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2008 AUG 12 PM 5: 21

American Electric Power
1 Riverside Plaza
Columbus, OH 43215-2373
AEP.com

PUCO

August 12, 2008

The Honorable Alan R. Schriber
Chairman
Ohio Power Siting Board
180 East Broad Street
Columbus, Ohio 43215-3793

08-974-EL-BTX

Steven T. Nourse
Senior Counsel –
Regulatory Services
(614) 716-1608 (P)
(614) 716-2014 (F)
stnourse@aep.com

Re: Certificate Amendment for Don Marquis 138 kV Loop #1
Project (certificate granted in Case No. 07-715-EL-BTX)

Dear Chairman Schriber:

In accordance with Rule 4906-5-10, Ohio Administrative Code ("O.A.C."), Columbus Southern Power Company, (American Electric Power or "AEP") submits this Certificate Amendment. AEP has submitted a copy of this Amendment to the political subdivisions immediately affected by the proposed project. Specifically, copies of the Amendment have been sent to the Pike County Commissioners and the Seal and Scioto Township Trustees. The cover letter accompanying these mailings is included in the Amendment Appendix.

Respectfully Submitted,

Steven T. Nourse
Senior Attorney
American Electric Power Service
Corporation
1 Riverside Plaza, 29th Floor
Columbus, Ohio 43215
Telephone: (614) 716-1608
Facsimile: (614) 717-2950
E-mail: stnourse@aep.com

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Amendment

for the

Don Marquis 138 kV Loop #1 Project
(Certificate granted in Case No. 07-715-EL-BTX)

Submitted by

Columbus Southern Power Company

Amendment

49016-11-01 (A) Need Statement

(1)(a) Name of Project

The name of this project is the Don Marquis 138 kV Loop #1 Project. The original Application for a Certificate of Environmental Compatibility and Public Need to which this Amendment applies is docketed under PUCO Case #07-0715-EL-BTX. Further information in addition to any provided below can be found in that Application.

(1)(b) Description of this Project

This Amendment involves a relocation of a portion of the transmission line as proposed in the original application. This 1.46 mile long relocation is being done at the request of the Department of Energy (DOE). A map showing this proposed relocation is contained in the Appendix. This relocation is entirely on property owned by the Department of Energy

(1)(c) Need for this Project

The need for the overall transmission line project has been demonstrated in the original application. The relocation of the proposed transmission line is being done at the request of the Department of Energy. The original route is in conflict with potential DOE future expansion plans. These potential expansion plans were not known by AEP at the time of the original Application filing. A letter from DOE requesting this relocation is included in the Appendix.

(1)(d) Reasons this Project Meets the Letter of Notification Requirements

This project meets the criteria for a Letter of Notification because the extent of the project is defined by Item (1)(c) of Appendix A "Application Requirement Matrix for Electric Power

Transmission Lines. This project consists of constructing a line that is one hundred twenty – five KV and above, but less than three hundred kV, and not greater than 2 miles in length.

(2) Projection Location Relative to Existing or Proposed Lines

The location of the overall project is included in the original Application (07-0715-EL-BTX).

(3) Alternatives Considered

No other alternatives for this relocation were considered. The final relocated route was selected by DOE.

(4) Anticipated Construction Schedule

Construction of this transmission line project is expected to begin in October, 2008 and to be place in service in June, 2009. Construction of this section of relocated line will not begin until after approval form the OPSB.

(5) Maps Depicting Project Location

A map of the proposed relocation is included in the Appendix.

49016-11-01 (B) Technical Features

(1) Number and Type of Structures

The type of structures and conductor size for this relocation is the same as outlined in the original Application (07-0715-EL-BTX). Approximately 11 structures will be required on the relocated route.

(2) Calculated Electric and Magnetic Field Levels

EMF values for this project are included the original Application (07-0715-EL-BTX). The EMF values for this relocation will be the same.

(3) Estimated Capital Costs

The overall project cost is included in the original Application (07-0715-EL-BTX). This relocation will cause a slight increase to these estimated costs.

49016-11-01 (C) Socioeconomic Data

(1) Land Use and Population Density

This proposed relocation is in Seal Township and Scioto Township, Pike County, Ohio. This relocation is entirely on property owned by the Department of Energy and used for industrial purposes. The population density is provided in the original Application (07-0715-EL-BTX).

(2) Agricultural Land and Agricultural Districts

The proposed line relocation is not within the limits of any agricultural land nor is it located within any Agricultural District as defined by Chapter 929 of the Ohio Revised Code.

(3) Investigation of Archeological and Cultural Resources

An investigation of Archeological and Cultural Resources is included in the original Application (07-0715-EL-BTX). Additional information is included in the Appendix.

(4) Local Officials to be Notified

Copies of this Amendment have sent to the Seal Township Trustees, Scioto Township Trustees and the Pike County Commissioners. Copies of the cover letters to these officials are attached.

(5) Current or Pending Litigation

There is no current litigation involving this project and none is expected.

(6) Local, State and Federal Requirements

This line will be designed, constructed, and operated to meet or exceed the requirements of the National Electrical Safety Code, Ohio Power design standards, and all applicable OSHA standards.

49016-11-01 (D) Environmental Data

(1) Endangered or Threatened Species

An investigation of endangered or threatened species is included in the original Application (07-0715-EL-BTX). Additional information is included in the Appendix.

(2) Areas of Ecological Concern

There are no areas of ecological concerns within the proposed line relocation.

(3) Additional Information

There are no unusual conditions that will cause significant environmental or social impacts from the installation and operation of this proposed transmission line.

Appendix



August 4, 2008

Mr. Matthew D. Hales
American Electric Power
700 Tech Center Drive
Gahanna, Ohio 43230

**Re: Preferred Route Wetland Delineation and Stream Assessment Report Addendum,
Don Marquis 138 kV Loop #1 Transmission Line Project, Pike County, Ohio**

Dear Mr. Hales:

American Electric Power (AEP) is proposing to construct one 138 kV electric transmission line (double circuit) from its Don Marquis Station in central Pike County, Ohio. The transmission line is approximately six to eight miles long, and will connect the station to the existing Lick-Waverly 138 kV transmission line. This letter report summarizes the findings of the wetland delineation and stream assessment conducted by URS for the revised portion of the Preferred Route on the U.S. Department of Energy's (DOE) property. The DOE requested that AEP move their proposed route south on their property so that it will parallel an existing transmission line. Attachment 1 is a letter from DOE saying they will support an easement on their property as long as the proposed route follows the existing transmission line on their property. Figure 1 shows the location of the new Preferred Route versus the originally submitted Preferred Route. The wetland delineation and stream assessment was conducted on January 31, 2008. Figure 2 shows the delineated area and the surrounding vicinity.

The ecological assessment for this project was conducted by a qualified URS biologist. The assessment was comprised of an Army Corps of Engineers (ACOE) jurisdictional wetland delineation, Ohio EPA Ohio Rapid Assessment Method (ORAM) version 5.0 qualitative wetland assessments, and Headwater Habitat Evaluation Index (HHEI) and Qualitative Habitat Evaluation Index (QHEI) for surface drainages.

Methods

The project site was investigated for the presence of wetlands using the procedures outlined in the ACOE Wetlands Delineation Manual (1987 Manual) (Environmental Laboratory, 1987). The completed ACOE wetland delineation form for wetland Pr-w010 is included in Attachment

URS Corporation
38 East Seventh Street
Suite 2300
Cincinnati, OH 45202
Tel: 513-651-3440
Fax: (513) 651-3452
www.urscorp.com

2. Additionally, URS prepared an Ohio EPA ORAM version 5.0, (ORAM v5.0 Manual) qualitative wetland evaluation form for the wetland, which is included in Attachment 2. Habitat assessments for streams with a drainage area less than one square mile and located within the 200-foot environmental survey right-of-way (ROW), were conducted using the methods described in the Ohio EPA's *Field Evaluation Manual for Ohio's Primary Headwater Habitat Streams. Final Version 1.0* (Davic, 2001) (HHEI). The completed HHEI forms are included in Attachment 3. No habitat assessments of streams with a drainage area greater than one square mile and located within the 200-foot survey ROW were conducted. The locations and approximate extents of these features are provided on Figure 2.

Results

U.S. Army Corps of Engineers Evaluation

One wetland, Pr-w010, totaling 0.03 acres was delineated within the 200-foot survey ROW. Wetland Pr-w010 is categorized as a PEM wetland based on the Cowardin Wetland Classification. See Table 1 for details on Preferred Route wetlands. Selected photographs of each stream are included in Attachment 4.

Based upon the procedure identified in the *1987 Manual*, the area delineated in Figure 2 is a wetland, as it meets the vegetation, soil and hydrology wetland criteria. Upland areas were observed to contain some wetland vegetation, but did not meet the hydrology and/or soils criteria of the *1987 Manual*.

Ohio EPA ORAM Evaluation

According to the Ohio EPA ORAM evaluation, wetland Pr-w010 scored 20/100, indicating it is a Category I wetland. Category I wetlands typically exhibit narrow upland buffers and intensive use of adjacent upland areas (residential, construction, open pasture, or row cropping), exhibit limited plant community development with a moderate to high percentage of invasive species, and characteristically have habitat and hydrology in the early stages or recovery from

construction, farming, or residential impacts. See Table I regarding delineated Preferred Route wetlands.

Ohio EPA HHEI Evaluation

Ohio EPA HHEI forms for stream habitat assessment were completed for two new streams (Pr-s015 and Pr-s016) located within the 200-foot survey ROW. The two completed HHEI stream forms are included in Attachment 3. Selected photographs of each stream are included in Attachment 4. The location of these streams is provided on Figure 2.

The HHEI methodology uses a 100-point scale for scoring. The score is based on composition of substrate, pool depth, and bankfull width. Once a score is obtained, it is applied to the decision-making flow chart. This chart serves to assign a class to streams based upon stream channel modifications, biotic communities, and percentage of substrate comprised of bedrock, boulder, boulder slabs, and cobble.

The two new Preferred Route primary headwater streams include one Modified Class I stream (Pr-s016) and one Class III stream (Pr-s015).

Stream Pr-s015 – Stream Pr-s015 has a HHEI score of 54, which classifies it as a Class III headwater stream. The substrate composition of the stream is generally dominated by bedrock and gravel. Sand and silt are also noted as less dominant substrate types in this stream class. Maximum pool depth is less than 14 inches, and the bank full width for this stream is 3 to 4 feet.

Stream Pr-s016 – Stream Pr-s016 has a HHEI score of 24, which classifies it as a Modified Class I headwater stream. The substrate composition of the stream is generally dominated by clay or hardpan and gravel. Cobble, leafpack/woody debris, and sand are also noted as less dominant substrate types. The maximum pool depth is less than 2 inches, and the bank full width for this stream is less than 1 foot. The stream shows evidence of channel modification (e.g. channelization, culverting, etc.), which in turn resulted in a modified class designation.

Ponds

Two ponds were identified within the 200-foot survey ROW. The first pond, Pr-p01, is a large settling pond that serves some purpose for the DOE. The second pond, Pr-p02, is a small man-made pond that is along the edge of the existing powerline ROW. Attachment 4 contains photographs of the two ponds. See Figure 2 for the location of the ponds.

Land Use Changes

The old Preferred Route that was initially submitted to the OPSB was six miles long. The new Preferred Route is slightly longer at 6.4 miles. The route change occurs on DOE property and affects no other landowners. The line change is a result of the DOE asking AEP to move the proposed line south to parallel an existing transmission line, see Attachment 1.

The old Preferred Route bisected through grasslands and mature deciduous forest, just south of their gun range. The new Preferred Route passes through grassland, young coniferous forest and young deciduous forest. See Figure 1 for the location of the new Preferred Route versus the old Preferred Route.

Threatened and Endangered Species

The new Preferred Route segment does not contain any known threatened and/or endangered species within the 200 foot survey corridor. Since the Preferred Route has been moved farther south, two observed threatened and endangered species will no longer be within the 200 foot survey corridor, yellow crownbeard (*Verbesina occidentalis*) and blackjack oak (*Quercus marilandica*).

Summary of the New Preferred Route

The new Preferred Route contains 16 evaluated streams within the 200-foot survey ROW, five QHEI evaluated streams and 11 HHEI evaluated headwater streams. Two QHEI evaluated streams received a "good warmwater habitat" narrative rating, two received a "fair warmwater habitat" rating, and one received an "excellent warmwater habitat" rating. Two Class I streams, one Modified Class I stream, three Class II streams, three Modified Class II streams, and two Class III streams were evaluated using the HHEI methodology. See Table 2 for a description of streams found with the Preferred Route 200-foot survey ROW.

Ten wetlands within new Preferred Route, totaling 2.997 acres were delineated within the 200-foot survey ROW. Nine of the wetlands are labeled as PEM based on the Cowardin Wetland Classification system, and one wetland is labeled as a PEM/PSS/PFO wetland. See Table 1 for details on the new Preferred Route wetlands.

According to the Ohio EPA ORAM evaluations, the ten wetlands have scores ranging between 18/100 to 50/100, indicating the wetlands are either Category I or Category II wetlands. Nine wetlands are classified as Category I wetlands, and one wetland is classified as a Category II wetland. The Category I wetlands exhibited narrow upland buffers and intensive use of adjacent upland areas (residential, construction, open pasture, or row cropping), exhibited limited plant community development with a moderate to high percentage of invasive species, and characteristically have habitat and hydrology in the early stages or recovery from construction, farming, or residential impacts. The Category II wetland exhibited moderate to high quality plant communities with few invasive species, moderate to good plant community interspersions, low to high intensity anthropogenic impact of surrounding land (i.e. farming, residential use, urban infrastructure, etc.), and recovered and/or no modification to natural hydrology and habitat. See Table 1 regarding Preferred Route wetlands.

Conclusions

The new Preferred Route is 0.4 miles longer than the original Preferred Route, totaling 6.4 miles long. The route variation affects no new landowners. The route variation affects one landowner, the DOE, and the variation was done to fulfill DOE's request.

One jurisdictional (i.e. non-isolated), wetland, totaling 0.03 acres, was identified within the 200-foot survey ROW of the new Preferred Route on DOE property. URS's Ohio EPA ORAM evaluation of the wetland resulted in the wetland being designated as a Category I wetland.

A total of 16 streams were identified within the new Preferred Route 200-foot survey ROW including, five QHEI evaluated streams, and 11 HHEI evaluated streams.

Ten wetlands were identified within the new Preferred Route, totaling 2.997 acres, were delineated within the 200-foot survey ROW. Nine wetlands are classified as Category I wetlands and one wetland is categorized as a Category II wetland according to the Ohio EPA ORAM methodology.

The route change resulted in two observed threatened and endangered species, yellow crownbeard (*Verbesina occidentalis*) and blackjack oak (*Quercus marilandica*), to no longer be within the 200 foot survey ROW. In addition, no known threatened and/or endangered species were observed within the 200 foot survey ROW of the new segment.

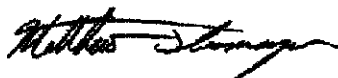
No wetlands or streams will be filled as part of the transmission line construction or operation. Construction will require stream crossings but these will be temporary and will be discussed with the OEPA and OPSB during preconstruction meetings. The crossing method will vary according to width and quality of the stream, but will be designed in accordance with the Rainwater and Land Development Manual published by the ODNR/OEPA. Erosion control and restoration

will be conducted according to the conditions of the Stormwater Pollution Prevention Plan and OPSB Application.

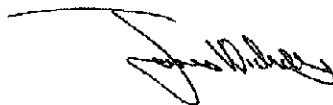
If you have any questions or comments regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

URS



Matthew Thomayer
Environmental Scientist



James Nicholas, Ph.D.
Principal Scientist

TABLE 1
Preferred Route Wetlands

Wetland Identifier	Cowardin Wetland Type	Wetland Area within 200-ft Study Area (Acres)	ORAM Score	ORAM Category	Linear Feet Crossed	Acreage Within 80-ft ROW
Pr-w001	PEM	0.04	18	I	10	0.18
Pr-w002	PEM	0.145	20	I	0	0.035
Pr-w003	PEM	0.133	21	I	55	0.054
Pr-w004	PEM	0.045	32	I	7	0.017
Pr-w005	PEM	0.018	32	I	0	0
Pr-w006	PEM	0.453	25	I	86	0.157
Pr-w007	PEM	0.882	21	I	216	0.432
Pr-w008	PEM/SS/FO	1.175	50	II	253	0.472
Pr-w009	PEM	0.076	30	I	0	0.011
Pr-w010	PEM	0.03	20	I	0	0.008
Totals: 10		2.997			627	1.360

TABLE 2
Preferred Route Streams

QHEI Streams						
Stream ID	Flow Regime	Bankfull Width (feet)	QHEI Score	QHEI Rating	Length (ft) within 200-ft Corridor	Length (ft) within 80-ft Corridor
Cr-s002	Perennial	28	78	Excellent	246	104
Pr-s008	Perennial	37	63	Good	262	90
Pr-s009	Perennial	40	53.5	Fair	248	84
Pr-s010	Perennial	23	56	Fair	235	93
Pr-s014	Intermittent	18	55	Good	244	85
SUBTOTAL: 5					1,235	456

HHEI Streams							
Stream ID	Flow Regime	Bankfull Width (feet)	Maximum Pool Depth (cm)	HHEI Score	HHEI Class	Length (ft) within 200-ft Corridor	Length (ft) within 80-ft Corridor
Cr-s001	Ephemeral	9.1	0	54	Modified Class II	161	56
Cr-s003	Ephemeral	3.6	0	30	Modified Class II	111	0
Pr-s004	Ephemeral	2.6	0	25	Class I	328	81
Pr-s005	Ephemeral	11.4	0	50	Class II	257	122
Pr-s006	Ephemeral	4.2	0	40	Class II	256	85
Pr-s007	Intermittent	11.4	15	76	Class III	315	102
Pr-s011	Intermittent	4.9	8	34	Modified Class II	937	0
Pr-s012	Intermittent	3.5	4	37	Class II	270	103
Pr-s013	Perennial	1.1	8	27	Modified Class I	293	118
Pr-s015	Perennial	1	35	54	Class III	339	98
Pr-s016	Perennial	1	4	24	Modified Class I	327	124
SUBTOTAL: 11						3,594	889
TOTAL: 16						4,829	1,345



Legend

- Preferred Route
- Alternate Route
- Old Preferred Route
- Existing Transmission Line

BASE MAP SOURCE:
USGS 7.5 Minute Topographic Maps
Vincennes, Ohio (1985) and
Piquette, Ohio (1974)

Scale

0 2,500 5,000 Feet

FIGURE 01
SITE VICINITY

Legend

- 2009-4 Preferred Corridor
- 2009-4 Alternate Corridor
- 2009-4 Old Preferred Corridor

Map of Ohio

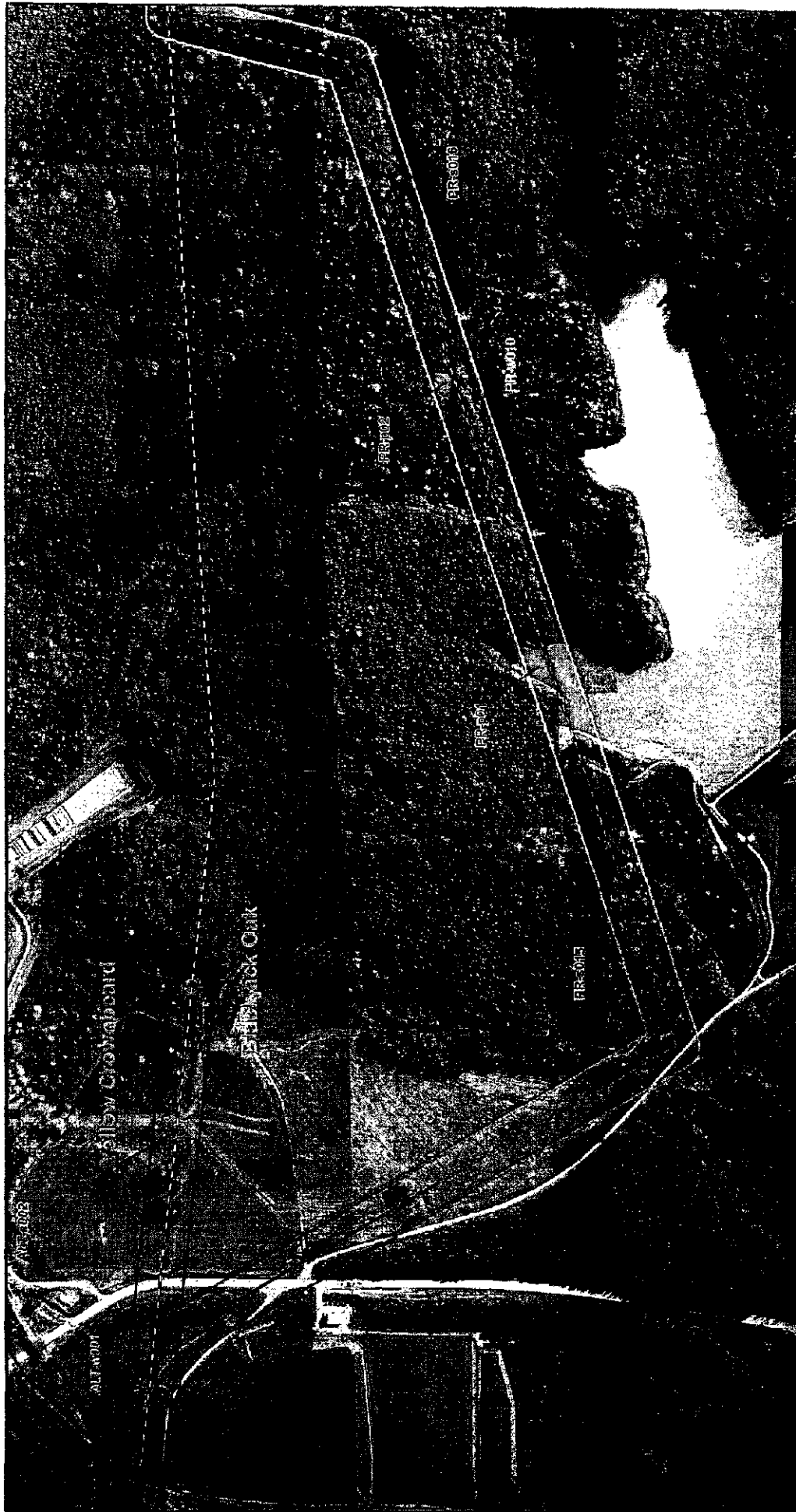
Pin

Legend

- 2009-4 Preferred Corridor
- 2009-4 Alternate Corridor
- 2009-4 Old Preferred Corridor

Map of Ohio

Pin



Legend

- Preferred Route
- Preferred Route 200-ft Corridor
- Alternate Route
- Alternate Route 200-ft Corridor
- Old Preferred Route
- Old Preferred Route 200-ft Corridor

Delineated Streams

Delineated Wetlands

ODNR Recorded T & E Species

Observed T&E Species

Scale in Feet: 1 Inch = 400 Feet

0 400 800

BASE MAP SOURCE:
Aerial Photography
Courtesy of AEP

FIGURE 2
WETLAND DELINEATION AND
STREAM ASSESSMENT MAP

Don Marquardt 130 AV Loop #1
JOB NO. 140-1372
URS

ATTACHMENT 1

**U.S. DEPARTMENT OF ENERGY (DOE)
LETTER**



Department of Energy

Portsmouth/Paducah Project Office
1017 Majestic Drive, Suite 200
Lexington, Kentucky 40513
(859) 219-4000

JUL 17 2008

Ms. Susan Acton
Right of Way Agent
Transmission Line Projects Engineering
American Electric Power
700 Morrison Road
Gahanna, OH 43230

PPPO-03-152-08


Dear Ms. Acton:

ROUTE OF DON MARQUIS LOOP #1 - 138KV TRANSMISSION LINE (OPSB CASE # 07-715-EL-BTX)

The Department of Energy (DOE) Portsmouth/Paducah Project Office received your verbal request for an easement for installation of the above referenced transmission line on DOE-owned property.

DOE is willing to support such an easement provided that the routing of the transmission line is modified to follow along either of the following routes as depicted in the attached drawing: (1) the route following the purple colored line (DOE Preferred Route) and the red and blue dotted line (combined route); or (2) the route following the red colored (Alternate Route) line and the red and blue dotted line (combined route). DOE requests the environmental, historical preservation and other supporting studies and surveys associated with these two routes be made available for evaluation.

If you have any questions, please contact James Gambrell of my staff at (740) 897-3737.


William E. Murphy
Manager
Portsmouth/Paducah Project Office

Enclosure:
DOE Preferred Route Drawing

Ms. Acton

-2-

PPPO-03-152-08

cc w/enclosure:

B. Sokolovich, DOE/EMCBC

D. Kozlowski, PPPO/PORTS

R. Blumenfeld, PPPO/LEX

R. Miskelley, PPPO/LEX

R. McCallister, PPPO/LEX

K. Wiehle, PPPO/PORTS

S. Childers, LPP/PORTS

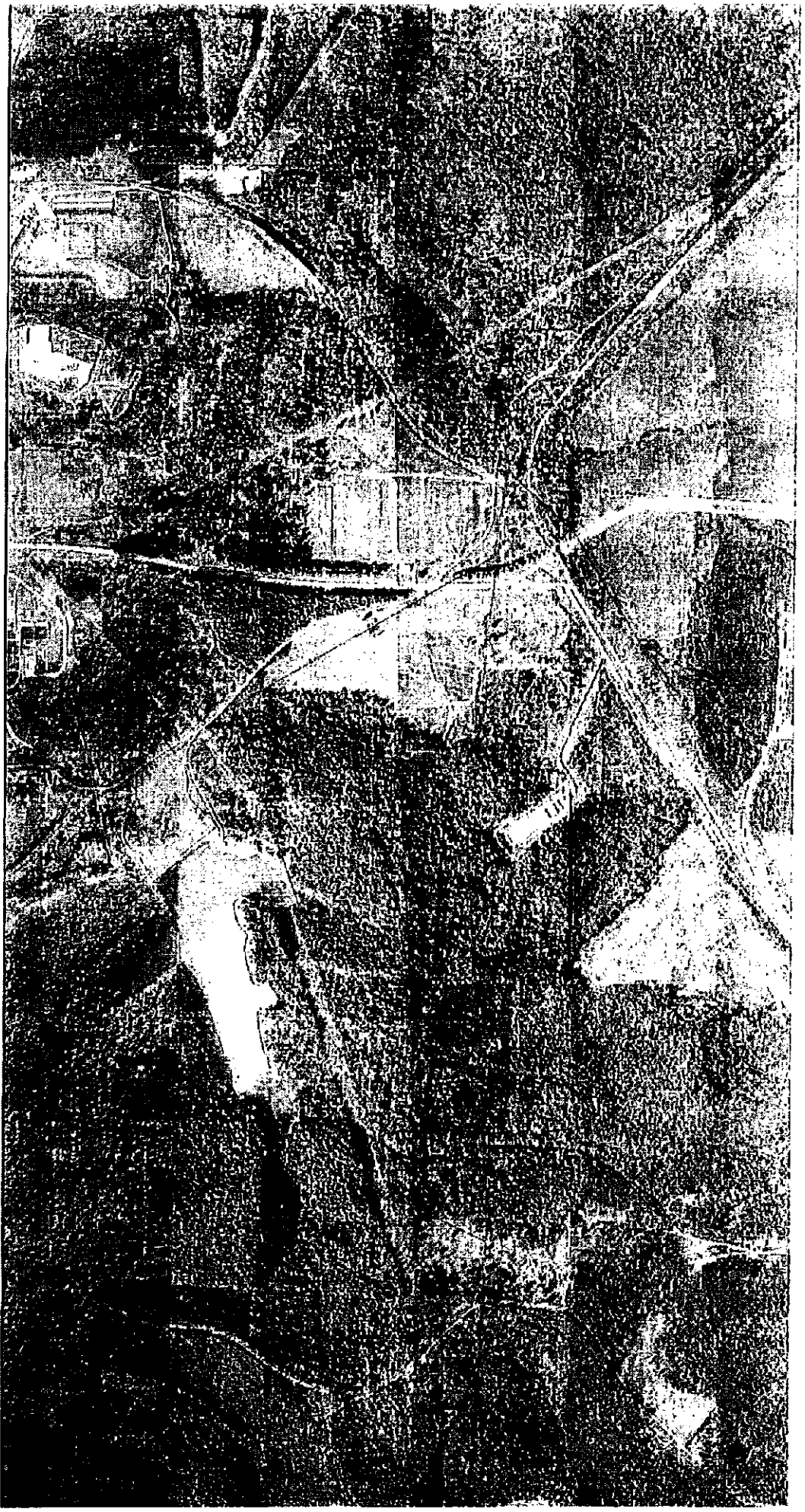
C. Harley, TPMC/PORTS

T. Anil, ABP

0 1,250 2,500 5,000 Feet

DON MARQUIS LOOP #1 138KV LINE

USGS
1:50,000
1980
1:50,000
1980



ATTACHMENT 2

**U.S. ARMY CORPS OF ENGINEERS
AND
OHIO EPA ORAM
DATA SHEETS**

DATA FORM
ROUTINE WETLAND DETERMINATION
 (1987 COE Wetlands Delineation Manual)

Project/Site: <u>AEP - Don Marquis 138kV Transmission Line</u> Applicant/Owner: <u>AEP</u> Investigator: <u>M. Thomayer - URS</u>	Date: <u>31 Jan 2008</u> County: <u>Deer</u> State: <u>Ohio</u>						
Do Normal Circumstances Exist on the site? Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? (If needed, explain on reverse.)	<table style="width: 100%;"> <tr> <td style="text-align: center;">Yes <input checked="" type="checkbox"/></td> <td style="text-align: center;">No <input type="checkbox"/></td> </tr> <tr> <td style="text-align: center;">Yes <input type="checkbox"/></td> <td style="text-align: center;">No <input checked="" type="checkbox"/></td> </tr> <tr> <td style="text-align: center;">Yes <input type="checkbox"/></td> <td style="text-align: center;">No <input checked="" type="checkbox"/></td> </tr> </table>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>						
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>						
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>						
Community ID: <u>PEM</u> Transect ID: _____ Plot ID: <u>0131-W01</u>							

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Phragmites australis</u>	<u>H</u>	<u>FACW+</u>	9. _____	_____	_____
2. <u>Juncus effusus</u>	<u>H</u>	<u>FACW+</u>	10. _____	_____	_____
3. _____	_____	_____	11. _____	_____	_____
4. _____	_____	_____	12. _____	_____	_____
5. _____	_____	_____	13. _____	_____	_____
6. _____	_____	_____	14. _____	_____	_____
7. _____	_____	_____	15. _____	_____	_____
8. _____	_____	_____	16. _____	_____	_____

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: _____

HYDROLOGY

<p>___ Recorded Data (Describe in Remarks):</p> <p>___ Stream, Lake, or Tide Gauge</p> <p>___ Aerial Photographs</p> <p>___ Other</p> <p>___ No Recorded Data Available</p>	<p>Wetland hydrology indicators:</p> <p>Primary Indicators:</p> <p>___ Inundated</p> <p><input checked="" type="checkbox"/> Saturated in Upper 12 inches</p> <p>___ Water Marks</p> <p>___ Drift Lines</p> <p>___ Sediment Deposits</p> <p><input checked="" type="checkbox"/> Drainage Patterns in Wetlands</p> <p>Secondary Indicators (2 or more required):</p> <p>___ Oxidized Root Channels in Upper 12"</p> <p><input checked="" type="checkbox"/> Water-Stained Leaves</p> <p>___ Local Soil Survey Data</p> <p><input checked="" type="checkbox"/> FAC-Neutral Test</p> <p>___ Other (Explain in Remarks)</p>
<p>Field Observations:</p> <p>Depth of Surface Water: <u>None</u> (in.)</p> <p>Depth to Free Water in Pit: <u>3"</u> (in.)</p> <p>Depth to Saturated Soil: <u>0"</u> (in.)</p>	
<p>Remarks: _____</p>	

Site: 0131- W01	Rater(s): M. Thayer	Date: 31 Jan 2008
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0	0
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Metric 1. Wetland Area (size).

max 5 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 to <0.3 acres (0.04 to <0.12ha) (1 pt)
- ☒ <0.1 acres (0.04ha) (0 pts)

4	4
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Metric 2. Upland buffers and surrounding land use.

max 14 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)
- ☒ 1 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)
- ☒ 3 LOW. Old field (>10 years), shrubland, 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)

7	11
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Metric 3. Hydrology.

max 30 pts. subtotal

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

- ☐ High pH groundwater (5)
- ☐ Other groundwater (3)
- ☒ Precipitation (1)
- ☒ 1 Seasonal/intermittent surface water (3)
- ☐ Perennial surface water (lake or stream) (6)

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

- ☐ >0.7 (27.6in) (3)
- ☒ 1 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)
- ☒ 3 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 double 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 checked="" 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 type="checkbox"/> dredging
<input type="checkbox"/> stormwater input	<input checked="" type="checkbox"/> other Powerline ROW

6	17
---	----

Metric 4. Habitat Alteration and Development.

max 20 pts. subtotal

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

- ☐ None or none apparent (4)
- ☐ Recovered (3)
- ☒ 2 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)
- ☒ 1 Poor (1)

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

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

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

17

subtotal this page

ATTACHMENT 3

**OHIO EPA HHEI
DATA SHEETS**



Primary Headwater Habitat Evaluation Form

HHEI Score (sum of metrics 1, 2, 3):

54

SITE NAME/LOCATION ACP - Dan Marquis

SITE NUMBER 0131-502

RIVER BASIN

DRAINAGE AREA (mi²)

LENGTH OF STREAM REACH (ft)

LAT.

LONG.

RIVER CODE

RIVER MILE

DATE 31 Jan 2005

SCORER H. Thayer

COMMENTS May need hheI depending on drainage area

NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions

STREAM CHANNEL

☒ NONE / NATURAL CHANNEL

☐ RECOVERED

☐ RECOVERING

☐ RECENT OR NO RECOVERY

MODIFICATIONS:

1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.

TYPE	PERCENT
<input type="checkbox"/> BLDR SLABS [16 pts]	
<input type="checkbox"/> BOULDER (>256 mm) [16 pts]	
<input checked="" type="checkbox"/> BEDROCK [16 pts]	<u>30</u>
<input type="checkbox"/> COBBLE (66-256 mm) [12 pts]	
<input checked="" type="checkbox"/> GRAVEL (2-64 mm) [8 pts]	<u>30</u>
<input checked="" type="checkbox"/> SAND (<2 mm) [8 pts]	<u>15</u>

TYPE	PERCENT
<input checked="" type="checkbox"/> SILT [3 pts]	<u>5</u>
<input type="checkbox"/> LEAF PACK/WOODY DEBRIS [3 pts]	
<input type="checkbox"/> FINE DETRITUS [3 pts]	
<input type="checkbox"/> CLAY or HARDPAN [0 pts]	
<input type="checkbox"/> MUCK [0 pts]	
<input type="checkbox"/> ARTIFICIAL [3 pts]	

Total of Percentages of
Bldr Slabs, Boulder, Cobble, Bedrock

80

(A)

25

(B)

4

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES:

TOTAL NUMBER OF SUBSTRATE TYPES:

HHEI
Metric
Points

Substrate
Max = 40

29

A + B

2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):
- | | |
|---|--|
| <input checked="" type="checkbox"/> > 30 centimeters [20 pts] | <input type="checkbox"/> > 5 cm - 10 cm [15 pts] |
| <input type="checkbox"/> > 22.5 - 30 cm [30 pts] | <input type="checkbox"/> < 5 cm [5 pts] |
| <input type="checkbox"/> > 10 - 22.5 cm [25 pts] | <input type="checkbox"/> NO WATER OR MOIST CHANNEL [0 pts] |

COMMENTS

MAXIMUM POOL DEPTH (centimeters):

35

Pool Depth
Max = 30

20

3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):
- | | |
|---|---|
| <input type="checkbox"/> > 4.0 meters (> 13') [30 pts] | <input type="checkbox"/> > 1.0 m - 1.5 m (> 3' 3" - 4' 9") [15 pts] |
| <input type="checkbox"/> > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] | <input checked="" type="checkbox"/> ≤ 1.0 m (≤ 3' 3") [5 pts] |
| <input type="checkbox"/> > 1.5 m - 3.0 m (> 4' 9" - 9' 8") [20 pts] | |

COMMENTS

AVERAGE BANKFULL WIDTH (meters)

3.4

Bankfull
Width
Max=30

5

This information must also be completed

RIPARIAN ZONE AND FLOODPLAIN QUALITY & NOTE: River Left (L) and Right (R) as looking downstream

RIPARIAN ZONE

L	R
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

COMMENTS

FLOODPLAIN QUALITY

L	R
<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

L	R
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

FLOW REGIME (At Time of Evaluation) (Check ONLY one box):

<input checked="" type="checkbox"/> Stream Flowing	<input type="checkbox"/> Moist Channel, isolated pools, no flow (Intermittent)
<input type="checkbox"/> Subsurface flow with isolated pools (Interstitial)	<input type="checkbox"/> Dry channel, no water (Ephemeral)

COMMENTS

SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):

<input type="checkbox"/> None	<input type="checkbox"/> 1.0	<input type="checkbox"/> 2.0	<input type="checkbox"/> 3.0
<input type="checkbox"/> 0.5	<input type="checkbox"/> 1.5	<input type="checkbox"/> 2.5	<input checked="" type="checkbox"/> >3

STREAM GRADIENT ESTIMATE

☐ Flat (0.5 m/m) ☒ Flat to Moderate ☐ Moderate (2 m/m) ☐ Moderate to Severe ☐ Severe (10 m/m)

P-5016



Primary Headwater Habitat Evaluation Form

HHEI Score (sum of metrics 1, 2, 3) :

24

SITE NAME/LOCATION APP - Don Morgan 138 kV Transmission Line
SITE NUMBER 0181-502 RIVER BASIN _____ DRAINAGE AREA (mi²) _____
LENGTH OF STREAM REACH (ft) _____ LAT. _____ LONG. _____ RIVER CODE _____ RIVER MILE _____
DATE 31 Jan 2008 SCORER M. Thayer COMMENTS _____

NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions

STREAM CHANNEL ☐ NONE / NATURAL CHANNEL ☐ RECOVERED ☒ RECOVERING ☐ RECENT OR NO RECOVERY
MODIFICATIONS: stream channelized where Powerline Row is

1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY <u>two</u> predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.			
TYPE	PERCENT	TYPE	PERCENT
<input type="checkbox"/> BLOR SLABS [16 pts]	_____	<input type="checkbox"/> SILT [3 pts]	_____
<input type="checkbox"/> BOULDER (>256 mm) [16 pts]	_____	<input checked="" type="checkbox"/> LEAF PACK/WOODY DEBRIS [3 pts]	<u>10</u>
<input type="checkbox"/> BEDROCK [16 pts]	_____	<input type="checkbox"/> FINE DETRITUS [3 pts]	_____
<input checked="" type="checkbox"/> COBBLE (63-256 mm) [12 pts]	<u>10</u>	<input type="checkbox"/> CLAY or HARDPAN [0 pts]	<u>40</u>
<input checked="" type="checkbox"/> GRAVEL (2-64 mm) [8 pts]	<u>30</u>	<input type="checkbox"/> MUCK [0 pts]	_____
<input checked="" type="checkbox"/> SAND (<2 mm) [8 pts]	<u>10</u>	<input type="checkbox"/> ARTIFICIAL [3 pts]	_____

Total of Percentages of Blor Slabs, Boulder, Cobble, Bedrock 40% (A) 9 (B) 5

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: _____ TOTAL NUMBER OF SUBSTRATE TYPES: _____

2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	
<input type="checkbox"/> > 30 centimeters [20 pts]	<input type="checkbox"/> > 5 cm - 10 cm [15 pts]
<input type="checkbox"/> > 22.6 - 30 cm [30 pts]	<input checked="" type="checkbox"/> < 5 cm [5 pts]
<input type="checkbox"/> > 10 - 22.5 cm [25 pts]	<input type="checkbox"/> NO WATER OR MOIST CHANNEL [0 pts]

COMMENTS _____ MAXIMUM POOL DEPTH (centimeters): 4

3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	
<input type="checkbox"/> > 4.0 meters (> 13') [30 pts]	<input type="checkbox"/> > 1.9 m - 1.5 m (> 6' 3" - 4' 9") [15 pts]
<input type="checkbox"/> > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	<input checked="" type="checkbox"/> ≤ 1.0 m (≤ 3' 3") [5 pts]
<input type="checkbox"/> > 1.5 m - 3.0 m (> 5' 7" - 9' 8") [20 pts]	

COMMENTS _____ AVERAGE BANKFULL WIDTH (meters): 1

HHEI Metric Points
Substrate Max = 40 14
A + B
Pool Depth Max = 30 5
Bankfull Width Max = 30 5

This information must also be completed

RIPARIAN ZONE AND FLOODPLAIN QUALITY		FLOODPLAIN QUALITY	
L	R	L	R
<input checked="" type="checkbox"/> Wide > 10m	<input checked="" type="checkbox"/> Mature Forest, Wetland	<input type="checkbox"/> Conservation Tillage	
<input checked="" type="checkbox"/> Moderate 5-10m	<input type="checkbox"/> Immature Forest, Shrub or Old Field	<input type="checkbox"/> Urban or Industrial	
<input type="checkbox"/> Narrow < 5m	<input type="checkbox"/> Residential, Park, New Field	<input type="checkbox"/> Open Pasture, Row Crop	
<input type="checkbox"/> None	<input type="checkbox"/> Fenced Pasture	<input type="checkbox"/> Mining or Construction	

COMMENTS Part of stream flows through Powerline Row; no trees

FLOW REGIME (At Time of Evaluation) (Check ONLY one box):
☒ Stream Flowing ☐ Moist Channel, isolated pools, no flow (intermittent)
☐ Subsurface flow with isolated pools (interstitial) ☐ Dry channel, no water (Ephemeral)

COMMENTS _____

SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):
☐ None ☐ 0.5 ☐ 1.0 ☐ 1.5 ☐ 2.0 ☐ 2.5 ☒ 3.0 ☐ > 3

STREAM GRADIENT ESTIMATE
☐ Flat (< 1:1000) ☐ Flat to Moderate ☒ Moderate (> 1:1000) ☐ Moderate to Severe ☐ Severe (> 1:1000)

ATTACHMENT 4
SELECTED PHOTOGRAPHS

URS

PHOTOGRAPHIC RECORD Wetlands

Client Name:
American Electric Power

Site Location:
Don Marquis 138 kV Transmission Line, Pike
County, Ohio

Project No.
14947372

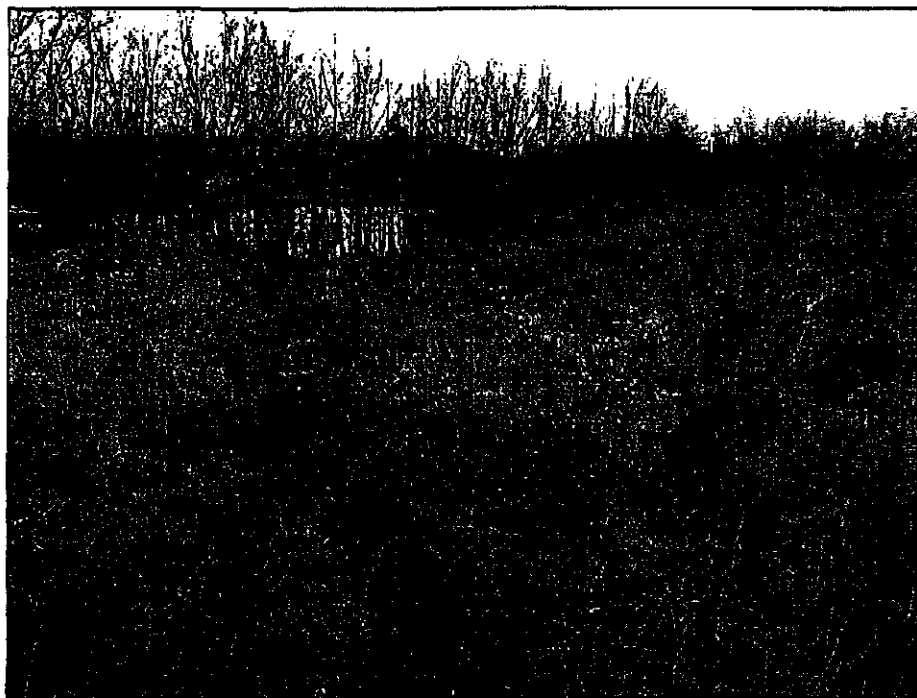
Photo No. 1

Date:

January 31, 2008

Description:

Pr-w010





PHOTOGRAPHIC RECORD

Streams

Client Name:
American Electric Power

Site Location:
Don Marquis 138 kV Transmission Line, Pike
County, Ohio

Project No.
14947372

Photo No. 1

Date:

January 31, 2008

Description:

Pr-s015 looking
downstream.

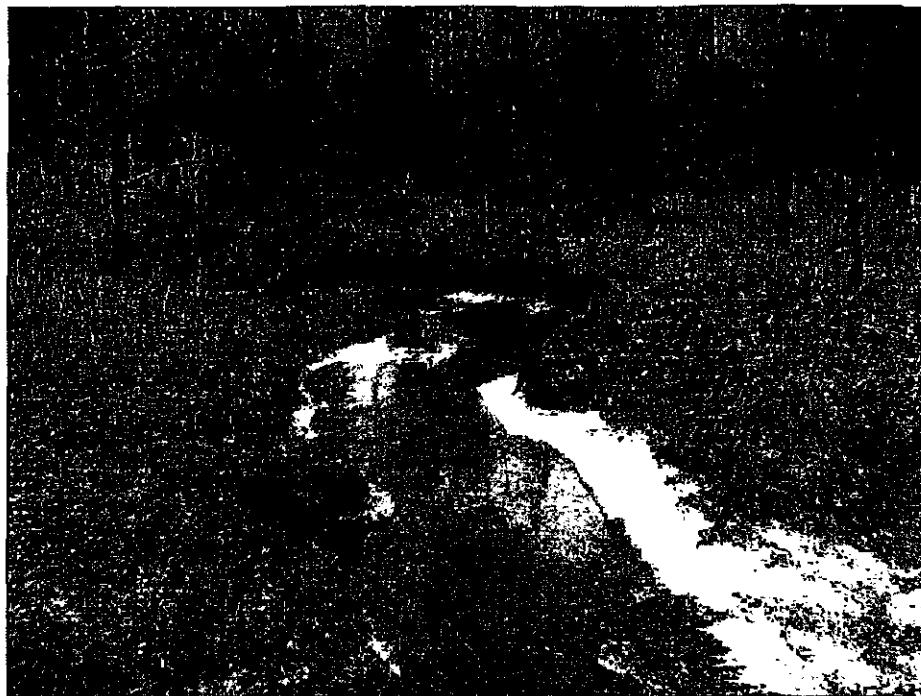


Photo No. 2

Date:

January 31, 2008

Description:

Pr-s016 looking
upstream.



URS

PHOTOGRAPHIC RECORD Ponds

Client Name:
American Electric Power

Site Location:
Don Marquis 138 kV Transmission Line, Pike
County, Ohio

Project No.
14947372

Photo No. 1

Date:

January 31, 2008

Description:

Pr-p01



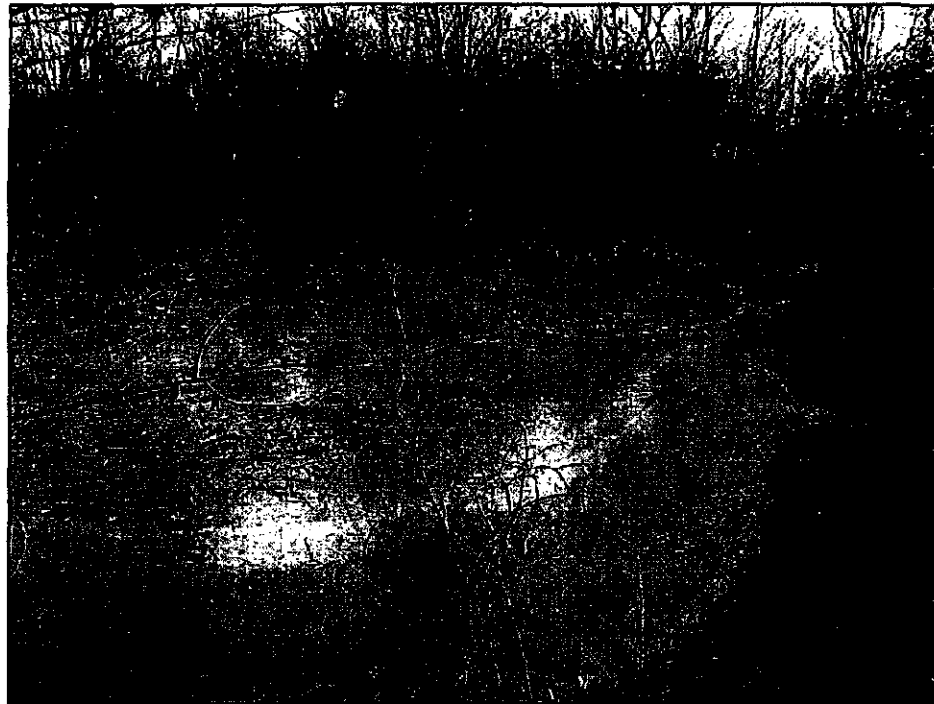
Photo No. 2

Date:

January 31, 2008

Description:

Pr-p02





American Electric Power
700 Morrison Road
Gahanna, OH 43230

August 8, 2008

Seal Township Trustees
Delbert Rigsby
13407 State Route 220
Waverly, OH 45690

**Amendment to
Don Marquis 138 kV Loop #1 Project**

Dear Trustees:

American Electric Power is proposing to construct a new double circuit 138 kV overhead electric transmission line between AEP's existing Don Marquis station and the existing Waverly - Lick 138 kV Line. An application for an Application to the Ohio Power Siting Board for a Certificate of Environmental Compatibility and Public Need (Case # 07-175-EL-BTX). The application for this project was filed with the Ohio Power Siting Board on October 10, 2007 and the Certificate was approved on June 2, 2008.

Enclosed is an Amendment to the Application for your information.

Cordially,

A handwritten signature in black ink, appearing to read 'John R. Heppner', is written over the word 'Cordially,'.

John Heppner
Transmission Line Projects Engineering



American Electric Power
700 Morrison Road
Gahanna, OH 43230

August 8, 2008

Scioto Township Trustees
Steve Acord
1103 US 23
Piketon, OH 45661

**Amendment to
Don Marquis 138 kV Loop #1 Project**

Dear Trustees:

American Electric Power is proposing to construct a new double circuit 138 kV overhead electric transmission line between AEP's existing Don Marquis station and the existing Waverly - Lick 138 kV Line. An application for an Application to the Ohio Power Siting Board for a Certificate of Environmental Compatibility and Public Need (Case # 07-175-EL-BTX). The application for this project was filed with the Ohio Power Siting Board on October 10, 2007 and the Certificate was approved on June 2, 2008.

Enclosed is an Amendment to the Application for your information.

Cordially,

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John Heppner
Transmission Line Projects Engineering



American Electric Power
700 Morrison Road
Gahanna, OH 43230

August 8, 2008

Pike County Commissioners
John Harbert
Harry Rider
Teddy West
Suite 1000
230 Waverly Plaza Plaza
Waverly, OH 45690

**Amendment to
Don Marquis 138 kV Loop #1 Project**

Dear Commissioners:

American Electric Power is proposing to construct a new double circuit 138 kV overhead electric transmission line between AEP's existing Don Marquis station and the existing Waverly – Lick 138 kV Line. An application for an Application to the Ohio Power Siting Board for a Certificate of Environmental Compatibility and Public Need (Case # 07-175-EL-BTX). The application for this project was filed with the Ohio Power Siting Board on October 10, 2007 and the Certificate was approved on June 2, 2008

Enclosed is an Amendment to the Application for your information.

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John Heppner
Transmission Line Projects Engineering