

### BEFORE THE OHIO POWER SITING BOARD

2009 OCT 27 AM 10: 31

In the Matter of the Application of	)	חווכת
American Municipal Power-Ohio, Inc., for a	)	PUCO
Certificate of Environmental Compatibility	)	Case No. 06-1357-EL-BTX
And Public Need for an Electric	)	
Power Transmission Line and	)	
Related Facilities.	)	

# JOINT STIPULATION AND RECOMMENDED FINDINGS OF FACT AND CONCLUSIONS OF LAW

American Municipal Power-Ohio, Inc. ("AMP-Ohio" or "Applicant"), on behalf of its members, and the Staff of the Ohio Power Siting Board (collectively referred to as "the Parties") submit this Joint Stipulation and Recommended Findings of Fact and Conclusions of Law ("Joint Stipulation") for adoption by the Ohio Power Siting Board ("Board"). This Joint Stipulation is intended by the Parties to resolve all matters pertinent to AMP-Ohio's proposed 345 kilovolt ("kV") American Municipal Power Generating Station transmission line and related facilities ("AMPGS Transmission Line").

#### I. Introduction

AMP-Ohio proposes to construct the 345 kV AMPGS Transmission Line in southern Meigs County, Ohio. The purpose of the project is to transmit the electricity generated by the proposed 960 megawatt ("MW") American Municipal Power Generating Station ("AMPGS"). The transmission project will consist of an approximately 5-mile long, double circuit 345 kV transmission line, with a right-of-way ("r-o-w") of 150 feet. The line will be supported by single shaft, self-supporting tubular steel pole structures. The transmission project will begin at the

AMPGS and will interconnect with the existing 345 kV Sporn-Muskingum River transmission line located north of the AMPGS. The AMPGS Transmission Line project is more fully described in AMP-Ohio's Application for a Certificate of Environmental Compatibility and Public Need for an Electric Power Transmission Line and Related Facilities ("Application"), which was filed with the Board on October 31, 2007 and supplemented by a filing on December 27, 2007. AMP-Ohio also submitted data in response to Staff requests on July 18, 2008 and September 25, 2008.

This Joint Stipulation results from discussions between the Parties, who agree that this Joint Stipulation is supported by the record and is, therefore, entitled to careful consideration by the Board. Accordingly, the Parties recommend that the Board issue a Certificate of Environmental Compatibility and Public Need ("Certificate") for the AMPGS Transmission Line as identified in the Application, subject to the conditions contained herein.

### II. Stipulations

### A. Recommended Findings of Fact

The Parties agree that the record in this case contains sufficient probative evidence for the Board to find and determine, as findings of fact, that:

- 1) AMP-Ohio is an Ohio, nonprofit corporation doing business in Ohio and is considered a "person" as defined in Revised Code ("R.C.") 4906.01(A).
- 2) The proposed AMPGS Transmission Line is a "major utility facility" as defined in R.C. 4906.01(B)(2).
- On December 5, 2006, the Applicant held a public informational meeting in Meigs County, Ohio regarding the proposed AMPGS Transmission Line.
- 4) On October 31, 2007, AMP-Ohio filed its Application for the AMPGS

- Transmission Line project with the Board under docket number 06-1357-EL-BTX.
- 5) On December 27, 2007, the Applicant filed supplemental information to the Application.
- 6) On July 18, 2008 and September 25, 2008, the Applicant submitted data to the Staff in response to Staff requests.
- On December 27, 2007, the Chairman of the Board issued a letter to the Applicant stating that the Application, filed on October 31, 2007, had been found to comply with the requirements of Ohio Administrative Code ("O.A.C.") Chapter 4906-01, et seq.
- 8) On January 18, 2008, the Applicant filed proof of service of the Application on local officials and libraries in accordance with O.A.C. 4906-5-08.
- On July 25, 2008, the Administrative Law Judge issued an Entry scheduling a local public hearing for this case to take place on October 22, 2008 at 6:00 p.m. at Southern High School, 920 Elm Street, Racine, Ohio 45771. The adjudicatory hearing was scheduled to take place on October 27, 2008 at 10:00 a.m. in Hearing Room 11-C at the offices of the Public Utilities Commission of Ohio, 180 East Broad Street, Columbus, Ohio 43215.
- 10) On August 20, 2008, the Applicant filed proof of publication of the first newspaper notice of the AMPGS Transmission Line project, as required by O.A.C. 4906-5-08. The first notice was published on August 8, 2007 in The Daily Sentinel, Pomeroy, Ohio.
- 11) On September 22, 2008, the Applicant filed a list of persons who received letters

- describing the AMPGS Transmission Line project and the certification process, as required by O.A.C. 4906-5-08. The letters were sent via first class mail on September 19, 2008.
- On October 7, 2008, the Staff issued and filed its "Staff Report of Investigation" for the AMPGS project, recommending that the Certificate of Environmental Compatibility and Public Need be issued as described in the Certificate Application and the supplemental information, subject to certain specified conditions.
- On October 15, 2008, the Applicant filed proof of publication of the second newspaper notice of the AMPGS Transmission Line project, as required by O.A.C. 4906-5-08. The second notice was published on October 9, 2008 in The Daily Sentinel, Pomeroy, Ohio.
- 14) A public hearing was held on October 22, 2008 at Southern High School in Racine, Ohio.
- The adjudicatory hearing was convened on October 27, 2008 at the offices of the Public Utilities Commission of Ohio in Columbus, Ohio.
- Adequate data on the proposed AMPGS Transmission Line project has been provided to the Board and its Staff to determine the basis of need for the AMPGS Transmission Line, as required by R.C. 4906.10(A)(1).
- Adequate data on the proposed AMPGS Transmission Line project has been provided to the Board and its Staff to determine the nature of the probable environmental impact of the AMPGS Transmission Line, as required by R.C. 4906.10(A)(2).

- Adequate data on the proposed AMPGS Transmission Line project has been provided on the record to the Board and its Staff to determine that, with the required conditions, the AMPGS Transmission Line represents the minimum adverse environmental impact, considering the available technology and nature and economics of the various alternatives, and other pertinent considerations, as required by R.C. 4906.10(A)(3).
- Adequate data on the proposed AMPGS Transmission Line project has been provided on the record to the Board and its Staff to determine that, with the required conditions, the AMPGS Transmission Line is consistent with regional plans for expansion of the electric power grid of the electric systems serving this state and interconnected utility systems and that the AMPGS Transmission Line will serve the interests of electric system economy and reliability, as required by R.C. 4906.10(A)(4).
- Adequate data on the proposed AMPGS Transmission Line project has been provided on the record to the Board and its Staff to determine that the AMPGS Transmission Line will comply with R.C. Chapters 3704, 3734, and 6111, R.C. Sections 1501.33, 1501.34, and 4561.32, and all applicable regulations adopted thereunder, as required by R.C. 4906.10(A)(5).
- Adequate data on the proposed AMPGS Transmission Line project has been provided on the record to the Board and its Staff to determine that, with the required conditions, the AMPGS Transmission Line will serve the public interest, convenience, and necessity, as required by R.C. 4906.10(A)(6).
- 22) Adequate data on the proposed AMPGS Transmission Line project has been

provided on the record to the Board and its Staff to determine the AMPGS Transmission Line's impact on the viability as agricultural land of any land in an existing agricultural district established under R.C. Chapter 929 that is located within the AMPGS site, as required by R.C. 4906.10(A)(7).

- Adequate data on the proposed AMPGS Transmission Line project has been provided on the record to the Board and its Staff to determine that the AMPGS Transmission Line incorporates maximum feasible water conservation practices, considering available technology and the nature and economics of various alternatives, as required by R.C. 4906.10(A)(8).
- The information, data, and evidence in the record of this proceeding provide substantial and adequate evidence and information to enable the Board to make an informed decision on the Application for the AMPGS Transmission Line.

#### B. Recommended Conclusions of Law

The Parties further agree that the record in this case contains sufficient probative evidence, if conditions in the Certificate are adopted as recommended by the Parties, for the Board to find and determine, as conclusions of law, that:

- 1) The Applicant is a "person" under R.C. 4906.01(A).
- 2) The AMPGS Transmission Line is a "major utility facility" as defined in R.C. 4906.01(B)(2).
- The Applicant's Certificate Application, as supplemented and further clarified by data submissions, complies with the requirements of O.A.C. 4906-15-01, et seq.
- 4) The record establishes the basis of need for the AMPGS Transmission Line, as required by R.C. 4906.10(A)(1).

- The record establishes the nature of the probable environmental impact from construction, operation, and maintenance of the AMPGS Transmission Line, as required by R.C. 4906.10(A)(2).
- The record establishes that the proposed AMPGS Transmission Line represents the minimum adverse environmental impact, considering the state of available technology and the nature and economics of the various alternatives, and other pertinent considerations, as required by R.C. 4906.10(A)(3).
- The record establishes that the proposed AMPGS Transmission Line is consistent with regional plans for expansion of the electric power grid of the electric systems serving this state and interconnected utility systems and that the AMPGS Transmission Line will serve the interests of electric system economy and reliability, as required by R.C. 4906.10(A)(4).
- The record establishes that the AMPGS Transmission Line will comply with R.C. Chapters 3704, 3734, and 6111, R.C. Sections 1501.33, 1501.34, and 4561.32, and all applicable regulations adopted thereunder, as required by R.C. 4906.10(A)(5).
- 9) The record establishes that the AMPGS Transmission Line will serve the public interest, convenience, and necessity, as required by R.C. 4906.10(A)(6).
- The record establishes that the impact of the AMPGS Transmission Line on the viability as agricultural land of any land in an existing agricultural district established under R.C. Chapter 929 that is located within the AMPGS Transmission Line site has been determined, as required by R.C. 4906.10(A)(7).
- 11) The record establishes that the proposed AMPGS Transmission Line incorporates

maximum feasible water conservation practices, considering available technology and the nature and economics of the various alternatives, as required by R.C. 4906.10(A)(8).

### C. Recommended Conditions of the Certificate of Environmental Compatibility and Public Need

The Parties stipulate and recommend to the Board that it issue a Certificate of Environmental Compatibility and Pubic Need, as requested by the Applicant, for the AMPGS Transmission Line, as described in the Application and supplemental information, and subject to the following conditions:

- 1) That the facility be installed following the Applicant's Preferred Route as presented in the application filed on October 31, 2007, and as further clarified by the Applicant's supplemental filings.
- 2) That the Applicant shall utilize the equipment and construction practices as described in the application and as modified in supplemental filings, replies to data requests, and recommendations Staff has included in the <u>Staff Report</u> of Investigation.
- 3) That the Applicant shall implement mitigative measures, described in the application, any supplemental filings, and recommendations Staff has included in the Staff Report of Investigation.
- 4) That prior to construction, Applicant shall prepare a transmission line mitigation plan for Staff's review and approval that addresses terrestrial, wetland and stream impacts. The plan shall include the following elements:
  - a) Applicant shall obtain the rights of up to 39 acres of real property, preferably wooded, in the project area, or its qualitative equivalent, to be preserved through a conservation easement. This property shall be separate from, and in addition to, any other locations previously identified by the Applicant for mitigation associated with AMPGS.
  - b) The portions of W1 and W2 within the transmission corridor r-o-w will be protected with a conservation easement that prohibits any other land use.
  - c) If trees within the r-o-w and within 50 feet on each side of any stream have to be cleared, then the area will be replanted with lower growing

native species. Species will be selected to match the allowable growth height that does not interfere with the safe operation of the facility.

- That the Applicant shall prepare a detailed tree clearing plan describing how trees and shrubs along the proposed alignment will be protected from damage during construction, and, where clearing cannot be avoided, how such clearing work will be done so as to minimize removal of woody vegetation and mitigate for trees that are to be removed. Priority should be given to protecting mature trees throughout the corridor, and all woody vegetation in wetlands and riparian areas, by the use of increased pole heights, reduced width rights-of-way, and other practical methods. This tree clearing plan, which should also address the following items, shall be submitted to Staff for review and approval prior to initiation of construction.
  - a) That the Applicant shall limit tree clearing to the months of October through March unless specific pre-approval is granted by Staff. If tree clearing must be conducted outside of this period, the Applicant shall, prior to tree clearing, conduct Indiana bat surveys in areas identified as suitable habitat in coordination with Staff.
  - b) That the Applicant shall flag wetland boundaries and prohibit vehicle access to wetlands, unless otherwise preapproved by Staff. Any vegetation clearing within wetlands shall be conducted solely by hand and shall retain all low-growing plant species, particularly woody ones, unless otherwise directed by Staff.
  - c) That the Applicant shall prohibit the use of herbicides within 50 feet of streams and wetlands during initial construction and future r-o-w maintenance. Prior to construction, the Applicant shall submit a plan describing planned herbicide use for review and approval by the Staff.
  - d) That the Applicant shall retain all tree snags within the r-o-w that do not present a safety or reliability concern for the construction, operation, and maintenance of the new electric transmission line.
- That the Applicant shall limit clearing in all riparian areas and, specifically, within 50 feet of any streams for the construction, operation, and maintenance of the facility. Vegetation clearing in these areas shall be selective hand clearing of taller-growing trees only, leaving all low-growing plant species, particularly wood ones (including other trees), undisturbed unless otherwise directed by Staff. All stumps shall be left in place.
- 7) That prior to the commencement of construction, the Applicant shall develop and submit to Staff for review and approval an effective long-term plan to be adopted for use by the Applicant for all wetlands and riparian areas within the project r-o-w so that they can be readily identified (e.g.

permanent signage delineating "no clearing" areas and notations on future maintenance plans) and protected from clearing (including use of herbicides) during all future r-o-w maintenance.

- 8) That the Applicant shall protect the endangered spadefoot breeding pond and associated habitat locations within the r-o-w and prevent vehicle access to these areas. Use of herbicides near these locations during construction and maintenance activities shall be prohibited. Prior to construction, the Applicant shall provide for Staff review and approval a threatened and endangered species protection plan. This plan shall focus on measures to protect the eastern spadefoot, as well as any other endangered or threatened aquatic species, the habitat for which is identified in the construction area. This shall include specific r-o-w clearing/avoidance recommendations, herbicide restrictions, mitigation options, and potential monitoring procedures, along with construction timing limitations related to breeding activities and the potential impacts of long-term r-o-w maintenance work.
- 9) That the Applicant shall have an environmental specialist on-site during clearing and all other construction activities within or near environmentally-sensitive areas, including streams, wetlands, and wooded areas.
- 10) That the Applicant shall immediately contact Staff, ODNR, and USFWS (for federally-listed species) if threatened or endangered species are encountered during construction activities. Activities that could adversely impact the identified species will be halted until an appropriate course of action has been agreed upon by the Applicant and Staff.
- 11) That prior to the commencement of construction, the Applicant shall present a plan to Staff for review and approval that mitigates potential recreational off-road vehicle use of the utility corridor to the extent practicable.
- 12) That the Applicant shall properly install and maintain erosion and sedimentation control measures at the project site in accordance with the following requirements:
  - a) During construction of the facility, seed all disturbed soil, except within cultivated agricultural fields, within seven (7) days of final grading with a seed mixture acceptable to the appropriate County Cooperative Extension Service. Denuded areas, including spoils piles, shall be seeded and stabilized within seven (7) days, if they will be undisturbed for more than twenty-one (21) days. Reseeding shall be done within seven days of emergence of seedlings as necessary until sufficient vegetation in all areas has been established.
  - b) Inspect and repair all erosion control measures after each rainfall event of one-half of an inch or greater over a twenty-four (24) hour period, and

- maintain controls until permanent vegetative cover has been established on disturbed areas.
- c) Obtain NPDES permits for storm water discharges during construction of the facility. A copy of each permit or authorization, including terms and conditions, shall be provided to the Staff within seven (7) days of receipt. At least seven (7) days prior to the pre-construction conference, the construction Storm Water Pollution Prevention Plan shall be submitted to the Staff for review and acceptance.
- 13) That the Applicant shall minimize fugitive dust emissions through the use of water spray or other appropriate dust suppressant measures when necessary.
- 14) That the Applicant shall coordinate with the appropriate authority regarding any vehicular lane closures during construction.
- 15) That the Applicant shall avoid, where possible, or minimize to the maximum extent practicable, any damage to field drainage systems resulting from construction and operation of the facility. Damaged field tile systems shall be repaired to at least original conditions at Applicant's expense.
- 16) That the Applicant shall remove all temporary gravel and other construction laydown area and temporary access road materials within fourteen (14) days of completing construction activities.
- 17) That the Applicant shall not dispose of gravel or any other construction material during or following construction of the facility by spreading such material on agricultural land, unless a landowner requests that non-hazardous debris be left in non-environmentally sensitive areas of their property. All construction debris and any contaminated soil shall be promptly removed and properly disposed of in accordance with Ohio EPA regulations.
- 18) That if the Board selects the Alternate Route, the Applicant shall prepare a Phase I Cultural Resources Survey prior to construction. The survey shall be coordinated with the State Historic Preservation Office and submitted to Staff for review and acceptance at least 30 days prior to construction. If the survey discloses a find of cultural or archaeological significance, or a site that could be eligible for inclusion on the National Register of Historic Places, then the Applicant shall submit a route amendment, route modification, or mitigation plan for Staff's acceptance. The Applicant shall consult with Staff to determine the appropriate course of action.
- 19) That prior to the commencement of construction, the Applicant shall obtain and comply with all applicable permits and authorizations as required by federal and state laws and regulations for any activities where such permit or

- authorization is required. Copies of permits and authorizations, including all supporting documentation, shall be provided to Staff within seven (7) days of issuance or receipt by the Applicant.
- 20) That the Applicant shall not commence construction of the facility until it has entered into an Interconnection Service Agreement with PJM, which includes construction of any system upgrades required by PJM.
- 21) That the Applicant shall conduct a pre-construction conference prior to the start of any project work, which the Staff shall attend, to discuss how environmental concerns will be satisfactorily addressed.
- 22) That at the time of the pre-construction conference, the Applicant shall have marked structure locations, the route's centerline and r-o-w clearing limits in environmentally sensitive areas.
- 23) That at least thirty (30) days before the pre-construction conference, the Applicant shall submit to the Staff, for review and approval, one set of detailed drawings for the certificated facility, including all laydown areas and access points; so that the Staff can determine that the final project design is in compliance with the terms of the certificate. The access plan shall consider the location of streams, wetlands, wooded areas, and threatened and endangered species.
- 24) That at least thirty (30) days prior to the pre-construction conference, the Applicant shall submit a detailed construction and restoration plan for all stream and wetland crossings for Staff's review and approval. The plan shall include sufficiently detailed information to address the following:
  - a) Construction methods to be used at each location, including site-specific access and equipment crossing proposals. Construction methods and equipment movement during both dry and wet conditions should be included.
  - b) Storm water erosion control practices to be used during construction work in and around each crossing location.
  - c) Any and all stream stabilization and wetland, stream, and riparian area restoration practices to be used.
  - d) That the Applicant shall use necessary means to ensure that no trees, limbs, branches, or other clearing residue is placed or disposed of in any stream, wetland, or other water body.
  - e) That the Applicant shall use necessary means to ensure that no fill, topsoil, stone, or other construction-related material is placed or

disposed of in any stream, wetland, or other water body, except for the short-term placement of stone, culvert pipe, timber mats, or other temporary stream crossing materials, as pre-approved by Staff.

- f) That to the extent practicable, crossings of ephemeral streams should occur during no flow periods.
- 25) That the certificate shall become invalid if the Applicant has not commenced a continuous course of construction of the proposed facility within five (5) years of the date of journalization of the certificate.
- 26) That the Applicant shall provide to the Staff the following information as it becomes known:
  - a) The date on which construction will begin;
  - b) The date on which construction was completed;
  - c) The date on which the facility began commercial operation.

#### D. Exhibits

The Parties agree, stipulate, and recommend that the following exhibits in the docket be marked and admitted into the record of this proceeding, and that cross-examination is waived thereon:

- Applicant Exhibit No. 1: The Certificate Application filed on October 31, 2007 and certified as complete by the Board on December 27, 2007.
- Applicant Exhibit No. 2: The supplemental information to the Application filed by the Applicant on December 27, 2007.
- Applicant Exhibit No. 3: AMP-Ohio's submissions on July 18, 2008 and September
   25, 2008 in response to Staff data requests.
- Applicant Exhibit No. 4: Proofs of publication of the first and second notices required by O.A.C. 4906-5-08, as filed with the Board on August 20, 2008 and October 15, 2008.

- Applicant Exhibit No. 5: A list of landowners within the planned route of the AMPGS Transmission Line and each property owner who may be approached by AMP-Ohio for any additional easement necessary for the construction, operation, or maintenance of the AMPGS Transmission Line who received letters describing the AMPGS Transmission Line, the certification process, and the public hearing dates, as required by O.A.C. 4906-5-08.
- Staff Exhibit No. 1: Staff Report of Investigation filed on October 7, 2008.
- o Joint Exhibit No. 1: This Joint Stipulation, signed by counsel for the Applicant and Staff.

### E. Other Stipulations

This Joint Stipulation is expressly conditioned upon its acceptance by the Board without material modification. In the event the Board rejects or materially modifies all or part of this Joint Stipulation, or imposes additional conditions or requirements upon the Parties, each Party shall have the right, within thirty (30) days of the Board's Order, to file an Application for Rehearing with the Board. Upon Rehearing by the Board, each Party shall have the right, within ten (10) days of the Board's Order on Rehearing, to file a Notice of Termination and Withdrawal of this Joint Stipulation. Upon Notice of Termination and Withdrawal of this Joint Stipulation by any Party, pursuant to the above provisions, this Joint Stipulation shall immediately become null and void. In such an event, a hearing shall go forward, and the Parties shall be afforded the opportunity to present evidence through witnesses, to cross-examine all witnesses, to present rebuttal testimony, and to file briefs on all issues.

The Parties agree and recognize that this Joint Stipulation has been entered into only for the purpose of resolving this proceeding. Each Party agrees not to assert against the other Party in any proceeding before the Board or any court, other than in a proceeding to enforce the terms of this Joint Stipulation, that Party's participation in this Joint Stipulation as support for any particular position on any issue. Each Party further agrees that it will not use this Joint Stipulation as factual or legal precedent on any issue. The Parties request that the Board recognize that its use of this Joint Stipulation in any proceeding other than this proceeding is contrary to the intentions of the Parties in entering into this Joint Stipulation.

WHEREFORE, based upon the record, and the information and data contained therein, the Parties recommend that the Board issue a Certificate of Environmental Compatibility and Public Need for construction, operation, and maintenance of the AMPGS Transmission Line, as described in the Certificate Application and supplemental filing made with the Board.

The undersigned stipulate and represent that they are authorized to enter into this Joint Stipulation on this the \_\_th day of October 2008.

### ON BEHALF OF THE STAFF OF THE OHIO POWER SITING BOARD

By: NANCY H. ROGERS

ATTORNEY GEMERAL OF OHIO

By

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ON BEHALF OF AMERICAN MUNICIPAL POWER-OHIO, INC.

By:

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# Applicant Exhibit No. 2

FILE

### CHESTER WILLCOX & SAXBE LLP

Attornerys and Counselors at Law

NATHANIEL S. OROSZ

DIRECT DIAL (614) 334-6117 norosz@cwslaw.com

December 27, 2007

### VIA HAND DELIVERY

Ohio Power Siting Board Docketing Division 180 East Broad Street Columbus, OH 43215-3793

Re:

PJM Power Flow Base Case Data - Case No. 06-1357-EL-BTX -- In the Matter of the Application of American Municipal Power-Ohio, Inc. for a Certificate of Environmental Compatibility And Public Need for an Electric Power Transmission Line and Related Facilities.

### Dear Docketing Division:

Please docket the enclosed copy of a cover letter provided to Power Siting Board Staff that accompanied electronic copies of PJM Regional Transmission Expansion Plan Load Flow Data to be considered as part of American Municipal Power-Ohio, Inc.'s ("AMP-Ohio's") application for a certificate to construct an electric power transmission line. This information was provided to Staff on December 27, 2007.

Please contact me with any questions.

Respectfully,

Nathaniel S. Orosz

Attorney for American Municipal Power-Ohio, Inc.

20 :1 K4 C2 330 (800)

### CHESTER WILLCOX & SAXBE LLP

Attorneys and Courselors at Law

NATHANIEL S. OROSZ

DIRECT DIAL (614) 334-6117 noroza@cwslaw.com

December 27, 2007

### VIA HAND DELIVERY

James O'Dell Ohio Power Siting Board 180 East Broad Street Columbus, OH 43215-3793

Re:

PJM Power Flow Base Case Data - Case No. 06-1357-EL-BTX - In the Matter of the Application of American Municipal Power-Ohio, Inc. for a Certificate of Environmental Compatibility And Public Need for an Electric Power Transmission Line and Related Facilities.

Dear Jim:

Enclosed please find ten electronic copies of PJM Regional Transmission Expansion Plan Load Flow Data to be considered as part of American Municipal Power-Ohio, Inc.'s ("AMP-Ohio's") application for a certificate to construct an electric power transmission line. An electronic version of this document is being provided to Staff in lieu of a paper copy due to its size.

If requested, AMP-Ohio can provide additional electronic or paper copies of this information to Staff or any other person who requests a copy.

Please contact me with any questions.

Respectfully,

Nathaniel S. Orosz

Attorney for American Municipal Power-Ohio, Inc.

## Applicant Exhibit No. 3

### CHESTER WILLCOX & SAXBE LLP

### Attornery and Counselon at Law

MATHANIELS, OROSZ

DIRECT DIAL (614) 334-6117 noros:@creston.com

July 18, 2008

Via Hand Delivery

Renec Jenkins
Ohio Power Siting Board
Docketing Division
180 East Broad Street – 13<sup>th</sup> Floor
Columbus, Ohio 43215

RE: OPSB Case No. 06-1357-EL-BTX
Correspondence Submitted to Staff

Dear Ms. Jenkins:

Please docket the enclosed materials, which were submitted to Ohio Power Siting Board ("OPSB") Staff on July 18, 2008 with regard to the accepted, complete application in OPSB Case No. 06-1357-EL-BTX, In the Matter of the Application of American Municipal Power-Ohio, Inc., for a Certificate of Environmental Compatibility and Public Need for an Electric Power Transmission Line and Related Facilities.

Respectfully,

Nathaniel S. Orosz

Counsel for American Municipal Power-Ohio, Inc.

cc: Judge Gregory Price - 12th Floor

ND: 4834-2320-7938, v. 1

July 18, 2008

### Via Hand Delivery

Klaus Lambeck
Chief
Facilities, Siting & Environmental Analysis Division
Ohio Power Siting Board
180 East Broad Street
Columbus, Ohio 43215

RE: OPSB Case No. 06-1357-EL-BTX

Modification of Transmission Line Route



I am writing on behalf of American Municipal Power-Ohio, Inc. ("AMP-Ohio") to provide documentation of a modification of the proposed transmission route related to AMP-Ohio's pending application before the Ohio Power Siting Board in OPSB Case No. 06-1357-EL-BTX, In the Matter of the Application of American Municipal Power-Ohio, Inc., for a Certificate of Environmental Compatibility and Public Need for an Electric Power Transmission Line and Related Facilities ("Application").

As set forth in O.A.C. 4906-5-10(A)(6), this modification is not an amendment to the accepted, complete Application because it is within 2,000 feet of the study corridor, will not impact any additional landowners, and will not create further impacts within the planned right-of-way of the proposed facility.

Please do not hesitate to contact me if you have any questions.

On Behalf of the Members.

Scott Kiesewetter

Manager of New Plant Engineering American Municipal Power-Ohio, Inc.

-16

Enclosures

cc: Docketing Division ~ 13th Floor

John Bentine – AMP-Ohio counsel Jolene Thompson – AMP-Ohio

OHIO: AMHERST - ARCADIA - ARCANUM - BEACH CITY - BLANCHESTER - BLOOMDALE - BOWLING GREEN - BRADNER - BRYAN - CAREY - CELINA - CLEVELAND CLYDE - COLUMBIANA - COLUMBUS - CUSTAR - CUYAHOGA FALLS - CYGNET - DESPLEE - DOVER - BDGERTON - BLOORADO - ELMORE - GALLON - GEOVAR- GRATION GREEN - HAMILLON - HASKINS - HOLLON - MESSAR - HUDSON - HUDSON - HUDSON - LACOSON - LACOSON - LACOSON - LACOSON - LACOSON - HUDSON - HUDSON

VIRGINIA: BEDFORD & DAMILLE & MARKUSANILE & IBEHLAMI MICHIGAN: DOWAGIAC & WYANDOTTE

AMP-Ohio 2600 Airport Drive Columbus, Ohio 43219 • Phone: 614/337-6222 • Fax: 614/337-6220 • www.amp-chio.org



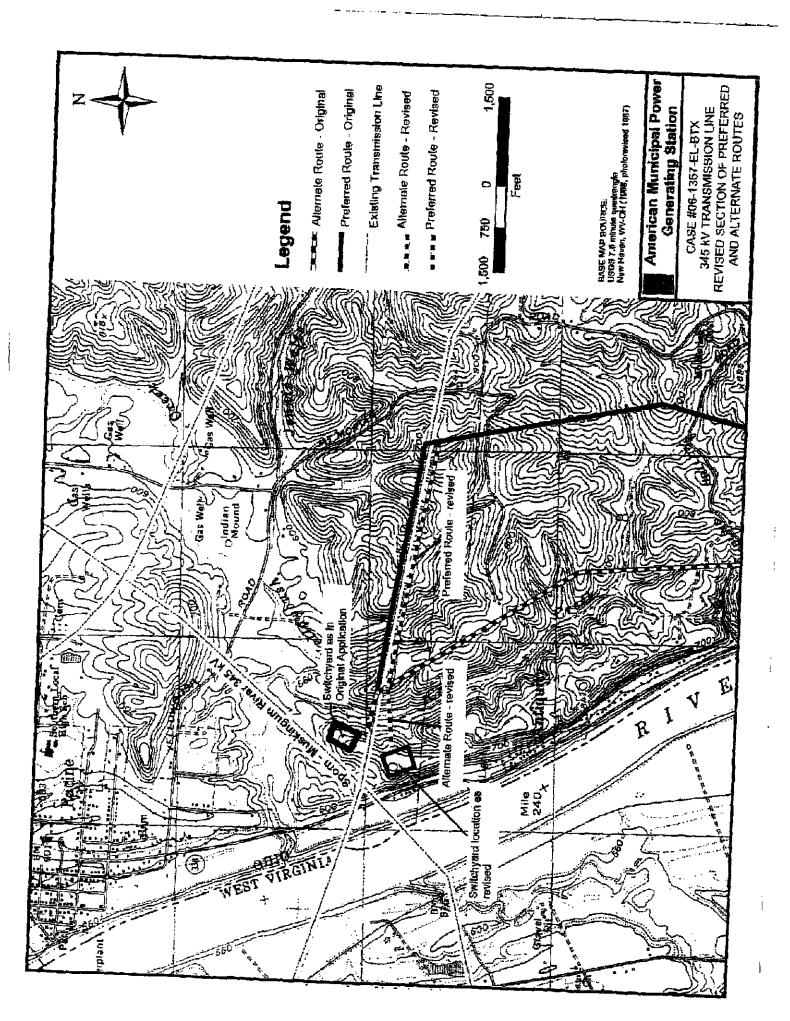
### ATTACHMENT A

### Figure depicting:

Revised section of preferred and alternate transmission route and interconnection switchyard location

and

Original preferred and alternate transmission route and interconnection switchyard location.



### ATTACHMENT B

Updated Wetland Delineation and Stream
Assessment Report covering the modified preferred transmission route, alternate transmission route and interconnection switchyard.

July 14, 2008

#### Via Electronic and U.S. Mail

Tom Hercank 401 Section Ohio EPA, Division of Surface Water 50 W. Town Street Columbus, Ohio 43216

> Addendum to AMPGS 401 Application: RÉ:

> > Alternate Transmission Route Assessment

Dear Mr. Harcarik:

On May 7, 2007, American Municipal Power-Ohio, Inc. ("AMP-Ohio") submitted a 401 Water Quality Certification Application to Ohio EPA to address impacts to streams and wetlands associated with AMP-Ohio's proposed new power generating station, AMPGS.

As you know, as part of Ohio's power siting process, AMP-Ohio has identified both a primary and an alternate route for the transmission line from AMPGS. In our May 19, 2008 submittal and May 28, 2008 follow-up letter, AMP-Ohio provided a Wetland Delineation and Stream Assessment Report, prepared by AMP-Ohio's consultant URS, for the alternate route. By this letter, AMP-Ohio submits the enclosed revised report. Specifically, the updated report, prepared by AMP-Ohio's consultant URS, includes stream assessment information for seven additional areas within the alternate transmission route not contained in the prior report. Please include this addendum updated report as part of AMP-Ohio's overall 401 Application.

Please do not hesitate to contact Randy Meyer or me at 614-337-6222 or via email, if you have any questions.

On behalf of the Members,

Scott Kiesewener

Manager of New Plant Engineering American Municipal Power-Ohio, Inc.

Enclosure

¢¢:

Jolene Thompson/AMP-Ohio Randy Meyer/AMP-Ohio

July 7, 2008

Mr. Scott Kiesewetter American Municipal Power 2600 Airport Drive Columbus, Ohio 43219

Re: Alternate Route Wetland Delineation and Stream Assessment Report, AMP-Ohio 345 kV Transmission Line Project, Meigs County, Ohio

Dear Mr. Kiesewetter:

American Municipal Power-Ohio, Inc. (AMP-Ohio) is planning to construct a transmission line that will connect its proposed 1,000-MW pulverized coal fired power plant to an interconnection switchyard located south of the existing American Electric Power (AEP) Sporn-Kaiser No. 1 138 kV transmission line. The proposed transmission line is located in the Letart Falls area of Meigs County. Ohio. This letter report summarizes the findings of the wetland delineation and stream assessment conducted by URS for the Alternate Route. The delineation and assessment was conducted in August 2006, June 2007, April, and July 2008. Figure 1 shows the proposed 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), Completed ACOE wetland delineation forms for wetland WI and Alt-WI are included in Attachment I. Additionally, URS prepared Ohio EPA ORAM version 5.0, (ORAM v5.0 Manual) qualitative wetland evaluation forms for these wetlands, which are included in Attachment I. Habitat assessments for streams with a drainage area less than one square mile and located within the 150-foot construction right-of-way (ROW), were conducted using the methods described in the Ohio EPA's Field Evaluation Manual for Ohio's Primary Headwater

Mr. Scon Kiesewester 7/1/2018 Revision 1 Page 2

Habitat Streams. Final Version 1.0 (Davic. 2001) (HHEI). The completed HHEI forms are included in Attachment 3. Habitat assessment of streams with a drainage area greater than one square mile and located within the 150-foot construction ROW, were conducted using the methods described in the Ohio EPA's Methods for Assessing Habitat in Flowing Waters: Using the Qualitative Habitat Evaluation Index (Rankin, 2006) (QHEI). The completed QHEI forms are included in Attachment 2. The locations and approximate extents of these features are provided on Figure 1.

#### Results

### U.S. Army Corps of Engineers Evaluation

Two wetlands, totaling 1.13 acres were delineated within the 150-foot construction ROW. Wetland W1 covers an area of 0.90 acres. Wetland Alt-W1 covers an area of 0.22 acres. Wetland W1 is labeled PEM/PSS with a small PFO component based on Cowardin Wetland Classification. Wetland Alt-W1 is labeled PEM based on the Cowardin Wetland Classification. See Table 1 for details on both wetlands.

Based upon the procedure identified in the 1987 Manual, the areas delineated in Figure 1 are wetlands, as they meet 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, welland W) scored 58.5/100, indicating it is a Category II welland. Welland Alt-W1 scored 42/100, indicating it is a Category II welland. The Category II welland exhibited moderate to high quality plant communities with few invasive species, moderate to good plant community interspersion, 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 delineated Alternate Route wellands.

Mr. Scon Kiesewetter 7/7/2008 Revision 1 Page 3

### Ohio EPA QHEI Evaluation

Ohio EPA QHEI forms for stream habitat assessments were completed for one stream located within the 150-foot construction ROW. The completed QHEI stream form is included in Attachment 2. The location of these streams is provided on Figure 1.

The QHEI method is generally considered appropriate for streams with drainage basins greater than one square mile, if natural pools are greater than 40 cm, or if the water feature is shown as blue-line waterways on USGS 7.5-minute topographic quadrangle maps. In order to convey general stream habitat quality to the regulated public, the Ohio EPA has assigned narranive ratings to QHEI scores. The ranges vary slightly for headwater streams (H are those with a watershed area less than or equal to 20 square miles) versus larger streams (L are those with a watershed area greater than 20 square miles). The Narrative Rating System includes: Very Poor (<30 H and L), Poor (30 to 42 H, 30 to 44 L), Fair (43 to 54 H, 45 to 59 L), Good (55 to 69 H, 60 to 74 L) and Excellent (70+ H, 75+ L).

Field surveys along the Alternate Rome identified one stream with a drainage area greater than one square mile. The QHEI evaluation of the stream resulted in a "good warmwater habitat" stream designation.

#### Ohio EPA HHEI Evaluation

Ohio EPA HHEI forms for stream habitat assessment were completed for 26 streams located within the 150-foot construction ROW. The completed HHEI stream forms are included in Attachment 3. The location of these streams is provided on Figure 1.

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.

Mr. Scon Kiesewener 7/7/2008 Revision I Page 4

The Alternate Route contains 26 primary headwater streams including: seven Class I streams, two Modified Class II streams, and 17 Class II streams. Alternate Route streams are summarized in Table 2.

Class I Streams - Seven Class I headwater streams were identified during the field investigation with scores ranging from a low of 11 to a high of 28. The substrate composition of these streams is generally dominated by silt, clay, leafpack/woody debris. Muck, sand, and gravel are also noted as less dominant substrate types in this stream class. Maximum pool depth is less 0 inches. The bankfull width for this group of streams is less than 3 feet.

Class II Headwater Streams – Seventeen Class II headwater streams were identified during the field investigation with scores ranging from a low of 31 to a high of 57. The substrate composition of these streams is generally dominated by gravel, silt, and sand. Cobble, leafpack/woody debris, and boulder slabs are also noted as less dominant substrate types in this class of stream. The maximum pool depth is less than 12 inches. The bank full width for this group of streams is generally less than 11 feet.

Modified Class II Headwater Streams - Two Modified Class II headwater streams were evaluated during the field investigation with scores ranging from 37 to 45. The substrate of these streams is dominated by gravel and cobble. Muck, sih, and sand, are noted as less dominant substrate types. The maximum pool depth is 0 inches. The bank full width is between 3 and 7 feet. These headwater streams show evidence of stream channel modification (e.g. channelization, culverting, etc.), which in turn resulted in a modified class designation.

### Interconnection Switchyard

Field surveys identified no wetlands within the interconnection switchyard (switchyard) boundary. Field surveys did identify one headwater stream, S37, within the switchyard boundary. Stream S37 scored 19/100, classifying it as a Class I stream as shown in Table 3. The

Mr. Seon Kiesewener 7/7/2008 Revision 1 Page 5

substrate of this stream is dominated by leafpack/woody debris and sand. Gravel, cobble, and fine detritus are noted as less dominant substrate types. The maximum pool depth is 0 inches. The bankfull width is 1 foot.

### Comparison to Preferred Route

The Preferred Route contains 30 streams within the 150-foot construction ROW, one QHEI evaluated stream (same as crossed by Alternate Route) and 29 HHEI evaluated headwater streams. The QHEI evaluated stream received a "good warmwater habitat" narrative rating. Eleven Class I streams, 10 Class II streams, and eight Class III streams were evaluated using the HHEI method. See Table 4 for a description of streams found with the Preferred Route 150-foot construction ROW.

Two wetlands identified within the Preferred Route, totaling 0.91 acres were delineated within the 150-foot construction ROW. Wetland W1 covers an area of 0.90 acres. Wetland W2 covers an area of 0.01 acres. Wetland W1 is labeled PEM/PSS with a small PFO component based on Cowardin Wetland Classification. Wetland W2 is labeled PEM based on the Cowardin Wetland Classification. See Table 5 for details on both wetlands.

According to the Ohio EPA ORAM evaluation, wetland W1 scored 58.5/100, indicating it is a Category II wetland. Wetland W2 scored 54/100, indicating it is a Category II wetland. The Category II wetland exhibited moderate to high quality plant communities with few invasive species, moderate to good plant community interspersion, 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 5 regarding Preferred Route wetlands.

### Conclusions

Two jurisdictional (i.e. non-isolated), wetlands, totaling 1.13 acres, were identified within the 150-foot construction ROW of the Alternate Route. URS's Ohio EPA ORAM evaluation of both wetlands resulted in both wetlands being designated as Category II.

Mr. Scon Kienewener 2/7/2008 Revision 1 Page 6

Twenty-seven streams were identified within the 150-foot construction ROW. One stream was evaluated using the QHEI methodology and resulted in a narrative rating of "good warmwater habitat" stream. Twenty-six headwater streams were evaluated using the HHEI methodology; seven Class I streams, 17 Class II streams, and two Modified Class II streams.

One HHEI evaluated Class I stream was identified within the interconnection switchyard boundary.

Two wetlands identified within the Preferred Route, totaling 0.91 acres, were delineated within the 150-foot construction ROW. Thirty streams within the Preferred Route 150-foot construction ROW were assessed, one QHEI evaluated stream, a "good warmwater habitat stream", and 29 HHEI evaluated headwater streams; 11 Class I streams, 10 Class II streams, and eight Class III streams.

Approximately 5 miles of new electric transmission line will be built to connect the project to the electric grid. 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.

The construction of the interconnect switchyard will require minimum impact to stream \$37, however impacts will be mitigated through the proposed off-site stream mitigation.



Mr. Seen Kiesewener 7/7/2008 Revision 1 Page 7

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

Sincerely.

URS

Matthew Thomayer Environmental Scientist James Nicholas, Ph.D. Principal Scientist

TABLE 1
WETLANDS LOCATED IN THE AMP-OHIO 345 kV TRANSMISSION LINE
ALTERNATE ROUTE CORRIDOR

Wetland ID	Cowardin Welland Type	ORAM Score	ORAM Category	Linear Feet Crossed	Acreage within 159-foot Corridor
W1	PEM/SS with PFO Component	5.85	II II	252	0.90
Alt-W1	PEM	42	П	75	0.22
Total: 2				327	1.13

TABLE 2 STREAMS LOCATED IN THE AMP-OHIO 345 kV TRANSMISSION LINE ALTERNATE ROUTE CORRIDOR

Name	Flow Regime	Bankfull Width (foet)	Maximum Pool Depth (inches)	Assessment Method	Score	Class/Narrative Rating	Length within 150- foot Corridor (feet)
833	Perennial	9	12	131-11-1	52	Class 2	189.7
All-S1	Intermittent	3	0	HHH		Class )	124.0
All-S2	Intermittent	3	0	HHE	37	Modified Class 2	153.7
Alt-S3	Intermittent	3	0	ыны	15	Chass 1	216.9
Alt-S4	Ephemeral	3.5	0	ННЫ	<b>‡</b> ‡	Class 2	147.5
Alt-S5	Ephemeral	7	0	пын	47	Class 2	125.1
Alt-56	Phomoral	7	0	HHE	4()	Chrs 2	196.7
VII-S7	Intermittent	10.5	0	HHE	50	Class 2	170.4
Alt-S8	Incrmittent	7	O	1:11:11:1	45	Modified Class 2	260.3
Alt-89	Liphemeral	Ą	0	HHE	57	Class 2	144.1
Alt-S10	Ephemeral	9.5	0	BIHH	53	Class 2	1.01.3
Alt-511	Ephemeral	×	0	HHE	4()	Class 2	90.3
Ah-512	Liphemeral	7	0	HHI	[E	Cluss 2	268.8
Alt-513	Intermittent	9	O	HHE	28	Class 2	380.8
Alt-514	Ephemeral	9	O	1:11:131	38	Class 2	165.2
Alt-515	l'appenient	1.1	0	HHEI	50	Class 2	92.6
Alt-536	Ephemeral		Û	HHE	8	Clars 2	155.0
All-S17	Ephemeral	01	0	HHEI	₹.	Class 2	155.1)
831	Percanial	7	77.	CAREE	<b>C</b> 9	Good Warmwater Habitat	160.9
838	Ephemeral	2	5	HHEI	23	Chass 1	150.5
				! 			

AMP-Ohio 345 kV Transanisatan Line Project (Aforano Brane)

Length within 150. foot Corridor (feet)

Class/Narrative Rating

Score

Assessment Method

Depth (inches) P00

Maximum

Bankfull Width (feet) 4,795.4

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Name

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Class 1

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STREAMS LOCATED IN THE AMP-OHIO 345 kV TRANSMISSION LINE ALTERNATE ROUTE CORRIDOR

TABLE 2

TABLE 3
STREAMS LOCATED IN THE AMP-OHIO INTERCONNECT SWITCHYARD

Name	Flow Regime	Bankfull Width (feet)	Maximum Pool Depth (inches)	Assessment Method	Scure	Çlæs	Length within Switchyard (feet)
\$37	Ephemeral	7	Đ	HHE	19	Class 1	182
Total: 1		1	0.				182

TABLE 4

STREAMS LOCATED IN THE AMP-OHIO 345 KY TRANSMISSION LINE PREFERRED ROUTE CORRIDOR

Regime         Width (feet) (inches)         Depth (inches)         Method         Score           Interstitial         4         3         14HH3         56           Ephemeral         1.5         0         14HH3         56           Ephemeral         1.5         0         14HH3         24           Ephemeral         3         0         14HH3         24           Ephemeral         3         0         14HH3         27           Ephemeral         3         0         14HH3         39           Ephemeral         3         0         14HH3         37           Ephemeral         2         2         14HH3         45           Perennial         2.5         4         14HB3         45           Perennial         5.5         4         14HB3         54           Impremeral         5.5         4         14HB3         54           Iphemeral         2.5         4         14HB3         41           Perennial         3         0         14HB3         41           Perennial         3         0         14HB3         41           Perennial         3         0         14H	Stream	Flow	Bankfull	Maximum	Accessment		Class/Norrative	Length of
Interstitial   4   3   HHI3    56   Class II     Ephemeral   L5   0   HHI3    19   Class I     Interstitial   3   3   HHI3    24   Class II     Ephemeral   3   0   HHI3    37   Class II     Ephemeral   3   0   HHI3    27   Class II     Ephemeral   3   0   HHI3    27   Class II     Ephemeral   5   2   HHI3    39   Class II     Ephemeral   5   2   HHI3    35   Class II     Ephemeral   2.5   4   HHI3    56   Class II     Perennial   5.5   4   HHI3    54   Class II     Perennial   5.5   4   HHI3    54   Class II     Perennial   5   3   HHI3    54   Class II     Perennial   5   3   HHI3    54   Class II     Ephemeral   3   0   HHI3    41   Class II     Ephemeral   3   0   HHI3    41   Class II     Ephemeral   3   0   HHI3    41   Class II     Ephemeral   4   0   HHI3    30   Class II     Ephemeral   4   0   HHI3    4     Ephemeral   5   0   0   0     Ephemeral   5   0   0   0   0     Ep	Name	Regime	Width (feet)	Depth (inches)	Method	Score	Rating	Stream within 150-foot ROW
Ephemeral         1.5         0         HH131         19         Class II           Imperment         3         3         HH131         39         Class II           Ephement         7         0         HH131         37         Class II           Ephement         3         0         HH131         37         Class II           Ephemeral         3         0         HH131         39         Class II           Iphemeral         6         0         HH131         39         Class II           Iphemeral         2         2         HH131         35         Class II           Incrinial         2.5         4         HH131         45         Class III           Perennial         5.5         4         HH131         45         Class III           Perennial         5.5         4         HH131         64         Class III           Perennial         5.5         4         HH131         62         Class III           Iphemeral         5.5         4         HH131         64         Class III           Iphemeral         3         0         HH131         8         Class III           Iphemeral	801	Interstitial	4	3	MHIS	56	Class II	168.1
Intersitial 3 3 4HH3 39 Class II   Ephemeral 1.5 0 HHBI 24 Class II   Ephemeral 3 0 HHBI 37 Class II   Ephemeral 3 0 HHBI 27 Class II   Ephemeral 3 0 HHBI 27 Class II   Ephemeral 5 2 1HHBI 39 Class III   Ephemeral 2 2 HHBI 39 Class III   Ephemeral 2 2 1HHBI 26 Class III   Perennial 2.5 4 HHBI 26 Class III   Perennial 5.5 4 HHBI 64 Class III   Perennial 5.5 4 HHBI 64 Class III   Ephemeral 3 0 HHBI 84 Class III   Ephemeral 3 0 HHBI 84 Class III   Ephemeral 4 0 HHBI 82 Class III   Ephemeral 4 0 HHBI 30 Class III   Ephemeral 4 0 Class III	S02	Ephemeral	5.1	0	HENSI	63	Class I	162,1
Ephemeral   1.5   0   HHE   24   Class   1     Ephemeral   3   0   HHE   19   Class   1     Ephemeral   3   0   HHE   27   Class   1     Ephemeral   5   0   HHE   39   Class   1     Ephemeral   2.5   2   HHE   39   Class   1     Ephemeral   2.5   4   HHE   26   Class   1     Peremial   2.5   4   HHE   26   Class   1     Peremial   5.5   4   HHE   64   Class   1     Peremial   5   3   HHE   64   Class   1     Peremial   5   3   HHE   64   Class   1     Ephemeral   5   6   HHE   64   Class   1     Ephemeral   5   6   HHE   64   Class   1     Ephemeral   6   6   HHE   64   Class   1     Ephemeral   7   8   HHE   65   Class   1     Ephemeral   7   8   HHE   65   Class   1     Ephemeral   7   8   HHE   65   Class   1	803	Interstitial	3	المنا	HEII3	39	Class II	226.0
Ephemeral         7         0         HUBI         37         Class II           Ephemeral         3         0         HHBI         19         Class II           Ephemeral         3         0         HHBI         27         Class II           Intersitial         7.5         2         HHBI         39         Class III           Intersitial         7.5         2         HHBI         35         Class III           Intersitial         2.5         4         HHBI         26         Class III           Perennial         5.5         4         HHBI         64         Class III           Perennial         5.5         4         HHBI         62         Class III           Perennial         5         3         HHBI         62         Class III           Intersitial         5         3         HHBI         64         Class III           Iphemeral         5         6         Class III         6           Iphemeral         5         1HHBI         8         Class III           Perennial         5         1HHBI         8         Class III           Iphemeral         2         1HBIB         8	M/S	Upperment.	<u></u>	=	HEIGH	24	Class I	177.2
Ephemeral         3         0         HHE         19         Class I           Ephemeral         3         0         HHE         37         Class II           Imersitial         7.5         2         HHE         39         Class III           Intersitial         2.5         4         HHE         34         Class III           Intersitial         2.5         4         HHE         26         Class III           Perennial         7         2         HHE         64         Class III           Perennial         7         2         HHE         64         Class III           Perennial         7         2         HHE         64         Class III           Intersitial         5         3         HHE         62         Class III           Intersitial         5         3         HHE         62         Class III           Perennial         5         3         HHE         Class III           Perennial         5         3         HHE         Class III           Perennial         5         3         HHE         Class III           Perennial         7         8         HHE         Class III	908	Upberneral	7	0	151(1))	3.7	Chass II	97L1
Liphemeral         3         0         HHISI         27         Class II           Liphemerul         6         0         HHISI         39         Class III           Inversitial         2         2         HHISI         34         Class III           Inpersitial         2.5         4         HHISI         26         Class III           Perennial         2.5         4         HHISI         64         Class III           Perennial         5.5         4         HHISI         62         Class III           Perennial         7         2         HHISI         62         Class III           Incrsitial         5         3         HHISI         54         Class III           Iphemeral         5         3         HHISI         54         Class III           Iphemeral         3         0         HHISI         41         Class III           Perennial         3         0         HHISI         54         Class III           Perennial         2         0         HHISI         41         Class II           Perennial         7         8         HHISI         62         Class III           Perennial<	203	Ephemeral	3	O	HHH	<u>5</u>	Class I	32.3
Liphconcrul         66         0         HHIE         39         Class II           Interstitat         2         2         HHIE         55         Class III           Interstitat         2.5         4         HHIE         45         Class III           Perennial         2.5         3         HHIE         26         Class III           Perennial         5.5         4         HHIE         64         Class III           Perennial         7         2         HHIE         62         Class III           Interstitial         5         3         HHIE         54         Class III           Iphement         3         0         HHIE         4         Class III           Perennial         3         0         HHIE         54         Class III           Perennial         3         0         HHIE         4         Class III           Perennial         3         0         HHIE         62         Class III           Perennial         4         0         HHIE         62         Class III	808	Ephemeral	3	0	HHI	27	Class I	177.5
Interstitlat  7.5 2 HHB1   55 Class fill   Fiphemeral   2 2   HHB1   34 Class fill   2.5 4 HHB1   45 Class fill   2.5 4 HHB1   26 Class fill   2.5 4 HHB1   26 Class fill   2.5 4 HHB1   64 Class fill   2.5 3 HHB1   62 Class fill   2.5 3 HHB1   62 Class fill   2.5 3 HHB1   64 Class fill   2.5 0 HHB1   62 Class fill   2.5 0 HBB1   41 Class fill   2.5 0 HBB1   30 Class fill   2.5 0 C	809	15phemeral	Ų	O	HHIS	39	Class If	181.5
Ephemeral   2   2   [HHB]   34   Class II	810	Interstitial	7.5	2	FIFIE	55	Class III	229.1
Increntital         2.5         4         IHHB         45         Class III           Perennial         2.5         4         IHHB         64         Class III           Perennial         7         2         IHHB         62         Class III           Intersitial         5         3         IHHB         54         Class III           Iphemeral         3         0         IHHB         18         Class III           Perennial         7         8         IHBB         41         Class III           Perennial         7         8         IHBB         82         Class III	311	Ephemeral	2	2	HHE	34	Class II	158.8
Percential         2.5         3         HHII         26         Class II           Perential         5.5         4         HHII         64         Class III           Perential         7         2         HHII         62         Class III           Interstital         5         3         HHII         54         Class III           Iphemenal         3         0         HHIII         18         Class II           Perential         7         8         HHIII         82         Class III           Iphemeral         4         0         HHIII         30         Class III	\$12	Interstital	2.5	÷	HHH	45	Class III	309.4
Percinial         5.5         4         HHEI         64         Class III           Percinial         7         2         HHII         62         Class III           Inperioral         5         3         HHII         54         Class III           Iphemeral         3         0         HHII         18         Class III           Percinal         7         8         HHII         82         Class III           Iphemeral         4         0         HHII         30         Class III	813	Perennial	2.5	£	HHIR	97	Class I	¥1.05
Pertinuial 7 2 HHII 62 Class III   Interstitial 5 3 HHIII 64 Class III   Iphemeral 3 0 HHIII IR Class III   Iphemeral 2.5 0 HHIII 41 Class III   Iphemeral 7 8 HHIII 82 Class III   Iphemeral 4 0 HHIII 30 Class III   Iphemeral 4 0 HHIII 30 Class III   I	†1S	Peremial	5.5	72	HHEI	64	Class III	152.8
Incredital   5   3   HHH   54   Class III	\$15	Peremial	7	2	HHE	62	Chass III	135.1
Explicit   3   0   EMES   1   1   1   1   1   1   1   1   1	91S	Interstitial	5	3	HHS	Ž.	Class III	201.5
Explicit   2.5   0   EFE   Classif	LIS	13phemeral	3	=	HHI	<b>x</b>	Class 1	227.1
Percunial 7 8   Hillst 82 Chass III   Isphemeral 4 0   Hillst 30 Class II	818	1:phemerat	2.5	0	141131	41	Classil	299.1
Experiment 4 () HEBI 30 Class II	819	Percunial	7	8	HIM	82	Chass III	213.0
	\$20	Liphcuwail	1	0	1314131	30	Class II	196.5

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AMP-Other 343 kV Transmission Line Project (Alternate Ronge)

May 2008 AMP-Ohio 14947859

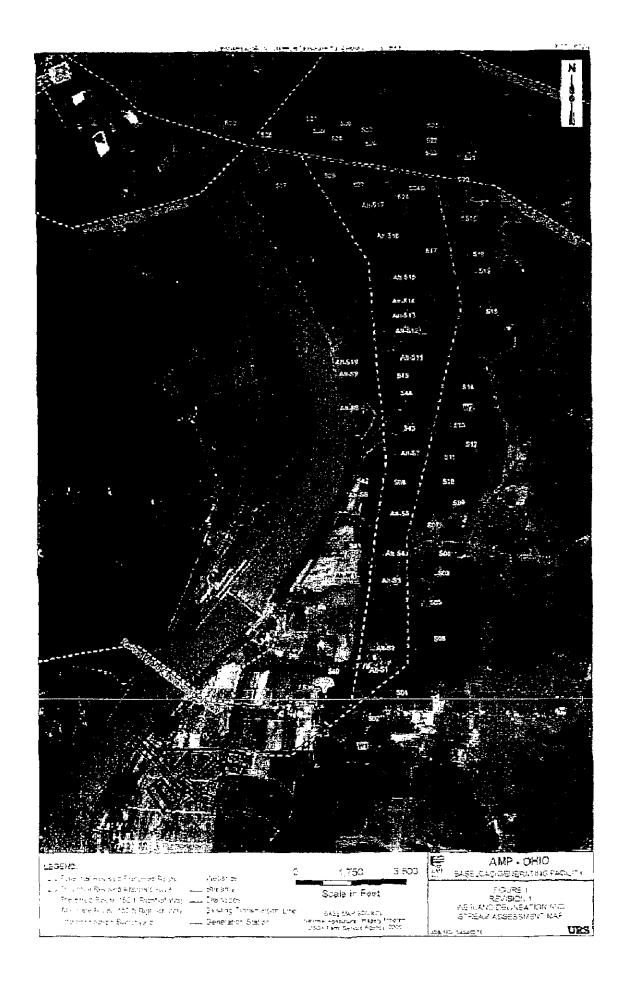
AMI\*Ohb 345 kV Trinsmission Line Prycet (Alternate Rode)

TABLE 4
STREAMS LOCATED IN THE AMP-OHIO 345 KV TRANSMISSION LINE
PREFERRED ROUTE CORRIDOR

Stream Name	Flow Regime	Bankfull Width (feet)	Maximuru Pool Depth (inches)	Assessment Method	Score	Class/Narrudve Rafing	Length of Stream within 150-foot ROW
\$21	Interstitial	ی	, ,	171111	62	Class III	152.9
\$22	Ephemeral	د،	0	131-11-1	ū	Class I	152.0
\$24	Ephemeral	2.5	c)	EIRI	2.5	Class 1	174.7
\$25	Ephemend	4	0	1:111:1	35	Class II	190,3
\$27	Interstitial	8	10	HHBI	7.1	Class III	173.4
829	Ephemeral	1	0	HHB	ų	Class I	89.9
83	Percunial	23	<b>7</b>	(SHR)	63	Good Warmwater Etabitat	160.9
\$33	Perennial	7	12	HHIII	52	Class II	189.7
\$35	Intermittem	3	0	1,941.51	61	Clars I	29%.1
836 836	Ephemeral	3	D	Кин	32	Class II	135.3
838	Ephemeral	2	C)	HHB	23	Class 1	150.8
Total:30		133	જ				5372.5

TABLE 5
WETLANDS LOCATED IN THE AMP-OHIO 345 kV
TRANSMISSION LINE PREFERRED ROUTE CORRIDOR

Wettand ID	Cowardin Wetland Type	ORAM Score	ORAM Category	Linear Feet Crossed	Acrenge within 150-foot Corridor
WI	PEM/SS with PPO Component	58.5	П	252	0.90
W2	PEM	54	11	9	0.01
Total: 2				261	0.91



## ATTACHMENT 1

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## ATTACHMENT 2

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### PHOTOGRAPHIC RECORD

AMP-Ohio 345 kV Alternate Transmission

Line Streams

Site Location:

Project No.

American Municipal Power-Ohio (AMP-OH) | Meigs Conny, Ohio

14945376

Stream \$33



Stream All-S1



## PHOTOGRAPHIC RECORD AMP-Ohio M5 kV Alternate Transmissi

AMP-Ohio 345 kV Alternate Transmission Line Streams

Client Name:

Site Location:

Project No.

American Municipal Power-Obio (AMP-OH)

Meigs County, Ohio





Stream Alt-S3	
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# PHOTOGRAPHIC RECORD AMP-Ohio 345 kV Alternate Transmission

Line Streams

Citem Name:

Site Location:

Project No.

American Municipal Power-Ohio (AMP-OH)

Meigs County, Ohio









### PHOTOGRAPHIC RECORD

AMP-Ohio 345 kV Alternate Transmission Line Streams

Client Name:

Site Location:

Project No.

American Municipal Power-Obio (AMP-OH)

Meigs County, Obio









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AMP-Ohio 345 kV Alternate Transmission Line Streams

Client Name:

Site Location:

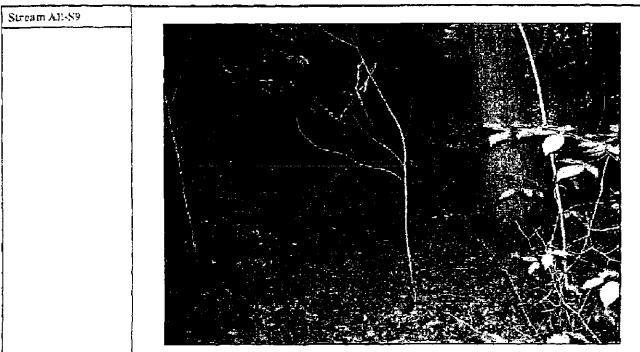
Project No.

American Municipal Power-Onio (AMP-OH)

Meigs County, Ohio







# PHOTOGRAPHIC RECORD AMP-Ohio 345 kV Alternate Transmission

Line Streams

Chent Name:

Site Location:

Project Na.

American Municipal Power-Obio (AMP-OH)

Meigs County: Ohio

14946376

Stream Alt-S10







### PHOTOGRAPHIC RECORD

AMP-Ohio 345 kV Alternate Transmission

Line Streams

Chem Name:

Site Location:

Project Na.

American Municipal Power-Obio (AMP-OH)

Meigs County, Onio

14946376





Stream Alt-S13



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Line Streams

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Site Location:

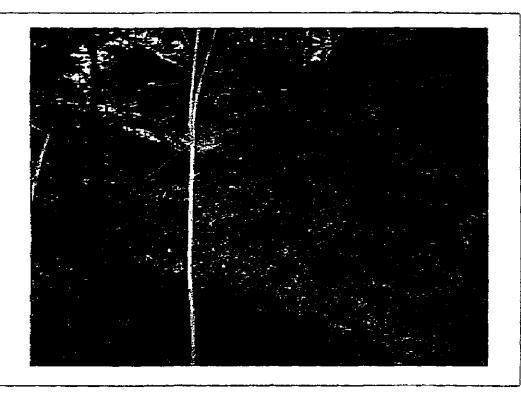
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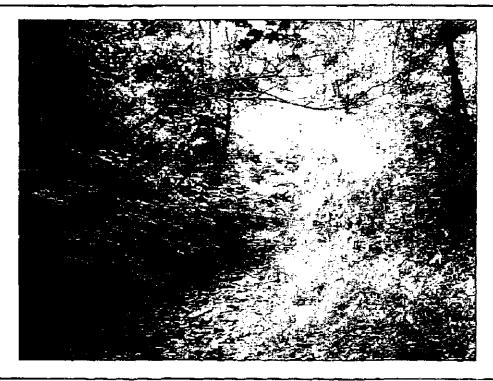
Meigs County, Obio

14946376





Stream Alt-S15



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AMP-Ohio 345 kV Alternate Transmission
Line Streams

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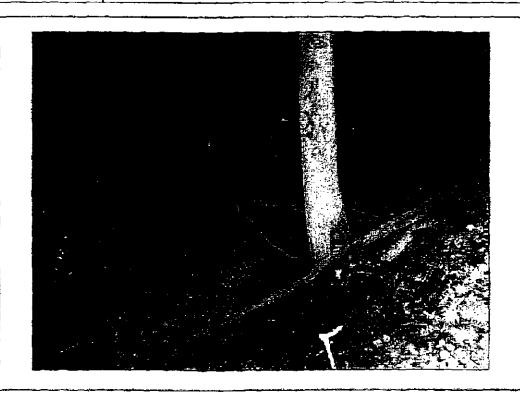
Site Location:

Project No.

American Municipal Power-Obio (AMP-OH)

Meigs County, Ohio





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Site Location:

Project No.

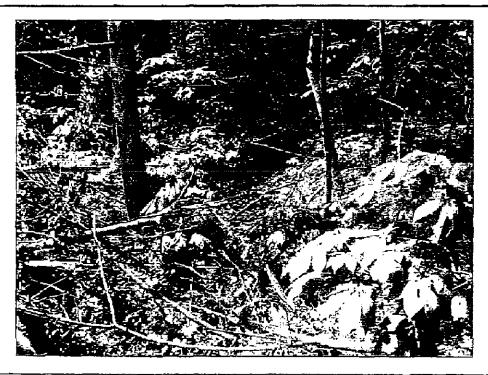
American Municipal Power-Ohio (AMP-OH) | Meigs County, Ohio

14946376

Stream S31



Stream S37



# PHOTOGRAPHIC RECORD AMP-Ohio 345 kV Alternate Transmission Line Streams

Client Name

Site Location:

Project No.

American Municipal Power-Ohio (AMP-OH)

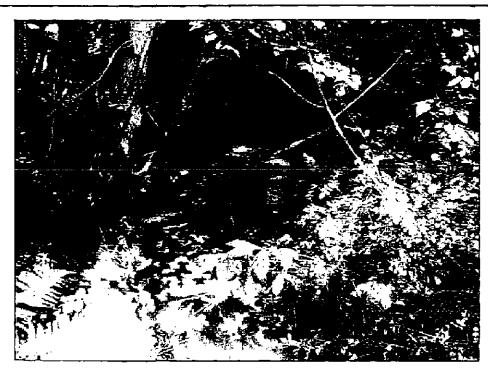
Meiga County, Ohio

14946376

Stream S38



Stream \$39



### PHOTOGRAPHIC RECORD AMP-Ohio 345 kV Alternate Transmission

Line Streams

Client Name:

Site Location:

Project No.

American Municipal Power-Ohio (AMP-OH) | Meigs County, Ohio

14946376

### Stream \$40







# PHOTOGRAPHIC RECORD AMP-Ohio 345 kV Alternate Transmission

Line Streams

Client Name:

Site Location:

Project No.

American Municipal Power-Ohio (AMP-OH)

Meigs County, Obio









# PHOTOGRAPHIC RECORD AMP-Ohio 345 kV Alternate Transmission Line Streams

Chem Name:

Site Location:

Project Na.

American Municipal Power-Obio (AMP-OH)

Meigs County, Ohio

14946376

Stream \$44



Stream S45



## CHESTER WILLCOX & SAXBE LLP

### Attornery and Counselors at Law

NATHANIELS, OROSZ

DIRECT DIAL (614) 334-6117 noross@curstan.com

RECEIVED-DOCKETHIS DIV 2008 SEP 25 Fit 2: 49 PUCO

September 25, 2008

Via Hand Delivery

Renee Jenkins
Ohio Power Siting Board
Docketing Division
180 East Broad Street – 13<sup>th</sup> Floor
Columbus, Ohio 43215

RE: OPSB Case No. 06-1357-EL-BTX

Dear Ms. Jenkins:

Please docket the enclosed materials, which were submitted to the Ohio Power Siting Board Staff on September 25, 2008 with regard to the accepted, complete application in OPSB Case No. 06-1357-EL-BTX, In the Matter of the Application of American Municipal Power-Ohio, Inc., for a Certificate of Environmental Compatibility and Public Need for an Electric Power Transmission Line and Related Facilities.

Respectfully,

Nathaniel S. Orosz

Counsel for American Municipal Power-Ohio, Inc.

cc: Judge Gregory Price - 12th Floor

### Via Hand Delivery

Klaus Lambeck
Chief
Facilities, Siting & Environmental Analysis Division
Ohio Power Siting Board
180 East Broad Street
Columbus, Ohio 43215

RE: OPSB Case No. 06-1357-EL-BTX



### Dear Klaus:

I am writing on behalf of American Municipal Power-Ohio, Inc. ("AMP-Ohio") in regards to AMP-Ohio's pending application before the Ohio Power Siting Board in OPSB Case No. 06-1357-EL-BTX, In the Matter of the Application of American Municipal Power-Ohio, Inc., for a Certificate of Environmental Compatibility and Public Need for an Electric Power Transmission Line and Related Facilities ("Application").

Since submittal of the Application, AMP-Ohio has submitted a number of clarifications regarding the AMPGS proposed preferred and alternate route for the transmission line. AMP-Ohio's August 18, 2008 letter and submittal included transmission line profile drawings, conceptual access plans, and estimates on the total areas of vegetation clearing for the preferred and alternate options. On August 19th and 20th, Ohio Power Siting and Ohio EPA staff representatives participated in a field walk down of the preferred transmission route.

By this letter, AMP-Ohio submits the attached updated clarification drawings, reports and information.

I am also providing documentation of a small modification of the proposed transmission route.

As set forth in O.A.C. 4906-5-10(A)(6), this modification is not an amendment to the accepted, complete Application because it is within 2,000 feet of the study corridor, will not impact any additional landowners, and will not create further impacts within the planned right-of-way of the proposed facility.

OHIO: AMHERST + ARCADIA + ARCANUM\* BEACH CITY = BLANCHESTER = BLOOMDALE - BOWLING GREEN + BRADNER = BRYAN+CAREY + CELINA+CLEVELAND+CLYDE
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WEST VIRGINIA: NEW MARTINSVILLE • PHILIPPI KENTECKY: WILLIAMSTOWN



Please do not hesitate to contact me if you have any questions.

On Behalf of the Members,

Scott Kiesewetter

Manager of New Plant Engineering American Municipal Power-Ohio, Inc.

### Attachments

cc:

James O'Dell, OPSB Staff Jolene Thompson, AMP-Ohio Randy Meyer, AMP-Ohio John Bentine, CWS Listing of Attachments:

Attachment A – General Alignment Plan Primary (Preferred) Transmission Route dated September 19, 2008

Attachment B - Preferred Route Preliminary Access Plan dated September 22, 2008

Attachment C - Clearing Plan for Transmission Lines dated September 24, 2008

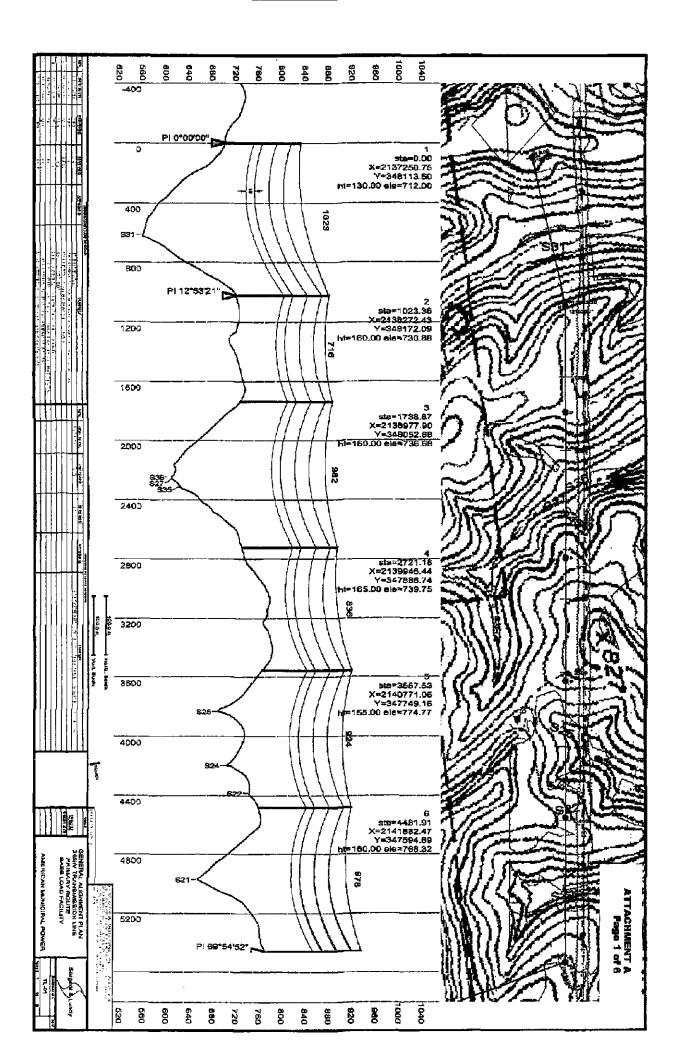
Attachment D - Preferred Route Wetland Delineation and Stream Assessment Report dated September 23, 2008

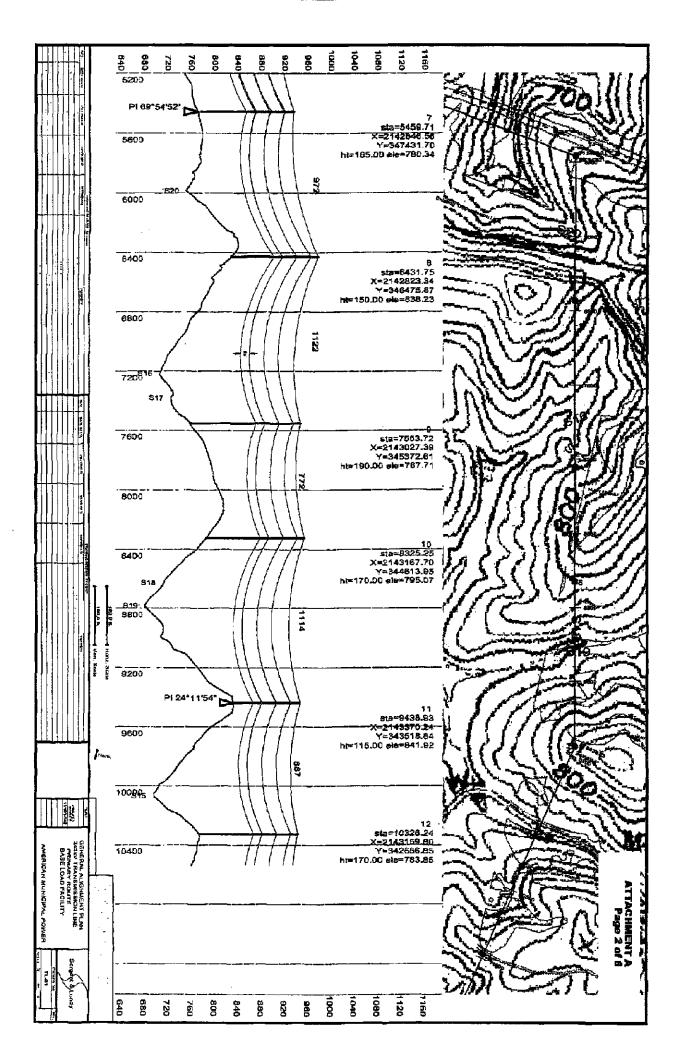
Attachment E - Photographic Record Preferred Transmission Route

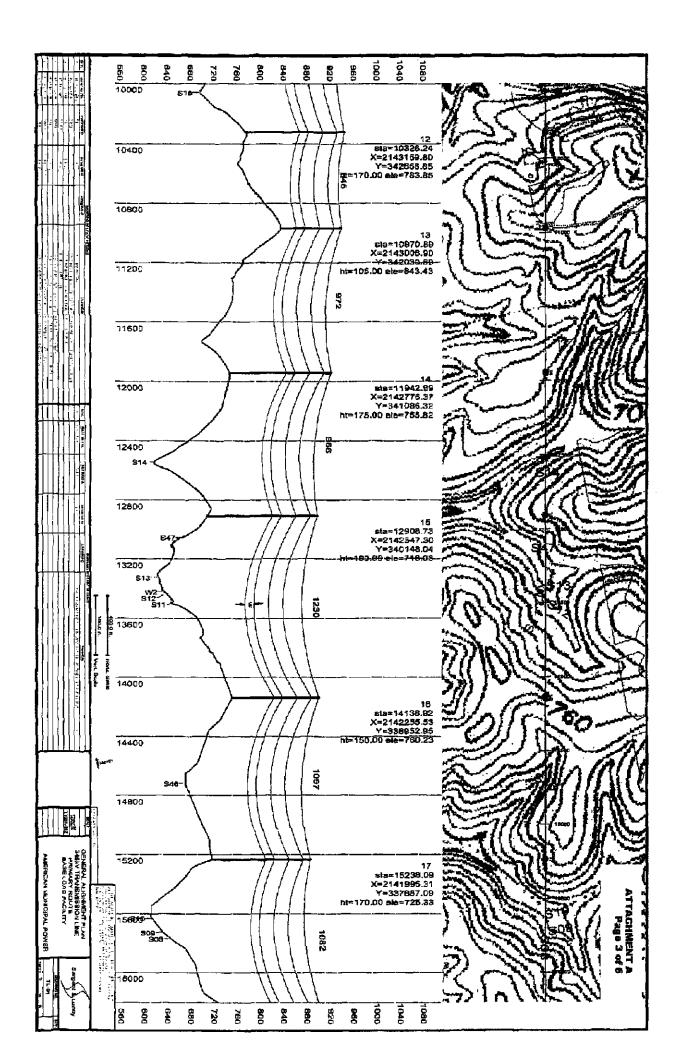
Attachment F - Transmission Line Preferred and Alternate Routes Extension to Plant Substation

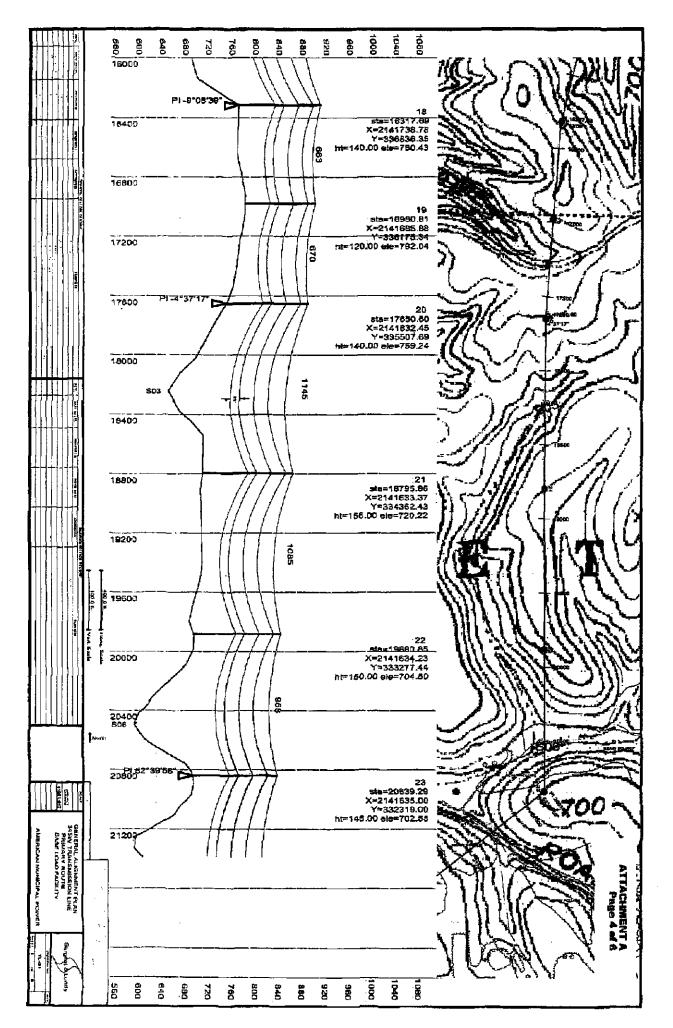
### **Attachment A**

### General Alignment Plan Primary (Preferred) Transmission Route dated September 19, 2008









Page 42 of 66 Purisment (VM) (4 Yes, Resort of connections, Venture substiture policies, 90 Te; all excellent somples myst to provide myst the site of the substitution of the subst heinde importiest kestigente and other teasons of interest for site grabalien and a searchine description of the storem's kneeder Fish Observed (Vanish) Vousing (Vite) Salamenders Observed (Vite) Vousing (Vite) Vousing (Vite) Washing (Vite) MAPPING: ATTACH COPIES OF LINES, INCLUDING THE ENLINE WATERSHIED ARGA. CLEARLY MARK THE SITE LUCKTION NRCS Soff Map Birman Order DRAWING AND NARRATIVE (YESCRIPTION OF BIREAM REACH (This (1915) to complete the Distance from Evaluated Operan Were semples collected forwater chamistry? (VAV): No. | Bible his semple w.c. or id. and attach seales) Lab Humber; CAMER PHOTOCOLOGO. TV . TV. ST.No. CAMER State (If Year, Activati Completed Completed Completed Completed Comp NACS SER PASE PASE Dete of that creedeleter Unit & Broth pH (9.11.) HIT OF PERSONS SELECTION Comments open; 590 Disserved Oxygen (mo<sup>2</sup>) s the starying reach representative of the observe (V/M) USGS Quedrange Name NPW HAMPA 194 Petitional commentationment plan of policies impact DOWNSTREAM DESIGNATED USE(S) Base Para Cerefitoris? (WRI): (C) BOTH EVALLATION Gousted Turbidity? (YAN) Constraints Regarding Barbyy. MISCELLARGOUS Court: ALL W. Photograph Information Water 24, 2444 Street O WYTH Name.
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<u>ADINITIONAL STREAM INFORMATION (This information must also be Completed)</u>

ATTACHMENT D

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# ATTACHMENT D Page 41 of 66

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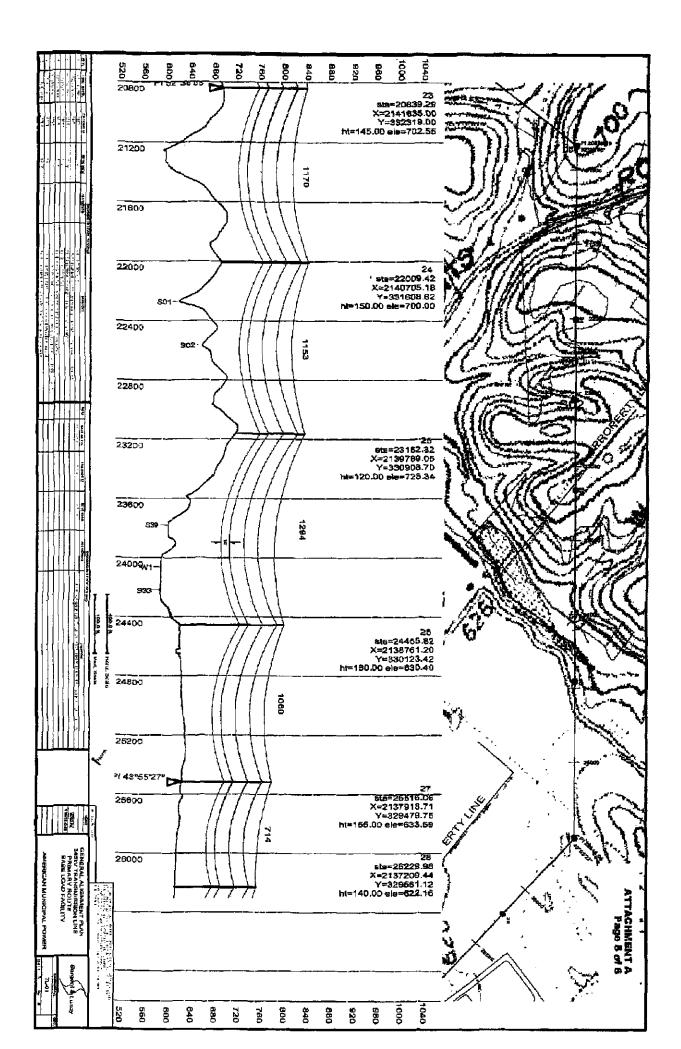
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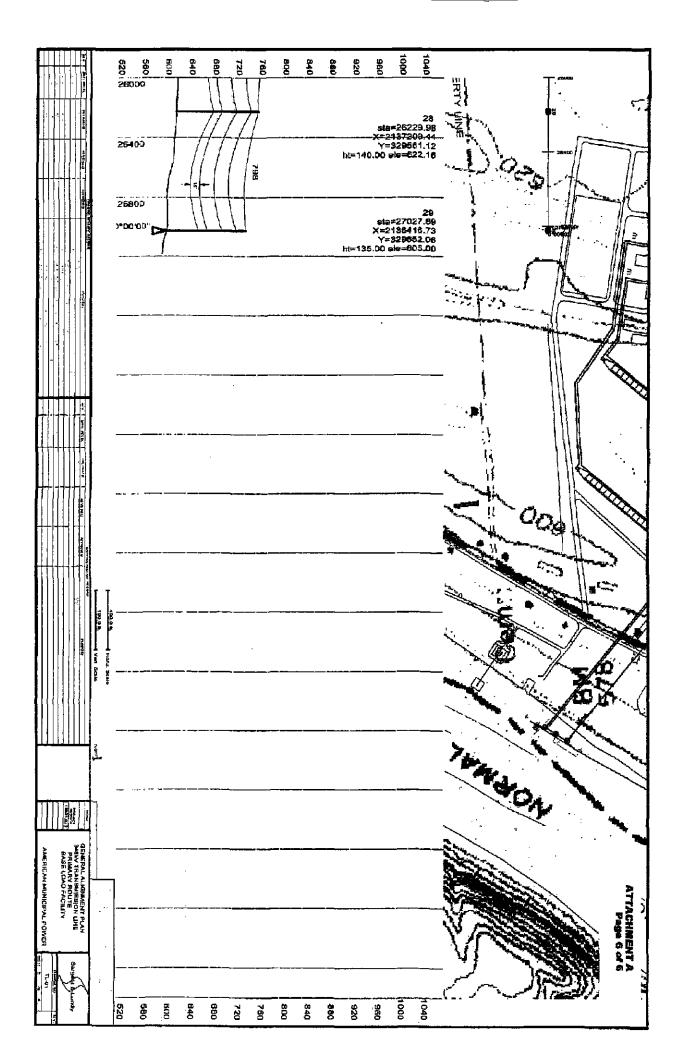
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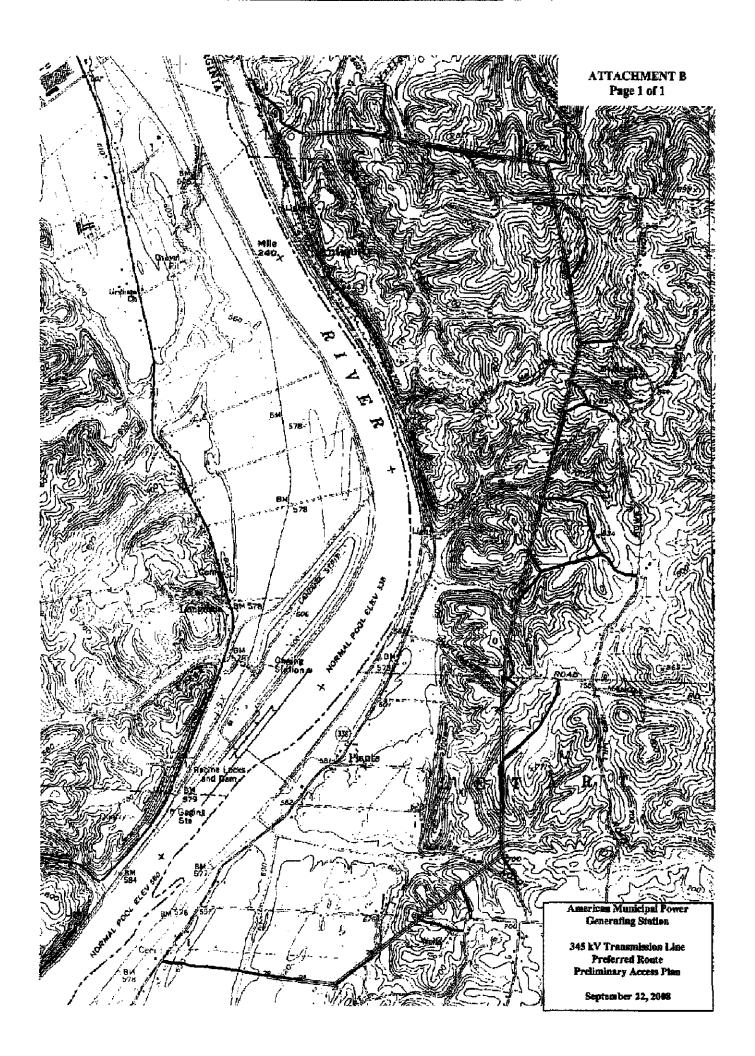
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### **Attachment B**

### Preferred Route Preliminary Access Plan dated September 22, 2008



### **Attachment C**

### Clearing Plan for Transmission Lines dated September 24, 2008



Brian C. Wood Vice President Phone: (312) 269-2638 brian.c.wood@sargenflundy.com

September 24, 2008

American Municipal Power-Ohio, Inc. Baseload Generating Station

Clearing Plan for Transmission Lines

Mr. Scott Kiesewetter Manager of New Plant Engineering American Municipal Power-Ohio, Etc. 2600 Airport Drive Columbus, OH 43219

Dear Mr. Kiesewetter:

Sargent & Lundy has reviewed the Primary and Alternate transmission line routes to evaluate the clearing plan for the proposed routes.

Tree clearing will be required during construction of the new transmission line. Trees must be removed in order to construct access roads to each structure site. In addition, trees and obstructions must be removed in proximity to each transmission structure to allow space for construction crews to erect the structures. Finally, selective clearing will be required along the transmission right-of-way (ROW) to provide adequate electrical clearances between the conductors and any vegetation.

A tree species and height survey was performed by AMP—Ohio along the Primary route ROW at twenty headwater stream and two wetland crossings during mid-September 2008. AMP-Ohio staff estimates an average tree height of approximately 60 feet based on the areas included in the survey.

An approximate evaluation was performed to determine the areas that trees will need to be removed. Based on AMP-Ohio's estimated 60 feet average tree height plus an additional 15 feet clearance, as required by the National Electric Safety Code, the required clearance to the conductors would be a minimum of 75 feet. Using that as an average tree cover over the entire ROW, the following approximate lengths of ROW would be impacted and require significant selective clearing:

- Primary Route 11,100 feet
- Alternate Route 13,900 feet

Based on the 150 foot ROW, the total areas requiring significant selective clearing by segment would be:

- Primary Route 39 acres
- Alternate Route 48 acres

In addition, access roads approximately 15-20 feet in width will be required to each structure. This would add approximately five acres to the cleared areas to both the Primary and Alternate routes.

Please give Tony Lunardini (312) 269-8731 or me a call if you need any additional information.

Yours very truly,

B. Wood Vice President

BCW:ALL:RGP:seq Enclosures Copies: R. Presnak A. Lunardini

# **Attachment D**

# Preferred Route Wetland Delineation and Stream Assessment Report dated September 23, 2008

# **URS**

September 23, 2008

Mr. Scott Kiesewetter American Municipal Power 2600 Airport Drive Columbus, Ohio 43219

Re: Preferred Route Wetland Delineation and Stream Assessment Report, AMP-Ohio 345 kV Transmission Line Project, Meigs County, Ohio

Dear Mr. Kiesewetter:

American Municipal Power-Ohio, Inc. (AMP-Ohio) is planning to construct a transmission line that will connect its proposed 1,000-MW pulverized coal fired power plant to an interconnection switchyard located south of the existing American Electric Power (AEP) Sporn-Kaiser No. 1 138 kV transmission line. The proposed transmission line is located in the Letart Falls area of Meigs County, Ohio. This letter report summarizes the findings of the wetland delineation and stream assessment conducted by URS for the Preferred Route. The delineation and assessment was conducted in August 2006, June 2007, April 2008, July 2008, and August 2008. Figure 1 shows the proposed 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). Completed ACOE wetland delineation forms for wetland W1 and W2 are included in Attachment 1. Additionally, URS prepared Ohio EPA ORAM version 5.0, (ORAM v5.0 Manual) qualitative wetland evaluation forms for these wetlands, which are included in Attachment 1. Habitat assessments for streams with a drainage area less than one square mile and located within the 150-foot construction right-of-way (ROW), were conducted using the methods described in the Ohio EPA's Field Evaluation Manual for Ohio's Primary Headwater

#### ATTACHMENT D Page 2 of 66



Mr. Scott Kiesewetter 9/23/2008 Page 2

Habitat Streams. Final Version 1.0 (Davic, 2001) (HHEI). The completed HHEI forms are included in Attachment 2. Habitat assessment of streams with a drainage area greater than one square mile and located within the 150-foot construction ROW, were conducted using the methods described in the Ohio EPA's Methods for Assessing Habitat in Flowing Waters: Using the Qualitative Habitat Evaluation Index (Rankin, 2006) (QHEI). The completed QHEI forms are included in Attachment 2. The locations and approximate extent of these features are provided on Figure 1.

#### Results

#### U.S. Army Corps of Engineers Evaluation

Two wetlands, totaling 0.91 acres were delineated within the 150-foot construction ROW. Wetland W1 covers an area of 0.90 acres. Wetland W2 covers an area of 0.01 acres. Wetland W1 is labeled PEM/PSS with a small PFO component based on Cowardin Wetland Classification. Wetland W2 is labeled PEM based on the Cowardin Wetland Classification. See Table 1 for details on both wetlands.

Based upon the procedure identified in the 1987 Manual, the areas delineated in Figure 1 are wetlands, as they meet 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 W1 scored 58.5/100, indicating it is a Category II wetland. Wetland W2 scored 54/100, indicating it is a Category II wetland. The Category II wetland exhibited moderate to high quality plant communities with few invasive species, moderate to good plant community interspersion, 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 delineated Preferred Route wetlands.

#### ATTACHMENT D Page 3 of 66



Mr. Scott Kiesewetter 9/23/2008 Page 3

#### Ohio EPA QHEI Evaluation

Ohio EPA QHEI forms for stream habitat assessments were completed for one stream located within the 150-foot construction ROW. The completed QHEI stream form is included in Attachment 2. The location of these streams is provided on Figure 1.

The QHEI method is generally considered appropriate for streams with drainage basins greater than one square mile, if natural pools are greater than 40 cm, or if the water feature is shown as blue-line waterways on USGS 7.5-minute topographic quadrangle maps. In order to convey general stream habitat quality to the regulated public, the Ohio EPA has assigned narrative ratings to QHEI scores. The ranges vary slightly for headwater streams (H are those with a watershed area less than or equal to 20 square miles) versus larger streams (L are those with a watershed area greater than 20 square miles). The Narrative Rating System includes: Very Poor (<30 H and L), Poor (30 to 42 H, 30 to 44 L), Fair (43 to 54 H, 45 to 59 L), Good (55 to 69 H, 60 to 74 L) and Excellent (70+ H, 75+ L).

Field surveys along the Preferred Route identified one stream with a drainage area greater than one square mile. The QHEI evaluation of the stream resulted in a "good warmwater habitat" stream designation (S31).

#### Ohio EPA HHEI Evaluation

Ohio EPA HHEI forms for stream habitat assessment were completed for 32 streams located within the 150-foot construction ROW. The completed HHEI stream forms are included in Attachment 2. The location of these streams is provided on Figure 1.

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.

ATTACHMENT D Page 4 of 66



Mr. Scott Kiesewetter 9/23/2008 Page 4

The Preferred Route contains 32 primary headwater streams including: 12 Class I streams, 12 Class II streams, and 8 Class III streams. Preferred Route streams are summarized in Table 2.

Class I Streams – Twelve Class I headwater streams were identified during the field investigation with scores ranging from a low of 9 to a high of 28. The substrate composition of these streams is generally dominated by silt, clay, leafpack/woody debris. Muck, sand, and gravel are also noted as less dominant substrate types in this stream class. Maximum pool depth is less 0 inches. The bankfull width for this group of streams is less than 3 feet.

Class II Headwater Streams – Twelve Class II headwater streams were identified during the field investigation with scores ranging from a low of 30 to a high of 56. The substrate composition of these streams is generally dominated by gravel, silt, and sand. Cobble, leafpack/woody debris, and boulder slabs are also noted as less dominant substrate types in this class of stream. The maximum pool depth is less than 12 inches. The bank full width for this group of streams is generally less than 7 feet.

Class III Headwater Streams - Eight Class III headwater streams were evaluated during the field investigation with scores ranging from 45 to 82. The substrate of these streams is dominated by cobble, gravel, and bedrock. Sand and silt are noted as less dominant substrate types. The maximum pool depth is 10 inches. The bank full width is between 2 and 8 feet.

#### Interconnection Switchyard

Field surveys identified no wetlands within the interconnection switchyard (switchyard) boundary. Field surveys did identify one headwater stream, S37, within the switchyard boundary. Approximately 190 feet of S37 are within the switchyard boundary (Figure 1). Stream S37 scored 19/100, classifying it as a Class I stream. The substrate of this stream is dominated by leafpack/woody debris and sand. Gravel, cobble, and fine detritus are

#### ATTACHMENT D Page 5 of 66



Mr. Scott Kiesewetter 9/23/2008 Page 5

noted as less dominant substrate types. The maximum pool depth is 0 inches. The bankfull width is 1 foot.

#### Comparison to Alternate Route

The Alternate Route contains 27 streams within the 150-foot construction ROW, one QHEI evaluated stream (same as crossed by Preferred Route) and 26 HHEI evaluated headwater streams. The QHEI evaluated stream received a "good warmwater habitat" narrative rating. Seven Class I streams, 17 Class II streams, and 2 Modified Class II streams were evaluated using the HHEI method. See Table 3 for a description of streams found with the Alternate Route 150-foot construction ROW.

Two wetlands identified within the Alternate Route, wetland W1 and Alt-W1, totaling 1.12 acres were delineated within the 150-foot construction ROW. Wetland W1 covers an area of 0.90 acres. Wetland Alt-W1 covers an area of 0.22 acres. Wetland W1 is labeled PEM/PSS with a small PFO component based on Cowardin Wetland Classification. Wetland Alt-W1 is labeled PEM based on the Cowardin Wetland Classification. See Table 4 for details on both wetlands.

According to the Ohio EPA ORAM evaluation, wetland W1 scored 58.5/100, indicating it is a Category II wetland. Wetland Alt-W1 scored 42/100, indicating it is a Category II wetland. The Category II wetland exhibited moderate to high quality plant communities with few invasive species, moderate to good plant community interspersion, 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 4 regarding Alternate Route wetlands.

#### Conclusions

Two jurisdictional (i.e. non-isolated), wetlands, totaling 0.91 acres, were identified within the 150-foot construction ROW of the Preferred Route. URS's Ohio EPA ORAM evaluation of both wetlands resulted in both wetlands being designated as Category II wetlands.

ATTACHMENT D Page 6 of 66

URS

Mr. Scott Kiesewetter 9/23/2008 Page 6

Thirty-three streams were identified within the 150-foot construction ROW. One stream was evaluated using the QHEI methodology and resulted in a narrative rating of "good warmwater habitat" stream. Thirty-two headwater streams were evaluated using the HHEI methodology; 12 Class I streams, 12 Class II streams, and 8 Class III streams.

One HHEI evaluated Class I stream was identified within the interconnection switchyard boundary (S37).

Two wetlands identified within the Alternate Route, totaling 1.12 acres, were delineated within the 150-foot construction ROW. Twenty-seven streams within the Alternate Route 150-foot construction ROW were assessed, one QHEI evaluated stream, a "good warmwater habitat stream", and 26 HHEI evaluated headwater streams; 7 Class I streams, 17 Class II streams, and 2 Modified Class II streams.

Approximately 5 miles of new electric transmission line will be built to connect the project to the electric grid. 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.

The construction of the interconnect switchyard will require impact to stream S37, however impacts will be mitigated through the proposed off-site stream mitigation.

# **URS**

#### ATTACHMENT D Page 7 of 66

Mr. Scott Kiesewetter 9/23/2008 Page 7

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

alexan M. Valey

TABLE 1
WETLANDS LOCATED IN THE AMP-OHIO 345 kV
TRANSMISSION LINE PREFERRED ROUTE CORRIDOR

Wetland : ID	Cowardin Wetland Type	ORAM Score	ORAM Category	Linear Feet Crassed	Acrenge within 150-foot Corridor
wı	PEM/SS with PPO Component	58.5	п	252	0.90
W2	PEM	54	II	9	0.01
Total: 2	•			261	0,91

TABLE 2

STREAMS LOCATED IN THE AMP-OHIO 345 kV TRANSMISSION LINE PREFERRED ROUTE CORRIDOR

Bankful         Maximum         Assessment         Score           (feet)         (inches)         Method         S6           1.5         0         HHEI         39           1.5         0         HHEI         37           2         2         HHEI         34           2.5         4         HHEI         34           2.5         4         HHEI         34           2.5         4         HHEI         45           2.5         4         HHEI         45           2.5         4         HHEI         34           5.5         4         HHEI         45           7         8         HHEI         30           6         3         HHEI         30           1         4         0         HHEI         30           2.5         0         HHEI         3           4         0         HHEI         3 </th <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>								
Interstitial   4   3   HiffEl   56     Ephemeral   1.5   0   HiffEl   19     Ephemoral   1.5   0   HiffEl   34     Ephemoral   3   0   HiffEl   37     Ephemoral   3   0   HiffEl   37     Ephemoral   3   0   HiffEl   37     Interstitial   7.5   2   HiffEl   35     Interstitial   2.5   3   HiffEl   36     Perennial   5.5   4   HiffEl   36     Perennial   5.5   3   HiffEl   36     Ephemoral   2.5   0   HiffEl   36     Ephemoral   3   0   HiffEl   36     Ephemoral   2.5   0   HiffEl   37     Ephemoral   3   0   HiffEl   37     Ephemoral   3   0   HiffEl   35     Ephemoral   3   0   HiffEl   35     Ephemoral   4   0   HiffEl   35     Ephemoral   1   0   HiffEl   37     Ephemoral   1   17   24   QHBI   52	Stream	Flow Regime	Bankfull Width (feet)	Maximum Pool Depth (inches)	Assessment	Score	Class/Narrative Rating	Length of Stream within 150 ROW (feet)
Ephemeral         1.5         0         HHEI         19           Interstitial         3         3         HHEI         39           Ephemoral         1.5         0         HHEI         37           Ephemoral         7         0         HHEI         27           Ephemoral         7.5         2         HHEI         39           Interstitial         2.5         4         HHEI         39           Perennial         2.5         4         HHEI         34           Perennial         2.5         4         HHEI         64           Perennial         5.5         4         HHEI         64           Ephemeral         2.5         3         HHEI         64           Perennial         7         2         HHEI         34           Ephemeral         3         HHEI         34           Ephemeral         3         HHEI         3           Interstitial         4         0         HHEI         3           Ephemeral         4         0         HHEI         3           Ephemeral         4         HHEI         3           Ephemeral         4         <	108	Interstitial	4	3	HHEI	95	Class II	168.0
Intersitial 3 3 3 HHEI 39   HHEI 39     Ephemeral 7 0	302	Ephemeral	1.5	0	HHEI	61	Class I	162.7
Ephemeral         1.5         0         IMBI         24           Ephemeral         7         0         IMHEI         37           Ephemeral         3         0         IMHEI         27           Ephemeral         6         0         IMHEI         27           Ephemeral         2         2         IMHEI         39           Interstitial         2.5         4         IMHEI         45           Perennial         7         2         IMHEI         56           Interstitial         5.5         4         IMHEI         64           Perennial         7         2         IMHEI         65           Ephemeral         3         0         IMHEI         8           Bphemeral         3         0         IMHEI         9           Bphemeral         4         0         IMHEI         30           Bphemeral         4         0         IMHEI         35           Bphemeral         4         0         IMHEI         35           Bphemeral         4         0         IMHEI         36           Bphemeral         4         0         IMHEI         3	803	Interstitial	3	3	HHEI	39	Class II	225.1
Ephemoral         7         0         HHEI         37           Ephemeral         3         0         HHEI         27           Ephemeral         6         0         HHEI         27           Interstitial         2.5         2         HHEI         39           Ephemeral         2.5         4         HHEI         36           Perennial         2.5         3         HHEI         64           Perennial         7         2         HHEI         64           Ephemeral         3         0         HHEI         36           Bphemeral         2.5         0         HHEI         30           Interstitial         6         3         HHEI         30           Ephemeral         2.5         0         HHEI         3           Bphemeral         4         0         HHEI         3           Bphemeral         4         0         HHEI         3           Bphemeral         1         0         HHEI         3           Bphemeral         1         0         HHEI         3           Bphemeral         1         0         HHEI         3           <	S04	Ephemeral	1.5	0	THE	ÞŽ	Class I	177.2
Ephemeral         3         0         HHEI         27           Ephemeral         6         0         HHEI         39           Interstital         7.5         2         HHEI         55           Ephemeral         2         2         HHEI         39           Interstitial         2.5         4         HHEI         45           Perennial         2.5         4         HHEI         64           Perennial         7         2         HHEI         64           Bphemeral         3         0         HHEI         18           Ephemeral         3         0         HHEI         30           Interstitial         6         3         HHEI         9           Bphemeral         3         0         HHEI         3           Bphemeral         4         0         HHEI         3           Bphemeral         4         0         HHEI         3           Bphemeral         1         0         HHEI         3           Bphemeral         1         0         HHEI         3           Bphemeral         1         0         HHEI         9	30 <del>6</del>	Ephemeral	7	0	HHEI	37	Class II	1.77.1
Ephenoral         6         0         HHEI         39           Interstitial         7.5         2         HHEI         55           Ephenoral         2.5         4         HHEI         34           Interstitial         5.5         4         HHEI         26           Perennial         7         2         HHEI         64           Perennial         7         2         HHEI         64           Ephemeral         5         3         HHEI         8           Interstitial         6         3         HHEI         9           Ephemeral         4         0         HHEI         3           Ephemeral         4         0         HHEI         71           Ephemeral         4         0         HHEI         71           Ephemeral         4         0         HHEI         9           Ephemeral         1         0         HHEI         71	808	Ephemeral	3	0	ннеп	LT	Class 1	177.5
Interstitial 7.5 2 HHEI 55   HHEI 55   HHEI 34     Interstitial 2.5 4 HHEI 34   HHEI 34     Interstitial 2.5 4 HHEI 56   HHEI 56     Perennial 7 2 4 HHEI 64   HHEI 56     Interstitial 5 3 HHEI 82   HHEI 56     Ephemeral 3 0 HHEI 82   HHEI 50     Interstitial 6 3 HHEI 50   HHEI 50     Interstitial 6 3 HHEI 50   HHEI 50     Interstitial 6 3 HHEI 50   HHEI 50     Interstitial 6 0 HHEI 50   HHEI 50     Interstitial 8 10 HHEI	806	Ephemeral	9	0	HHEI	6E	Class II	165.1
Ephenocial         2         HHEI         34           Interstitial         2.5         4         HHEI         45           Perennial         2.5         3         HHEI         56           Perennial         7         2         HHEI         62           Interstitial         3         0         HHEI         18           Ephemeral         7         8         HHEI         30           Ephemeral         4         0         HHEI         9           Ephemeral         4         0         HHEI         3           Ephemeral         4         0         HHEI         3           Ephemeral         4         0         HHEI         3           Interstitial         8         10         HHEI         3           Interstitial         8         10         HHEI         9           Perennial         17         24         QHEI         9           Perennial         17         24         QHEI         9           Perennial         17         24         QHEI         9	\$10	Interstitial	7.5	2	HHEI	55	Class III	228.3
Interstitial 2.5 4 HHEI 45	\$11	Ephemeral	2	2	HHEI	34	Class II	160.1
Perennial         2.5         3         HHEI         26           Perennial         5.5         4         HHEI         64           Perennial         7         2         HHEI         62           Interstitial         3         0         HHEI         18           Ephemeral         2.5         0         HHEI         41           Perennial         7         8         HHEI         82           Interstitial         6         3         HHEI         9           Ephemeral         4         0         HHEI         9           Bphemeral         4         0         HHEI         71           Ephemeral         8         10         HHEI         71           Ephemeral         1         0         HHEI         71           Perennial         17         24         QHEI         63           Perennial         7         12         HHEI         52	512	Interstitial	2.5	4	HIFE	45	Class III	309.4
Pereunial         5.5         4         HHEI         64           Percendial         7         2         HHEI         62           Interstitial         5         3         HHEI         54           Ephemeral         2.5         0         HHEI         41           Perennial         7         8         HHEI         82           Interstitial         6         3         HHEI         9           Ephemeral         4         0         HHEI         9           Ephemeral         4         0         HHEI         25           Ephemeral         4         0         HHEI         35           Ephemeral         4         0         HHEI         35           Ephemeral         4         0         HHEI         35           Ephemeral         8         10         HHEI         35           Ephemeral         17         24         QHEI         9           Pereunial         17         24         QHEI         63           Pereunial         7         12         HHEI         52	\$13	Perennial	2.5	3	HHEI	26	Class 1	58.9
Perennial         7         2         HHEI         62           Interstitial         5         3         HHEI         54           Ephemeral         2.5         0         HHEI         18           Perennial         7         8         HHEI         82           Ephemeral         4         0         HHEI         30           Interstitial         6         3         HHEI         9           Ephemeral         4         0         HHEI         25           Ephemeral         4         0         HHEI         35           Incrstitial         8         10         HHEI         35           Ephemeral         1         0         HHEI         35           Perennial         17         24         QHEI         9           Perennial         17         24         QHEI         63           Perennial         7         12         HHEI         52	S14	Perennial	5.5	4	HHE	64	Class III	152.8
Interstitial 5 3 HHEI 54   Ephemeral 3 0 HHEI 18   18   18   18   19   19   19   18   19   19	\$15	Perennial	7	2	HHEI	62	Class III	155.0
Ephemeral         3         0         HHEI         18           Bphemeral         2.5         0         HHEI         41           Perennial         7         8         HHEI         82           Hohemeral         4         0         HHEI         30           Interstitial         5         3         HHEI         9           Bphemeral         2.5         0         HHEI         25           Bphemeral         4         0         HHEI         71           Hphemeral         8         10         HHEI         9           Perennial         17         24         QHEI         63           Perennial         7         12         HHEI         52	816	Interstitial	5	3	HHEI	54	Class III	205.2
Bphemeral 2.5 0 HHEI 41   41     Perennial 7 8 HHEI 82     Ephemeral 4 0 HHEI 30     Ephemeral 3 0 HHEI 9     Ephemeral 2.5 0 HHEI 25     Ephemeral 4 0 HHEI 25     Ephemeral 4 0 HHEI 35     Ephemeral 1 0 HHEI 37     Ephemeral 1 0 HHEI 9     Ephemeral 1 24 QHEI 63     Perennial 17 24 QHEI 63	\$17	Ephemeral	3	0	HHEI	81	Class I	233.2
Perennial         7         8         HHEI         82           Ephemeral         4         0         IMHEI         30           Interstitial         6         3         HHEI         62           Ephemeral         2.5         0         HHEI         25           Ephemeral         4         0         HHEI         35           Interstitial         8         10         HHEI         71           Ephemeral         1         0         HHEI         9           Perennial         17         24         QHEI         63           Perennial         7         12         HHEI         52	\$18	Bphemeral	2.5	0	HHE	41	ClassII	299.1
Ephemeral         4         0         HHHH         30           Interstitial         6         3         HHH         62           Ephemeral         2.5         0         HHH         25           Ephemeral         4         0         HHH         35           Interstitial         8         10         HHH         71           Ephemeral         1         0         HHH         9           Perennial         17         24         QH         63           Pexennial         7         12         HHH         52	819	Perennial	7	8	HHEI	82	Class III	214.3
Interstitial 6 3 HHEI 62   Statemental 3 0 HHEI 9   Statemental 2.5 0 HHEI 25   Statemental 4 0 HHEI 35   Statemental 1 0 HHEI 9   Statemental 1 0 HHEI 9   Statemental 1 0 HHEI 9   Statemental 17   24 QHEI 63   Statemental 7   HHEI 52   Statemental 17   Statemental 17   Statemental 17   Statemental 17   Statemental 17   Statemental 18   Statemental 19   State	\$20	Ephemeral	4	0	HHE	30	Class II	179.2
Eptemeral         3         0         HHEI         9           Ephemeral         2.5         0         HHEI         25           Interstitial         8         10         HHEI         71           Ephemeral         1         0         HHEI         9           Perennial         17         24         QHEI         63           Pexennial         7         12         HHEI         52	521	Interstitial	9	3	HHEI	62	Class DI	109.0
Ephemeral         2.5         0         HHEI         25           Ephemeral         4         0         HHEI         35           Interstitial         8         10         HHEI         71           Ephemeral         1         0         HHEI         9           Perennial         17         24         QHEI         63           Perennial         7         12         HHEI         52	\$22	Ephemeral	3	0	HHEI	6	Class I	91.3
Ephemeral         4         0         HHHEI         35           Interstitial         8         10         HHEI         71           Ephemeral         1         0         HHEI         9           Perennial         17         24         QHEI         63           Pexennial         7         12         HHEI         52	\$25	Ephemeral	2.5	0	HHEI	25	Class I	219.7
Interstitial 8 10 HHEI 71   Hebenocial 1 0 HHEI 9   Perennial 17 24 QHEI 63   Pexennial 7 12 HHEI 52	\$25	Ephemeral	4	0	HHEI	35	Class II	9.611
Ephemeral         1         0         HHEII         9           Perennial         17         24         QHEI         63           Pexennial         7         12         HHEII         52	\$27	Interstitial	565	10	HHEI	71	Class III	193.1
Perennial         17         24         QHBI         63           Perennial         7         12         HHBI         52	\$29	Ephemeral	1	0	HHEI	9	Class I	35.9
Perennial 7 12 HHEI 52	831	Perennial	17	24	OHEI	£9	Good Warmwater Habitat	150.3
	S33	Perennial	7	12	HHEI	52	Class II	189.8

AMP-Ohio 345 kV Transmission Line Project (Preferred Route)

AMP-Ohio 345 kV Transmission Line Project (Preferred Route)

Length of Stream within 150 ROW (feet)	162.2	226.7	33.9	212.7	6.9	236.7	141.9	L CL55
Cass/Nairadive Rating	Class I	Class II	Class I	Class II	Class I	Class II	Class I	
Score	19	32	23	44	28	37	21	
Assessment	HHEI	HHEI	HHEI	HHEI	HHBI	HHBI	HHEI	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Maximum Roof Depth (inches)	0	0	0	9	2	2	0	<b>. .</b>
Bankfull Width (feet)	6.3	3	2	3	2	3	3	1.41
Flow	Intermittent	Ephemeral	Ephemeral	Ephemeral	Ephemeral	Ephemeral	Ephemeral	K. 1867, T. 252
Stream	835	336	838	839	S40	S46	S47	Therefore (43

TABLE 3

STREAMS LOCATED IN THE AMP-OHIO 345 kV TRANSMISSION LINE ALTERNATE ROUTE CORRIDOR

Name         R           S33         Pe           Alt-S1         Inte           Alt-S2         Inte	Flow				_		
	Regime	Width (fret)	Maximuru Pool Depth (inches)	Assessment Method	Score	Class/Narrative Rating	Length within 150-foot Corridor (feet)
	Perennial	9	12	HHEI	52	Class 2	189.7
	Intermittent	3	0	ннет		Class 1	124.0
	Intermittent	3	0	ннеі	37	Modified Class 2	153.7
Alt-53 Inte	Intermittent	3	0	ннет	15	Class 1	216.9
Alt-S4 Ep	Ephemeral	3.5	0	HHEI	41	Class 2	147.5
Alt-S5 Ep	Ephemeral	7	0	HHE	47	Class 2	125.1
Alt-S6 Ep	Ephemeral	7	0	HHEI	-40	Class 2	196.7
Alt-S7 Inte	Intermittent	10.5	0	HHEI	50	Class 2	170.4
Aft-S8 Infe	Intermittent	7	0	HHEI	45	Modified Class 2	260.3
Alt-S9 Ep	Ерһстегы	9	0	HHE	57	Class 2	144.0
Alt-S10 Ep	Ephemeral	9.5	0	ннет	53	Class 2	191.3
Alt-S11 Ep	Ephemeral	8	0	HHEI	40	Class 2	€"06
Alt-S12 Ep	Ephemeral	7	0	нны	31	Class 2	268.8
Alt-S13 Inte	Intermittent	9	0	ннеп	32	Class 2	8'08£
Alt-S14 Ep	Ephemeral	9	0	HHEI	38	Class 2	165.2
Alt-S15 Ep	Ephemeral	11	0	ыны	50	Class 2	9.26
Alt-S16 Ep	Ephemeral	11	0	нны	30	Class 2	155.0
Alt-S17 Ep	Ephemeral	10	0	нны	54	Class 2	155.0
S31 Pe	Perennial	7	77	Оны	63	Good Warmwater Habitat	160.9
S38 Ep	Ephenoeral	2	0	HHE	23	Class 1	150.5

Table 3

AMP-Ohio 345 kV Transmission Line Project (Alternate Route)

AMP-Ohio 345 kV Transmission Line Project (Alternate Route)

# TABLE 3

STREAMS LOCATED IN THE AMP-OU10 345 KV TRANSMISSION LINE ALTERNATE ROUTE CORRIDOR

***			. !					
Length within 150-foot Corridor (feet)	215.7	171.3	148.4	174.2	192.8	189.8	164.3	4,795.4
Class/Narraffve Rading	Class 2	Class 1	Class 1	Class 1	Class 2	Class 2	Class 1	
32003S	44	28	2.4	17	45	48	19	
Argestment	HHEI							
Maximum Pool Depth (inches)	9	2	ĭ	1.5	3	3	0	<b>33</b>
Bankfall Width (feet)	3	7	51	7	3.5	S'E	7	121
Flow	Perennial	Perennial	Perennial	Perennial	Percanial	Perennial	Ephemeral	
	839	S40	122	\$42	\$43	\$44	\$45	Total: 27

TABLE 4
WETLANDS LOCATED IN THE AMP-OHIO 345 KV TRANSMISSION LINE ALTERNATE
ROUTE CORRIDOR

Wetland ID	Cowardin Wetland Type	ORAM Score	ORAM Category	Linear Feet Crossed	Acreage within 150-foot Corridor
WI	PEM/SS with PFO Component	58.5	п	252	0.90
Alt-W1	PEM	42	II	75	0.22
Total; 2		-		327	1.12

#### ATTACHMENT 1

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

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

Project/Site: AMP-ONIO Jananuación Applicant/Owner: AMP-ONIO Investigator: JAV CURS	Date: <u>8/1/06</u> County: <u>Philost</u> State:
Do Normal Circumstances Exist on the site?  Its the site significantly disturbed (Alypical Situation)?  Its the area a potential Problem Area?  (If needed, explain on raverse.)	Community ID: PEM/RSS W/ PFO Transact ID:
VEGETATION	
Dominant Plant Species Stratum Indicator Dominant Plant Species	ecies Stratum indicator

Dominant Plant Species Stratum Indicator	Dominant Plant Species Stratum Indicator
Dichontalium H FAC+	· Rolygourn sagittation H OBL
2 compations capaneis H FACW	10 Cared Ap. 8 H FAC-OB
3. Juneus effects H FACWT	11 Herris Laeves H OBL
. Typhalatildia H OBL	12 Rolygonm panaylvanicum H FACW
5 Typha argustyola. H OBL	13 Plantamoccadentale ST FACW-
6. Eusataumanfaliatum H FACU+	14 folianegea S FACW-
7. acer seccharing ST FACW	14 falingea SFACU- 15 alegherensia SFACU-
e. B. deme. James dasa M. FACW	16 Ventrena hastala H FACW+
Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-).	~95-100%
Remarks: otres alsowed slanto inclu	de american water plantain,
Remarks: other observed planto inclusion ferm, and rec	erut grass

#### HYDROLOGY

Recorded Data (Describe in Remarks): Stream, Lake, or Tide Gauge Aerial Photographs Other No Recorded Data Available	Wetland hydrology Indicators: Primary Indicators: Inundated Saturated in Upper 12 Inches Water Marks Drift Lines
Field Observations:  Depth of Surface Water:(in.)  Depth to Free Water in Pit:(in.)  Depth to Saturated Soil:(in.)	Sediment Deposits  Drainage Patterns in Wetlands SecondaryIndicators (2 or more required):  Oxidized Root Channets in Upper 12*  Water-Stained Leaves Local Soit Survey Data  FAC-Neutral Test  Other (Explain in Remarks)
Remarks:	hydrology, stream busette

# SOILS

Map Unit Name (Series and Phase): Taxonomy (Subgroup):	Drainage Class: Field Observations Confirm Mapped Type? Yes No
Profile Description: Depth (Inches) Horizon (Munsell Moist) (Munsell Moist)  5-14" B 10XR4/	set) Abundance/Contrast Structure, etc.
Hydric Soil Indicators:  Histosol Histic Epipedon Sulfidic Odor Aquic Moisture Regime Reducing Conditions Gleyed or Low-Chroma Colors  Remarks:	Concretions High Organic Coment in Surface Layer Sandy Soils Organic Streaking in Sandy Soils Listed on Local Hydric Soils List Listed on National Hydric Soils List Other (Explain in Remarks)
WETLAND DETERMINATION	
Hydrophylic Vegetation Present? (Yes) No (Circle) Wetland Hydrology Present? (As) No Hydric Soils Present? (As) No	(Circle) is this Sampling Point Within a Wetland? (Ves) No
Remarks:	Approved by HQUSACE 3/92

# **ROUTINE WETLAND DETERMINATION**

(1987 COE Wetlands Delineations Manual)

Project/Site: AMP		··					Date: 8/23/0	6		<del></del>
Applicant/Owner: AMP							County: Ma	agi	<u> </u>	<del></del>
Investigator(s): Brooke McCloskey							State: OH			
Do Normal Circumstances exist o	n the site?			✓ Y**		No	Community	ID: PEM		
is the site significantly disturbed (	Atypical Sit	uation)?	•	Yes	v	No	Transect ID:	WET		
is the area a potential Problem Are	( <b>0310</b> )	Yes	Image: Control of the	No	Plot ID: 2					
							GPS Coord	nates:		
VEGETATION	7			T					tiene promoting	
Dominant Plant Species	% Cover	Stratum			minant	Plant 9	pecies	% Cover	Stratum	Indicator
1. Impatiens capensis	20	He		9.		····		<del> </del>	<del> </del>	
Toxicadendron radicans	10	He	FAC	10.				<u> </u>	<del> </del>	
3. Panicum clandeslinum	35	He	FAC+	11.				ļ	<del> </del>	<u> </u>
Polygonum pensylvanicum	5	He	FACW	12.				<u> </u>		
5. Boehmeria cylindrica	25	He	FACW	13.				<del> </del>	<del> </del>	
6. Cyperus esculentus	5	∦e	FACW	14.					<u> </u>	
7.	,			15.					ļ.,	
				1 .				1		
8. Percent of Dominant Species that Remarks: Hydrophytic vegetation is			AC (excludi	16.  ng FAC-):						
8. Percent of Dominant Species that			AC (excludi							
8. Percent of Dominant Species that Remarks: Hydrophytic vegetation or			AC (excludi	ng FAC-):	Hydr	ology I	ndicators:			
8. Percent of Dominant Species that Remarks: Hydrophytic vegetation or	i(lerion has i	oeen met	AC (excludi	ng FAC-):	•	ology l				
B.  Percent of Dominant Species that Remarks: Hydrophytic vegetation of HYDROLOGY	elerion has l	oeen met	AC (excludi	ng FAC-):	ry Inc		<b>5</b> ;			
B.  Percent of Dominant Species that Remarks: Hydrophytic vegetation of HYDROLOGY  Recorded Data (Describe	elerion has l	oeen met	AC (excludi	Wetland	ry Inc	dicator: un <b>ca</b> te	<b>5</b> ;	12 inches		
B.  Percent of Dominant Species that Remarks: Hydrophytic vegetation of HYDROLOGY  Recorded Data (Describe Stream, Lake, or Tide	elerion has l	oeen met	AC (excludi	Wetland	ry Inc	dicator: un <b>ca</b> te	s: d i in Upper '	12 inches		
B.  Percent of Dominant Species that Remarks: Hydrophytic vegetation is HYDROLOGY  Recorded Data (Describe Stream, Lake, or Tide Aerial Photographs	In Rema	oeen met	AC (excludi	Wetland	iry Inc I in: I Sa I Wa	ilcatori undate iturated	s: d i in Upper ' trks	12 inches		
B.  Percent of Dominant Species that Remarks: Hydrophytic vegetation of HYDROLOGY  Recorded Data (Describe Stream, Lake, or Tide Aerial Photographs	In Rema	oeen met	AC (excludi	Wetland	iry Inc Inc Sa Wi Dr	sicatori undate iturated ater Ma lft Line	s: d i in Upper ' trks	12 inches		
B.  Percent of Dominant Species that Remarks: Hydrophytic vegetation of HYDROLOGY  Recorded Data (Describe Stream, Lake, or Tide Aerial Photographs Other  No Recorded Data Availa	In Rema	oeen met	AC (excludi	Wetland	ry Inc I inc I Sa I Wa I Dr	sicatori undate durated ater Ma lft Lina diment	s: d in Upper ' eks ss		5	
B.  Percent of Dominant Species that Remarks: Hydrophylic vegetation of  HYDROLOGY  Recorded Data (Describe Stream, Lake, or Tide Aerial Photographs Other No Recorded Data Availa  Field Observations:	In Rema Gauge	rks)		Wetiand Prima	ry Inc in Sa Wi Dr Se Dr	dicatori undate iturated ater Ma lft Line diment ainage	s: d i in Upper ' irks is t Deposits Patterns ir	ı Wetland		
B.  Percent of Dominant Species that Remarks: Hydrophylic vegetation of  HYDROLOGY  Recorded Data (Describe Stream, Lake, or Tide Aerial Photographs Other No Recorded Data Availa  Field Observations:	In Rema Gauge	oeen met	AC (excludi	Wetland Prima	iry inc in: Sa Wi Dr Se Dr ndary	dicatori undated turated ater Ma lift Line diment ainage Indica	s; d in Upper ' irks is Deposits Patterns ir tors (2 or n	ı Wetland nors Requ	ıired):	nches
B.  Percent of Dominant Species that Remarks: Hydrophytic vegetation of HYDROLOGY  HYDROLOGY  Recorded Data (Describe Stream, Lake, or Tide Aerial Photographs Other No Recorded Data Availa Field Observations;  Depth of Surface Water:	In Rema	rks)	(ln.)	Wetland Prima	iry Inc int Sa Dr Se Dr dary	dicatora undate aturated ater Ma lift Line diment ainage Indica didized	s: d i in Upper ' irks is t Deposits Patterns ir	ı Wetland nors Requ nels in U	ıired):	ıches
B.  Percent of Dominant Species that Remarks: Hydrophytic vegetation of HYDROLOGY  Recorded Data (Describe Stream, Lake, or Tide Aerial Photographs	In Rema	rks)		Wetland Prima	iry Inc I inc I Sa I Wa I Sa I Dr I Sa I Or I Sa I Wa I W	dicatori undate sturated afer Ma lift Line diment ainage Indica dized ater-St	s; d in Upper ' irks s Deposits Patterns ir tors (2 or r Root Chan	ı Wetland nore Requ nels in U	ıired):	nches
B.  Percent of Dominant Species that Remarks: Hydrophytic vegetation of Hydrophytic vegetation of Hydrophytic vegetation of Hydrophytic vegetation of Stream, Lake, or Tide Aerial Photographs  Other  No Recorded Data Availation of Surface Water:  Depth of Surface Water in Pit:	In Rema	rks)	(in.)	Wetland Prima	iry Inc int Sa Wi Dr Se Dr Or Vi Wi Lo	dicatorundate undate ater Ma ift Line diment ainage Indica kidized ater-Str cal Soi	s; d in Upper f trks t Deposits Patterns in tors (2 or m Root Chan ained Leave	ı Wetland nore Requ nels in U	ıired):	nches
B.  Percent of Dominant Species that Remarks: Hydrophytic vegetation of HYDROLOGY  HYDROLOGY  Recorded Data (Describe Stream, Lake, or Tide Aerial Photographs Other No Recorded Data Availa Field Observations;  Depth of Surface Water:	In Rema	rks)	(ln.)	Wetland Prima	iry India	dicatori undate iturated ater Ma ift Line diment ainage Indica didized ater-Str ical Soi iC-Neu	s; d in Upper ' irks s Deposits Patterns ir tors (2 or r Root Chan	i Wetland nore Requ nels in U es ata	ıired):	nches

#### ROUTINE WETLAND DETERMINATION

(1987 COE Wetlands Defineations Manual)

Profile Description:  Depth Matrix Color Mottle Colors	Confirm Mapped Type? Yes No  Mottle Texture, Concretions,  (Abundance/Contract) Structure, etc.
Depth Matrix Color Mottle Colors (inches) Horizon (Munsell Moist) (Munsell Moist)	
(inches) Horizon (Munsell Moist) (Munsell Moist)	
0-1 A 10YR 2/1 NA	
1-6 B 10YR 4/1 NA	
lydric Soil indicators:	
☐ Histosol ☐ C	Concretions
☐ Histic Epipedon ☐ H	tigh Organic Content in Surface Layer in Sandy Soils
☐ Sulfidic Odor ☐ ☐	Organic Streaking in Sandy Soils
Aquic Moisture regime	Listed on Local Hydric Soils List
Reducing Conditions	Listed on National Hydric Soils List
☑ Gleyed or Low-Chroma Colors	Other (Explain in Remarks)
temarks: Hydric soils criterion met.  VETLAND DETERMINATION	
ydrophytic Vegetation Present?	
Vetiand Hydrology Present?	is this Sampling Point Within a Wetland?
ydric Solls Present?	

## **ROUTINE WETLAND DETERMINATION**

(1967 COE Wetlands Delineations Manual)

Project/Site: AMP						Data: 8/23	700		
Applicant/Owner: AMP				County: Meigs					
Investigator(s): Brooke McCloskey			State: OH	State: OH					
Do Normal Circumstances exist on the site?				✓ Yes	☐ No	Communit	y ID: PEM		
is the site significantly disturbed (Atypical Situation)?				Yes	☑ No	Transact I	Transect ID: UPL		
Is the area a potential Problem Area? (If needed, explain on reverse)				Yes	✓ No	Plet ID: 2			
						GPS Coor	linates:		
VEGETATION									
Dominant Plant Species	% Cover	Stratum	Indicator	Dom	inant Plant	Species	% Cover	Stratum	Indicator
1. Impatiens capensis		He	FACW	9. Ambrosia	artemisitoli	a		He	FACU
2. lonicera japonica		He	FAC-	10.					
3. Erigeron anuus		He	FACU	11.					
4. Rubus alleghenensis		He	FACU	12.					<u> </u>
5. Boehmerla cylindrica		He	FACW	13.					
6. Oxalis stricta		He	UPL	14.					
7. Polygonum virginianum		He	FAC	15.		<u> </u>			
		11		16.			1	1	
Percent of Dominant Species that a					3 <b>=44%</b>				
Percent of Dominant Species that a		ACW, or FA	4C (exclud)		3=44%				
Percent of Dominant Species that a Remarks: Hydrophylic vegetation cri		ACW, or FA	4C (exclud)	ng FAC-): 4/5		y Indicators			
Percent of Dominant Species that a Remarks: Hydrophylic vegetation cri	iterion has r	ACW, or FA	4C (exclud)	ng FAC-): 4/5		•			
Percent of Dominant Species that a Remarks: Hydrophytic vegetation or HYDROLOGY	iterion has r	ACW, or FA	4C (exclud)	ng FAC-): 4/5	lydrolog	ora:			
Percent of Dominant Species that a Remarks: Hydrophylic vegetation or HYDROLOGY  Recorded Data (Describe	iterion has r	ACW, or FA	4C (exclud)	ng FAC-): 4/5	lydrolog y Indicate Inunda	ora:			
Percent of Dominant Species that a Remarks: Hydrophytic vegetation or  HYDROLOGY  Recorded Data (Describe  Stream, Lake, or Tide	iterion has r	ACW, or FA	4C (exclud)	ng FAC-): 4/5	lydrolog y Indicate Inunda	ora: ted led in Uppe:			
Percent of Dominant Species that a Remarks: Hydrophylic vegetation or HYDROLOGY  Recorded Data (Describe Stream, Lake, or Tide Aerial Photographs	in Rema	ACW, or FA	4C (exclud)	ng FAC-): 4/5	lydrolog y Indicate Inunda Satural	ora: ted led in Uppei Marks			
Percent of Dominant Species that a Remarks: Hydrophylic vegetation of HYDROLOGY  Recorded Data (Describe Stream, Lake, or Tide Aerial Photographs Other	in Rema	ACW, or FA	4C (exclud)	ng FAC-): 4/5	lydrolog y Indicate Inunda Satural Watar I Drift Lli	ora: ted led in Uppei Marks	12 inches		
Percent of Dominant Species that a Remarks: Hydrophylic vegetation or  HYDROLOGY  Recorded Data (Describe Stream, Lake, or Tide Aerial Photographs Other No Recorded Data Availa	in Rema	ACW, or FA	4C (exclud)	ng FAC-): 4/5	lydrolog y Indicate Inunda Satural Water I Drift Lis Sedime	ora: ted led in Uppei Marks nes	12 inches	S	
Percent of Dominant Species that a Remarks: Hydrophytic vegetation or HYDROLOGY  Recorded Data (Describe Stream, Lake, or Tide Aerial Photographs Other No Recorded Data Avalia  Field Observations:	in Rema Gauge	ACW, or FA	4C (exclud)	Wetland H	lydrolog y Indicate inunda Satural Water I Drift Lli Sedime Drainag	ora: ted led In Uppel Marka nes ent Deposits	: 12 inches : in Welland		
Percent of Dominant Species that a Remarks: Hydrophytic vegetation or HYDROLOGY  Recorded Data (Describe Stream, Lake, or Tide Aerial Photographs Other No Recorded Data Avalia  Field Observations:	in Rema Gauge	ACW, or F	AC (excludi	Wetland H	lydrolog y Indicate Inunda Satural Water I Drift Li Sedime Drainag	ora: ted led in Upper Marks nes ent Deposits ge Patterns	: 12 inches : in Wetland more Requ	ıired):	nches
Percent of Dominant Species that a Remarks: Hydrophytic vegetation or HYDROLOGY  Recorded Data (Describe Stream, Lake, or Tide Aerial Photographs Other No Recorded Data Availa  Field Observations: Depth of Surface Water:	in Rema Gauge	ACW, or F	AC (excludi	Wetland H	lydrology y Indicate Inunda Satural Water I Drift Li Sedime Drainag	ora: ted led in Upper Marks nes ant Deposits ge Patterns cators (2 or	12 inches in Wetland more Requ nnels in U	ıired):	nches
☐ Recorded Data (Describe☐ Stream, Lake, or Tide☐ Aerial Photographs☐ Other	in Rema Gauge	ACW, or F, not been mi	AC (excluding)	Wetland H	lydrology y Indicate inunda Satural Water ! Drift Lin Sedime Drainag dary Indic Oxidize	ora: ted led in Upper Marks nes ent Deposits ge Patterns cators (2 or ed Root Cha	: 12 inches in Welland more Requ nnels in Uj	ıired):	nches
Percent of Dominant Species that a Remarks: Hydrophytic vegetation or  HYDROLOGY  Recorded Data (Describe Stream, Lake, or Tide Aerial Photographs Other No Recorded Data Avalia  Field Observations: Depth of Surface Water:	in Rema	ACW, or F, not been mi	AC (excluding)	Wetland H	lydrology y Indicate inunda Satural Water I Drift Lli Sedime Drainag dary Indic Oxidize Water-S	ora: ted led In Upper Marks nes ent Deposits ga Patterns cators (2 or ed Root Cha Stained Lear	: 12 inches in Welland more Requ nnels in Uj	ıired):	nches

## **ROUTINE WETLAND DETERMINATION**

(1987 COE Wetlands Delineations Manual)

Taxonomy (S	me (Series and P	hase):		Drainage Class:			
	Subgroup):		Fleid Observations Confirm Mapped Type? Yes No				
Profile Description:  Depth Matrix Color (inches) Horizon (Munsell Moist)			Mottle Colors (Munsell Moist)	Mottle (Abundance/Contrast)	Texture, Concretions, Structure, etc.		
0-3	A	7.5Y 2/1	NA NA				
3-9	В	7.5Y 4/1	NA.				
		<u> </u>					
		<del> </del>					
		<u> </u>					
Hydric Soil II	Histosol Histic Epipedon Sulfidic Odor Aquic Moisture Reducing Cond	regime itions Chroma Colors		Concretions  High Organic Content in Storganic Streaking in San Listed on Local Hydric St Listed on National Hydric Other (Explain in Remark	olls List : Solls List		
	DETERMINAT	ION Yes	√ Na				
	getation Present?			to this Committee B	, int thinkin a thinkle and i		
المحادث والمحادث والمحادث	Wettand Hydrology Present? Yes Hydric Solls Present? Yes		✓ No	Yes	oint Within a Wetland?		
Wettand Hydrok Hydric Solls Pre	seni7						

Site: W	Rater(s): JAV(JB	Date:	8/1/06
5 5 Metric 1. Wetland	_		
mus 8 pts. subtotal Selections size class and assign score.	• •		
>50 acres (>20.2ha) (5 pis)			
25 to <50 acres (10.1 to <20.1 to <25 acres (4 to <10.1 ha			
3 to <10 acres (1.2 to <4ha) ( 0.3 to <3 acres (0.12 to <4ha) (			
0.1 to <0.3 acres (0.04 to <0.1			
<0.1 scree (0.04ha) (0 pts)			
7 12 Metric 2. Upland b	uffers and surro	unding land use.	
max 14 pts. suppose 2s. Calcutate average buffer width. Se	isc) only one and assign score. Do (164fi) or more around watland parts		
MEDIUM. Buffers average 2	im to <50m (82 to <164ft) around w	ettand perimeter (4)	
	iOm to <26m (32li to <82fl) around : erage <10m (<32fl) around welland ;		
2b. Intensity of surrounding land use.	Select one or double chack and ava	rage.	
→ LOW. Old field (>10 years), s	lder forest, prairie, sevannah, wildlife ihrubland, young escand growth fore	sal. (5)	
MODERATELY HIGH. Resid	ential, fanced pasture, park, consent pasture row cropping mining, con	vation tillage, new tallow field. (3)	
		the section of the se	
17.5 29.5 Metric 3. Hydrolog		a	
max 30 pis. evisible: 3a. Sources of Water, Score all that at High pH proundwater (5)	opły. 36.	Connectivity. Score at that apply.  100 year floodplain (1)	
Other groundwater (3)	<i>→</i>	Between stream/lake and other h A Part of wetland/uptano (e.g. fores	
A Precipitation (1) Seasonal/intermittent surface		Part of riparian or upland comdor	(1)
Perennial surface water (lake 3c. <u>Maximum</u> water depth. Select only		Duration inundation/saturation. Score Semi- to permanantly inundated/s	
>0.7 (27.6in) (3)	3 5	Regularly inundated/saturated (3)	• •
0.4 to 0.7m (16.7 to 27.6in) (2 \$\infty\$ <0.4m (<16.7in) (1)	J. O	Seasonally inundated (2) Seasonally saturated in upper 30	om (12in) (1)
3e. Modifications to natural hydrologic	——————————————————————————————————————	and average.	7)
None or none apparent (12)  Recovered (7)	Check all disturbances observed  X disch	point source (nonstarmwater)	
Recovering (3) Recent or no recovery (1)	ille dike	Illing/grading road bed/RR track	
Recent of no recovery (1)	/wejr	dredging	
·	stomwater input	X other man made da	<b>小</b>
9 495		Morth	m end
19 F8:5 Metric 4. Habitat A	uteration and De	velopmant.	
None or none apparent (4)	nt gondia cuack sitg sasusâs		
Recovered (9) Recovering (2)			
Recent or no recovery (1)			
4b. Habitat development. Selectionly of Excellent (7)	ons and assign score.		
Very good (6) Good (5)			
Moderately good (4)			
Fair (3) Poor to fair (2)			
Poor (1)	achta atrada amatan		
4c. Habitat attention. Score one or do	Uble check and average.  Check all disturbances observed		7
Recovered (6)	mewing	shrab/sapling removal	1
Recovering (3) Recent or no recovery (1)	grazing X diserbuiling	harbaceous/aquatic bad removal sedimentation:	
	selective outling	dredging X jamine	
(48.5)°	woody debris removal toxio pollutants	nutrient enrichment	
Evident in 15 page			<u></u>
		1 Com Cod	الأيمنا بالمزام عبسر الدار معا

in the summander winty

ite:		Rater(s):	Date:
	L		
435	5		
subjected Shis 082	Γ 2		
/ [			
Q 1125	Metric 5. Special W	etlands.	
o 19 pts. subtotal	Check all that apply and score as indicate		
о торы. золоть	Bog (10)	<b>u</b> .	
	Fen (10)		
	Old growth forest (10)		
	Mature forested wetland (5)		
Ø	Lake Erie coastal/iributary wetta	, .	10)
$\mathscr{L}$	Lake Plain Sand Prairies (Oak C		
•	Relict Wel Praires (10)	Parameter ( . c)	
	Known occurrence state/iederal	threatened or endangered :	specias (10)
	Significant migratory songbird/w		
<del></del> -	Calegory 1 Wetland. See Ques	ion 1 Qualitative Raling (-1)	0)
0 585	Matric & Plant com	munitine int	erspersion, microtopography
	5a. Wetland Vegetation Communities.	Vegetation Communit	<del>.</del>
20 pts. subtolet	Score all present using 0 to 3 scale.	Aederangu coulitrum	Absent or comprises <0.1he (0.2471 acres) configuous area
	Aguatic bad	1	Present and either comprises small part of wetland's
	3 Emergent	·	vegetation and is of moderate quality, or comprises a
5	i Shrub		significant part but is of low quality
5	Forest	2	Present and either comprises significant part of wattand's
	△ Mudfiets		vegetetion and is of moderate quality or comprises a small
	O Open water		part and is of high quality
	Other	3	Present and comprises significant part, or more, of walland's
	6b. horizontal (plan view) Interspersion. Select only one.		vegetation and is of high quality
	High (5)	Narrative Description	of Vegetation Quality
	Moderately high(4)	iow	Low spp diversity and/or predominance of nonnative or
	Moderate (3)		disturbance tolerant native species
ć	Moderately low (2)	med	Massve spp are dominant component of the vegetation,
_	Low (1)		although normalive and/or disturbance tolerard native spo
	None (3)		can also be present, and species diversity moderate to
. 'A	6c. Coverage of investive plants, Refer to Table 1 ORAM long form for list. Add		moderately high, but generallywio presence of rare
Mercander Co.	or deduct points for coverage	high	threatened or endangered spp  A predominance of native species, with nonnative spp
war n. a.	Extensive >75% cover (-5)	· • • • • • • • • • • • • • • • • • • •	and/or disturbance tolerant native spp absent or virtually
White the second	Moderate 25-75% cover (-3)		absent, and high app diversity and often, but not abways,
	[ ] a		,
١٤٠٠١ ١	Sparse 5-25% cover (-1)		the presence of rare, threatened, or endangered app
50 60 m	Sparse 0-20% cover (-1)  Nearly absent <5% cover (0)		
wante 5%	Sparse 5-25% cover (-1)  Nearly absent <5% cover (0)  Absent (1)	Mudfiat and Open Wa	ter Class Quality
tute some	Sparse 5-25% cover (-1)  Nearly absent <5% cover (0)  Absent (1)  6d. Microtopography.	o	ter Class Quality Absent <0.1ha (0.247 sores)
ward of the solution	Sparse 5-20% cover (-1)  Nearly absent <5% cover (0)  Absent (1)  6d. Microtopography.  Score all present using 0 to 3 scale.	C	ter Class Quality Absent <0.1ha (0.247 agres) Low 0.1 to <1ha (0.247 to 2.47 agres)
	Coarse woody debris >15cm /6ir	1 2	ter 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)
	Cearse woody debris >15cm [6ir	C 1 2 3 3	ter Class Quality Absent <0.1ha (0.247 acres) Low 0.1 to <1ha (0.247 to 2.47 acres)
	Coarse woody debris >15cm /6ir	C 1 2 3 3	ter Class Quality  Absent <0.1ha (0.247 sores)  Low 0.1 to <1ha (0.247 to 2.47 sores)  Moderate 1 to <4ha (2.47 to 9.88 sores)  High 4ha (9.88 scres) or more
	Cearse woody debris >15cm (6ir	t) C 1 2 3 Miarotopography Cov	ter Class Quality  Absent <0.1ha (0.247 sores)  Low 0.1 to <1ha (0.247 to 2.47 sores)  Moderate 1 to <4ha (2.47 to 9.88 sores)  High 4ha (9.88 scres) or more  er Scals  Absent
	Cearse woody debris >15cm (6ir	C 1 2 3 Mianotopography Cov	ter 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
	Cearse woody debris >15cm (6ir	C 1 2 3 Minrotopography Cov C 1	ter Class Quality  [Absent <0.1ha (0.247 to 2.47 ecres)  Low 0.1 to <1ha (0.247 to 2.47 ecres)  Moderate 1 to <4ha (2.47 to 9.88 ecres)  High 4ha (9.88 ecres) or more  er Scals  Absent  Present very small amounts or if more common of marginal quality
	Cearse woody debris >15cm (6ir	t) C 1 2 3 Miarotopography Cov	ter Class Quality  Absent <0.1ha (0.247 aores)  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  ex Scale  Absent  Present very small amounts or if more common of marginal quality  Present in moderate amounts, but not of highest
	Cearse woody debris >15cm (6ir	O 1 2 3 Minrotopography Cov 1 2	ter Class Quality  Absent <0.1ha (0.247 aores)  Low 0.1 to <1ha (0.247 to 2.47 aores)  Moderate 1 to <4ha (2.47 to 9.88 aores)  High 4ha (9.88 acres) or more  er Scale  Absent  Present very small amounts or it more common of marginal quality  Present in moderate amounts, but not of highest quality or in small amounts of highest quality
· ·	Cearse woody debris >15cm (6ir	C 1 2 3 Minrotopography Cov C 1	ter Class Quality  Absent <0.1ha (0.247 aores)  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  ex Scale  Absent  Present very small amounts or if more common of marginal quality  Present in moderate amounts, but not of highest

Site:	HM	<u> </u>	)R	ater(s):	DETY		Date: XX	10
		,	,		:	4	Page 24 of 66	
$- \bigcirc !$	$\cap$ IN	letric 1. 1	Netland A	rea (si:	ze}. ,			
mar 6 ptr.		lect one size class	•	•		JH.	t 2 djacent	
mar a han		>56 acres (	>20.2hm) (6 pts)				•	•
	_		ores (10.1 to <20.2ha) cres (4 to <10.1ha) (4			Λ	د ۱ م م الم	
A.			res (1.2 to <4hs) (3 pt		•	J-F;	alalent	
1 1	$\cup$ ) $-$	0.3 to <3 a	res (0.12 to <1.2ha) (	2pis)	ē	·		
			scres (0.04 to <0.12h (0.04ha) (0 pts)	e) (t pt)			•	
		AU. I acres	formation (o bus)					•
1111	11/1	Metric 2.	Unland bu	ffers :	and surro	und	ling land use.	
7 44 212			ge buffer width. Saleo					
max 14 pis.	SINDICKII 2	X, WIDE. BU	ffers average 50m (16	4ft) or more	around watered per	imeter (7	<u> </u>	•
	7		Buffers average 25m					
			. Bullers average 10r RROW. Bullers ever					
11/1.	$\setminus$ :	25. intensity of sur	ounding land use. So	elections and	ouble check and sv	rerage.	,	
1/4	) -		W. 2nd growth or old					
		MODERA	i fleid (>10 years), shi TELY HIGH.  Resider	usiane, youn Hal. fenced p	g second growin ro lesture, cark, consc	ovation t	Slage, new fellow field. (3)	
			teen, industrial, open j					•
	35		Lb. dualaa				•	
0/		Metric 3,	Hydrolog	y.	• •	,. 	and the Same of that make	
1457, 3Q bột	. subjoint	36. Sources of We	ter. Score all that app proundwater (5)	iy.	ال		activity. Score all that apply. 100 year ficocopiain (1)	
		Other on	unchweier (8)		٠ ٦		Between stream/lake and other human use (1)	•
	4	Precipite	llon (1) . Vintermittent ausface v	i Jahar (3)	$\sim$		Part of welland/upland (e.g. forest), complex (1) Part of riparien or upland comidor (1)	
_			i suriace water flake o		3		ton inundation/asturation. Score one or dol check	
7	$\sim$		of depth. Salect only o	one and assig	jn score.		Seal- to permanently inundated/salurated (4)	
	٧() لح		∈) (3) ?m (15.7 to 27.6in) (2)	•			Regularly inundated/saturated (S) Sessonally inundated (2)	
	المسلم	<0.4m (	:15.7in) (1)		e e		Sessonally saturated in upper 30cm (12in) (1)	
			io neiural hydrologic m				IVATACE.	
		Darma	none apparent (12)	Chack all di	Nasedo esonadrule	~ 	point source (nonetormwater)	
	12	Recove	ing (3)	tile	•		filling/grading	4
	, -	Recent	or no recovery (1)	dice			road bed/RR track	
			,	- weit	vater input		dredging other	
<del></del>		٦		L. BOTTON	region in pox	<u> </u>		,
10	53	Matria 4	Hobitat A	i léasanti	ion and D	lava	lanment	
18			. Habitat A			444	iopinent.	
m±x 26	p:s. subtatal		lurbance. Score one i r none apparent (4)	ol gorigià cue	ok and avelage.		,	
		Recove	red (3)					
	4		rfing (2) or no recovery (1)				•	
_			lopment. Selectionly	one and assig	gn score.			
6.		Excells	· •					
(1)	8) _	Very gr						
_	- 5	Moder	alely good (4)		•			
		Fair (3						
		Poor (	o fair (2) El					
			ation. Score one or d	ouble check s	end average.	<u></u>		
			or none apparent (9)	Check all	disturbances obser	ved		
	9	Recov	ered (5)	wom	_		shrubrsapling removal	
	,	IKECOV	ering (3) if or no recovery (1)	grazi	cuting ng	-	herbacsous/squatic bad removal sedimentation	
				selec	dive cutting		dreoging	
	15 P	3			iy debris removal		farming	
	ت در بصوباط به			I LIOXOC	pollulants	<u> </u>	nulrient enrichmen)	
	, sypidial live	hea		<u> </u>	<del></del>	-	المسبوب ويشارك فيستناه والمساورة وال	

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				AT IACRMENT D
				Page 25 of 66
F	731			luct 2
STATES.	of Sale heads			
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') { <i>}</i>		Metric 5. Special Wetl:	ands.	
		Check all that apply and score as indicated.		
ax 10 pts. 3		Bog (10)		
		Fen (10)	•	
		Old growth forest (10)		
		Mature forested walland (5)		
$\{(a, b)\}$		Leke Erie coastal/tributary wettand-un	manifectant bushnings /	100
$(\cup)$		Leke Erie coastal Inbutary weltend-re-		
		Lake Plain Sand Prairies (Calt Openia		
		Reflict Wet Prairies (10)	-6-) ()	
		Known occurrence state/federal three	dened or endenesse	i apadiae /†iii)
		Significant migratory songbled/water f	_	• •
-		Calegory 1 Welland. See Question 1	•	• •
		1		•••
1 1	KU	Matric & Plant comm	unities in	terspersion, microtopography.
mass 20 pts.	najota)	_	Vegstation Commu	
		Score ell present using 0 to 3 scale.	<u> </u>	Absent or comprises <0. The (0.2471 screet configurous area
		Aquatic bed	1	Precent and either comprises small part of wetland's
	$\sim$	€ Emergent		vegetation and is of moderate quality, or comprises a
	$\cup$	Shrub	2	significant part but is of low quality
		Forest Mucifials	2	Present and either comprises significant part of welland's vegetation and is of moderate quality or comprises a small
		Open water		part and is of high quality
		Other	3	Present and consprises significant part, or mose, of walland's
		6b. horizontal (plan view) interspersion.	8	vegatation and is of high quality
		Selectionly one.		TOUBLESSE IN IL I I I I I I I I I I I I I I I I I
		High (5)	Namatika Descripti	on of Vegetation Quality
		Moderately high(4)	low	Low spp diversity and/or predominance of connative or
	~	Moderate (3)		disturbance tolerant netive species
•	$\cup$	Moderately low (2)	mod	Native app are dominant component of the vegetation,
		Low (1)		oqs sviten manative and/or disturbance tolerant native spo
		(0) enol(		can also be present, and species diversity moderate to
f'		5c. Coverage of invasive plents. Refer		moderately high, but generally who presence of rare
( ) \		to Table 1 ORAM long form for list. Add		timestaned or endangered spo
1 1		or deduct points for coverage	high	A predominance of native species, with normative spp
\ /				, , , , , , , , , , , , , , , , , , ,
$\vee$		Extensive >75% cover (-5)		and/or disturbance tolerant native app absent or virtually
$\bigcirc$		Extensive >75% cover (-5)  Moderale 25-75% cover (-3)		and/or disturbance tolerant native spp absent or virtually absent, and high upp diversity and often, but not always,
$\bigcup$				•
$\bigcirc$		Moderale 25-75% cover (-3)		absent, and high app diversity and often, but not always,
		Moderale 25-75% cover (-3) Sparse 5-25% cover (-1)	Mudflat and Open	absent, and high app diversity and often, but not always,
		Moderate 25-75% cover (-3) Sparse 5-25% cover (-1) Nearly absent <5% cover (0)	Mudfist and Open	absent, and high app diversity and often, but not always, the presence of rare, threatened, or endangered app  Water Class Quality
		Moderate 25-75% cover (-3) Sparse 5-25% cover (-1) Nearly absent <5% cover (0) X Absent (1)		absent, and high app diversity and often, but not always, the presence of rare, threatened, or endangered app
		Moderate 25-75% cover (-3) Sparse 5-25% cover (-1) Nearly absent <5% cover (0) Absent (1) 6d. Microtopography.	0	absent, and high epp diversity and often, but not always, the presence of rare, threatened, or endangered app  Water Class Quality  Absent <0.1ha (0.247 acres)  Low 0.1 in <1ha (0.247 to 2.47 acres)
		Moderate 25-75% cover (-3)  Sparse 5-25% cover (-1)  Nearly absent <5% cover (0)  Absent (1)  6d. Microtopography.  Score all present using 0 to 3 scale.	0	absent, and high app diversity and often, but not always, the presence of rare, threstened, or andengered app  Water Class Quality  Absent <0.1ha (0.247 agres)
		Moderate 25-75% cover (-3)  Sparse 5-25% cover (-1)  Nearly absent <5% cover (0)  Absent (1)  6d. Microtopography.  Score all present using 0 to 3 scale.  Vegetated hummucks/tussucks	0 1 2	absent, and high epp diversity and often, but not always, the presence of rare, threatened, or endangered app  Water Class Quality  Absent <0.1ha (0.247 acres)  Low 0.1 in <1ha (0.247 to 2.47 acres)  Moderate 1 to <4he (2.47 to 9.85 acres)
		Moderate 25-75% cover (-3) Sparse 5-25% cover (-1) Nearly absent <5% cover (0) Absent (1) 6d. Microtopography. Score bij present using 0 to 3 scale. Vegetated hummucke/tussucks Coarse woody debris >15cm (6in)	0 1 2	absent, and high epp diversity and often, but not always, the presence of rare, threatened, or endangered app.  Weter Class Quality  Absent <0.1ha (0.247 acres)  Low 0.1 in <1ha (0.247 to 2.47 acres)  Moderate 1 to <4ha (2.47 to 9.58 acres)  Figh 4ha (9.58 acres) or more
		Moderate 25-75% cover (-3) Sparse 5-25% cover (-1) Nearly absent <5% cover (0)  Absent (1) 6d. Microtopography. Score bij present using 0 to 3 scale. Vegetated hummucke/tussucks Coarse woody debris >15cm (8in) Standing dead >25cm (10in) dbh	0 1 2 3	absent, and high epp diversity and often, but not always, the presence of rare, threatened, or endangered app.  Weter Class Quality  Absent <0.1ha (0.247 acres)  Low 0.1 in <1ha (0.247 to 2.47 acres)  Moderate 1 to <4ha (2.47 to 9.58 acres)  Figh 4ha (9.58 acres) or more
		Moderate 25-75% cover (-3) Sparse 5-25% cover (-1) Nearly absent <5% cover (0)  Absent (1) 6d. Microtopography. Score bij present using 0 to 3 scale. Vegetated hummucke/tussucks Coarse woody debris >15cm (8in) Standing dead >25cm (10in) dbh	0 1 2 3 .	absent, and high epp diversity and often, but not always, the presence of rare, threatened, or endangered app.  Weter Class Quality  Absent <0.1ha (0.247 agres)  Low 0.1 in <1ha (0.247 to 2.47 agres)  Moderate 1 to <4he (2.47 to 9.58 agres)  Figh 4ha (9.56 agres) or more  Cover Scale
		Moderate 25-75% cover (-3) Sparse 5-25% cover (-1) Nearly absent <5% cover (0)  Absent (1) 6d. Microtopography. Score bij present using 0 to 3 scale. Vegetated hummucke/tussucks Coarse woody debris >15cm (8in) Standing dead >25cm (10in) dbh	0 1 2 3 . Microtopography 0	absent, and high epp diversity and often, but not always, the presence of rare, threatened, or endangered app.  Weter Class Quality  Absent <0.1ha (0.247 agres)  Low 0.1 in <1ha (0.247 to 2.47 agres)  Moderate 1 to <4he (2.47 to 9.58 agres)  Figh 4ha (9.56 agres) or more  Cover Scale  Absent
		Moderate 25-75% cover (-3) Sparse 5-25% cover (-1) Nearly absent <5% cover (0)  Absent (1) 6d. Microtopography. Score bij present using 0 to 3 scale. Vegetated hummucke/tussucks Coarse woody debris >15cm (8in) Standing dead >25cm (10in) dbh	0 1 2 3 . Microtopography 0	absent, and high epp diversity and often, but not always, the presence of rare, threatened, or endangered app  Water Class Quality  Absent <0.1hs (0.247 agres) Low 0.1 in <1hs (0.247 to 2.47 agres) Moderate 1 to <4he (2.47 to 9.88 agres) Figh 4hs (9.86 agres) or more  Cover Scale  Absent Present very small amounts or if more common of marginal quality
		Moderate 25-75% cover (-3) Sparse 5-25% cover (-1) Nearly absent <5% cover (0)  Absent (1) 6d. Microtopography. Score bij present using 0 to 3 scale. Vegetated hummucke/tussucks Coarse woody debris >15cm (8in) Standing dead >25cm (10in) dbh	0 1 2 3 . Microtopography 0	absent, and high epp diversity and often, but not always, the presence of rare, threatened, or endangered app  Water Class Quality  Absent <0.1hs (0.247 acres) Low 0.1 in <1hs (0.247 to 2.47 acres) Moderate 1 to <4he (2.47 to 9.88 acres) High 4hs (9.88 acres) or more  Cover Scale Absent Present very small amounts or if more common of marginal quality Present in moderate amounts, but not of highest
		Moderate 25-75% cover (-3) Sparse 5-25% cover (-1) Nearly absent <5% cover (0)  Absent (1) 6d. Microtopography. Score bij present using 0 to 3 scale. Vegetated hummucke/tussucks Coarse woody debris >15cm (8in) Standing dead >25cm (10in) dbh	0 1 2 3 . Microtopography 0	absent, and high epp diversity and often, but not always, the presence of rare, threatened, or endangered app  Water Class Quality  Absent <0.1hs (0.247 agres) Low 0.1 in <1hs (0.247 to 2.47 agres) Moderate 1 to <4he (2.47 to 9.88 agres) Figh 4hs (9.86 agres) or more  Cover Scale  Absent Present very small amounts or if more common of marginal quality
		Moderate 25-75% cover (-3) Sparse 5-25% cover (-1) Nearly absent <5% cover (0)  Absent (1) 6d. Microtopography. Score bij present using 0 to 3 scale. Vegetated hummucke/tussucks Coarse woody debris >15cm (8in) Standing dead >25cm (10in) dbh	0 1 2 3 Microtopography 0 1	absent, and high epp diversity and often, but not always, the presence of rare, threatened, or endangered app  Water Class Quality  Absent <0.1ha (0.247 acres) Low 0.1 in <1ha (0.247 to 2.47 acres) Moderate 1 to <4he (2.47 to 9.88 acres) High 4ha (9.88 acres) or more  Cover Scale  Absent Present very smell amounts or if more common of marginal quality Present in moderate amounts, but not of highest quelity or in small amounts of highest quelity

1 4 1 1 1 P 1 MARK II

**ATTACHMENT 2** 

OHIO EPA QHEI
AND
OHIO EPA HHEI
DATA SHEETS

(If You, Record all determinents, Vaucher collections spillend. NOTE all usuales resurbes aread to strated with the site.

Diseased, include appropriate that data struct from the Polyment frequencies, results, the stemment thismed. hollado (ngottant lendimette and other Reduces of Induse of the Be graduation and a nerality security of the cheers is propine NRCS 40/ Map Stream Order HAPPING! ALTACH COPIES OF INSPECTMENT THE EXTREE WATERCHED AFEA. CLEARLY MANK THE INTELOCATION DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (The MLL) be sampleded): The Observed? (VRI) No voteber; (TITI) Blansarders Chestred? (VRA) Voteber; (VRI) L. Distance from Evaluated Streem Obtaince from Evaluated Streem . Овнешолиту (шитовита) Wene samples colected ha water chembring (VMV): 1 (Moter lating mas, as b) and allect nearing) Lati Membe \_ (if Yes, Altech Completed DHE) Form) NRCS Sea Map Pager 子で Date of tast predictedent: UNKLINK PH (BLU) へいくは Tower 24 \* INTERPRETATION | is the sampling reach oppresentative of the stream (TVN) 📜 if not, please exploi ACIDITIONAL STREAM INFORMATION (The Information Man Also be Comple CONTRIBITOR CORP. Discovered Chryslan (mg/l)\_\_ OHEI PERFORMED? - O We Tolke DHB Score. 17VE.3 USGS CAROLINATER NEW HAVE'N OH haddinnel commentathacompton of collution impedix DOWNSTREAM DESIGNATED USE(8) Dense Plow Condition of CYINE BESTE EVALATION Ebvarted Turbutly? (YAN): N Fight Mestures: Tomp ("C)\_ MISCELLANEOUS Cerrmente Regarding Globy Photograph Information County Angle Co. Performand? (Y.Mr). October 34, 2091) Newborn O WWH Name: O CWH Name: C EWH NAME: Benkfull Wests 16 3 12 STREAM CHAMMEN. MINORGANITOR CHAMME. CHACOSERVED CHESTORY OF CHAMMEN. CHAMM DRAMMOBAREA (TIM) 4 LYIN I A 418 NOTE: Complete All Bons On This Form - Rolet to "Pfeld Evaluation Manual for Ohlo's PHVN Binams" for Instrustions HIEI Score (sum of metrices 1, 2, 3): 5 th C Severe parameter Open Pankina, Rour Crep Mining of Construction Motel Channel, Scholad poots, residow (Inversitient) Dry channel, no under (Ephamens) TUTAL MINIBER OF SUBSTRATE TYPES: THE AND TLOCKETAND THE Information rapid also is considered

SUPPLEAD NOTE AND TLOCKETAND CALLAND. We said (a) and regin from two for the supplemental for t SUBSTRATE (Extensio pervent in every type of substante prosent. Own's CMLYMA prodentwant substant. TYPE bound (Nex. of 32). And total namber of significative substants lypes found (sign of 9). Final melita peans is some if some A.A.B. Common Charles and (Aftern or Inclustrial (8) parte the machinum pour deprit within the 84 mater (\$00 ft) evaluation much of the line of Section 1111 HOUSE CONTROL TO THE PROPERTY OF AVERAGE BANKFLAL MIDTH (matera) MAGISTRE POOL DEPTH (SENDINGERS) Primary Headwater Habitat Evaluation Form 25% 00 minutes in the second of the second o D0 RIVER CODE ~D D 00 Moderate to Server Check CMLY one box): Planidowital, Park, Nam Fleid Fenced Poplara PHAMM Form Priga - 1 FLOW RECENT (AT The of Breturbery (Charit CMLY uses PBC).
Stream Furnity (An Nobelet) you's interpretal)
Colombian for 1 1 1 1 1 HINTER BASSIN... SMIJOSTT (Number of bends yet 61 m (200 R) of observe)
News
0.5 O Noderste comment BEST SENTE, BOOKING, CORNE, Brefroxt, TOPES: SCORE OF TWO MOST PREPORTINATE BUBSTRATE TYPES: COMMENTS CONTROL OF THE PROPERTY OF T -0**€**00 15 (O) LENGTH OF STREAM REACH IN JOST OF THE STREAM GRADIGHT ENDARTS C) Fet as events

() Plate Mederate O CO Nocember 10m

E NAME LOCATION

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Deboter Dit Mette Auslaid

COMMENTS

ATTACHMENT D Page 27 of 66

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D COWAT NATURAL USBS Quarks Natural Na	DOWNSTREAM DESIGNATED USERS!  DOWNSTREAM DESIGNATED USERS!  NAME:  NAME:	collectors optione. MOTE: all vonethal samples must be taked of the site interest or the state of the site interests of the state of the site of the s	A MANNE ASSAULT AND

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Page 50 of 66 (if Yes, Roserd all there where, Voucher coherdone options), PIOTE: all woodnes samples must be heated with the sine.
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HHEI Score (sum of metrics 1, 2, 3) ;

OrigEPA Primary Headwater Habitat Evaluation Form

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MOTE: Complete All Hems On This Form « Refer to "Field Evaluation Manual for Orio's PHIMI Streams." For Instructions

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O Moderate 5-10m		Immohum Forest, Shirth or Old Field	0	Urban or Industrial
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Online 14, 2413 Revoltes	HWH	PHWH Form Page - 1		

ATTACHMENT D

Details for Roads

ATTACHMENT D TIDENOM VISCOM Emmonth VID at The Page 51 of 66 Instructions for social the albimsis cover metric. Each cover type should accelve a some of behavior of and 3, VM see L. Gover, VM see absent 1 - Cover, VM seership moderate amounts, but not an oneman of analysis of seership moderate amounts, but not an inpless quality of its state algorithm seems. In moderate should, the cover type presently included according to the present of inpless of proper of inpless of proper of include algorithms of the present of the presen Translational accounts of the County of the Spreadant tokew crost all [1] . Muserle of bardonuls (wind) Exchandated bent-out members (wind) 12 te=1000 ~ OT ZM28. U ÷Hd9 , bt : N38 20日 Stream Drawing: Moos Cintum Moos C College Assilve Assilve Rating Rating Rating (0:-1) (0:-1) Gradiant Cart. Low, Cl. Moderate Cart. Low, chanetremestal stocks. As municell season of the season of १९०५ इच्छाई हम्बद्धारह neqO. &- vocate) Taylor Starger Talen Yes Open :eounded Cest to seamon batoscape tolaid (vige A felt lik zamid) absom D movi is Sampling Reach Representative of the Stream (YM) If Not, Explains

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	Evaluation	7 30	Amilation: URS rype BOXES! Estimate M	36.70 1	ÌΠ	i	D SHALS [-1]	Oto 3: see bed		16907	<u> </u>	•	Ĉ	Sank in delation of the control of t		^		E OR CHECK ZANG A) RELEXENSIBATE TABLE (e.g., Cobbs, Son	ACD, STABLE (FINE)	- no no 100 cm -		
KINN Y	Qualitative Habitat Evaluation Index Field Sheet		Affillati rateryPE 80	ľÓ	CICLOETRIMAGIA 10%	A or More (2)	Less D	ZI RESTREAM COVER (Cive each cover type a core of 0 to 3: see both for instrational (Structure)	L) MOOTS NO CIT (1)	MOTE DE 15 (1)	ONLY ONE PER CAMPONY OR CHEEK 2 STANDART CHEEKS CONTROLL CHEEKS C	id- Recoverated (4) to - Recoverance (3)	COVERTY OF NO	COMMENTS:  RECARD SHARE SERVER SHARE	III.	(Obeck 1 m 2 & ANB/PAGE)  (Proof, WIGHS NIFELE WIGHE)  (S-FOO), WIGHS NIFELE WIGHE)	CRIFFLE VF. (0)	<b>.</b>		had - in	DIAMINGE MACA (en mi)	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
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		River Code: 8 2 4/070	Full Mame: Parte (Cheek Poor			DICHELT (2)	lty Only, Score	(Struckling)	UNSERCUT BANKS [1] CASAHANGING VEGETÄTION [1]	CLEMALONS BUSINESS WATER (*) ROOTMAS III COMMENTS:	E E	go E	_	COUMBRIST  REPLANTANTOR  REPLA	BLADE AND RIF		Ę		D - Rest Areas \$-19 cm(1) D - 8est Areas = \$ cm	주 	ej GREADIENAY (NAM):	of the fingular street, we are
	Q	River C	Scorers 1  SUBSI	2390 200 000	D D-HARDPA	DICHELLE IN	COMMENTS	21 mms TR (92)	F 25		SINGERAL STATES OF THE PROPERTY OF THE PROPERT	CI - WOUTHAIL THE	No.	COMMENTS:  REALINAMENT SERVING	S.POOUGLA	(Check follow)		MITTER DEPTH	O · Best A	DAMAGNIES	ह्यं द्रमध्ये	OKST VARIE

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76	STIE NAMELOCANIAN AND OFFICE STATE AND STATE AND STATE AND STIES THE MANAGE AREA (m²) SITE NAMELOCANIAN STATE AND ST	TAV COMMENTS This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Street	STREAM CHANNEL GINDLEINBUGAL CHANNEL DRECOVERING DRECENT OR NO RECOVERY MDGINGATIONS:	reserve of a con or type of substitutes press.  Ber of singulating a destribed, types flound (so press.)  Frequency of the control of the con	SANOICE may pack to the second of the second	A destroyer Proof Usually Revenues the measurement place of citythe width the Strategy of the	D. BANK FAZL WIDTH (Restaured as the Lavings of 3-4 measurements) (Check OML one box): Width Width Consider to 3) juried of the Lavings of 3-4 measurements) (Check OML one box): Width Width Consider to 3) juried of the consideration of the	The plantaneous marks in the plantaneous marks into be empired  REPORTING THE PARTIES OF COORDING TO SHOW THE PARTIES OF COORDING OF COORD	FLOW REGISTER AT Time of Evolution) (Check CML V one base)  Stream Rowing  Stream Rowing  Contact in the register pose (intenditing  Contact in the register pose (intenditing  Contact in the register pose (intenditing  Stream Rowing  Stream Rowin	0.5 C 28 C 2

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18 May 181

ChieFPA Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3):	]
BITE NAME/LOCATION (19480- MT- SOD	
SITE NUMBER RIVER BASIN DRAINAGE AREA (m²)	
LENGTH OF STREAM REACH (R) LAT. LONG. RIVER CODE RIVER MILE	
DATE 4/30/08 SCORER B. D. Ho COMMENTS	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for instruction	ns.
STREAM CHANNEL BINONE / NATURAL CHANNEL BRECOVERED BRECOVERING BRECENT OR NO RECOVERY	ر.
MODIFICATIONS: AMERIHAS BEEN LOGICED BUT DOES NOT APPEAR to HAVE HERTED ST	IE HM
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  SILT [3 pi]  BOULDER (>256 mm) [16 pts]  FINE DETRITUS [3 pts]  Substrate PYPE boxes  LEAF PACK/WOODY DEBRIS [3 pts]  Substrate PYPE boxes  LEAF PACK/WOODY DEBRIS [3 pts]  Substrate TYPE boxes  LEAF PACK/WOODY DEBRIS [3 pts]	HEI ctric ints
2. Maximum Pool Depth (Measure the meximum 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):    30 centimeters [20 pts]   > 5 cm - 10 cm [16 pts]   > 5 cm - 20 cm [36 pts]   > 5 cm - 30 c	Depth (=30
> 10 - 22.5 cm [25 pls]   NO WATER OR MOIST CHANNEL [0 pts]   COMMENTS [ NO WATER OR MAXIMUM POOL DEPTH (centimeters);	
O > 4.0 meters (> 13") [30 pts] O > 1.0 m - 1.5 m (> 3" 3" - 4" 8") [15 pts] Wi	iktuli dilh r=30
COMMENTS FORM STEED AND FORM AVERAGE BANKFULL WIDTH (motors)	
This information <u>must</u> also be completed  RIPARIAN ZONE AND FLOODPLAIN QUALITY CNOTE: River Left (L) and Right (R) as looking downstream of RIPARIAN WIDTH  FLOODPLAIN QUALITY  L R (Most Predeminant per Bank) L R	
☐ ☐ Wide >10m ☐ ☐ Mature Forest, Wetland ☐ ☐ Conservation Titage	
☐ ☐ Moderate 5-10m ☐ ☐ Immetere Forest, Shrub or Old ☐ ☐ Urban or industriel	
☐	
☐ ☐ Fenced Pasiurs 💆 🗗 Mining or Construction	
COMMENTS ARE HAS BEEN LOGGED  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)  COMMENTS  COMMENTS	
SINUDSITY (Number of bends per 61 m (200 ft) of channel) (Check OMLY one box):   None	
STREAM GRADIENT ESTIMATE  Of Flat (0.5 Mnoder)  Flat to Mnoderate   Mnoderate (2 mnoder)  Mnoderate to Severe   Severe (10 mnoder)	

ADDITIONAL STREAM INFO	RMATION (This information Must A	so be Completed):		
GHE! PERFORMED	7 - O Yes O No QHEIScore	(I) Yes, Attach Con	npieted QHEI Form)	
WWH Name:	SIGNATED USE(S)			
MAPPING: ATTACH	Copies of Maps, including the	<u>entire</u> watershed area	CLEARLY MARK THE SITE	LOCATION
USGS Quadrangle Name:		NRC6 Soll Map Page;	NRCS Soil Map Sire:	am Ofder
County:	Tow	vnship / City:		
MISCELLANEOUS				
	Date of lest precipitation:			
Photograph Information:	.1 0			<del></del>
	1 Cancpy (% open): 95			
	ier ohemistry? (Y/N): (Note I			
Field Measures: Temp (*C)	Dissolved Oxygen (mg/n)	pH (S.U.)	_ Conductivity (µmhosicm)	
is the sampling reach represen	atelive of the stream (Y/N) If no	ot, piease explain:		<del></del>
Additional comments/description	on of pollution impacts:			
BIOTIC EVALUATION	אכ			
Performed? (Y/N):	(If Yes, Record all observations, Vouc ID number, include appropriate field d			
Fish Observed? [Y/N]	Voucher? (Y/N) Salamanders	Observed? (V/N) Vo	ucher? (Y/N)	(1) /4/
•	(Y/N) Voucher? (Y/N) Aqu		•	(MAN)
DRAWING AN	D NARRATIVE DESCRIPTIO	N OF STREAM REAC	H (This <u>must</u> be comp	eleted):
include important landr	marks and other features of interest		rrative description of the str	eam's location
4	DEFOREST	EU ZARI)		
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TREES		Erue Awen		
FLOW	م پسمر	/		Sugar A
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N GA	the state of the s			(b)
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October 24, 2007 Revision	PHW	Form Page - 2		

## OhioEPA Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3):

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SITE NAME/LOCATION OUTSO- MT SP3			
	THE PROPERTY AND ADDRESS OF THE PARTY OF THE		120
SITE NUMBERLATLATLAT			
DATE OUT 30/68 SCORER BENOTO			
NOTE: Complete All Items On This Form - Refer			Instructions
	HANNEL DRECOVERED DRE	ECOVERING LA RECENT OR NO	RECOVERY
MODIFICATIONS: THE SUM COUNTRY	ARCA HIPS BEEN DE	FORESTED NOT APA	AR TOHENE A
SUBSTRATE (Estimate percent of every type o			eas I
(Max of 32). Add total number of significant substr			HHE! Metric
TYPE PERCENT  BLOR SLABS [16 pis]	TYPE DD SILT (3 pk)	PERCENT	Points
BOULDER (>256 mm) [16 pts] 10		DY DEBRIS (3 pls;	Substrate
DD BEDROCK [18 pt] 16 16 16 16 16 16 16 16 16 16 16 16 16	☐ FINE DETRITUS (☐ ☐ CLAY or HARDPA		Max = 40
GRAVEL (2-64 mm) (9 pts) 30	☐ ☐ MUCK [0 pte]		27
☐ ☐ SAND (<2 mm) [6 pts] 15	ARTIFICIAL [3 pts]		
Total of Percentages of Bidr Siebs, Boulder, Cobble, Bedrock	(A)	(B) /	A+8
SCORE OF TWO MOST PREDOMINATE SUBSTRATE T	YPES OTAL NUME	HER OF SUBSTRATE TYPES:	<u>'</u>
2. Maximum Pool Dapth (Measure the maximum )	and death within the fire area. And	(6) punitodian seech at the star of	Pool Depth
evaluation. Avoid plunge pools from road culverts	or storm water pipes) (Check ONL	Yone box):	Mex = 30
> 30 centimeters [20 pts] > 22.5 - 30 cm [30 pts]	> 5 cm - 10 cm [1] < 5 cm [5 pts]	5 pls)	
D > 10 - 22.5 cm [25 pts]	NO WATER OR I	OIST CHANNEL FO DIS	
COMMENTS FAIRLY STEEP PICKET	MAXIMUM	POOL DEPTH (centimeters):	
BANK FULL WIDTH (Measured as the average of		<del> </del>	Bankfull
2 > 4.0 meiers (> 18") [30 pie]	□ >1.0m -1.5m/>	3' 3" - 4" 8") [15 ofs]	Width
> 3.0 m - 4.0 m (> 9' 7" - 13") [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4" 9") [20 pts]	Ø ≤ 1.0 m (≤ 3'3") [5	P 181	Max = 30
COMMENTS 3	AVEDAGE	RANKELII I WITTH Imaterel	2 5
DOMINENTO			
Th)	s information <u>must</u> also be comple		
¥*11			
RIPARIAN ZONE AND FLOODPLAIN QUI		id Right (R) as looking downstream:	₩
RIPARIAN ZONE AND FLOODPLAIN QUI RIPARIAN WIDTH FLOOI	DPLAIN QUALITY (Nost Predominant per Bank)		<b>☆</b>
RIPARIAN ZONE AND FLOODPLAIN QUI RIPARIAN WIDTH FLOOI L R (Per Bank) L R Wide >10m	OPLAIN QUALITY  (Most Predominant per Bank)  Mature Forest, Welland	L R	ge
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CIME DEDECTORED :   WAS MINS CHECKAS-	Make the K. Marandara, J. Addison A.
GHEI PERFORMED? . Tyes XI No QHEI Score	(II Yes, Atlach Completed CHE! Form)
DOWNSTREAM DESIGNATED USE(S)  WWH Name:	Distance from Evaluated Stream
CWH Nama:	
JEWH Name:	
Mapping: Attach copies of Maps, including the <u>entire</u>	E WAYERSHED AREA. CLEARLY MARK THE SITE LOCATION
ISGS Quadrangle Name: NF	RCS Soil Map Page: NRCS Soil Map Stream Order
ounty:Township	/ City:
MISCELLANGOUS	•
ease Flow Conditions7 (Y/N): V Date of lest precipitation: 124	U. Quentity:
hotograph information:	
ilevated Turbidity? (Y/N): N Canopy (% open):	_
Vere samples collected for water chemistry? (Y/N):(Note tab samples	mple no. or id. and ettach results) Leb Number
Teid Measures: Temp (*C) Dissolved Oxygen (mg/l)	pH (S.U.) Conductivity (umhostern)
the sampling reach representative of the stream (Y/N) If not, plea	· · · · · · · · · · · · · · · · · · ·
a not semband redevice brosenicase of the anothing that.	190 CADANI.
ability and cover and discounted to a familiar image in	
additional comments/description of pollution impacts:	
BIOTIC EVALUATION	
reformed? (Y/N): (If Yes, Record all observations. Vaucher call	lections optional. NOTE: all voucher samples must be labeled with the si
ID number. Include appropriate field data ahe	eets from the Primary Headwater Habitat Assessment Manual)
ish Observed? (Y/N) Youther? (Y/N) Salamanders Obser	
rogs of Tadpoles Observed? (Y/N) Youther? (Y/N) Aquatic M.	
commenia Regerding Stology:	
DRAWING AND NARRATIVE DESCRIPTION OF	STREAM REACH (This must be completed):
Include important landmarks and other features of interest for all	e evaluation and a narrative description of the stream's location
	e evaluation and a narrative description of the stream's location
Include important landmarks and other features of interest for silv	e evaluation and a narrative description of the stream's location
Include important landmarks and other features of interest for all	e avaluation and a narrative description of the stream's location
Include important landmarks and other features of interest for silv	e avaluation and a narrative description of the stream's location
Include Important landmarks and other features of interest for site	e avaluation and a narrative description of the stream's location
Include important landmarks and other features of interest for silk  THE CONTENT  AND THE C	e avaluation and a narrative description of the stream's location
Include important landmarks and other features of interest for silk  THE CONTENT  AND THE C	a evaluation and a narrative description of the stream's location of th
Include important landmarks and other features of interest for silk  THE CONTENT  AND THE C	a evaluation and a narrative description of the stream's location of th
Include Important landmarks and other features of interest for silk  THE CONTENT OF STATE OF	be avaluation and a narrative description of the stream's location  O VARIO  DEFORE  Like
Include Important landmarks and other features of interest for silk  THE CONTENT OF STATE OF	be avaluation and a narrative description of the stream's location  O VARIO  DEFORE  Like
Include Important landmarks and other features of interest for silk  THE CONTENT OF STATE OF	a evaluation and a narrative description of the stream's location of th

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## ChieFPA Primary Headwater Habitat Evaluation Form

Primary Headwater Habitat Evaluation Form  HHEI Score (sum of metrics 1, 2, 3):	23
SITE NAME/LOCATION 10430- 5 66	
SITE NUMBER RIVER BASIN DRAINAGE AREA (m²)	
LENGTH OF STREAM REACH (II) LAT. LONG. RIVER CODE RIVER MILE	
DATE CHIBOLOS SCORER B.OTTO COMMENTS	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	ructions
STREAM CHANNEL	:OVERY
MODIFICATIONS:	
SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	HHEI
(Mex of 32). Add total number of significant substrate types found (Mex of 8). Final metric score is sum of boxes A & B.  TYPE  PERCENT  TYPE  PERCENT	Metric
BLDR SLAES [16 pts] SILT [3 pt]	Points
O O BEDROCK (18 pts) O FINE DETRITUS (3 pts)	Substrate
SEDRUCK   19 pt	Max = 40
☐ ☑ _GRAVEL (2-64 mm) [9 pts]	18
SAND (<2 mm) (6 pts) 5 DD ARTIFICIAL (8 pts)	7 0
Total of Percentages of (A) Bidr Slabs, Bouldar, Cobbia, Bedrock (A)  (B)  (C)  (C)  (A)  (A)	A+B
Sidr Stabs, Boulder, Cobble, Bedrock (A) SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES:	1
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 maior (200 ft) evaluation reach at the lime of	Pool Depth
<ol> <li>Maximum Pool Depth (Measure the maximum pool depth within the 61 mater (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check CVLY one box):</li> </ol>	Max = 30
☐ > 30 centimaters (20 pts) ☐ > 5 cm - 10 cm (15 pts) ☐ > 5 cm - 10 cm (15 pts) ☐ < 5 cm   [5 pts]	2
☐ > 10 - 22.5 cm [25 pis] NO WATER OR MOIST CHANNEL [0 pis]	
COMMENTS NAXIMUM POOL DEPTH (centimeters):	
3, BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):    > 4.0 meters (> 13) [30 pts]	Bankfull Width
□ > 4.0 meeters (> 137) [30 pts]       □ > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]         □ > 3.0 m - 4.0 m (> 9' 7" - 13") [25 pts]       □ ≤ 1.0 m (≤ 3' 3") [5 pts]         □ > 1.5 m - 3.0 m (> 9' 7" - 4" 8") [20 pts]	Mexe36
151	5
COMMENTS AVERAGE BANKFULL WIDTH (malers)	
This information must also be completed	· <u> </u>
RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE River Left (L) and Right (R) as looking downstreams.	
RIPARIAN WIDTH FLOODPLAIN QUALITY  L. R. (Per Bank) L. R. (Most Predominant per Sank) L. R.	
Wide >10m BB B Mature Forest, Wetland DD Conservation Titlage	
☐ Moderate 5-10m ☐ Immature Forest, Shrub or Old ☐ ☐ Urban or Industrial	
A Namow Sim A Residential Park New Flow A Open Pasture, Row	
O None O Fanced Pasture O Mining or Construction	
COMMENTS	-
FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	
Stream Flowing Moist Channel, Isolated pools, no flow (intermittent	j
Substitlace flow with Isolated pools (Interstitial)  COMMENTS  Dry channel, no water (Ephemeral)	-
SINUOSITY (Number of bands per 61 m (200 k) of channel) (Check ONLY one box):	
및 None 및 1.0 및 2.0 및 3.0	
D 0.6 D 1.5 D 2.5 D >3	
STREAM GRADIENT ESTIMATE  ☐ Flet (p.s.p.100 tr) ☐ Flet to Moderate ☐ Moderate (2.p.100 tr) ☐ Moderate to Severe (10.p.n.)	Û£ €Û

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):	
QHEI PERFORMED? . D Yes 🙋 No QHEI Score (If Yes, Allach	Completed QHSt Form)
DOWNSTREAM DESIGNATED USE(S)  WWH Name:  CWH Name:	Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AN	
U3G5 Quadrangle Nams: NRCS Soll Map Pag  County: Township / City:	
MISCELLANEOUS	
Base Flow Conditions? (YN): Date of last precipitation: UKN	Quentity:
Photograph information:	
Elevated Turbidity? (Y/N): N Canopy (% open): 10	
Were samples collegied for water chamistry? (Y/N):(Note lab sample no. or id. and	altach results) Lab Number:
Fleid Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (\$.U.)	Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, please explain:	
Additional comments/description of pollution impacts;	
BIOTIC EVALUATION  Performed? (Y/N):   U	voucher? (Y/N) Voucher? (Y/N)
DRAWING AND NARRATIVE DESCRIPTION OF STREAM RE	,,
NJ ) SEED MOODED	1430-n.1500
FLOW LOOP OF THE PROPERTY OF T	
DIECO MODET	
October 24, 2008 Revision / PHWH Form Page - 2  October 24, 2008 Revision / OH 30 KAT SO7	

### ATTACHMENT D Page 59 of 66

# Chie EPA Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3):

		MILI OCOTO (BUILLO)		
SITE NAME/LOCATION AND-OH A			554 14 65 4 55 6 (-12)	
LENGTH OF STREAM REACH (ft)				
DATE 2- Tily - 200 SCORER W.Thouse	COMMENTS	- KIVER COBE	WINCH IN THE	<del>-</del>
DATE 2- July - 200 SCORER M. Thousand NOTE: Complete All Items On This Form	- Refer to "Field Evalua	ation Manual for Obje's Pi	HWH Streams" for Instri	ections
1 4				
	JRAL CHANNEL LIREC	OVERED   RECOVERING	LI RECENT OR NO RECO	VERY
MODIFICATIONS:				
1. SUBSTRATE (Estimate percent of ever	y type of substrate presen	L Check ONLY two predominal	nt substrate TYPE boxes	
(Max of 32). Add total number of significa		ex of 8). Final metric score is su		HHEI Metric
TYPE PE P	<u>RCENT</u> TYPE.	(LT [3 pt]	<u>PERCENT</u>	Points
30ULDER (>256 mm) [16 pts]		EAF PACKWOODY DEBRIS D	pts)	Substrate
☐ ☐ BEDROCK [16 pt]	~2017 ∩	INE DETRITUS (3 pts) LAY or HARDPAN (0 pt)	60	Max = 49
GRAVEL (2-64 mm) [9 pts]	20 17 N	IUCK (0 pts)	<u></u>	12/
SAND (<2 mm) [6 pts]	<u>75</u> 00 A	RTIFICIAL [3 pts]		/7
Total of Percentages of	(A) (A)		(≧)	A+B
Sidr Stabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBST	RATE TYPES:	TOTAL NUMBER OF SUB	STRATE TYPES:	
			·	Pool Depth
<ol> <li>Maximum Pool Depth (Measure the ma evaluation, Avoid plunge pools from road</li> </ol>			Heart at the fittle or	Max = 30
> 30 centimeters [20 pts] > 22.5 - 30 cm [30 pts]	_	> 5 cm - 10 cm [15 pts] < 5 cm [5 pts]		25
> 10 - 22.5 cm [25 pts]		NO WATER OR MOIST CHAN	NEL [0 pts]	السلو
COMMENTS		MAXIMUM POOL DEPT	(g H (centimeters):	
3. BANK FULL WIDTH (Measured as the a				Sankful)
> 4.0 maters (> 13') [30 pts]   > 3.0 m - 4.0 m (> 9' 7' - 13') [25 pts]	. 🗥	> 1,8 m + 1,5 m (> 3° 3° + 4° 8°) [1 ≤ 1,0 m (≤ 3° 8°) [5 pts]	5 pts]	VWdth <u>Max=30</u>
> 1.5 m + 3.0 m (> 977" + 418") [20 pts]	1		2	5
COMMENTS		AVERAGE BANKFULL	MDTH (meters)	
				75 M.D. 20.44.6
RIPARIAN ZONE AND FLOODPL	This information mus	t also be completed : River Left (L) and Right (R) a	s looking downstream\$	
RIPARIAN WIDTH	FLOODPLAIN QUALITY	and the contract of the contra	s logiting dominated in the	
LR (Per Bank) Wide >10m	L R (Most Predomin		Conservation Tillage	
123 SQ Wide >10m □ 1 Neoderale 5-10m	immature Fores			
	Field		One Besture Berry	
☐ Narrow <5mm	Residential, Pal		Сгор	
COMMENTS	LU Fenced Pasture		Mining or Construction	
/ FLOW REGIME (At Time of Evalu	ation) (Check ONLY one h	ort		
Stream Flowing		Moist Channel, isolated	poofs, no flow (intermillent)	
Subsurface flow with isolated pools  COMMENTS	(Interstitial)	Dry channel, no water	(Ephemeral)	
SINUOSITY (Number of bends pe	r 8.1 m (200 S) of channel	Charl Old Vana haule		
☐ None ☑	1.0	2.0	<b>□</b> 3.0	
0 0.5	1.5	2.5	D >3	
STREAM GRADIENT ESTIMATE	<b>~</b> √		G	
☐ Fist (6.5 (4100 ii) ☐ Fiat to Moderate	Moderate (2 Widon)	☐ Moderate to Severe	Severe (10 tuto)	(計)

ADDITIONAL STREAM INFORMATION (This information Must Also be Completed):	
OHEI PERFORMED? - D Yes No OHEI Scare (If Yes, Att	each Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S)	
MWH Name:	······································
CWH Name:	
EWH Name:	-
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE <u>ENTIRE</u> WATERSHE	
USGS Quadrangte Name: NRCS Soil Map	Page: NRCS Soil Map Stream Order
County: MCBS Township / City:	
MISCELLANEOUS	
Base Flow Conditions? (Y/N). UNSY	Quentity:
Photograph information: 2 photos	
Elevated Turbidity? (Y/N): N Canopy (% open): 5	
Were samples collected for water chamistry? (Y/N): (Note lab sample no. or id.	and allach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.)	Conductivity (umnos/cm)
is the sampling reach representative of the stream (Y/N) If not, please explain:	
Additional comments/description of pollution impacts:	
BIGTIC EVALUATION  Performed? (Y/N):	Voucher? (Y/N)
DRAWING AND NARRATIVE DESCRIPTION OF STREAM Include important landmarks and other features of interest for site evaluation a	· —
FLOW -> 531	Forested
Forested	forested

### ATTACHMENT D Page 61 of 66

# ChicEPA Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3):

SITE NAME LOCATION AMP Chier RAT	fernate Transpolission Line	
		DRAINAGE AREA (mi²)
LENGTH OF STREAM REACH (ft)	LAT. LONG. R	IVER CODE RIVER MILE
DATE 2 July 2008 SCORER N. Thore	COMMENTS	
NOTE: Complete Ail Items On This Fon	, m - Refer to "Field Evaluation Manual fo	r Ohio's PHWH Streams" for Instructions
STREAM CHANNEL ENONE / NA	TURAL CHANNEL     RECOVERED       RE	COVERING TRECENT OR NO RECOVERY
MODIFICATIONS:		OF EDITION OF THE OFFICE
	ery type of substrate present. Check ONLY <u>tw</u>	
, , , , , , , , , , , , , , , , , , , ,	cant substrate types found (Max of 8). Final metri	ic score is sum of boxes A & B. HHEI PERCENT Metric
BLDR SLABS [18 pts]	SILT [3 pt]	Points
BOULDER (>256 mm) [16 pts]  BEDROCK [16 pt]	ON LEAF PACKWOOD  OF THE DETRITUS IS	Rematmen
☐ BEDROCK [16 pt] ☐ COBBLE (65-256 mm) [12 pts] ☐	UU FINE DETRITUS (3	Max = 40
☐ [7] GRAVEL (2-84 mim) [9 pts]	10	
SAND (<2 mm) (5 pts)	5 O ARTIFICIAL [3 pts]	
Total of Percentages of	Λ (A) 2	(B) A+B
Bidr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBS	<del></del>	り ER OF SUBSTRATE TYPES:
	eximum pool depth within the 61 meter (200 to diculverts or storm water pipes) — (Check ONLY	
> 30 centimeters [20 pts]	> 5 cm - 18 cm [15	
> 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts]	(1 < 5 cm (5 pts) □ NO WATER OR M	OIST CHANNEL (0 pts)
		2"
COMMENTS		POOL DEPTH (centime(ers):
3, BANK FULL WIDTH (Measured as the > 4.0 meters (> 13") [39 pts]	average of 3-4 measurements) (Cher > 1.0 m - 1.5 m (> 3	
> 3.0 m - 4.0 m (> 9' 7" - 13") [25 pts]	√ 1.0 m (≤ 3°3°) [5	
> 1.5 m - 3.0 m (> 9'7" · 4'8") [20 pts]		7년 6 厦
COMMENTS	AVERAGE B	BANKFULL WIDTH (meters)
		**** - *******************************
RIPARIAN ZONE AND FLOODS	This information <u>must</u> also be complete.  **CNOTE: River Left (L) and	ed 5 Right (R) as looking downstream☆
RIPARIAN WIDTH	FLOODPLAIN QUALITY	•
L/R (Per Bank) Wide >10m	i. R. (Most Predominant per Bank) Mature Forest, Wetland	LR □□□ Conservation Tillage
	Immature Forest, Shrub or Old	
☐ ☐ Moderate 5-10m	Field Field	Urban or Industrial
☐ Moderate 5-10m ☐ Narrow <5m	immature Porest, Shrub or Olo Field  Residential, Park, New Field	Urban or industrial  Open Pasture, Row Crop
☐	Field Field	Urban or Industrial Deen Pasture, Row
☐	immature Porest, Shrub of Old Field Residential, Park, New Field Fenced Pasture	Urban or industrial  Open Pasture, Row Crop
Moderate 5-10m  Narrow <5m  None COMMENTS  FLOW REGIME (At Time of Eval	Immature Porest, Shrub of Olo Field  Residen(ial, Park, New Field  Fenced Pasture  (Check ONLY one box):	Urban or Industrial  Open Pasture, Row Crop Mining or Construction
Moderate 5-10m  Narrow <5m  None COMMENTS  FLOW REGIME (At Time of Eval Stream Flowing Subsurface flow with isolated poo	Immature Porest, Shrub of Olo Field  Residential, Park, New Field  Fenced Pasture  Function (Check ONLY one box):  Moist Chan	Urban or industrial  Open Pasture, Row Crop
Moderate 5-10m  Marrow <5m  None COMMENTS  FLOW REGIME (At Time of Eval	Immature Porest, Shrub of Olo Field  Residential, Park, New Field  Fenced Pasture  Function (Check ONLY one box):  Moist Chan	Urban or Industrial  Open Pasture, Row Crop Hinning or Construction  Onel, isolated pools, no flow (Intermittent)
Moderate 5-10m  Narrow <5m  None COMMENTS  FLOW REGIME (At Time of Eval Stream Flowing Subsurface flow with isolated poo COMMENTS  SINUOSITY (Number of bends/6)	Immature Porest, Shrub of Olo Field  Residential, Park, New Field  Fenced Pasture  (Check ONLY one box):  Moist Chan is (interstitial)  Dry channe	Urban or industrial  Open Pasture, Row Crop Mining or Construction  mel, isolated pools, no flow (Intermittent) it, no water (Ephemesal)
Moderate 5-10m  Narrow <5m  None COMMENTS  FLOW REGIME (At Time of Eval Stream Flowing Subsurface flow with isolated pool	Immature Porest, Shrub of Old Field Residential, Park, New Field Fenced Pasture    Uation   (Check ONLY one box):   Moist Changes (Interstitial)   Dry change	Urban or industrial  Deen Pasture, Row Crop Mining or Construction  nel, isolated pools, no flow (Intermittent) i, no water (Ephemesal)
Moderate 5-10m  Narrow <5m  None COMMENTS  FLOW REGIME (At Time of Eval Stream Flowing Subsurface flow with isolated poo COMMENTS  SINUOSITY (Number of bends fo	Immature Porest, Shrub of Old Field   Residen(ial, Park, New Field   Fenced Pasture   Moist Chan-lis (interstitial)   Moist Channel   Ony channel   Check OA/LY one   1.0   2.0	Urban or industrial  Deen Pasture, Row Crop Mining or Construction  nel, isolated pools, no flow (Intermittent) i, no water (Ephemesal)

ADDITIONAL STREAM INFORMATION (This Information Must A	dep be Completed):
QHEI PERFORMED? - TYES NO OHEI Score_	(If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S)	
	Distance from Evaluated Stream
	Distance from Evaluated Stream
TI EAM Malue	Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE	ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name:	NRCS Soil Map Page: NRCS Soil Map Stream Order
County: Meigs To	wnship / City:
MISCELLANEOUS	
Base Flow Conditions? (Y/N): pn5 11 Date of last precipitation:	CARROWN Quantity:
Photograph Information: 2 photos	
Elevated Turbidity? (YM): Canopy (% open):	<u>15</u>
Were samples collected for water chemistry? (Y/N):(Note	fab sample no. or id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l)	pH (S.U.)Conductivity (umnos/cm)
is the sampling reach representative of the stream (Y/N) If n	ool, please explain:
Additional comments/description of pollution impacts:	
BIOTIC EVALUATION	
	oher collections optional. NOTE: all voucher samples must be labeled with the site
. 1	date sheets from the Primary Haadwater Habital Assessment Manual)
Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Frons or Tadoples Observed? (Y/N) Voucher? (Y/N) Ag	s Observed? (Y/N) // Voucher? (Y/N) // Voucher? (Y/N) // Voucher? (Y/N)
Comments Regarding Biology:	
DRAWING AND NARRATIVE DESCRIPTE	ON OF STREAM REACH (This <u>must</u> be completed):
	t for site evaluation and a narretive description of the stream's location
Foreskol	
Carefree	. ()
W.	, Let
-540	Forested
FLOW	
	N
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Forested	best V
l .	Foresteal
	Fo'

## ATTACHMENT D Page 63 of 66

Stream 46

ChieFPA Primary Headwater Habitat Evaluation Form
HHEI Score (sum of metrics 1, 2, 3): 37

SITE NAMEROCATION AMP OH Pret		core (sum of medics 1, 2, 3).	
	•	DRAINAGE AREA (m²)_	<del></del> - <del></del>
LENGTH OF STREAM REACH (ff)			
DATE 19 /WA 2008 SCORER M. Thomas	COMMENTS		
DATE 19 /kg 2008 SCORER M. Thomas NOTE: Complete All Items On This Form	- Refer to "Field Evaluation Mar	ual for Chio's PHWH Streams" for Ins	tructions
STREAM CHANNEL NONE / NAT	URAL CHANNEL LU RECOVERED	☐ RECOVERING ☐ RECENT OR NO REC	COVERY
INDUITIONS:			
		NLY two predominant substrate TYPE boxes	3
(Max of 32), Add total number of signification TYPE P8	= ·		HHEI Metric
BLDR SLABS [16 pts]	SILT [3 pt]	PERCENT	Points
BOULDER (>256 mm) [16 pts]	LEAF PACK	WOODY DEBRIS [3 pts]	Substrate
COBBLE (65-256 mm) [12 pts]		ROPAN 10 pg 10	Max = 40
(2-64 mm) [8 pts]	/6 D MUCK [6 pt		·   17 🔞
\	20	[3 pts]	
Total of Percentages of Bldr Slabs, Boulder, Cobbie, Bedrock SCORE OF TWO MOST PREDOMINATE SUBST	20 (A) (A)	(B)	A+B
SCORE OF TWO MOST PREDOMINATE SUBST	RATE TYPES: TOTAL	NUMBER OF SUBSTRATE TYPES:	
2. Maximum Pool Depth (Measure the ma		er /200 fil augitration reach at the time of	Pool Depth
<ul> <li>evaluation. Avoid plunge pools from road</li> </ul>	culverts or storm water pipes) (Chec	k CNLY one box):	Max = 30
> 30 centimeters [20 pts] > 22.5 - 30 cm [30 pts]	>5 cm - 10 -	cm [15 pts] lts]	16
> 10 - 22.5 cm [25 pts]		R OR MOIST CHANNEL [0 pts]	
COMMENTS	MAX	IMUM POOL DEPTH (centimeters):	
3. BANK FULL WIDTH (Measured as the a		(Check ONLY one box):	Bankfull
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]		5 m (> 3' 3" - 4" 6") [16 pts] 3' 3") [5 pts]	¥ Width
> 1.6 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]		15	
COMMENTS	AVEI	RAGE BANKFULL WIDTH (meters)	
	This had an after a second also be a	and the d	
RIPARIAN ZONE AND FLOODPI	This information <u>must</u> also be o NOTE: River Lef	completed t (L) and Right (R) as looking downstream☆	
RIPARIAN WOTH  LAR (Per Bank)	FLOODPLAIN QUALITY  LAR (Most Predominant per Ba	AL) 1 D	
Wide >10m	Mature Forest, Wetland	nk) L.R.	
Moderate 5-10m	Immature Forest, Shrub or Field	Old	
□ □ Narrow <5m	Residential, Park, New Fig	nd 🗖 🗖 Open Pasture, Row	
□ □ None	☐ ☐ Fenced Pasture	Crop  Mining or Construction	1
COMMENTS			-
FLOW REGIME (At Time of Evalu			
<ul> <li>☐ Stream Flowing</li> <li>☐ Subsurface flow with isolated pools</li> </ul>		st Channe!, isolated pools, no flow (intermitten channel, no water (Ephemeral)	<b>f</b> )
COMMENTS_			<del></del>
SINUOSITY (Number of bends #e	r f 61 m (200 ft) of channel) <u>(C</u> heck <i>Of</i>	#LY one box():	
None 0.5	1.0	3.0	
	د. ك ك ك ك ك ك ك ك ك ك ك ك ك ك ك ك ك ك ك	LJ FŞ	
STREAM GRADIENT ESTIMATE  Flat (0.5 6/100 ft)   Flat to Moderate	☐ Moderate (2 1//100 in)	oderate to Severe 🔲 Severe (10 te	ימ סטר)

### ATTACHMENT D Page 64 of 66

ADDITIONAL STREAM INFORMATION (This information Must Also be Completed):
QHEI PERFORMED? - Til Yes De QHEI Score (If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S)
Distance from Evaluated Stream
OWH Name: Distance from Evaluated Stream
☐ EWH Name: Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INC. UDING THE <u>ENTIRE</u> WATERSHED AREA. CLEARLY MARK THE SITE LOGATION
USGS Quadrangle Name: NRCS Soil Map Page: NRCS Soil Map Stream Order
County: Met 95 Township / City:
MISCELLANEOUS
Base Flow Conditions? (Y/N): Date of last precipitation: Un Unown Quantity:
Photograph Information: 2 photos; upstream downstream
Elevated Turbidity? (Y/N):/V Canopy (% open):
Were samples collected for water chemistry? (Y/N):/ (Note tab sample no. or id, and attach results) Lab Number
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)
is the sampling reach representative of the stream (Y/N) / If not please explain:
Additional comments/description of pollution impacts:
BIOTIC EVALUATION
Performed? (Y/N):
ID number. Include appropriate field date sheets from the Primary Headwater Habital Assessment Manual)
Fish Observed? (Y/N) // Voucher? (Y/N) Salamanders Observed? (Y/N) // Voucher? (Y/N)
Comments Regarding Biology:
DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed):
include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location
Lak
forested
Ko. Xo.
0819-Manstan
FLOW
Concerted
Calosto. Jacoba
fw.

### ATTACHMENT D Page 65 of 66

Stream 47

ChieFPA Primary	Headwater Hal	bitat Evaluation F HHEI Score (sum of m		Chs:
SITE NAME/LOCATION AMP-OH PRE	end Rove Tracks	4ission		
		NDF		
LENGTH OF STREAM REACH (N)	_LATLONG	RIVER CODE _	RIVER MILE	
DATE 19 Aug 2008 SCORER M. Tho	1			<del></del>
NOTE: Complete All Items On This For	m - Refer to "Field Evalu	ation Manual for Ohio's PHV	VH Streams" for instru	ections
STREAM CHANNEL THOME! NA MODIFICATIONS:	TURAL CHANNEL   REC	OVERED TRECOVERING (	RECENT OR NO RECO	VERY
1. SUBSTRATE (Estimate percent of ev (Max of 32). And total number of signification of the control of the contr	cant substrate types found (Minimum of the Communication of the Communic		of boxes A & B.  PERCENT  As)  30  (B)	HHEI Metric Points Substrate Max = 40
2. Maximum Pool Depth (Measure the rievaluation. Avoid plunge pools from roa > 30 centimeters [20 pts] > 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts]  COMMENTS  3. BANK FULL WIDTH (Measured as the > 4.0 meters [> 13") [30 pts] > 3.0 m - 4.0 m (> 6" 7" - 13") [25 pts]	d culverts or storm water pipe	s) (Check ONLY one box): > 5 cm - 10 cm [15 pts] < 5 cm [5 pts] NO WATER OR MOIST CHANNE  MAXIMUM POOL DEPTH (	L [0 pts]  centimeters):	Pool Depth Max = 30
> 1.5 m - 3.0 m (> 8' 7" - 4' 8") [20 pts]  COMMENTS	/		OTH (meters)	5
RIPARIAN ZONE AND FLOODS RIPARIAN WIOTH R (Per Bank) Wide > 10m Moderate 5-10m Narrow < 5m None COMMENTS	This information mus PLAIN QUALITY *NOTE FLOODPLAIN QUALITY  Most Bridge Majure Forest, Immature Forest Fleid Residential, Pas	River Left (L) and Right (R) as known that (R) and (R) are known that (R	Conservation Tillage Urban or Industrial Open Pasture, Row Grop Mining or Construction	
FLOW REGIME (At Time of Eva Stream Flowing Subsurface flow with isolated poc	, , ,	Moist Channel, isolated po Dry channel, no water (Ep		
SINDOSITY (Number of beads of None 0.5	, 1.O	(Check ONLY one box):	3.0	
STREAM GRADIENT ESTIMATE  Flat (0.5 ambolin)	☐ Moderate (2 km 00 ft)	Moderale to Severe	Severe (10 li/100	10

## ATTACHMENT D

ADDITIONAL STREAM INFORMATION (This information Must Also be Completed):	
QHEI PERFORMED? - 🗆 Yes 💢 No QHEI Score (If Yes, Altac	sh Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S)	
WWH Name:	
CWH Name:	
EWH Name:	Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED	AREA, CLEARLY MARK THE SITE LOCATION
USGS Quadrengle Name: NRCS Soli Map Pr	ege: NRCS Soil Map Stream Order
County: Hergs Township / City:	
MISCELLANEOUS	
Base Flow Conditions? (Y/N): / Date of last precipitation: (Y/Nown  Photograph information: 3 photos; 1 updream (brancha) 1	Quantity:
Photograph information: 3 photos; 1 upstream (brancha) 1	upstronu (branchs), I downstream
Elevated Turbidity? (Y/N): Canopy (% open):	
Were samples collected for water chamistry? (Y/N): (Note lab sample no. or id. ar	nd attach results) Lab Number:
Field Measures: Temp (*C)Dissolved Oxygen (mg/t)pH (S.U.)	
is the sampling reach representative of the stream (Y/N) // If not, please explain:	
Additional comments/description of poliution impacts:	
BIOTIC EVALUATION  Performed? (Y/N): (If Yes, Record all observations, Voucher collections optional, iD number, Include appropriate field data shaets from the Print Pish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrate Comments Regarding Sidlegy:	nary Headwaler Habilal Assessment Manual)  /  / Voucher? (Y/N)  / Voucher? (Y/N)  / Voucher? (Y/N)
DRAWING AND NARRATIVE DESCRIPTION OF STREAM R	EACH (This must be completed):
include important landmarks and other features of interest for site evaluation and	d a narretive description of the stream's location
forested down	Kili S
FLOW -	forested
step 1 - new to	12 forest
downing	
dell' le forested steep	2-3
daonim	(1-> forested
•	

### Attachment E

# Photographic Record Preferred Transmission Route

### ATTACHMENT & Page 1 of 1 PHOTOGRAPHIC RECORD

AMP-Ohio 345 kV Preferred Transmission

Line Route

Client Name:

Site Location:

Project No.

American Municipal Power-Onio (AMP-OH) | Meigs County, Ohio

14946376

Photo Date: April 30, 2008

Facing west across valley containing streams \$27, \$35 and S36

HHEI for S27 scored 8/24/06 prior to landowner clearing



Photo Date: April 30, 2008

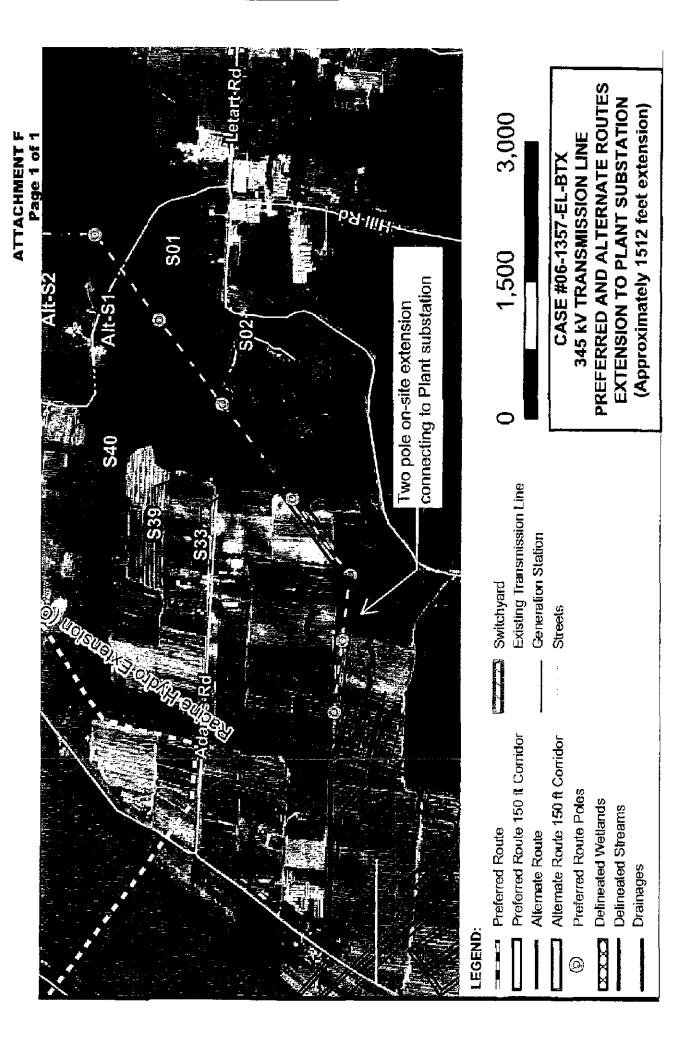
Facing south near S27

HHEI for \$27 scored 8/24/06 prior to landowner clearing



### Attachment F

# Transmission Line Preferred and Alternate Routes Extension to Plant Substation



# Applicant Exhibit No. 4

### CHESTER WILLCOX & SAXBE LLP



Attorneys and Counselors at Law

NATHANIEL S. OROSZ

DIRECT DIAL (614) 334-6117 norosz@cwskaw.com

200 AH 11: 20

August 20, 2008

Via Hand Delivery

Renee Jenkins
Ohio Power Siting Board
Docketing Division
180 East Broad Street – 13<sup>th</sup> Floor
Columbus, Ohio 43215

RE: OPSB Case No. 06-1357-EL-BTX
Proof of Publication

Dear Ms. Jenkins:

As required by Ohio Administrative Code §4906-5-09, enclosed please find the proof of publication in the local newspaper of the revised initial public notice regarding Ohio Power Siting Board Case No. 06-1357-EL-BTX, In the Matter of the Application of American Municipal Power-Ohio, Inc., for a Certificate of Environmental Compatibility and Public Need for an Electric Power Transmission Line and Related Facilities. Also enclosed is a copy of the notice as it appeared in *The Daily Sentinel*.

Respectfully,

Nathaniel S. Orosz

Counsel for American Municipal Power-Ohio, Inc.

cc: Judge Gregory Price - 12th Floor

A COLICE OF PRODUCED WITH THE PRODUCED WITH THE

## The Daily Sentinel

POLICEOV, OH

### PROOF OF PUBLICATION

The State of Ohio,
Meigs County, ss:

I, Charlene Hoeflich, General Manager,
The Daily Sentinel
Make solemn oath that notice, of which the attached
Is a true copy, was published in The Pomeroy Daily Sentinel,
a newspaper printed in the Village of Pomeroy in said
County of Meigs, and of general circulation in said
County time(s), beginning on

8 8 2000 and ending 8 8 2000
Pomeroy, OH June 18 2000

Sworn to and subscribed before me this day.

Printer's fees \$470,



Official Seal Judy A. Clark Notary Public - State of Ohlo My Commission Expires June 23, 2012 Recorded in Meigs County, Ohlo

### CHESTER WILLCOX & SAXBE LLP

Attorneys and Counselors at Law

NATHANIEL S. OROSZ

DIRECT DIAL (614) 334-6117 norosz@cwskaw.com

October 15, 2008

Via Hand Delivery

Renee Jenkins
Ohio Power Siting Board
Docketing Division
180 East Broad Street - 13<sup>th</sup> Floor
Columbus, Ohio 43215

RE: OPSB Case No. 06-1357-EL-BTX
Proof of Publication

Dear Ms. Jenkins:

As required by Ohio Administrative Code §4906-5-09, enclosed please find the proof of publication in the local newspaper of the second public notice regarding Ohio Power Siting Board Case No. 06-1357-EL-BTX, In the Matter of the Application of American Municipal Power-Ohio, Inc., for a Certificate of Environmental Compatibility and Public Need for an Electric Power Transmission Line and Related Facilities. Also enclosed is a copy of the notice as it appeared in *The Daily Sentinel* on October 9, 2008.

Respectfully,

Nathaniel S. Orosz.

Counsel for American Municipal Power-Ohio, Inc.

cc: Judge Gregory Price - 12th Floor

### Notice of Proposed Major Utility Facility

This is the second noticed published in regard to this Proposed Major Utility Facility. AMP-Ohlo published the first notice in the Daily Sentinel newspaper, Pomeray, Ohio, on August 8, 2008.

### Name and Description of the Proposed Facility

American Municipal Power-Obje (AMP-Ohio) proposes to construct an electric transmission line and associated interconnection switchvard located in Letart Township and Sutton Township, Meigs County, Ohio. This project is known as the AMP-GS Transmission Line. As required by the Ohio Revised Code Chapter 4906, AMP-Ohio seeks a Certificate of Environmental Compatibility and Public Need from the State. of Ohio's Power Siting Board,

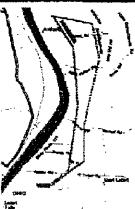
### Date. Time and Location of Pub-No Hearing

The Ohio Power Siting Board will lic is invited to provide written or respect to this proceeding. oral comments regarding this pro-posed transmission line. The non-Street, Racine, Ohio, 45771.

East Broad Street, Columbus, Obio, the following locations: 43215-3793, Hearing Room 11C.

This notice serves as the second notice published regarding this project and the project's respective hearing Pomeroy, Ohio 45769

The project includes construction of an approximately 5-mile long 345 kilovolt transmission line and related facilities necessary to transmit the electricity generated by a proposed 960 Megawati net electric (866) 270-6772 generation facility, consisting of two 480 MW net electric generaling units, to be built in the vicinity of Letart Falls. Meigs County, Ohio. To honor its public power function, the proposed generation facility is named the American Municipal Power Generating Station ("AMP-GS"). The transmission project is An electronic version of the ap-AMPGS project, and is not being undertaken on a stand-alone basis.



The application for a Certificate of Environmental Compatibility and 49435 Lighthouse Road Public Need is now pending be-fore the State of Ohio Power Siting Board. This application has been assigned Case Number 06-1357-EL- Ms. Kristi Eblin, Director BTX. This number should be inbe holding hearings where the pub. cluded in all communications with Pomeroy, Ohio 45769

adjudicatory hearing will be held proposed and alternate rouses. The 33101 Hilland Road on October 22, 2008, at 6 p.m. at project is located in Meigs County, Pomeroy, Ohio 457 Southern High School, 920 Elm Ohio, it should be noted that due to project is located in Melgs County, Pomeroy, Ohio 45769 the reduced scale and firmited detail, Tuppers Plainsthis map should be used only as a Chester Water District general guide. Copies of the actual Mr. Donald Poole, Operations Gen-An adjudicatory hearing will be general guide. Copies of the actual Mr. Donald Poole, held October 27, 2008, beginning at siting application, including specific eral Manager 10 a.m. at the offices of the Public details of location and construction. 39561 Holly Lane Utilities Commission of Ohio, 180 are available for public inspection at Pomeroy, Ohio 45769

> Meigs County District Library Ms. Kristi Eblin, Director 216 West Main Street (740) 992-5813

Ohio Power Siting Board
Public Utilities Commission of Onio 180 East Broad Street Columbus, Ohio 43215-3793

American Municipal Power-Ohio Kent Carson, Director of Communications 2600 Airport Drive Columbus, Ohio 43219

(614) 337-6222

an inextricable component of the plication can be found at the Ohio Department of Agriculture Power Siting Board's Web site at Ohio Department of Development http://opsb.ohio.gov. To retrieve the Ohio Department of Health application, search under "Current

Pursuant to Rule 4906-5-06 of the Ohio Administrative Code, the following local government officials in Meigs County have been served with a copy of the application:

Meigs County Commissioners Mr. Michael Davenport, President 100 East Second Street Pomoroy, Ohio 45769

Meigs County Health Department Mr. Larry Marshall, Health Com-112 East Memorial Drive Pomeroy, Ohio 45771

Mr. Robert Morris Letart Township Trustee Racine, Ohio 45771

Meigs County District Library 216 West Main Street

Meigs SWCD
The accompanying trap depicts the Mr. Foe Bolin, Chairman

Meigs County Office of Economic and Workforce Development Mr. Perry Varnadoe, Executive Di-238 West Main Street Pomeroy, Ohio 45769

Meigs County Engineer Mr. Eugene Triplett 106 Holly Lane Pomeroy, Onio 45769

Sutton Township Trustee Mr. Larry Ebersbach P.O. Box 147 Syracuse, Ohio 45779

served the following state agencies with copies of the application: Public Utilities Commission Ohio

Ohio Department of Transportation Ohio Environmental Protection facility; and Agency Ohio Historical Society

### Criteria Used to Review the Apofication

The following eight criteria are set. forth in Section 4906.10 (A) of the Revised Code and will be used, along with additional information, by the Board in the reviewing of the application for a certificate to Power Siting Board shall promptly construct, operate and maintain the fix a date for a public hearing there-AMPGS Transmission Line:

cility. In the case of a major utility peditiously as practicable. facility described in division (B)(1) of Section 4906.01 of the Revised (B) On an application for an amend-Code, the Board shall presume the ment of a certificate, the Board shall need for the facility as that need is hold a hearing in the same manner stated in an application pursuant to as a hearing is held on an applicadivision (A)(3) of Section 4906.06, tion for a certificate if the proposed of the Revised Code:

remnental impact of the proposed vironmental impact of the facility or

tal impact, considering the state of nates set forth in the application. available technology, the nature and

economics of various alternatives, and other pertinent considerations; In the case of electric transmission lines, that the facility is consistent with regional plans for expansion differentiavs prior to the date of any of the regional power grid of elec-application is set for heating, subtrait tric systems serving this state and a written report to the Board and to interconnected utility systems, and the applicant. A copy of such report the facility will serve the interests of shall be made available to any perelectric system economy and reli- son upon request. Such report shall

standards adopted under those chap-code and shall become part of the ters and under Sections 1501.33, record and served upon all parties to 1501.34, and 4561.32 of the Re- the proceeding. vised Code. In determining whether the facility will comply with all rules and standards adopted under Section 4561.32 of the Revised Code, the Board shall consult with the offace of aviation of the division of the multi-modal planning and programs The Ohio Power String Board has of the Department of Transportation under Section 4561.341 of the Revised Code;

 The facility will serve the public interest, convenience, and neces-

. The facility's impact on the viability as agricultural land of any land in an existing agricultural district es-

Cases" for case number 06-1357- Ohio Department of Natural Re- tablished under Chapter 929 of the EL-BTX. the site of the proposed major utility

> The facility incorporates maximum feasible water conservation practices as determined by the Board, considering available technology and the nature and economics of the various alternatives.

Section 4906.07 of the Revised Code provides that:

(A) Upon the receipt of an application complying with Section 4906.06 of the Revised Code, the on, not less than sixty nor more than ninety days after such receipt, and • The basis of the need for the fa- shall conclude the proceeding as ex-

change in the facility would result The nature of the probable envi- in any material increase in any ena substantial change in the location Whether the facility represents of all or a portion of such a facility the minimum adverse environmen- other than as provided in the alter-

(C) The Chairman of the Power Sing Board shall cause each application filed with the Board to be investigated and shall, not less than set forth the nature of the investiga-The facility will comply with from and shall contain recommended.
 Chapters 3704, 3734, and 6111 of findings with regard to division (A) the Revised Code and all rules and of section 4906.10 of the Revised.



American Municipal Power-Ohio 2600 Airport Drive Columbus, Ohio 43219 (614) 337-6222 www.amp-ohio.org

# The Daily Sentinel PROOF OF PUBLICATION

The State of Ohio,

Meigs County, ss:

1, Charlene Hoeflich, General Manager,

The Daily Seminel

Make solemn outh that notice, of which the attached

Is a true copy, was published in The Pomeruy Daily Sentinel,

a newspaper printed in the Village of Pomeroy in said

County of Meigs, and of general circulation in said

County

time(s), beginning on

2008 and ending / 0/

Park 6/1/2008

Sworn to and subscribed before me this day.

Primer's fees \$ 470.

Official Seal Judy A. Clark Notary Public - State of Onlo My Commission Expires June 23, 2012 Recorded in Meigs County, Ohio

# Applicant Exhibit No. 5

### CHESTER WILLCOX & SAXBE LLP

Attorneys and Counselors at Law

NATHANIELS, OROSZ

DIRECT DIAL (614) 334-6117 norosz@cwslaw com

September 22, 2008

Via Hand Delivery or U.S. Mail

Renee Jenkins
Ohio Power Siting Board
Docketing Division
180 East Broad Street – 13<sup>th</sup> Floor
Columbus, OH 43215

RE: OPSB Case No. 06-1357-EL-BTX List of Recipients of Notice Letters

Dear Renee Jenkins:

In accordance with O.A.C. 4906-5-08(C)(3), enclosed for docketing in the above-captioned matter is a list of persons who received letters sent via first class mail describing the American Municipal Power Generating Station Transmission Line ("AMPGS Transmission Line"), the certification process before the Ohio Power Siting Board, and hearing dates. Copies of the letters sent are attached.

Ms. Carol Adains	2121 Carrol Street	Syracuse, OH 45779
Mr. Todd Adams	3819 Stonesthrow Lane	Hilliard, OH 43026-5712
Mr. and Mrs. Jack and Vicki Cummins	25741 Hill Road	Racine, OH 45771
Mr. Russell Cummins	47820 Plants Road	Racine, OH 45771
Mr. and Mrs. Melvin and Mary Forester	48380 Blind Hollow Road	Racine, OH 45771
Mr. Charles Gaskill	310 Quail Hollow Port	Pickerington, OH 43147
Mr. and Mrs. Larry and Kristina Goodnight	48137 Cleland Road	Racine, OH 45771
Ms. Shelley Haskins	8751 State Route 7 North	Cheshire, OH 45620
Mr. Mike and Virginia Hayman	Route 2	Letart, WV 25253
Mr. Angela Hubbard	25710 McNickle Road	Racine, OH 45771
Mr. and Mrs. Joey and Ashli Jarrel	25790 McNickle Road	Racine, OH 45771
Mr. Gary Milmine	700 Morrison Road	Gahanna, OH 43230
Mr. Rodney Neigler	25561 McNickle Road	Racine, OH 45771
Mr. and Mrs. Bruce and Lesli Pittenger	354 Emmaus Road	Belpre, OH 45714
Ms. Diane Miko	1831 Kleben Street	Pittsburgh, PA 15212
Mr. and Mrs. Chris and Penny Preston	161 N. Scott Street	Sheridan, WY 82801
Mr. Gary Roush	24320 Hill Road	Racine, OH 45771
Mr. Lester Manuel	48790 Manuel Road	Racine, OH 45771
Ms. Dorothy Shain	48435 Blind Hollow Road	Racine, OH 45771
Mr. and Mrs. Paul and Davia Johnson, Jr.	48510 Township Road 631	Racine, OH 45771
Mr, and Mrs, Tom and Linda Tucker	131 McBride Road	Mt. Airy, NC 27030-9255
Ms. Sharon Wilson	12263 River Road	Columbia Station, OH 44028
Mr. George Johnson	48301 Township Road 631	Racine, OH 45771
Mr. Christopher Wolfe	48529 Blind Hollow Road	Racine, OH 45771

Mr. Christopher Wolfe

Mr. and Mrs. Phillip and Anna Wolfe

Ms. Pauline Hill

Ms. Joan and Regina Wolfe

Mr. Sam Hatcher

48520 Blind Hollow Road

48760 Canter Road 49080 State Route 338

P.O. Box 296

P.O. Box 870

Racine, OH 45771

Racine OH 45771

Racine, OH 45771

Racine, OH 45771

New Haven, WV 25265

Respectfully,

Nathaniel S. Orosz

Counsel for American Municipal Power-Ohio, Inc.

cc: Judge Gregory Price - 12<sup>th</sup> Floor

ND: 4819-8661-1971, v. 1