

Site: AEP Wetland **Rate(s): BAO, JC** **Date: 07/11/12**

Metric 1. Wetland Area (size).

Select core size class and assign score.

max 6 pts.	2	2
subtotal		
max 11 pts.	5	7

>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)

Metric 2. Upland buffers and surrounding land use.

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

max 11 pts.	11	18
subtotal		

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)
 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)
 MODERATE. Young land, young second growth forest. (5)
 HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)

Metric 3. Hydrology.

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

max 30 pts.	2	2
subtotal		

High pH groundwater (5)
 Other groundwater (3)
 Precipitation (1)
 Seasonal/influent surface water (3)
 Perennial surface water (lake or stream) (5)
 Moisture from adjacent saturated area. 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)

3b. Connectivity. Score all that apply.

max 30 pts.	2	2
subtotal		

100 year floodplain (1)
 Between stream/lake and other human use (1)
 Part of wetland/upland (e.g. forest, complex) (1)
 Duration inundation/saturation. Score one or dbk check.
 Recently permanently inundated/saturated (4)
 Recently periodically inundated/saturated (3)
 Seasonally inundated (2)
 Seasonally saturated in upper 30cm (12in) (1)

Metric 4. Habitat Alteration and Development.

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

max 20 pts.	6	26
subtotal		

None or none apparent (4)
 Recovered (3)
 Recovering (2)
 Excellent (7)
 Very good (6)
 Good (5)
 Moderately good (4)
 Fair (3)
 Poor to fair (2)
 Poor (1)

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

max 20 pts.	2	2
subtotal		

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

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

max 20 pts.	2	2
subtotal		

Check all disturbances observed
 mowing
 grazing
 clearcutting
 woody debris removal
 selective cutting
 herbicide application
 nutrient enrichment

Metric 5. Special Wetlands.

Check all that apply and score as indicated.

max 10 pts.	0	0
subtotal		
max 20 pts.	0	0

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)
 Significant migratory songbird/water fowl habitat or usage (10)
 Category 1 Wetland. See Question 1 Qualitative Rating (-10)

Metric 6. Plant communities, interspersions, microtopography.

6a. Wetland Vegetation Communities. Score all that apply using 0 to 3 scale.

max 30 pts.	2	2
subtotal		

Aquatic bed
 Emergent
 Shrub
 Forest
 Mudflats
 Open water
 Other

6b. horizontal (plan view) interspersions. Select only one.

max 30 pts.	1	1
subtotal		

High (5)
 Moderate 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.

max 20 pts.	5	5
subtotal		

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

6c. Microtopography. Score all present using 0 to 3 scale

max 20 pts.	2	2
subtotal		

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

Mudflat and Open Water Class Quality

max 20 pts.	0	0
subtotal		
max 20 pts.	0	0

Absent <0.1ha (0.247 acres)
 Low 0.1 to <1ha (0.247 to 2.47 acres)
 Moderate 1 to <4ha (2.47 to 9.88 acres)
 High 4ha (9.88 acres) or more

Microtopography Cover Scale

max 20 pts.	0	0
subtotal		
max 20 pts.	0	0

Absent
 Present very small amounts or if more common of marginal quality
 Present in moderate amounts, but not of highest quality or in small amounts of highest quality
 Present in moderate or greater amounts and of highest quality

W-BAO-09112-01

WETLAND 7

WETLAND DETERMINATION DATA FORM - Midwest Region

Project Site: AEP JVC-1126K City/County: LICKING State: OH Sampling Date: 07/12
Applicant/Owner: AEP Landform (hilllope, terrace, etc.): 5th, 1st, 2nd
Slope (%): 40 049199 Long: -82.649742 Datum: PENIC
Soil Map Unit Name: P6 NMI classification: *PEM1C
Are climatic/hydrologic conditions on the site typical for this time of year? Yes [X] No []
Are 'Normal Circumstances' present? Yes [X] No []

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes [X] No []
Hydric Soil Present? Yes [X] No []
Wetland Hydrology Present? Yes [X] No []
Is the Sampled Area within a Wetland? Yes [X] No []
Remarks: AREA WITHIN WITH EXISTING TRANSMISSION ROW - METERS BEING RECONSTRUCTED BY E.C.

VEGETATION - Use scientific names of plants.
Tree Stratum (Plot size:) Absolute Dominant Indicator % Cover: Species 1
1. [] 2. [] 3. [] 4. [] 5. [] = Total Cover
Shrub Stratum (Plot size:) Absolute Dominant Indicator % Cover: Species 1
1. [] 2. [] 3. [] 4. [] 5. [] = Total Cover
Herb Stratum (Plot size:) Absolute Dominant Indicator % Cover: Species 1
1. [] 2. [] 3. [] 4. [] 5. [] = 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 (A/B)
Prevalence Index worksheet:
Total % Cover of: Multiply by:
OBL species 77 x 1 = 77
FACW species 85 x 2 = 170
FACU species 6 x 3 = 18
UPL species 6 x 4 = 24
Column Totals: 114 (A) 203 (B)
Prevalence Index = B/A = 1.78
Hydrophytic Vegetation Indicators:
[X] 1 - Rapid Test for Hydrophytic Vegetation
[X] 2 - Dominance Test is >50%
[X] 3 - Prevalence Index is >3.0
[] 4 - Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
Problematic Hydrophytic Vegetation? (Specify)
Remarks: (Include photo numbers here or on a separate sheet.)

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

Table with columns: Depth (inches), Matrix, Color (moist), % Col, Type, Loc, Texture, Remarks.
0-8 10YR 5/2 9b 10 Rn M 3-4 10YR 5/2 9b 10 Rn M
8-14 10YR 5/2 9b 10 Rn M

Hydric Soil Indicators:
Histosol (A1)
Sandy Clayed Matrix (SA)
Sandy Redox (S8)
Dark Surfaces (S7)
Black Histic (A3)
Loamy Mucky Mineral (F1)
Stratified Layers (A4)
Loamy Clayed Matrix (F2)
2 cm Muck (A10)
Depleted Matrix (F3)
Depleted Below Dark Surface (A11)
Redox Dark Surface (F7)
Thick Dark Surface (A12)
Sandy Mucky Mineral (S1)
5 cm Mucky Peat or Peat (S3)
Restrictive Layer (if observed):
Type:
Depth (inches):
Hydric Soil Response: Yes [X] No []
Remarks:

HYDROLOGY Wetland Hydrology indicators: (minimum of one is required; check all that apply)

Primary Indicators (minimum of one is required; check all that apply):
Surface Water (A1)
High Water Table (A2)
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)
Secondary Indicators (minimum of two required):
Surface Soil Cracks (B6)
Drainage Patterns (B10)
Dry-Season Water Table (C2)
Crayfish Burrows (C3)
Saturation Visible on Aerial Imagery (C3)
Stunted or Stressed Plants (D1)
Geomorphic Position (D2)
FAC-Neutral Test (D5)
Field Observations:
Surface Water Present? Yes [] No [X] Depth (inches):
Water Table Present? Yes [] No [X] Depth (inches):
Saturation Present? Yes [] No [X] Depth (inches):
Wetland Hydrology Present? Yes [X] No []
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Remarks:

Site: AEP Jvt-Kirk

Metric 1. Wetland Area (size).
 max. 6 pts. subtotal

- 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 acres (0.04ha) (0 pts)

Metric 2. Upland buffers and surrounding land use.
 max. 6 pts. subtotal

- 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)
- Intensity of surrounding land use. Select one or double check and average.
- VERY LOW. 2nd growth or older forest, prairie savannah, wildlife areas, etc. (7)
- LOW. 1st growth forest, prairie, wetlands, etc. (5)
- MODERATELY HIGH. Residential, farm, pasture, etc. (3)
- HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)

Metric 3. Hydrology.
 max. 8 pts. subtotal

- 3a. Sources of Water. Score all that apply.
- High pH groundwater (5)
- Other groundwater (3)
- Precipitation (1)
- Seasonally intermittent surface water (3)
- Perennial surface water (flood or stream) (5)
- 3b. Wetland 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)
- 3c. 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)

Metric 4. Habitat Alteration and Development.
 max. 7 pts. subtotal

- 4a. Substrate disturbance. Score one or double check and average.
- None or none apparent (4)
- Recovered (5)
- Recovering (2)
- 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)

Metric 5. Special Wetlands.
 max. 10 pts. subtotal

- 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)

Metric 6. Plant communities, interspersions, microtopography.
 max. 20 pts. subtotal

- 6a. Wetland Vegetation Communities. Score all present using 0 to 3 scale.
- Aquatic bed (1)
- Emergent (1)
- Shrub (1)
- Forest (1)
- Mudflats (1)
- Open water (1)
- Other (1)
- 6b. horizontal (plan view) interspersions. 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 (-3)
- Moderate 25-75% cover (-3)
- Sparse 5-25% cover (-1)
- Nearly absent <5% cover (0)
- Absent (1)
- 6c. Microtopography. Score all present using 0 to 3 scale
- Vegated hummocks/tussocks (1)
- Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh (1)
- Amphibian breeding pools (1)

Site: AEP Jvt-Kirk

Metric 5. Special Wetlands.
 max. 10 pts. subtotal

- 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)

Metric 6. Plant communities, interspersions, microtopography.
 max. 20 pts. subtotal

- 6a. Wetland Vegetation Communities. Score all present using 0 to 3 scale.
- Aquatic bed (1)
- Emergent (1)
- Shrub (1)
- Forest (1)
- Mudflats (1)
- Open water (1)
- Other (1)
- 6b. horizontal (plan view) interspersions. 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 (-3)
- Moderate 25-75% cover (-3)
- Sparse 5-25% cover (-1)
- Nearly absent <5% cover (0)
- Absent (1)
- 6c. Microtopography. Score all present using 0 to 3 scale
- Vegated hummocks/tussocks (1)
- Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh (1)
- Amphibian breeding pools (1)

Metric 7. Plant communities, interspersions, microtopography.
 max. 20 pts. subtotal

- 7a. Wetland Vegetation Communities. Score all present using 0 to 3 scale.
- Aquatic bed (1)
- Emergent (1)
- Shrub (1)
- Forest (1)
- Mudflats (1)
- Open water (1)
- Other (1)
- 7b. horizontal (plan view) interspersions. Select only one.
- High (5)
- Moderately high (4)
- Moderate (3)
- Moderately low (2)
- Low (1)
- None (0)
- 7c. Coverage of invasive plants. Refer to table 1 ORAM long form for list. Add or deduct points for coverage
- Extensive >75% cover (-3)
- Moderate 25-75% cover (-3)
- Sparse 5-25% cover (-1)
- Nearly absent <5% cover (0)
- Absent (1)
- 7c. Microtopography. Score all present using 0 to 3 scale
- Vegated hummocks/tussocks (1)
- Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh (1)
- Amphibian breeding pools (1)

Metric 8. Plant communities, interspersions, microtopography.
 max. 20 pts. subtotal

- 8a. Wetland Vegetation Communities. Score all present using 0 to 3 scale.
- Aquatic bed (1)
- Emergent (1)
- Shrub (1)
- Forest (1)
- Mudflats (1)
- Open water (1)
- Other (1)
- 8b. horizontal (plan view) interspersions. Select only one.
- High (5)
- Moderately high (4)
- Moderate (3)
- Moderately low (2)
- Low (1)
- None (0)
- 8c. Coverage of invasive plants. Refer to table 1 ORAM long form for list. Add or deduct points for coverage
- Extensive >75% cover (-3)
- Moderate 25-75% cover (-3)
- Sparse 5-25% cover (-1)
- Nearly absent <5% cover (0)
- Absent (1)
- 8c. Microtopography. Score all present using 0 to 3 scale
- Vegated hummocks/tussocks (1)
- Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh (1)
- Amphibian breeding pools (1)

Metric 9. Plant communities, interspersions, microtopography.
 max. 20 pts. subtotal

- 9a. Wetland Vegetation Communities. Score all present using 0 to 3 scale.
- Aquatic bed (1)
- Emergent (1)
- Shrub (1)
- Forest (1)
- Mudflats (1)
- Open water (1)
- Other (1)
- 9b. horizontal (plan view) interspersions. Select only one.
- High (5)
- Moderately high (4)
- Moderate (3)
- Moderately low (2)
- Low (1)
- None (0)
- 9c. Coverage of invasive plants. Refer to table 1 ORAM long form for list. Add or deduct points for coverage
- Extensive >75% cover (-3)
- Moderate 25-75% cover (-3)
- Sparse 5-25% cover (-1)
- Nearly absent <5% cover (0)
- Absent (1)
- 9c. Microtopography. Score all present using 0 to 3 scale
- Vegated hummocks/tussocks (1)
- Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh (1)
- Amphibian breeding pools (1)

WETLAND 9
 W-BAO-071112-03

WETLAND DETERMINATION DATA FORM - Midwest Region

Project Site: ALP JUV-KLICK 138KV City/County: WICKLIH Sampling Date: 07/11/12
 Applicant/Owner: HEP State: OH Sampling Point: 03
 Investigator(s): BAO, JC, AH Section, Township, Range:
 Landform (hilllope, terrace, etc.): FLAT TO SLOPE Local relief (concave, convex, none): CONCAVE
 Slope (%): Lat: 40 03 30 N Long: 82 45 51 W Datum:
 Soil Map Unit Name: C1C2 NWI classification: N14
 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? 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
 Hydrophytic Soil Present? Yes No
 Wetland Hydrology Present? Yes No
 Remarks: SEVERAL STRAINS II FOUND THROUGH WETLAND
SEVERAL WETLAND SCOTED WITH ROWS.
CONDITIONS DEPEND UPON NORMAL

VEGETATION - Use scientific names of plants.

Time Stratum (Plot size: _____)	Absolute % Cover	Dominant Indicator Species	Shrub	Shrub
1. <u>Black Willow</u>	5	<u>Salix nigra</u>		
2. <u>Swaroop Grass</u>	5	<u>Tripsacum daniellii</u>		
3. _____				
4. _____				
5. _____				
Total Cover = _____				
Hydrophytic Vegetation Indicators:				
1. Rapid Test for Hydrophytic Vegetation	50	<u>DBL</u>		
2. Dominance Test (>50%)	50	<u>DBL</u>		
3. Prevalence Index is >3.0*	50	<u>DBL</u>		
4. Morphological Adaptations* (Provide supporting data in Remarks or on a separate sheet)	50	<u>DBL</u>		
* Problematic Hydrophytic Vegetation? (Explain)				
Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		

Remarks: (include photo numbers here or on a separate sheet.)
SARITARIA bacilliformis - 5
DBL

W-BAO-071112-03
 WETLAND 9

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
 Depth (inches): _____
 Matrix Color (moist): _____
 Color (moist): _____
 Type: _____
 Log: _____
 Texture: _____
 Remarks: _____
 0-14 10YR 4/3 90 10YR 5/5 10 10M M SLU/CUY LOAM
 Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains, Location: PL=Profile Lithing, M=Matrix.
 Indicators for Problematic Hydric Soils:
 Hydric (A1) _____
 Hist. Epilepidon (A2) _____
 Black Histic (A3) _____
 Hydrican Sulfide (A4) _____
 Stratified Layers (A5) _____
 2 cm Muck (A10) _____
 Depleted Below Dark Surface (A11) _____
 Thick Dark Surface (A12) _____
 Sandy Mucky Mineral (S1) _____
 5 cm Mucky Peat or Peat (S3) _____
 Type: _____
 Depth (inches): _____
 Hydric Soil Present? Yes No
 Remarks: _____
 SOILS VERY DRY DUE TO LACK OF RAIN

HYDROLOGY

Wetland Hydrology Indicators (minimum of one is required; check all that apply):
 Primary Indicators (minimum of one is required; check all that apply):
 Surface Water (A1) _____
 High Water Table (A2) _____
 Saturation (A3) _____
 Water Marks (B1) _____
 Sediment Deposits (B2) _____
 Drift Deposits (E3) _____
 Algal Mat or Crust (B4) _____
 Iron Deposits (B5) _____
 Inundation Visible on Aerial Imagery (B7) _____
 Sparsely Vegetated Concave Surface (B8) _____
 Secondary Indicators (minimum of two required):
 Surface Soil Cracks (B6) _____
 Drainage Patterns (B10) _____
 Dry-Season Water Table (C2) _____
 Crayfish Burrows (C3) _____
 Saturation Visible on Aerial Imagery (C9) _____
 Stunted or Stressed Plants (D1) _____
 Geomorphic Position (D2) _____
 FAC-Neutral Test (D5) _____
 Field Observations:
 Surface Water Present? Yes No
 Water Table Present? Yes No
 Saturation Present? Yes No
 (includes capillary fringe)
 Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
 Remarks: _____
 Wetland Hydrology Present? Yes No

Metric 1. Wetland Area (size).
 max 10 pts. subtotal 1 1

- Select top 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)

Metric 2. Upland buffers and surrounding land use.
 max 10 pts. subtotal 4 8

- 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 (32 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)

Metric 3. Hydrology.
 max 20 pts. subtotal 20 25

- 3a. Sources of Water. Score all that apply.
- High pH groundwater (5)
 - Other groundwater (3)
 - Precipitation (1)
 - Seasonal/intermittent surface water (3)
- 3b. Minimum water depth. Select only one and assign score.
- >1.5m (>5.2ft) (1)
 - 0.4 to 1.5m (1.3 to 5.2ft) (2)
 - <0.4m (<1.5ft) (1)
- 3c. Modifications to natural hydrologic regime. Score one or double check and average.
- None or none apparent (12)
 - Recovering (7)
 - Recovering (3)
 - Recent or no recovery (1)
- 3d. Check all disturbances observed
- ditch
 - tile
 - dike
 - weir
 - stormwater input
 - point source (concentrated)
 - filling/grading
 - road bed/RR track
 - dredging
 - other

Metric 4. Habitat Alteration and Development.
 max 10 pts. subtotal 10 35

- 4a. Substrate disturbance. Score one or double check and average.
- None or none apparent (4)
 - Recovering (2)
 - Recovering (2)
 - Recent or no recovery (1)
 - Recovering (1)
 - Very good (6)
 - Good (5)
 - Fair (3)
 - Poor to fair (2)
 - Poor (1)
- 4b. Habitat alteration. Score one or double check and average.
- None or none apparent (9)
 - Recovering (6)
 - Recovering (3)
 - Recent or no recovery (1)
- 4c. Check all disturbances observed
- mowing
 - grazing
 - clearcutting
 - selective cutting
 - woody debris removal
 - toxic pollutants
 - shrubslipping removal
 - herbaceous/aquatic bed removal
 - sedimentation
 - dredging
 - flaming
 - nutrient enrichment

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Metric 5. Special Wetlands.
 max 10 pts. subtotal 0 35

- Check all that apply and score as indicated.
- Bog (10)
 - Fen (10)
 - Old growth forest (10)
 - Mature forested wetland (5)
 - Lake Erie coast/wetland hydrology (10)
 - Lake Erie coast/wetland hydrology (5)
 - Lake Erie coast/wetland hydrology (10)
 - Rollout Wet Prairies (10)
 - Known occurrence state/federal threatened or endangered species (10)
 - Significant migratory songbird/water fowl habitat or usage (10)
 - Significant 1 Wetland. See Question 1 Qualitative Rating (-10)

Metric 6. Plant communities, interspersions, microtopography.
 max 20 pts. subtotal 3 38

- 6a. Wetland Vegetation Communities. Score all present using 0 to 3 scale.
- Aquatic bed
 - Emergent
 - Shrub
 - Forest
 - Mudflats
 - Open water
 - Other
- 6b. Horizontal (plan view) interspersions. 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.
- Vegetated hummocks/bushes
 - Coarse woody debris >15cm (6in)
 - Standing dead >25cm (10in) dbh
 - Amphibian breeding pools

- 6e. Narrative Description of Vegetation Quality
- low Low spp diversity and/or predominance of 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

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WETLAND 10 W-18-NO-03 12-03

WETLAND DETERMINATION DATA FORM - Midwest Region

Project Site: AEF Jug - Kirk City/County: 4-CALWAH Sampling Date: 07/21/2
 Applicant Owner: BAO, JC State: OH Section, Township, Range: _____
 Investigator(s): BAO, JC Local relief (concave, convex, none): CONCAVE
 Landform (hilltop, terrace, etc.): _____
 Slope (%): _____ Lat: 40. D 1 882 8 Long: 82. 6 52 4 8 6 Datum: _____
 Soil Map Unit Name: C4B NMI classification: N/O
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes No
 Are vegetation/hydrology significantly disturbed? Are 'Normal Circumstances' present? Yes No
 Are vegetation/soil/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: PS/DEM WETLANDS WITH COASTAL TRANSECTS, ROW IS NEAR RITSING TRAIL PROPERTIES

VEGETATION - Use scientific names of plants.

Transect	Stratum	Plot size	Absolute Dominant Indicator	Relative Dominant Indicator	Dominance Test Worksheet
			% Cover	% Cover	Number of Dominant Species That Are OBL, FACW, or FAC
1	Shrub	10' x 10'	100	100	7 (A)
2	Herb	10' x 10'	100	100	7 (B)
3	Herb	10' x 10'	100	100	100 (AB)
4	Herb	10' x 10'	100	100	
5	Herb	10' x 10'	100	100	
6	Herb	10' x 10'	100	100	
7	Herb	10' x 10'	100	100	
8	Herb	10' x 10'	100	100	
9	Herb	10' x 10'	100	100	
10	Herb	10' x 10'	100	100	
11	Herb	10' x 10'	100	100	
12	Herb	10' x 10'	100	100	

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

WETLAND 10 W-18-NO-03 12-02

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

Depth (inches): 0-2 Matrix Color (moist): 10YR 5/3 % 70 Color (dry): 10YR 5/8 % 70 Texture: Silty Clay Loam
 Depth (inches): 2-12 Matrix Color (moist): 10YR 5/2 % 70 Color (dry): 10YR 5/8 % 70 Texture: Silty Clay Loam
 Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Location: PL=Poly Lining, M=Matrix.
 Indicators for Problematic Hydric Soils:
 Histosol (A1) _____
 Sandy Gleyed Matrix (S4) _____
 Sandy Redox (S5) _____
 Black Histic (A3) _____
 Hydrogen Sulfide (A4) _____
 Striped Matrix (S6) _____
 Loamy Mucky Mineral (F1) _____
 Striped Layers (A5) _____
 Depleted Matrix (F2) _____
 2-cm Muck (A10) _____
 Redox Dark Surface (F3) _____
 Depleted Below Dark Surface (A11) _____
 Thick Dark Surface (A12) _____
 Sandy Mucky Mineral (S1) _____
 5-cm Mucky Pear or Pat (S3) _____
 Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____ Depth (inches): _____ Hydric Soil Present? Yes No
 Remarks: _____

HYDROLOGY

Wetland Hydrology Indicators: (minimum of one is required; check all that apply.)
 Primary Indicators:
 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) _____
 Surface Water (B9) _____
 Aquatic Fauna (B13) _____
 True Aquatic Plants (B14) _____
 Hydrogen Sulfide Odor (C1) _____
 Oxidized Rhizospheres on Living Roots (C3) _____
 Presence of Reduced Iron (C4) _____
 Recent Iron Reduction in Tilled Soils (C6) _____
 Thin Muck Surface (C7) _____
 Gauge or Well Data (D9) _____
 Other (Explain in Remarks) _____
 Secondary Indicators (minimum of two required):
 Surface Soil Cracks (B6) _____
 Drainage Patterns (B10) _____
 Dry-Season Water Table (C2) _____
 Crayfish Burrows (C8) _____
 Saturation Visible on Aerial Imagery (C9) _____
 Stunted or Stressed Plants (D1) _____
 Geomorphic Position (D2) _____
 FAC-Neutral Test (D5) _____
 Field Observations:
 Surface Water Present? Yes No
 Water Table Present? Yes No
 Saturation Present? Yes No
 Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
 Remarks: _____

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

WETLAND 10

W-3AD-DP-HR-03

Site: W-3AD-DP-HR-03 Rater(s): BAO, JK Date: 07/12/20

Metric 1. Wetland Area (size).

max 6 pts. 1
 Select one size class and assign score. Do not double check.
 >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)

Metric 2. Upland buffers and surrounding land use.

max 14 pts. 4
 2a. Calculate average buffer width. Select only one and assign score. Do not double check.
 WIDE: Buffers average 50m (154ft) or more around wetland perimeter (7)
 MEDIUM: Buffers average 25m to <50m (82 to <154ft) 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)

Metric 3. Hydrology.

max 20 pts. 10
 3a. Sources of Water. Score all that apply.
 High pH groundwater (5)
 Other groundwater (5)
 Precipitation (1)
 Seasonal/nontorrent surface water (3)
 Perennial surface water (lake or stream) (5)
 3c. Minimum water depth. Select only one and assign score.
 0.4 to 0.7m (15.7 to 27.6in) (2)
 <0.4m (<15.7in) (1)
 3b. Modifications to natural hydrologic regime. Score one or double check and average.
 None or none apparent (12)
 Recovering (7)
 Recovering (3)
 Recent or no recovery (1)
 Check all disturbances observed
 ditch
 fill/grading
 road bed/RR track
 dredging
 other
 stormwater input

Metric 4. Habitat Alteration and Development.

max 30 pts. 9
 4a. Substrate disturbance. Score one or double check and average.
 Recovered (3)
 Recovering (2)
 None or no recovery (1)
 Recent or no recovery (1)
 4b. Habitat development. Select only one and assign score.
 Very good (6)
 Good (5)
 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
 mowing
 grazing
 clearcutting
 selective cutting
 woody debris removal
 nutrient enrichment
 shrubslipping removal
 herbaceous/aquatic bed removal
 sedimentation
 dredging
 farming
 other

max 14 pts. 3

max 20 pts. 3

max 30 pts. 3

max 14 pts. 3

max 30 pts. 3

WETLAND 10

W-3AD-DP-HR-03

Site: W-3AD-DP-HR-03 Rater(s): BAO, JK Date: 07/12/20

Metric 5. Special Wetlands.

max 10 pts. 0
 Check all that apply and score as indicated.
 Bog (10)
 Fen (10)
 Old growth forest (10)
 Nature forest 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)

Metric 6. Plant communities, interspersions, microtopography.

max 20 pts. 3
 6a. Wetland Vegetation Communities. Score all present using 0 to 3 scale.
 Aquatic bed
 Emergent
 Shrub
 Forest
 Open water
 Mudflats
 Other
 6b. horizontal (plan view) interspersions. 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
 Vegetated hummocks/suksuks
 Coarse woody debris >10cm (6in)
 Standing dead >25cm (10in) dbh
 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 live 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

last revised 1 February 2001 jfr

This foregoing document was electronically filed with the Public Utilities

Commission of Ohio Docketing Information System on

9/14/2012 10:44:00 AM

in

Case No(s). 12-2519-EL-BLN

Summary: Letter of Notification and Attachments for Kirk-Jug 138 kV Circuit Project (Part 8 of 12) electronically filed by Erin C Miller on behalf of AEP Ohio Transmission Company, Inc.