 1 Vegetated hummocks/tussucks
- 0 Coarse woody debris >15cm (6in)
- 0 Standing dead >25cm (10in) dbh
- 0 Amphibian breeding pools

Vegetation Community Cover Scale

| | |
|---|---|
| 0 | Absent or comprises <0.1ha (0.2471 acres) contiguous area |
| 1 | Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality |
| 2 | Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality |
| 3 | Present and comprises significant part, or more, of wetland's vegetation and is of high quality |

Narrative Description of Vegetation Quality

| | |
|------|--|
| low | Low spp diversity and/or predominance of nonnative or disturbance tolerant native species |
| mod | Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp |
| high | A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp |

Mudflat and Open Water Class Quality

| | |
|---|---|
| 0 | Absent <0.1ha (0.247 acres) |
| 1 | Low 0.1 to <1ha (0.247 to 2.47 acres) |
| 2 | Moderate 1 to <4ha (2.47 to 9.88 acres) |
| 3 | High 4ha (9.88 acres) or more |

Microtopography Cover Scale

| | |
|---|--|
| 0 | Absent |
| 1 | Present very small amounts or if more common of marginal quality |
| 2 | Present in moderate amounts, but not of highest quality or in small amounts of highest quality |
| 3 | Present in moderate or greater amounts and of highest quality |

29

End of Quantitative Rating. Complete Categorization Worksheets.

ORAM Summary Worksheet

| | | circle answer or insert score | Result |
|----------------------------------|---|---|--|
| Narrative Rating | Question 1. Critical Habitat | YES <input type="radio"/> NO <input checked="" type="radio"/> | If yes, Category 3. |
| | Question 2. Threatened or Endangered Species | YES <input type="radio"/> NO <input checked="" type="radio"/> | If yes, Category 3. |
| | Question 3. High Quality Natural Wetland | YES <input type="radio"/> NO <input checked="" type="radio"/> | If yes, Category 3. |
| | Question 4. Significant bird habitat | YES <input type="radio"/> NO <input checked="" type="radio"/> | If yes, Category 3. |
| | Question 5. Category 1 Wetlands | YES <input type="radio"/> NO <input checked="" type="radio"/> | If yes, Category 1. |
| | Question 6. Bogs | YES <input type="radio"/> NO <input checked="" type="radio"/> | If yes, Category 3. |
| | Question 7. Fens | YES <input type="radio"/> NO <input checked="" type="radio"/> | If yes, Category 3. |
| | Question 8a. Old Growth Forest | YES <input type="radio"/> NO <input checked="" type="radio"/> | If yes, Category 3. |
| | Question 8b. Mature Forested Wetland | YES <input type="radio"/> NO <input checked="" type="radio"/> | If yes, evaluate for Category 3; may also be 1 or 2. |
| | Question 9b. Lake Erie Wetlands - Restricted | YES <input type="radio"/> NO <input checked="" type="radio"/> | If yes, evaluate for Category 3; may also be 1 or 2. |
| | Question 9d. Lake Erie Wetlands – Unrestricted with native plants | YES <input type="radio"/> NO <input checked="" type="radio"/> | If yes, Category 3 |
| | Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants | YES <input type="radio"/> NO <input checked="" type="radio"/> | If yes, evaluate for Category 3; may also be 1 or 2. |
| Question 10. Oak Openings | YES <input type="radio"/> NO <input checked="" type="radio"/> | If yes, Category 3 | |
| Question 11. Relict Wet Prairies | YES <input type="radio"/> NO <input checked="" type="radio"/> | If yes, evaluate for Category 3; may also be 1 or 2. | |
| Quantitative Rating | Metric 1. Size | 0 | |
| | Metric 2. Buffers and surrounding land use | 8 | |
| | Metric 3. Hydrology | 6 | |
| | Metric 4. Habitat | 9 | |
| | Metric 5. Special Wetland Communities | 0 | |
| | Metric 6. Plant communities, interspersions, microtopography | 6 | |
| | TOTAL SCORE | 29 | Category based on score breakpoints 1 |

Complete Wetland Categorization Worksheet.

Wetland Categorization Worksheet

| Choices | Circle one | | Evaluation of Categorization Result of ORAM |
|--|--|-------------------------------------|---|
| Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10 | YES Wetland is categorized as a Category 3 wetland | <input checked="" type="radio"/> NO | Is quantitative rating score <i>less</i> than the Category 2 scoring threshold (<i>excluding</i> gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been over-categorized by the ORAM |
| Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11 | YES Wetland should be evaluated for possible Category 3 status | <input checked="" type="radio"/> NO | Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and/or functional assessments may also be used to determine the wetland's category. |
| Did you answer "Yes" to Narrative Rating No. 5 | YES Wetland is categorized as a Category 1 wetland | <input checked="" type="radio"/> NO | Is quantitative rating score <i>greater</i> than the Category 2 scoring threshold (<i>including</i> any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM |
| Does the quantitative score fall within the scoring range of a Category 1, 2, or 3 wetland? | <input checked="" type="radio"/> YES Wetland is assigned to the appropriate category based on the scoring range | NO | If the score of the wetland is located within the scoring range for a particular category, the wetland should be assigned to that category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on a quantitative score. |
| Does the quantitative score fall with the "gray zone" for Category 1 or 2 or Category 2 or 3 wetlands? | YES Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria | <input checked="" type="radio"/> NO | Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C). |
| Does the wetland otherwise exhibit <i>moderate OR superior</i> hydrologic OR habitat, OR recreational functions AND the wetland was <i>not</i> categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method? | YES Wetland was undercategorized by this method. A written justification for recategorization should be provided on Background Information Form | <input checked="" type="radio"/> NO | A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hydrologic functions because of its type, landscape position, size, local or regional significance, etc. In this circumstance, the narrative criteria in OAC Rule 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A written justification with supporting reasons or information for this determination should be provided. |

Final Category

| | | | |
|------------|--|----------------------------------|----------------------------------|
| Choose one | <input checked="" type="radio"/> Category 1 | <input type="radio"/> Category 2 | <input type="radio"/> Category 3 |
|------------|--|----------------------------------|----------------------------------|

End of Ohio Rapid Assessment Method for Wetlands.

**OPEN 30" Mainline Wetland Photographs
Jefferson County, Ohio**

**Smithfield Township MP 44.95
C12-6B**

| Photo 1 | Photo 2 |
|---|--|
|  |  |
| Photo 3 | Photo 4 |
| N/A | N/A |

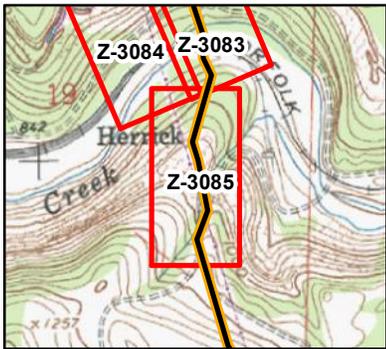
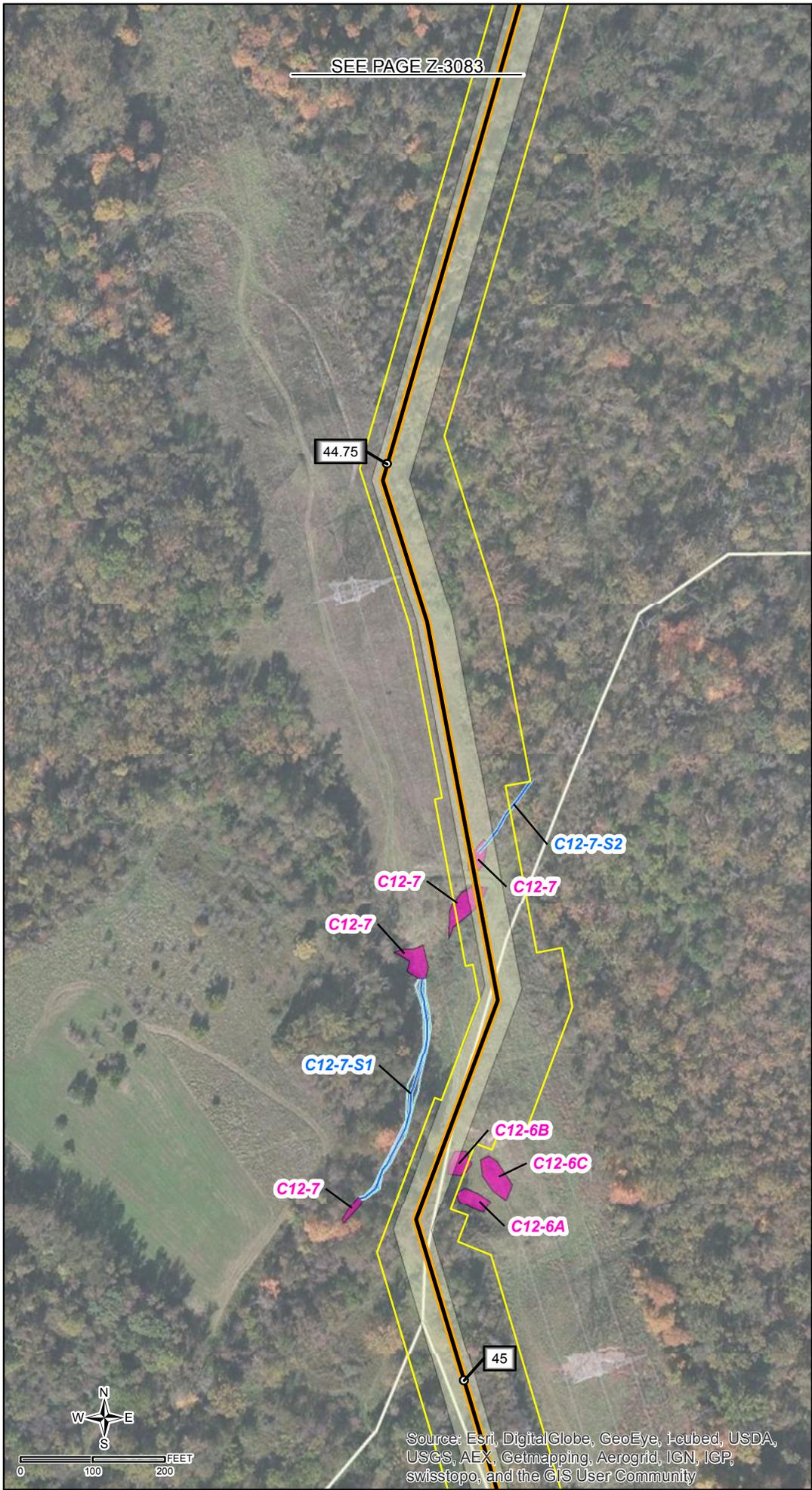
Photo 1: View of PEM wetland, facing east
Photo 2: View of PEM wetland, facing south

**OPEN 30" Mainline Wetland Photographs
Jefferson County, Ohio**

**Smithfield Township MP 44.95
C12-6A**

| Photo 1 | Photo 2 |
|---|----------------|
|  | N/A |
| Photo 3 | Photo 4 |
| N/A | N/A |

Photo 1: View of PEM wetland, facing west



LEGEND

- MILE POST
- PROPOSED PIPELINE
- PROPOSED ACCESS ROAD
- DELINEATED STREAM
- DELINEATED WATERBODY EDGE
- EXISTING ROAD CENTERLINE
- DELINEATED WATERBODY
- DELINEATED WETLAND
- PROPOSED PERMANENT EASEMENT
- PROPOSED CONSTRUCTION WORKSPACE
- MUNICIPALITY BOUNDARY

Data Sources: ESRI, Spectra, TRC, Hatch Mott MacDonald

Projection: NAD83, StatePlane
Ohio NorthFIPS 3401
US Survey Feet

Spectra Energy Partners
Texas Eastern Transmission, LP
5409 Wadhwaer Court, Houston, TX 77056-6518 713.827.5000

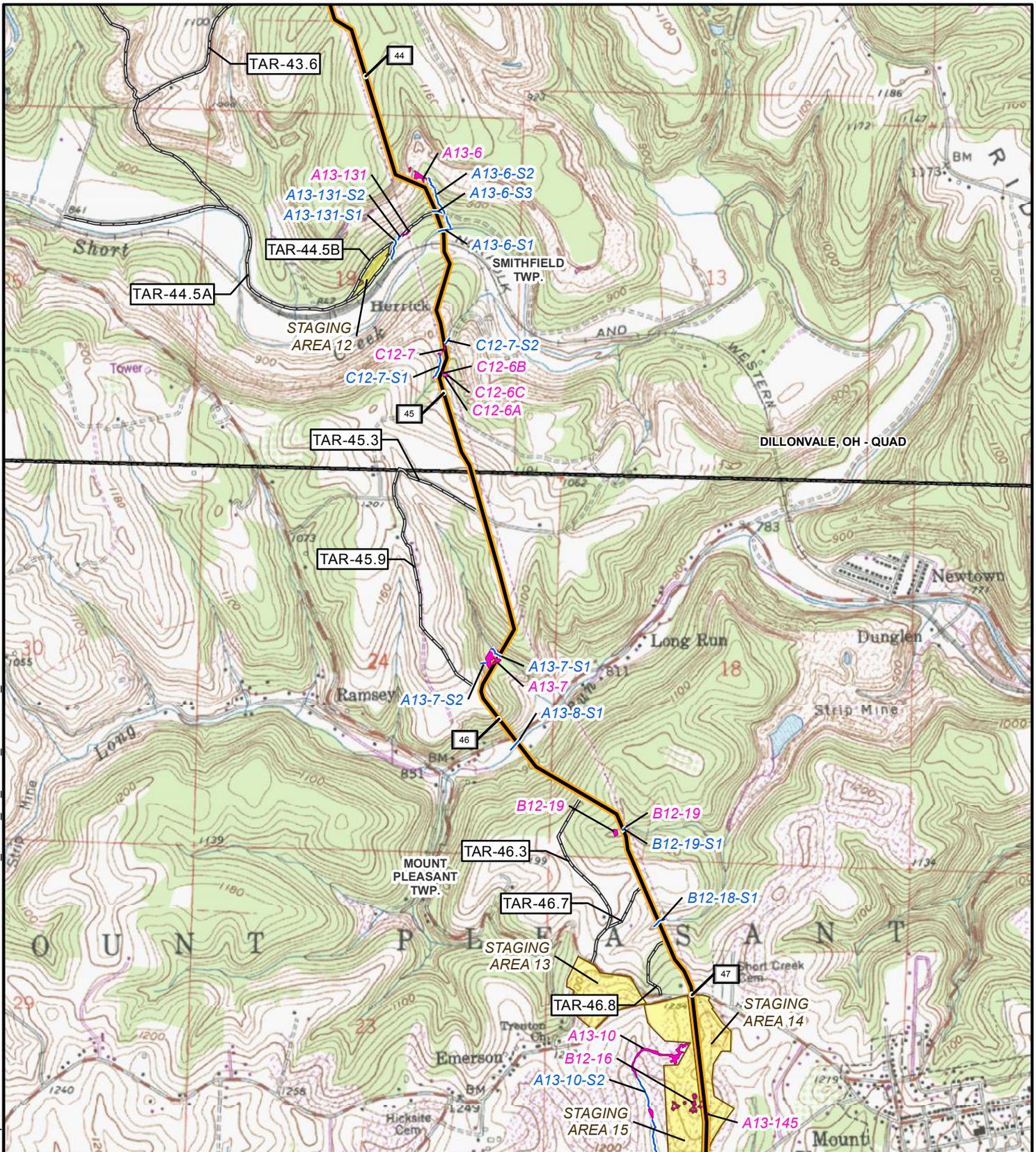
Spectra Natural Gas Pipeline
2015 OPEN Project
Proposed 30in. Line NO. 73

Natural Resource Maps
Map Z-3085

Hatch Mott MacDonald
Created: 02/19/2014

Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

P:\Spectra\OPEN\data\Prod\Work\GIS\WXD\SPECTRA_OPEN_ES_QUAD_EXCERPT_85x11.mxd



| | | | |
|---------------------------------|-------------------------|----------------------------|-----------------------------|
| MILE POST | DELINEATED WETLAND | PROPOSED M&R STATION | PROPOSED COMPRESSOR STATION |
| PROPOSED PIPELINE | DELINEATED WATERBODY | PROPOSED REGULATOR STATION | MUNICIPALITY BOUNDARY |
| PROPOSED ACCESS ROAD | PROPOSED STAGING AREA | PROPOSED TAP VALVE | COUNTY BOUNDARY |
| EXISTING TEXAS EASTERN PIPELINE | PROPOSED MAINLINE VALVE | USGS QUADRANGLE BOUNDARY | |
| DELINEATED STREAM CENTERLINE | | | |



**TITLE: OPEN PROJECT
DELINEATED STREAMS & WETLANDS - USGS QUAD MAP**

LOC.: JEFFERSON COUNTY, OHIO REV. 0

CKD. BY: HMMHOL ENG. DATE: 02/2014 W.O.

DRN. BY: HMMHOL SCALE: 1" = 2000' DWG. NO. Z-2014



Texas Eastern Transmission, LP
5400 Westheimer Court, Houston, TX 77056-5310 713/627-5400

I.G.