

APPENDIX A

DELINEATED WETLAND FORMS

WETLAND 1

W-1047 7/10/2012-1

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Jug Spill to Kirk 138W County: Licking Co. State: OH Sampling Date: 10 July 2012
Investigator(s): AL Thayer, B. H. H. Section, Township, Range: _____
Landform (ridge, terrace, etc.): Arise Local relief (concave, convex, near): concave
Slope (%): _____ Lat: 40.073554 Long: -82.749557 Datum: _____
Soil Map Unit Name: Pe NWI classification: None
Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No _____
Are climatic/hydrologic conditions on the site significantly disturbed? Yes X No _____
Are vegetation N or hydrology N naturally problematic? (If needed, explain any answers in Remarks.) Yes X No _____
Are vegetation N or hydrology N significantly problematic? (If needed, explain any answers in Remarks.) 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 _____
Remarks: A linear P&H method within existing ROW that appears to possibly act as a drainage corridor.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute Dominant Indicator % Cover, Species, Status	Thal Area OBL, FACW, or FAC	Number of Dominant Species	Thal Area OBL, FACW, or FAC
1. <u>None</u>			5	(A)
2. _____			5	(B)
3. _____				
4. _____				
5. _____				

Sapling/Shrub Stratum (Plot size: _____)	Total % Cover	Thal Area OBL, FACW, or FAC	Number of Dominant Species	Thal Area OBL, FACW, or FAC
1. <u>None</u>				
2. _____				
3. _____				
4. _____				
5. _____				

Herb Stratum (Plot size: _____)	Total % Cover	Thal Area OBL, FACW, or FAC	Number of Dominant Species	Thal Area OBL, FACW, or FAC
1. <u>Carex vulpinoidea</u>	40	45	1	1
2. <u>Eleocharis acicularis</u>	20	20	1	1
3. <u>Veronica heisteria</u>	5	5	1	1
4. <u>Trifolium pratense</u>	10	10	1	1
5. <u>Urtica dioica</u>	15	15	1	1
6. <u>Urtica dioica</u>	15	15	1	1
7. <u>Urtica dioica</u>	15	15	1	1
8. <u>Urtica dioica</u>	15	15	1	1
9. <u>Urtica dioica</u>	15	15	1	1
10. <u>Urtica dioica</u>	15	15	1	1
11. <u>Urtica dioica</u>	15	15	1	1
12. <u>Urtica dioica</u>	15	15	1	1

Prevalence Index	Thal Area OBL, FACW, or FAC	Number of Dominant Species	Thal Area OBL, FACW, or FAC
1. <u>None</u>			
2. _____			
3. _____			
4. _____			
5. _____			

Hydrophytic Vegetation	Thal Area OBL, FACW, or FAC	Number of Dominant Species	Thal Area OBL, FACW, or FAC
1. <u>None</u>			
2. _____			
3. _____			
4. _____			
5. _____			

Prevalence Index	Thal Area OBL, FACW, or FAC	Number of Dominant Species	Thal Area OBL, FACW, or FAC
1. <u>None</u>			
2. _____			
3. _____			
4. _____			
5. _____			

Hydrophytic Vegetation	Thal Area OBL, FACW, or FAC	Number of Dominant Species	Thal Area OBL, FACW, or FAC
1. <u>None</u>			
2. _____			
3. _____			
4. _____			
5. _____			

Prevalence Index	Thal Area OBL, FACW, or FAC	Number of Dominant Species	Thal Area OBL, FACW, or FAC
1. <u>None</u>			
2. _____			
3. _____			
4. _____			
5. _____			

Hydrophytic Vegetation	Thal Area OBL, FACW, or FAC	Number of Dominant Species	Thal Area OBL, FACW, or FAC
1. <u>None</u>			
2. _____			
3. _____			
4. _____			
5. _____			

Prevalence Index	Thal Area OBL, FACW, or FAC	Number of Dominant Species	Thal Area OBL, FACW, or FAC
1. <u>None</u>			
2. _____			
3. _____			
4. _____			
5. _____			

Hydrophytic Vegetation	Thal Area OBL, FACW, or FAC	Number of Dominant Species	Thal Area OBL, FACW, or FAC
1. <u>None</u>			
2. _____			
3. _____			
4. _____			
5. _____			

Prevalence Index	Thal Area OBL, FACW, or FAC	Number of Dominant Species	Thal Area OBL, FACW, or FAC
1. <u>None</u>			
2. _____			
3. _____			
4. _____			
5. _____			

Hydrophytic Vegetation	Thal Area OBL, FACW, or FAC	Number of Dominant Species	Thal Area OBL, FACW, or FAC
1. <u>None</u>			
2. _____			
3. _____			
4. _____			
5. _____			

Prevalence Index	Thal Area OBL, FACW, or FAC	Number of Dominant Species	Thal Area OBL, FACW, or FAC
1. <u>None</u>			
2. _____			
3. _____			
4. _____			
5. _____			

Hydrophytic Vegetation	Thal Area OBL, FACW, or FAC	Number of Dominant Species	Thal Area OBL, FACW, or FAC
1. <u>None</u>			
2. _____			
3. _____			
4. _____			
5. _____			

Prevalence Index	Thal Area OBL, FACW, or FAC	Number of Dominant Species	Thal Area OBL, FACW, or FAC
1. <u>None</u>			
2. _____			
3. _____			
4. _____			
5. _____			

Hydrophytic Vegetation	Thal Area OBL, FACW, or FAC	Number of Dominant Species	Thal Area OBL, FACW, or FAC
1. <u>None</u>			
2. _____			
3. _____			
4. _____			
5. _____			

Prevalence Index	Thal Area OBL, FACW, or FAC	Number of Dominant Species	Thal Area OBL, FACW, or FAC
1. <u>None</u>			
2. _____			
3. _____			
4. _____			
5. _____			

Hydrophytic Vegetation	Thal Area OBL, FACW, or FAC	Number of Dominant Species	Thal Area OBL, FACW, or FAC
1. <u>None</u>			
2. _____			
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4. _____			
5. _____			

Prevalence Index	Thal Area OBL, FACW, or FAC	Number of Dominant Species	Thal Area OBL, FACW, or FAC
1. <u>None</u>			
2. _____			
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Hydrophytic Vegetation	Thal Area OBL, FACW, or FAC	Number of Dominant Species	Thal Area OBL, FACW, or FAC
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2. _____			
3. _____			
4. _____			
5. _____			

Prevalence Index	Thal Area OBL, FACW, or FAC	Number of Dominant Species	Thal Area OBL, FACW, or FAC
1. <u>None</u>			
2. _____			
3. _____			
4. _____			
5. _____			

Hydrophytic Vegetation	Thal Area OBL,
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WETLAND 1

10-11-2012/2012-1

Metric 1. Wetland Area (size).

max 6 pts. subtotal

>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)	
5 to <10 acres (2 to <4.0ha) (3 pts)	
1 to <5 acres (0.2 to <1.0ha) (2 pts)	
0.1 to <1 acres (0.04 to <0.1ha) (1 pt)	

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)

2b. Identify and assign score to surrounding land use. Select only one and assign score.

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 14 pts. subtotal

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

High pH groundwater (5)

Other groundwater (3)

Seasonal surface water (lake or stream) (3)

Perennial surface water (lake or stream) (5)

3b. Duration of inundation/saturation. Score one or double check.

Semi- to permanently inundated/saturated (4)

Regularly inundated/saturated (3)

Seasonally inundated (2)

Seasonally saturated in upper 30cm (12in) (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)

3d. Check all disturbances observed

point source (nonstormwater) (1)

filling/grading (1)

road bed/FRR track (1)

dredging (1)

other (1)

Metric 4. Habitat Alteration and Development.

max 30 pts. subtotal

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

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 (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)

4d. Check all disturbances observed

shrub/scrub removal (1)

herbaceous/aquatic bed removal (1)

excavation (1)

selective cutting (1)

woody debris removal (1)

toxic pollutants (1)

WETLAND 1

10-11-2012/2012-1

Metric 5. Special Wetlands.

max 10 pts. subtotal

Check all that apply and score as indicated.

Bog (10)

Old growth forest (10)

Mature forested wetland (5)

Lake Erie coastal/rhizophy wetland-unrestricted hydrology (10)

Lake Erie coastal/rhizophy wetland-restricted hydrology (5)

Lake Plain Sand Prairie (Oak Openings) (10)

Red-tail Vireo Prairie (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 (3)

Emergent (3)

Shrub (3)

Forest (3)

Mudflats (3)

Open water (3)

Other (3)

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

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

Extensive >75% cover (-3)

Moderate 25-75% cover (-1)

Sparsely 5-25% cover (-1)

Nearly absent <5% cover (0)

Absent (1)

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

Vegetated hummocks/mounds (1)

Coarse woody debris >15cm (6in) (0)

Standing dead >25cm (10in) dbh (0)

Amphibian breeding pools (0)

6e. 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 with 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

6f. Mudflat and Open Water Class Quality

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

6g. Microtopography Cover Scale

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

WETLAND 2

Site: LEP 244, KICK Rater(s): BBB, MBT Date: 07/10/12

Metric 1. Wetland Area (size).

max 5 pts. subtotal

0	0
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Select one size class and assign score.

< 0.1 acres (0.04ha) (0 pts)	<input checked="" type="checkbox"/>
0.1 to < 0.3 acres (0.12 to < 0.24ha) (1 pt)	<input type="checkbox"/>
0.3 to < 1.0 acres (0.24 to < 1.2ha) (2 pts)	<input type="checkbox"/>
1.0 to < 3.0 acres (1.2 to < 4.2ha) (3 pts)	<input type="checkbox"/>
3.0 to < 10 acres (4.2 to < 10.1ha) (4 pts)	<input type="checkbox"/>
10 to < 25 acres (10.1 to < 20.2ha) (5 pts)	<input type="checkbox"/>
> 25 acres (> 20.2ha) (6 pts)	<input type="checkbox"/>

Metric 2. Upland buffers and surrounding land use.

max 14 pts. subtotal

5	5
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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)	<input type="checkbox"/>
MEDIUM. Buffers average 25m to < 50m (82 to < 164ft) around wetland perimeter (4)	<input type="checkbox"/>
VERY NARROW. Buffers average 10m to < 25m (< 82ft) around wetland perimeter (1)	<input checked="" type="checkbox"/>

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

1. Forest plantations, cropland, pasture, etc. (7)	<input type="checkbox"/>
2. Low, Old field (> 10 years), scrub land, young second growth forest, etc. (5)	<input checked="" type="checkbox"/>
3. MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field, etc. (3)	<input checked="" type="checkbox"/>
4. HIGH. Urban, industrial, open pasture, row cropping, mining, construction, etc. (1)	<input type="checkbox"/>

Metric 3. Hydrology.

max 30 pts. subtotal

13	18
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3a. Sources of Water. Score all that apply.

High pH groundwater (5)	<input type="checkbox"/>
Other groundwater (3)	<input checked="" type="checkbox"/>
Precipitation (1)	<input checked="" type="checkbox"/>
Surface water (lake or stream) (3)	<input checked="" type="checkbox"/>
Perennial surface water (lake or stream) (5)	<input type="checkbox"/>

3b. Connectivity. Score all that apply.

100 year floodplain (1)	<input type="checkbox"/>
Between drain/take and other human use (1)	<input type="checkbox"/>
Part of wetland/adjacent (e.g. forest, complex) (1)	<input type="checkbox"/>
Duration inundated/saturated. Score one or double check.	<input type="checkbox"/>
1. Regularly inundated/saturated (3)	<input type="checkbox"/>
2. Seasonally inundated (2)	<input checked="" type="checkbox"/>
3. Regularly inundated/saturated (3)	<input type="checkbox"/>
4. Seasonally inundated in upper 30cm (12in) (1)	<input type="checkbox"/>

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

None or none apparent (12)	<input checked="" type="checkbox"/>
Recovered (7)	<input type="checkbox"/>
Recovering (3)	<input type="checkbox"/>
Recent or no recovery (1)	<input type="checkbox"/>

3d. point source (nonstormwater) filling/grading road bed/RR track dredging other stormwater input

Metric 4. Habitat Alteration and Development.

max 20 pts. subtotal

8	26
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4a. Substrate disturbance. Score one or double check and average.

None or none apparent (4)	<input checked="" type="checkbox"/>
Recovered (6)	<input type="checkbox"/>
Recovering (3)	<input type="checkbox"/>
Recent or no recovery (1)	<input type="checkbox"/>

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

Excellent (7)	<input type="checkbox"/>
Very good (6)	<input type="checkbox"/>
Good (5)	<input type="checkbox"/>
Moderately good (4)	<input checked="" type="checkbox"/>
Fair (3)	<input type="checkbox"/>
Poor (1)	<input type="checkbox"/>

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

None or none apparent (9)	<input checked="" type="checkbox"/>
Recovered (6)	<input type="checkbox"/>
Recovering (3)	<input type="checkbox"/>
Recent or no recovery (1)	<input type="checkbox"/>

4d. Check all disturbances observed

herbaceous/aquatic bed removal	<input checked="" type="checkbox"/>
sedimentation	<input type="checkbox"/>
selective cutting	<input type="checkbox"/>
woody debris removal	<input type="checkbox"/>
toxic pollutants	<input type="checkbox"/>

WETLAND 2

Site: LEP 244, KICK Rater(s): BBB, MBT Date: 07/10/12

Metric 5. Special Wetlands.

max 10 pts. subtotal

0	0
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Check all that apply and score as indicated.

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

Metric 6. Plant communities, interspersions, microtopography.

max 20 pts. subtotal

3	29
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6a. Wetland Vegetation Communities. Score all present using 0 to 3 scale.

0	Aquatic bed	<input type="checkbox"/>
1	Emergent	<input checked="" type="checkbox"/>
2	Shrub	<input type="checkbox"/>
3	Forest	<input type="checkbox"/>
4	Mudflats	<input type="checkbox"/>
5	Open water	<input type="checkbox"/>

6b. Interspersions (plain view) Interspersions. Select only one.

High (5)	<input type="checkbox"/>
Moderately high (4)	<input type="checkbox"/>
Moderate (3)	<input type="checkbox"/>
Moderately low (2)	<input type="checkbox"/>
Low (1)	<input checked="" type="checkbox"/>
None (0)	<input type="checkbox"/>

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

Extensive > 75% cover (-5)	<input type="checkbox"/>
Moderate 25-75% cover (-3)	<input type="checkbox"/>
Sparse 5-25% cover (-1)	<input type="checkbox"/>
Nearly absent < 5% cover (0)	<input checked="" type="checkbox"/>

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

1	Vegetated hummocks/mounds	<input checked="" type="checkbox"/>
2	Coarse woody debris > 15cm (6in)	<input type="checkbox"/>
3	Standing dead > 25cm (10in) dth	<input type="checkbox"/>
4	Amphibian breeding pools	<input type="checkbox"/>

6e. Narrative Description of Vegetation Quality

low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species	<input type="checkbox"/>
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	<input type="checkbox"/>
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	<input type="checkbox"/>

6f. Mudflat and Open Water Class Quality

0	Absent < 0.1ha (0.247 acres)	<input type="checkbox"/>
1	Low 0.1 to < 1ha (0.247 to 2.47 acres)	<input type="checkbox"/>
2	Moderate 1 to < 4ha (2.47 to 9.88 acres)	<input type="checkbox"/>
3	High 4ha (9.88 acres) or more	<input type="checkbox"/>

6g. Microtopography Cover Scale

0	Absent	<input type="checkbox"/>
1	Present very small amounts or if more common of marginal quality	<input type="checkbox"/>
2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality	<input type="checkbox"/>
3	Present in moderate or greater amounts and of highest quality	<input type="checkbox"/>

W-BAO-D71012-02

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: ACP-JM-KRK 138KV City/County: Licking County Sampling Date: 07/01/02
 Applicant/Owner: ACP State: OH Sampling Point: 03
 Investigator(s): BRO MDT Section, Township, Range: _____
 Loc. and/or (hillside, terrace, etc.): 765-05-09-05E Local relief (concave, convex, none): CONCAVE
 Slope (%): 40 Lat: 40-07-29.6 Long: -82-34-08.8 Datum: _____
 Soil Map Unit Name: fe NW1 classification: n/a
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No _____ (if no, explain in Remarks.)
 Are Vegetation N Soil N or Hydrology N significantly disturbed? Yes X No _____
 Are Vegetation N Soil N or Hydrology N naturally problematic? (if needed, explain any answers in Remarks.)

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

Remarks: Penetration test is w/in existing transmission ROW & about 500 mm
& Area conditions need soil may move &

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)		Sapling Stratum (Plot size: _____)		Herb Stratum (Plot size: _____)		Woody Vine Stratum (Plot size: _____)	
1. _____	_____	1. C. HICKX LUMINATA	_____	1. C. HICKX LUMINATA	_____	1. _____	_____
2. _____	_____	2. BONCELET	_____	2. BONCELET	_____	2. _____	_____
3. _____	_____	3. BUFENEBINE	_____	3. BUFENEBINE	_____	3. _____	_____
4. _____	_____	4. BUFENEBINE	_____	4. BUFENEBINE	_____	4. _____	_____
5. _____	_____	5. BUFENEBINE	_____	5. BUFENEBINE	_____	5. _____	_____
6. _____	_____	6. BUFENEBINE	_____	6. BUFENEBINE	_____	6. _____	_____
7. _____	_____	7. BUFENEBINE	_____	7. BUFENEBINE	_____	7. _____	_____
8. _____	_____	8. BUFENEBINE	_____	8. BUFENEBINE	_____	8. _____	_____
9. _____	_____	9. BUFENEBINE	_____	9. BUFENEBINE	_____	9. _____	_____
10. _____	_____	10. BUFENEBINE	_____	10. BUFENEBINE	_____	10. _____	_____

Dominance Test worksheet:		Prevalence index worksheet:		Hydrophytic Vegetation indicators:		Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
Number of Dominant Species That Are OBL, FACW, or FAC:	_____	Total % Cover of:	_____	Prevalence Index = B/A =	_____	1 - Rapid Test for Hydrophytic Vegetation	_____
1	_____	OBL species	x 1 = 7.2	1 - Rapid Test for Hydrophytic Vegetation	_____	2 - Dominance Test is >50%	_____
2	_____	FACW species	x 2 = 5.0	3 - Prevalence Index is >50%	_____	3 - Morphological Adaptations* (Provide supporting data in Remarks or on a separate sheet)	_____
3	_____	FAC species	x 3 = 3.0	4 - Morphological Adaptations* (Provide supporting data in Remarks or on a separate sheet)	_____	Problematic Hydrophytic Vegetation* (Explain)	_____
4	_____	FACW species	x 4 = _____		_____		_____
5	_____	UPL species	x 5 = _____		_____		_____
6	_____	Column Totals:	10.7	(A)	15.2	(B)	_____
7	_____						_____
8	_____						_____
9	_____						_____
10	_____						_____

Total Cover		Total Cover		Total Cover		Total Cover	
1. _____	_____	1. _____	_____	1. _____	_____	1. _____	_____
2. _____	_____	2. _____	_____	2. _____	_____	2. _____	_____
3. _____	_____	3. _____	_____	3. _____	_____	3. _____	_____
4. _____	_____	4. _____	_____	4. _____	_____	4. _____	_____
5. _____	_____	5. _____	_____	5. _____	_____	5. _____	_____
6. _____	_____	6. _____	_____	6. _____	_____	6. _____	_____
7. _____	_____	7. _____	_____	7. _____	_____	7. _____	_____
8. _____	_____	8. _____	_____	8. _____	_____	8. _____	_____
9. _____	_____	9. _____	_____	9. _____	_____	9. _____	_____
10. _____	_____	10. _____	_____	10. _____	_____	10. _____	_____

Hydrophytic Vegetation Present?		Yes		No	
1. _____	_____	1. _____	_____	1. _____	_____
2. _____	_____	2. _____	_____	2. _____	_____

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

W-10-0402-02
Samuelson Bros
W-10-0402-02

[illegible]

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)	
Primary Indicator (minimum of one is required, check all that apply)		<input type="checkbox"/> Surface Soil Cracks (B9)	<input type="checkbox"/>
<input type="checkbox"/> Surface Water (A-1)	<input type="checkbox"/> Water-Stained Leaves (B8)	<input checked="" type="checkbox"/> Drainage Patterns (B10)	<input type="checkbox"/>
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input checked="" type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/>
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Crayfish Burrows (C8)	<input type="checkbox"/>
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	<input type="checkbox"/>
<input type="checkbox"/> Sediment Deposits (B2)	<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturated or Stressed Plants (D1)	<input type="checkbox"/>
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Geomorphic Position (D2)	<input type="checkbox"/>
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)	<input type="checkbox"/>
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)		
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Gauge or Well Data (D9)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other: (Explain in Remarks)		
Field Observations:		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
<input type="checkbox"/> Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
<input type="checkbox"/> Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
<input type="checkbox"/> Saturation Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
<input type="checkbox"/> Saturation (capillary fringe) (includes capillary fringe)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

Site: WETLAND 3 Rater(s): W. BAO, B. H. 1012-03 Date: 07/10/12

Metric 1. Wetland Area (size).

Select one size class and assign score.

max 6 pts.	subtotal
0	0
1	0
2	0
3	0
4	0
5	0
6	0
7	0
8	0
9	0

Metric 2. Upland buffers and surrounding land use.

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

max 14 pts.	subtotal
5	5
6	0
7	0
8	0
9	0

Metric 3. Hydrology.

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

max 30 pts.	subtotal
13	18
14	0
15	0
16	0
17	0
18	0
19	0
20	0
21	0
22	0
23	0
24	0
25	0
26	0
27	0
28	0
29	0
30	0

Metric 4. Habitat Alteration and Development.

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

max 20 pts.	subtotal
9	27
10	0
11	0
12	0
13	0
14	0
15	0
16	0
17	0
18	0
19	0
20	0
21	0
22	0
23	0
24	0
25	0
26	0
27	0
28	0
29	0
30	0

Site: WETLAND 3 Rater(s): W. BAO, B. H. 1012-03 Date: 07/10/12

Metric 5. Special Wetlands.

Check all that apply and score as indicated.

max 10 pts.	subtotal
0	0
1	0
2	0
3	0
4	0
5	0
6	0
7	0
8	0
9	0

Metric 6. Plant communities, interspersions, microtopography.

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

max 20 pts.	subtotal
3	30
4	0
5	0
6	0
7	0
8	0
9	0
10	0
11	0
12	0
13	0
14	0
15	0
16	0
17	0
18	0
19	0
20	0

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.247 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 high quality
3	Present in moderate or greater amounts and of highest quality

WETLAND 4

Site: AEP Sug to Kirk 138 NW Rater(s): A. Thayer, B. O. WPS Date: 10 July 2012

Metric 1. Wetland Area (size).

max 6 pts.	max 30 pts.
2	22.5
2	22.5

Select one size class and assign score.

<input type="checkbox"/> >50 acres (>20.2ha) (6 pts)
<input type="checkbox"/> 25 to <50 acres (10.1 to <20.2ha) (5 pts)
<input type="checkbox"/> 10 to <25 acres (4 to <10.1ha) (4 pts)
<input type="checkbox"/> 3 to <10 acres (1.2 to <4ha) (3 pts)
<input checked="" type="checkbox"/> 0.3 to <3 acres (0.12 to <1.2ha) (2pts)
<input type="checkbox"/> 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
<input type="checkbox"/> 0.1 acres (0.04ha) (0 pts)

Metric 2. Upland buffers and surrounding land use.

max 6 pts.	max 30 pts.
1	3
1	3

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

<input type="checkbox"/> WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)
<input type="checkbox"/> MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)
<input checked="" type="checkbox"/> NARROW. Buffers average 10m to <25m (32 to <82ft) around wetland perimeter (0)
<input type="checkbox"/> VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

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

<input type="checkbox"/> VERY LOW. 2nd growth or older forest, prairie, savanna, wildlife area, etc. (7)
<input type="checkbox"/> LOW. Young forest, pasture, cropland, etc. (4)
<input checked="" type="checkbox"/> MODERATELY HIGH. Residential, farm pasture, park, conservation lands, new fallow field. (3)
<input type="checkbox"/> HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)

Metric 3. Hydrology.

max 6 pts.	max 30 pts.
12	15
12	15

Sources of Water. Score all that apply.

<input checked="" type="checkbox"/> High pH groundwater (5)
<input type="checkbox"/> Other groundwater (3)
<input checked="" type="checkbox"/> Precipitation (1)
<input type="checkbox"/> Subsurface/unconfined surface water (3)
<input type="checkbox"/> Part of river or upland pond (1)
<input type="checkbox"/> Duration of ponding (lake, stream) (5)

Minimum water depth. Select only one and assign score.

<input type="checkbox"/> >0.7 (27.8in) (3)
<input checked="" type="checkbox"/> 0.4 to 0.7m (15.7 to 27.8in) (2)
<input type="checkbox"/> 0.4m (<15.7in) (1)

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

<input checked="" type="checkbox"/> None or none apparent (12)
<input type="checkbox"/> Recovering (7)
<input type="checkbox"/> Recovering (3)
<input type="checkbox"/> Recent or no recovery (1)

Check all disturbances observed

<input checked="" type="checkbox"/> point source (nonstormwater)
<input checked="" type="checkbox"/> filling/grading
<input checked="" type="checkbox"/> road bed/RTR track
<input type="checkbox"/> dredging
<input type="checkbox"/> other

Metric 4. Habitat Alteration and Development.

max 6 pts.	max 30 pts.
7.5	22.5
7.5	22.5

Substrate disturbance. Score one or double check and average.

<input checked="" type="checkbox"/> None or none apparent (4)
<input type="checkbox"/> Recovered (3)
<input type="checkbox"/> Recovering (2)
<input type="checkbox"/> Recent or no recovery (1)

Habitat development. Select only one and assign score.

<input type="checkbox"/> Excellent (7)
<input type="checkbox"/> Very good (6)
<input type="checkbox"/> Good (5)
<input checked="" type="checkbox"/> Moderately good (4)
<input type="checkbox"/> Fair (3)
<input type="checkbox"/> Poor to fair (2)
<input type="checkbox"/> Poor (1)

Habitat alteration. Score one or double check and average.

<input type="checkbox"/> None or none apparent (9)
<input checked="" type="checkbox"/> Recovered (6)
<input type="checkbox"/> Recovering (3)
<input type="checkbox"/> Recent or no recovery (1)

Check all disturbances observed

<input checked="" type="checkbox"/> shrub/sapling removal
<input checked="" type="checkbox"/> herbaceous/aquatic bed removal
<input checked="" type="checkbox"/> sedimentation
<input checked="" type="checkbox"/> dredging
<input checked="" type="checkbox"/> selective cutting
<input checked="" type="checkbox"/> herbicide removal
<input type="checkbox"/> toxic pollutants

WETLAND 4

Site: AEP Sug to Kirk 138 NW Rater(s): A. Thayer, B. O. WPS Date: 10 July 2012

Metric 5. Special Wetlands.

max 10 pts.	max 50 pts.
0	22.5
0	22.5

Select all that apply and score as indicated.

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

Metric 6. Plant communities, interspersions, microtopography.

max 20 pts.	max 100 pts.
5	27.5
5	27.5

Wetland Vegetation Communities. Score all present using 0 to 3 scale.

<input type="checkbox"/> Aquatic bed
<input checked="" type="checkbox"/> Emergent
<input type="checkbox"/> Shrub
<input type="checkbox"/> Forest
<input type="checkbox"/> Mudflats
<input type="checkbox"/> Open water
<input type="checkbox"/> Other

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

<input type="checkbox"/> High (5)
<input type="checkbox"/> Moderately high (4)
<input type="checkbox"/> Moderate (3)
<input checked="" type="checkbox"/> Moderately low (2)
<input type="checkbox"/> Low (1)
<input type="checkbox"/> None (0)

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

<input checked="" type="checkbox"/> Extensive >75% cover (-5)
<input type="checkbox"/> Moderate 25-75% cover (-3)
<input type="checkbox"/> Sparse 5-25% cover (-1)
<input type="checkbox"/> Nearly absent <5% cover (0)
<input type="checkbox"/> Absent (1)

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

<input checked="" type="checkbox"/> Vegetated hummocks/flusks
<input type="checkbox"/> Coarse woody debris >15cm (6in)
<input type="checkbox"/> Standing dead >25cm (10in) dbh
<input type="checkbox"/> Amphibian breeding pools

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

W-19-00-0712-04

WETLANDS

WETLAND DETERMINATION DATA FORM - Midwest Region

Project: ATP JUL-K12K City/County: LICKING State: OH Sampling Date: 07/12/12 Sampling Point: 04
Applicant: AEF Section, Township, Range: CONANT
Investigator: BAO, JC Local relief (concave, convex, none): CONANT
Landform (slope, terrace, etc.): FLAT Slope (degrees): 0 Lat: 40.561159 Long: -82.64973 Datum: NAD83
Soil Map Unit Name: Celg NWI classification: UA
Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
Are vegetation/hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
Are vegetation/hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
Are vegetation/hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

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

Hydrophytic Vegetation Present? Yes X No Is the Sampled Area within a Wetland? Yes X No
Hydric Soil Present? Yes X No
Wetland Hydrology Present? Yes X No
Remarks: 55/100 WETLAND THAT IS IN ROW & ADJACENT HHT-BAO-0712-03

VEGETATION - Use scientific names of plants.

Tree Stratum	Plot size	Absolute % Cover	Dominant Indicator Species	Dominance Test Worksheet
1. <u>AMERICAN BIRCH</u>	<u>10</u>	<u>15</u>	<u>DBL</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>7</u> (A)
2. <u>AMERICAN BIRCH</u>	<u>10</u>	<u>15</u>	<u>DBL</u>	Total Number of Dominant Species Across All Strata: <u>6</u> (B)
3. <u>AMERICAN BIRCH</u>	<u>10</u>	<u>15</u>	<u>DBL</u>	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>85%</u> (A/B)
4. <u>AMERICAN BIRCH</u>	<u>10</u>	<u>15</u>	<u>DBL</u>	Prevalence Index Worksheet: Total % Cover of OBL species <u>95</u> x 1 = <u>95</u>
5. <u>AMERICAN BIRCH</u>	<u>10</u>	<u>15</u>	<u>DBL</u>	FACW species <u>67</u> x 2 = <u>134</u>
6. <u>AMERICAN BIRCH</u>	<u>10</u>	<u>15</u>	<u>DBL</u>	FAC species <u>30</u> x 3 = <u>90</u>
7. <u>AMERICAN BIRCH</u>	<u>10</u>	<u>15</u>	<u>DBL</u>	UPL species <u>15</u> x 5 = <u>75</u>
8. <u>AMERICAN BIRCH</u>	<u>10</u>	<u>15</u>	<u>DBL</u>	Column Totals: <u>207</u> (A) <u>204</u> (B)
9. <u>AMERICAN BIRCH</u>	<u>10</u>	<u>15</u>	<u>DBL</u>	Prevalence Index = <u>84</u> = <u>1.90</u>
10. <u>AMERICAN BIRCH</u>	<u>10</u>	<u>15</u>	<u>DBL</u>	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation <u> </u>
11. <u>AMERICAN BIRCH</u>	<u>10</u>	<u>15</u>	<u>DBL</u>	2 - Dominance Test is >50% <u> </u>
12. <u>AMERICAN BIRCH</u>	<u>10</u>	<u>15</u>	<u>DBL</u>	3 - Prevalence Index is >3.0 <u> </u>
13. <u>AMERICAN BIRCH</u>	<u>10</u>	<u>15</u>	<u>DBL</u>	4 - Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet) <u> </u>
14. <u>AMERICAN BIRCH</u>	<u>10</u>	<u>15</u>	<u>DBL</u>	Problematic hydrophytic vegetation? (Explain) <u> </u>
15. <u>AMERICAN BIRCH</u>	<u>10</u>	<u>15</u>	<u>DBL</u>	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <u> </u>
16. <u>AMERICAN BIRCH</u>	<u>10</u>	<u>15</u>	<u>DBL</u>	Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>
17. <u>AMERICAN BIRCH</u>	<u>10</u>	<u>15</u>	<u>DBL</u>	Remarks: <u>55/100 WETLAND THAT IS IN ROW & ADJACENT HHT-BAO-0712-03</u>

W-19-00-0712-04

WETLANDS

WETLAND DETERMINATION DATA FORM - Midwest Region

Project: ATP JUL-K12K City/County: LICKING State: OH Sampling Date: 07/12/12 Sampling Point: 04
Applicant: AEF Section, Township, Range: CONANT
Investigator: BAO, JC Local relief (concave, convex, none): CONANT
Landform (slope, terrace, etc.): FLAT Slope (degrees): 0 Lat: 40.561159 Long: -82.64973 Datum: NAD83
Soil Map Unit Name: Celg NWI classification: UA
Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
Are vegetation/hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
Are vegetation/hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
Are vegetation/hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

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

Hydrophytic Vegetation Present? Yes X No Is the Sampled Area within a Wetland? Yes X No
Hydric Soil Present? Yes X No
Wetland Hydrology Present? Yes X No
Remarks: 55/100 WETLAND THAT IS IN ROW & ADJACENT HHT-BAO-0712-03

VEGETATION - Use scientific names of plants.

Tree Stratum	Plot size	Absolute % Cover	Dominant Indicator Species	Dominance Test Worksheet
1. <u>AMERICAN BIRCH</u>	<u>10</u>	<u>15</u>	<u>DBL</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>7</u> (A)
2. <u>AMERICAN BIRCH</u>	<u>10</u>	<u>15</u>	<u>DBL</u>	Total Number of Dominant Species Across All Strata: <u>6</u> (B)
3. <u>AMERICAN BIRCH</u>	<u>10</u>	<u>15</u>	<u>DBL</u>	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>85%</u> (A/B)
4. <u>AMERICAN BIRCH</u>	<u>10</u>	<u>15</u>	<u>DBL</u>	Prevalence Index Worksheet: Total % Cover of OBL species <u>95</u> x 1 = <u>95</u>
5. <u>AMERICAN BIRCH</u>	<u>10</u>	<u>15</u>	<u>DBL</u>	FACW species <u>67</u> x 2 = <u>134</u>
6. <u>AMERICAN BIRCH</u>	<u>10</u>	<u>15</u>	<u>DBL</u>	FAC species <u>30</u> x 3 = <u>90</u>
7. <u>AMERICAN BIRCH</u>	<u>10</u>	<u>15</u>	<u>DBL</u>	UPL species <u>15</u> x 5 = <u>75</u>
8. <u>AMERICAN BIRCH</u>	<u>10</u>	<u>15</u>	<u>DBL</u>	Column Totals: <u>207</u> (A) <u>204</u> (B)
9. <u>AMERICAN BIRCH</u>	<u>10</u>	<u>15</u>	<u>DBL</u>	Prevalence Index = <u>84</u> = <u>1.90</u>
10. <u>AMERICAN BIRCH</u>	<u>10</u>	<u>15</u>	<u>DBL</u>	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation <u> </u>
11. <u>AMERICAN BIRCH</u>	<u>10</u>	<u>15</u>	<u>DBL</u>	2 - Dominance Test is >50% <u> </u>
12. <u>AMERICAN BIRCH</u>	<u>10</u>	<u>15</u>	<u>DBL</u>	3 - Prevalence Index is >3.0 <u> </u>
13. <u>AMERICAN BIRCH</u>	<u>10</u>	<u>15</u>	<u>DBL</u>	4 - Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet) <u> </u>
14. <u>AMERICAN BIRCH</u>	<u>10</u>	<u>15</u>	<u>DBL</u>	Problematic hydrophytic vegetation? (Explain) <u> </u>
15. <u>AMERICAN BIRCH</u>	<u>10</u>	<u>15</u>	<u>DBL</u>	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <u> </u>
16. <u>AMERICAN BIRCH</u>	<u>10</u>	<u>15</u>	<u>DBL</u>	Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>
17. <u>AMERICAN BIRCH</u>	<u>10</u>	<u>15</u>	<u>DBL</u>	Remarks: <u>55/100 WETLAND THAT IS IN ROW & ADJACENT HHT-BAO-0712-03</u>

Metric 1. Wetland Area (size).

max 6 pts. subtotal

Select one size class and assign score.

<input type="checkbox"/>	>50 acres (>20.2ha) (6 pts)
<input type="checkbox"/>	25 to <50 acres (10.1 to <20.2ha) (5 pts)
<input type="checkbox"/>	10 to <25 acres (4 to <10.1ha) (4 pts)
<input type="checkbox"/>	3 to <10 acres (1.2 to <4ha) (3 pts)
<input checked="" type="checkbox"/>	0.3 to <3 acres (0.12 to <1.2ha) (2pts)
<input type="checkbox"/>	0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
<input type="checkbox"/>	<0.1 acres (0.04ha) (0 pts)

Metric 2. Upland buffers and surrounding land use.

max 16 pts. subtotal

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

<input type="checkbox"/>	WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)
<input type="checkbox"/>	MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)
<input checked="" type="checkbox"/>	NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)

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

<input type="checkbox"/>	VERY LOW. 2nd growth or older forest, prairie savannah, wildlife area, etc. (7)
<input type="checkbox"/>	LOW. 1st growth forest, shrub, young second growth forest, etc. (5)
<input checked="" type="checkbox"/>	MODERATELY HIGH. Pasture, cropland, agriculture, new fallow field, (3)
<input checked="" type="checkbox"/>	HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)

Metric 3. Hydrology.

max 24 pts. subtotal

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

<input type="checkbox"/>	High pH groundwater (5)
<input checked="" type="checkbox"/>	Other groundwater (3)
<input checked="" type="checkbox"/>	Precipitation (1)
<input checked="" type="checkbox"/>	Seasonal intermittent surface water (3)
<input checked="" type="checkbox"/>	Perennial surface water (lake or stream) (5)

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

<input checked="" type="checkbox"/>	>0.7 (27.8in) (3)
<input checked="" type="checkbox"/>	0.4 to 0.7m (15.7 to 27.8in) (2)
<input checked="" type="checkbox"/>	<0.4m (<15.7in) (1)

3c. Check all disturbances observed

<input checked="" type="checkbox"/>	None or none apparent (12)
<input checked="" type="checkbox"/>	Recovered (7)
<input type="checkbox"/>	Recovering (3)
<input type="checkbox"/>	Recent or no recovery (1)

3d. Check all disturbances observed

<input type="checkbox"/>	ditch
<input type="checkbox"/>	tile
<input type="checkbox"/>	dike
<input type="checkbox"/>	weir
<input type="checkbox"/>	stormwater input
<input type="checkbox"/>	other

Metric 4. Habitat Alteration and Development.

max 33 pts. subtotal

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

<input checked="" type="checkbox"/>	None or none apparent (4)
<input checked="" type="checkbox"/>	Recovered (3)
<input checked="" type="checkbox"/>	Recovering (1)
<input type="checkbox"/>	Habitat development. Select only one and assign score.
<input checked="" type="checkbox"/>	Excellent (7)
<input checked="" type="checkbox"/>	Very good (6)
<input checked="" type="checkbox"/>	Good (5)
<input checked="" type="checkbox"/>	Moderately good (4)
<input checked="" type="checkbox"/>	Fair (3)
<input checked="" type="checkbox"/>	Poor to fair (2)
<input type="checkbox"/>	Poor (1)

4b. Check all disturbances observed

<input checked="" type="checkbox"/>	None or none apparent (9)
<input checked="" type="checkbox"/>	Recovered (6)
<input checked="" type="checkbox"/>	Recovering (3)
<input type="checkbox"/>	Recent or no recovery (1)

4c. Check all disturbances observed

<input checked="" type="checkbox"/>	Shrub/deciduous removal
<input checked="" type="checkbox"/>	Herbaceous/aquatic bed removal
<input checked="" type="checkbox"/>	Sedimentation
<input checked="" type="checkbox"/>	Grading
<input checked="" type="checkbox"/>	Drilling
<input checked="" type="checkbox"/>	Soil enrichment
<input checked="" type="checkbox"/>	Toxic pollutants

Metric 5. Special Wetlands.

max 10 pts. subtotal

Check all that apply and score as indicated.

<input type="checkbox"/>	Big (10)
<input type="checkbox"/>	Pin (10)
<input type="checkbox"/>	Old growth forest (10)
<input type="checkbox"/>	Nature forested wetland (5)
<input type="checkbox"/>	Lake Erie coastal/tributary wetland-unrestricted hydrology (10)
<input type="checkbox"/>	Lake Erie coastal/tributary wetland-restricted hydrology (5)
<input type="checkbox"/>	Lake Plain Sand Prairies (Oak Openings) (10)
<input type="checkbox"/>	Relict Wet Prairies (10)
<input type="checkbox"/>	Known occurrence state/federal threatened or endangered species (10)
<input type="checkbox"/>	Significant migratory songbird/water fowl habitat or usage (10)
<input type="checkbox"/>	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.

<input checked="" type="checkbox"/>	Aquatic bed
<input checked="" type="checkbox"/>	Emergent
<input checked="" type="checkbox"/>	Shrub
<input checked="" type="checkbox"/>	Forest
<input checked="" type="checkbox"/>	Mudflats
<input checked="" type="checkbox"/>	Open water
<input type="checkbox"/>	Other

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

<input type="checkbox"/>	High (5)
<input checked="" type="checkbox"/>	Moderately high (4)
<input checked="" type="checkbox"/>	Moderate (3)
<input checked="" type="checkbox"/>	Moderately low (2)
<input type="checkbox"/>	Low (1)
<input type="checkbox"/>	None (0)

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

<input checked="" type="checkbox"/>	Extensive >75% cover (-3)
<input checked="" type="checkbox"/>	Moderate 25-75% cover (-3)
<input checked="" type="checkbox"/>	Scattered 5-25% cover (-1)
<input checked="" type="checkbox"/>	Nearly absent <5% cover (0)
<input type="checkbox"/>	Absent (1)

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

<input checked="" type="checkbox"/>	Vegetated hummocks/mounds
<input checked="" type="checkbox"/>	Coarse woody debris >15cm (6in)
<input type="checkbox"/>	Standing dead >25cm (10in) dbh
<input type="checkbox"/>	Amphibian breeding pools

Narrative Description of Vegetation Quality

low
mod
high

Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
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 with presence of rare threatened or endangered spp
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
1
2
3

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

0
1
2
3

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

This foregoing document was electronically filed with the Public Utilities

Commission of Ohio Docketing Information System on

9/14/2012 10:42:01 AM

in

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

Summary: Letter of Notification and Attachments for Kirk-Jug 138 kV Circuit Project (Part 7 of 12) electronically filed by Erin C Miller on behalf of AEP Ohio Transmission Company, Inc.