

# Large Filing Separator Sheet

Case Number: 17-1189-EL-BGN

File Date: 6/14/2018

Section: 1

Number of Pages: 136

Description of Document: Exhibits for Transcript held on May 31, 2018 before Jay Agranoff, Administrative Law Judge, at the Public Utilities Commission of Ohio, 180 E. Broad Street, Columbus, Ohio 43215

FILE

**PUCO EXHIBIT FILING**

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2018 JUN 14 PM 2:49

Date of Hearing: 5/31/18

Case No. 17-1189-EL-BCN

PUCO

PUCO Case Caption: Harrison Power LLC

**List of exhibits being filed:**

STATE 1 and 2

JOINT EX 1

APPLICANT EX-1-8

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Technician Ann Date processed 6/14/18

Reporter's Signature: Michael Spence

Date Submitted: 6/14/18



BEFORE THE OHIO POWER SITING BOARD

- - -

In the Matter of the Application:  
of Harrison Power LLC for a :Case No.  
Certificate of Environmental : 17-1189-EL-BGN  
Compatibility and Public Need :  
for the Harrison Power Plant :  
in Harrison County. :

- - -

PROCEEDINGS

Before Jay Agranoff, Administrative Law Judge,  
held at the Public Utilities Commission of Ohio,  
180 East Broad Street, Hearing Room 11-C,  
Columbus, Ohio, on Thursday, May 31, 2018, at  
2:00 P.M.

- - -

Armstrong & Okey, Inc.  
222 East Town Street, 2nd Floor  
Columbus, Ohio 43215  
(614) 224-9481 - (800) 223-9481

- - -

**BEFORE THE OHIO POWER SITING BOARD**

<b>In the Matter of the Application of</b>	)	
<b>Harrison Power LLC for a Certificate</b>	)	
<b>of Environmental Compatibility and</b>	)	<b>Case No. 17-1189-EL-BGN</b>
<b>Public Need for the Harrison Power</b>	)	
<b>Plant in Harrison County</b>	)	
	)	

**PROOF OF PUBLICATIONS AND NOTICE**

In compliance with Ohio Adm.Code 4906-3-10(B), Harrison Power LLC hereby provides proof of public notice in accordance with Ohio Adm.Code 4906-3-09(A)(2). Attached are a copy of the written notice sent to those persons who received the initial notice pursuant to Ohio Adm.Code 4906-3-09(A)(1), as well as a list of the names and addresses of those persons. Also attached are affidavits of publication and date-marked newspaper pages for the Harrison News-Herald and Free Press Standard. The written notice was sent via Federal Express overnight delivery on March 27, 2018 and notice was published in the Harrison News-Herald on March 17, 2018 and in the Free Press Standard on March 22, 2018.

Respectfully submitted,

/s/ MacDonald W. Taylor  
 Michael J. Settineri (0073369)  
 Ryan D. Elliott (0086751)  
 MacDonald W. Taylor (0086959)  
 VORYS, SATER, SEYMOUR AND PEASE LLP  
 52 East Gay Street  
 P.O. Box 1008  
 Columbus, Ohio 43216-1008  
 (614) 464-5462  
 (614) 719-5146 (fax)  
[mjsettineri@vorys.com](mailto:mjsettineri@vorys.com)  
[rdelliott@vorys.com](mailto:rdelliott@vorys.com)  
[mwtaylor@vorys.com](mailto:mwtaylor@vorys.com)

*Attorneys for Harrison Power LLC*

**CERTIFICATE OF SERVICE**

The Ohio Power Siting Board's e-filing system will electronically serve notice of the filing of this document on the parties referenced in the service list of the docket card who have electronically subscribed to this case. In addition, the undersigned certifies that a courtesy copy of the foregoing document is also being served upon the persons below via electronic mail this 28th day of March 2018.

/s/ MacDonald W. Taylor

John F. Stock  
Orla Collier  
[jstock@beneschlaw.com](mailto:jstock@beneschlaw.com)  
[ocollier@beneschlaw.com](mailto:ocollier@beneschlaw.com)

Jodi Bair  
John Jones  
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[John.jones@ohioattorneygeneral.gov](mailto:John.jones@ohioattorneygeneral.gov)

William J. Taylor  
Scott D. Eickelberger  
[wjt@kincaidlaw.com](mailto:wjt@kincaidlaw.com)  
[scotte@kincaidlaw.com](mailto:scotte@kincaidlaw.com)

Dylan Borchers  
[dborchers@bricker.com](mailto:dborchers@bricker.com)

## **NOTICE OF PROPOSED MAJOR UTILITY FACILITY**

Harrison Power LLC, a Delaware limited liability company and wholly owned by Ember Partners LP, is proposing to develop, build, and operate the Harrison Power Project (the Facility), a 1,050 megawatt natural gas-fired combined-cycle (CCGT) electric generating facility to be located in Harrison County, Ohio.

The proposed Facility is a state-of-the-art combined cycle natural gas fired turbine electric generating facility designed in a 2 train 1x1 configuration. The Facility will be tied into a gas transportation system with multiple feeds. The Facility will utilize two integrated natural gas fueled, CCGT electric power generating units, each with a dedicated supplementary-fired heat recovery steam generator (HRSG); two steam turbine generators (GTs); and two Air Cooled Condensers. Another major component is the auxiliary boiler, which has a maximum input capacity of 80 MMBtu/hr.

The proposed Facility, including the power generating facility, on-site switchyard, and ancillary equipment, is to be located on 102 acres within the Harrison County Industrial Park located within the Village of Cadiz, in Harrison County, Ohio. The Facility site is accessed via State Route 22 & 9002C with Industrial Park Road dissecting the Harrison County Industrial Park. The generating plant itself will be situated to the east of an existing pipeline easement. The power generating equipment, on-site switchyard, and other ancillary facilities will be located on approximately 30 acres of the 102 acres and other portions will be used for storm water management.

The subject property is located wholly on reclaimed coal strip mine land, and consists of land previously used for grazing. A reclamation pond is located on the western portion of the property, surrounded by moderate slopes on all sides. The area where the Facility will be located is moderately flat.

A map showing the location and general layout of the proposed Facility is attached to this Notice.

Harrison Power LLC has filed with the Ohio Power Siting Board (Board or Power Siting Board) an application for a Certificate of Environmental Compatibility and Public Need to construct the Facility in Case No. 17-1189-EL-BGN, which is now pending before the Board.

The public will be given an opportunity to comment on the proposed Facility. The public hearing for this proceeding shall consist of two parts;

1. A local public hearing, pursuant to R.C. 4906.08(C), where the Board shall accept written or oral testimony from any person, commencing on April 5, 2018, at 6:00 p.m., at Puskarich Public Library, 200 East Market Street, Cadiz, Ohio 43907.
2. An adjudicatory hearing to commence on April 16, 2018, at 10:00 a.m., 11th floor, Hearing Room 11-C, at the offices of the Public Utilities Commission of Ohio, 180 East Broad Street, Columbus, Ohio 43215-3793.

The initial notice of this application as required by Rule 4906-3-09(A)(1) of the Ohio Administrative Code was by letter dated February 5, 2018.



Name	Title	Org	Address	City	State	Zip
Kenneth Zitko	Mayor	Village of Cadiz	128 Court Street	Cadiz	OH	43907
Thomas Schaffer	American Electric Power		1 Riverside Plaza	Columbus	OH	43215
Donald R. Bethel	County Commissioner	Harrison County Commissioners	100 W. Market Street	Cadiz	OH	43907
Curtis and Judith Crawshaw			405 Oak Park Road	Cadiz	OH	43907
Mark Graber			403 Oak Park Road	Cadiz	OH	43907
Michael Bledsoe			401 Oak Park Road	Cadiz	OH	43907
Dale R. Norris	Chairman	Harrison County Commissioners	100 W. Market Street	Cadiz	OH	43907
Paul Coffland	County Commissioner	Harrison County Commissioners	100 W. Market Street	Cadiz	OH	43907
Gray Wolf LLC			43036 Industrial Park Rd	Cadiz	OH	43907
Charley Bowman	Village Administrator	Village of Cadiz	128 Court Street	Cadiz	OH	43907
David LeDonne	MarkWest		43071 Industrial Park Rd.	Cadiz	OH	43907
Dale A. Arbaugh	President	County CIC	538 N. Main Street	Cadiz	OH	43907
Robert Hendricks	Vice President	County CIC	538 N. Main Street	Cadiz	OH	43907
John C. Jones	Secretary	County CIC	538 N. Main Street	Cadiz	OH	43907
Evan Mungai			1000 Consol Energy Drive	Canonsburg	PA	15317
Hess Corporation			4525 Sunset Blvd.	Steubenville	OH	43952
Jason B. Hand			7015 Strip Ave., NW	North Canton	OH	44720
Anderson Family Tree Farm			40906 Freeman Road	Cadiz	OH	43907

# Schloss MEDIA

Harrison News-Herald | Brookville Star | Free Press Standard  
Tri-State Merchantette | Pipeline Connections

144 South Main St., Cadiz, Ohio 43907

PHONE: (740) 942-2118 FAX: (740) 942-4667

Federal ID #: 34-1903363

Invoice #: 00020523

Date: 3/20/18

Order #:

Vorys, Sater, Seymour and Pease LLP  
52 East Gay Street  
Columbus, OH 43215

## Invoice and Affidavit of Publication

Notice Of Proposed Major Utility Facility  
Published: Harrison News-Herald 3/17/2018

\$492.90

### THE STATE OF OHIO HARRISON COUNTY, S.S.

I, David G. Schloss, verify by oath that the notice hereunto

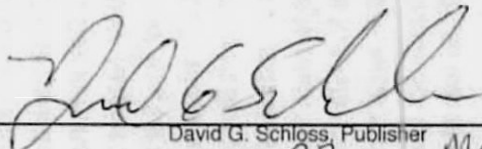
published in the Harrison News-Herald, a newspaper published of

general circulation in said county and meeting the requirements

Section 7.12 Revised Code for 1 weeks

commencing on the 17 day of March, 20 18

and that I am the Publisher and Legal Notices Clerk of said newspaper.



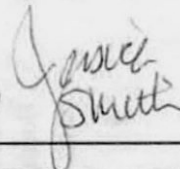
David G. Schloss, Publisher

Subscribed to and sworn before me this 27 day of March,

20 18.



JESSICA SMITH  
Notary Public, State of Ohio  
My Commission Expires March 13, 2019



Printer's Fee: \$492.90

▲ Detach Here ▲

Remittance from:

Vorys, Sater, Seymour and Pease LLP  
52 East Gay Street  
Columbus, OH 43215

Please return this stub with your payment!

To insure proper credit please include this  
Invoice Number on your check

00020523

Printer's Fee: \$492.90

Please Remit & Make Payable To: Schloss Media





# Schloss MEDIA

Harrison News-Herald | Brookville Star | Free Press Standard  
Tri-State Merchantette | Pipeline Connections

144 South Main St., Cadiz, Ohio 43907

PHONE: (740) 942-2118 FAX: (740) 942-4667

Federal ID #: 34-1903363

Invoice #: 00020536

Date: 3/26/18

Order #:

Vorys, Sater, Seymour and Pease LLP  
52 East Gay Street  
Columbus, OH 43215

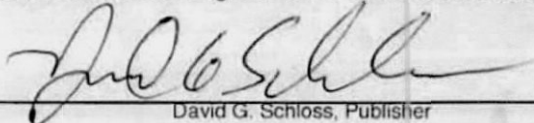
## Invoice and Affidavit of Publication

Notice Of Proposed Major Utility Facility  
Published: Free Press Standard 3/22/2018

\$492.90

### THE STATE OF OHIO CARROLL COUNTY, S.S.

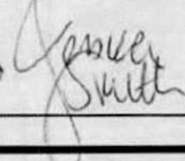
I, David G. Schloss, verify by oath that the notice hereunto  
published in the Free Press Standard, a newspaper published of  
general circulation in said county and meeting the requirements  
Section 7.12 Revised Code for 1 weeks  
commencing on the 22 day of March, 2018  
and that I am the Publisher and Legal Notices Clerk of said newspaper.

  
\_\_\_\_\_  
David G. Schloss, Publisher

Subscribed to and sworn before me this 27 day of March,  
2018.



JESSICA SMITH  
Notary Public, State of Ohio  
My Commission Expires March 13, 2019

  
\_\_\_\_\_  
Jessica Smith

Printer's Fee: \$492.90

▲ Detach Here ▲

Remittance from:

Vorys, Sater, Seymour and Pease LLP  
52 East Gay Street  
Columbus, OH 43215

Please return this stub with your payment!

To insure proper credit please include this  
Invoice Number on your check

00020536

Printer's Fee: \$492.90

Please Remit & Make Payable To: Schloss Media

**Carroll County Foreclosure Auction**

Case# 2017CVE28863, U.S. Bank National Association vs Erik C. Kaman, et al. The address of the property to be sold is

**3134 AMSTERDAM ROAD SOUTHWEST  
BOWERSTON OH 44695.**

Bidding will only be available at [www.Auction.com](http://www.Auction.com) opening on 5/15/2018 at 11:00 AM for a minimum of 7 days. The deposit required is \$5,000.00 to be paid by wire transfer within 24 hours of the sale ending. Purchaser shall be responsible for those costs, allowances, and taxes that the proceeds of the sale are insufficient to cover. To view photos, property reports and all sale details for this property visit [www.Auction.com](http://www.Auction.com) and enter the Search Code 2017CVE28863 into the search bar.

PUBLISHED IN THE FREE PRESS STANDARD MARCH 22 & 23, APRIL 5, 2018

**SHERIFF'S SALE OF REAL ESTATE**

The State of Ohio, Carroll County

CASE #17CVE28938

JPMORGAN CHASE BANK, N.A. Plaintiff

vs. JOHN J. BEKECEK, ET AL Defendant

In pursuance of an Order of Sale in the above entitled Action, I will offer for sale at public auction, in the lobby of the Sheriff's Office, in Carroll County, in the above named County on TUESDAY, the 17th day of APRIL, 2018, at 10:00 o'clock A.M.

If the property does not receive a sufficient bid, said property will be offered for sale again on TUESDAY, the 17th day of APRIL, 2018 at 10:00 A.M.

\*LEGAL DESCRIPTIONS MAY BE OBTAINED FROM THE CARROLL COUNTY RECORDERS' OFFICE, 119 PUBLIC SQUARE, SUITE 205, CARROLLTON, OH

\*Said Premises Located at: 1162 ARBOR RD. NE, MINERVA, OH 44657

01-0000014-000

\*Said Premises Appraised at \$54,000.00 and cannot be sold for less than two-thirds of that amount at the first sale date. If the property does not sell at first sale date and is offered at the second sale date, the sale will start with a "No set minimum bid".

The purchaser shall be responsible for cost, allowance, and taxes that the proceeds of the sale are insufficient to cover. Neither the Sheriff's Office nor any affiliates have access to the inside of said property including appraisal for bank loans, and is not

liable for the condition of the property upon confirmation of the sale.

TERMS OF SALE: Deposit due on the day of the sale, personal, certified or cashier's check accepted. Balance due upon confirmation of the sale by the court. If the appraised value of the property is:

Less than or equal to \$10,000 = Deposit of \$2,000.00  
More than \$10,000 but less than or equal to \$200,000 = Deposit of \$5,000.00  
More than \$200,000 = Deposit of \$10,000.00

Buyer beware that he/she may be responsible for any and all outstanding costs not

covered by sale proceeds.

DALE R. WILLIAMS, SHERIFF  
CARROLL COUNTY, OHIO

MANLEY DEAS ROCHA, SI Attorney

Published in The Free Press Standard March 15, 22 and 29, 2018.

**SHERIFF'S SALE OF REAL ESTATE**

The State of Ohio, Carroll County

CASE #17CVE28697

DEUTSCHE BANK NATIONAL TRUST CO. AS TRUSTEE Plaintiff

vs. JANET L. LAUTZENHEISER, ET AL Defendant

In pursuance of an Order of Sale in the above entitled Action, I will offer for sale at public auction, in the lobby of the Sheriff's Office, in Carroll County, in the above named County on TUESDAY, the 10th day of APRIL, 2018, at 10:00 o'clock A.M.

If the property does not receive a sufficient bid, said property will be offered for sale again on TUESDAY, the 17th day of APRIL, 2018 at 10:00 A.M.

\*LEGAL DESCRIPTIONS MAY BE OBTAINED FROM THE CARROLL COUNTY RECORDERS' OFFICE, 119 PUBLIC SQUARE, SUITE 205, CARROLLTON, OH

\*Said Premises Located at: 5083 LINDEN RD., MINERVA, OH 44657

04-0000098-000, 04-0000099-000, 04-0000100-000, 04-0000101-000, 04-0000102-000, 04-0000103-000, 04-0000104-000

\*Said Premises Appraised at \$27,000.00 and cannot be sold for less than two-thirds of that amount at the first sale date. If the property does not sell at first sale date and is offered at the second sale date, the sale will start with a "No set minimum bid".

The purchaser shall be responsible for cost, allowance, and taxes that the proceeds of the sale are insufficient to cover. Neither the Sheriff's Office nor any

affiliates have access to the inside of said property, including appraisal for bank loans, and is not liable for the condition of the property upon confirmation of the sale.

TERMS OF SALE: Deposit due on the day of the sale, personal, certified or cashier's check accepted. Balance due upon confirmation of the sale by the court. If the appraised value of the property is:

Less than or equal to \$10,000 = Deposit of \$2,000.00  
More than \$10,000 but less than or equal to \$200,000 = Deposit of \$5,000.00  
More than \$200,000 = Deposit of \$10,000.00

Buyer beware that he/she may be responsible for any and all outstanding costs not covered by sale proceeds.

DALE R. WILLIAMS, SHERIFF  
CARROLL COUNTY, OHIO

CARLISLE, MCNEELIE, RINI, RAMER & ULRICH CO LLP, 216-360-7200 Attorney

Published in The Free Press Standard March 15, 22 and 29, 2018.

**BID NOTICE**

The Washington Township Trustees are accepting sealed bids for mowing at the Snyder Cemetery located on Collier Road. The bid price should be per mowing and weed eating around the graves on an "as needed" basis for the upcoming mowing season. Bids should be marked "mowing bid" on the outside of the envelope. Bids must be received by 7:30 p.m. on April 3, 2018. All bids will be opened at the regular meeting on April 3 at 3097 Collier Rd. E., Carrollton, Ohio. The Washington Township Trustees reserve the right to reject any or all bids.

Washington Township Trustees

Compte Days, Fiscal Officer

Published in The Free Press Standard March 22 and 29, 2018.

**BID NOTICE**

The Carroll County Agricultural Society, Carrollton, Ohio is accepting sealed bids for the purpose of building a 40' x 160' x 16' barn. Building specifications can be found on the fair web page at [www.carrollcountysociety.com](http://www.carrollcountysociety.com) or by requesting a copy from the secretary, Wendy Davis, at 330-324-1249. Bids must be received by April 11th at 6:00 p.m.

Published in The Free Press Standard March 22 and 29, 2018.

**OEPA PUBLIC NOTICE**

The following matters are the subject of this public notice by the Ohio Environmental Protection Agency. The complete public notice, including any additional instructions for submitting comments, requesting information, a public hearing, or filing an appeal may be obtained at <http://www.epa.ohio.gov/acu> or by calling the Ohio EPA, 50 W. Town St., P.O. Box 1049, Columbus, Ohio 43216. Ph: 614-644-3037 Email: [HClerks@epa.ohio.gov](mailto:HClerks@epa.ohio.gov)

Final Issuance of Administrative Modification to Permit To Install and Operate a Chesapeake Exploration LLC - Barger 2-15-0 Pad

Antigua Rd SW County Hwy 11, Carrollton, OH 44615  
RD # 10124132  
Date of Action: 03/08/2018  
Administrative modification permit for an oil and gas well site production operation going from GP 12 to GP 12.1 and paved and unpaved roadways and parking areas (GP 5.1).

Published in The Free Press Standard March 22, 2018.

**Legal Notices****NOTICE OF SECOND PUBLIC HEARING  
CARROLL COUNTY 2018 COMMUNITY HOUSING IMPACT  
AND PRESERVATION (CHIP) PROGRAM**

Carroll County intends to apply for the FY 2018 Community Housing Impact and Preservation Program (CHIP) competitive grant administered by Ohio Development Services Agency/Office of Community Development (ODSA/ODC). Carroll County is eligible to apply for \$400,000.00.

On Thursday, March 8, 2018, at 9:30 am the first of two public hearings was held at the Carroll County Commissioners Office. The CHIP program was explained including how it may be used, what activities are eligible, and other program requirements.

Based on Citizen input, including local community service providers and local officials' assessment of the County's needs, Carroll County is proposing to undertake the following activities for 2018.

ACTIVITIES	FUNDS	FUNDING SOURCE
1. Rehabilitation Assistance - Owner Rehabilitation	\$210,000	HOME-CEBG
2. Rental Assistance - Owner Rehabilitation	\$120,000	CEBG/CHTF
3. Tenant Based Rental Assistance	\$22,000	HOME
4. Administration & Fee Housing	\$48,000	HOME-CEBG

The second public hearing will be held for Carroll County on:

**Monday, April 2, 2018, at 9:30 a.m.  
Carroll County Commissioners Office  
119 S. Lisbon Street, Suite 201  
Carrollton, OH 44615**

This meeting will provide citizens with the opportunity to review and comment on the Carroll County proposed CHIP application including the proposals above.

By Order of the Carroll County Commissioners.

PUBLISHED IN THE FREE PRESS STANDARD MARCH 22, 2018

**NOTICE OF PROPOSED MAJOR  
UTILITY FACILITY**

Harrison Power LLC, a Delaware limited liability company and wholly owned by Ember Partners LP, is proposing to develop, build, and operate the Harrison Power Project (the Facility), a 1,050 megawatt natural gas-fired combined-cycle (CCGT) electric generating facility to be located in Harrison County, Ohio.

The proposed Facility is a state-of-the-art combined cycle natural gas fired turbine electric generating facility designed in a 2 train 1x1 configuration. The Facility will be tied into a gas transportation system with multiple feeds. The Facility will utilize two integrated natural gas fueled, CCGT electric power generating units, each with a dedicated supplementary-fired heat recovery steam generator (HRSG); two steam turbine generators (GTs); and two Air Cooled Condensers. Another major component is the auxiliary boiler, which has a maximum input capacity of 80 MMBtu/hr.

The proposed Facility, including the power generating facility, on-site switchyard, and ancillary equipment, is to be located on 102 acres within the Harrison County Industrial Park located within the Village of Cadiz, in Harrison County, Ohio. The Facility site is accessed via State Route 22 & 9002C with Industrial Park Road dissecting the Harrison County Industrial Park. The generating plant itself will be situated to the east of an existing pipeline easement. The power generating equipment, on-site switchyard, and other ancillary facilities will be located on approximately 30 acres of the 102 acres and other portions will be used for storm water management.

The subject property is located wholly on reclaimed coal strip mine land, and consists of land previously used for grazing. A reclamation pond is located on the western portion of the property, surrounded by moderate slopes on all sides. The area where the Facility will be located is moderately flat.

A map showing the location and general layout of the proposed Facility is attached to this Notice.

Harrison Power LLC has filed with the Ohio Power Siting Board (Board or Power Siting Board) an application for a Certificate of Environmental Compatibility and Public Need to construct the Facility in Case No. 17-1189-EL-BGN, which is now pending before the Board.

The public will be given an opportunity to comment on the proposed Facility. The public hearing for this proceeding shall consist of two parts:

1. A local public hearing, pursuant to R.C. 4906.08(C), where the Board shall accept written or oral testimony from any person, commencing on April 5, 2018, at 6:00 p.m., at Puskarich Public Library, 200 East Market Street, Cadiz, Ohio 43907.

2. An adjudicatory hearing to commence on April 16, 2018, at 10:00 a.m., 11th floor, Hearing Room 11-C, at the offices of the Public Utilities Commission of Ohio, 180 East Broad Street, Columbus, Ohio 43215-3793.

The initial notice of this application as required by Rule 4906.3-09(A)(1) of the Ohio Administrative Code was by letter dated February 5, 2018.



PUBLISHED IN THE FREE PRESS STANDARD ON 3/22/18

Deadline for legal  
notices is Friday  
at 5 p.m.

**Carroll County Foreclosure Auction**

Case# 2017CVE28866, First Guaranty Mortgage Corporation vs Kevin F. Bloxham, et al. The address of the property to be sold is

**4290 RUBY ROAD NORTHWEST  
CARROLLTON OH 44615**

Bidding will only be available at [www.Auction.com](http://www.Auction.com) opening on 5/15/2018 at 11:00 AM for a minimum of 7 days. The deposit required is \$5,000.00 to be paid by wire transfer within 24 hours of the sale ending. Purchaser shall be responsible for those costs, allowances, and taxes that the proceeds of the sale are insufficient to cover. To view photos, property reports and all sale details for this property visit [www.Auction.com](http://www.Auction.com) and enter the Search Code 2017CVE28866 into the search bar.

PUBLISHED IN THE FREE PRESS STANDARD MARCH 22 & 23, APRIL 5, 2018

**Carroll County Foreclosure Auction**

Case# 2017CVE28920, Nationstar Mortgage LLC d/b/a Mr. Cooper vs Clubbs, Frank A., et al. The address of the property to be sold is

**7249 ANDORA ROAD NORTHEAST  
MECHANICSTOWN OH 44651**

Bidding will only be available at [www.Auction.com](http://www.Auction.com) opening on 5/15/2018 at 11:00 AM for a minimum of 7 days. The deposit required is \$5,000.00 to be paid by wire transfer within 24 hours of the sale ending. Purchaser shall be responsible for those costs, allowances, and taxes that the proceeds of the sale are insufficient to cover. To view photos, property reports and all sale details for this property visit [www.Auction.com](http://www.Auction.com) and enter the Search Code 2017CVE28920 into the search bar.

PUBLISHED IN THE FREE PRESS STANDARD MARCH 22 & 23, APRIL 5, 2018

**This foregoing document was electronically filed with the Public Utilities**

**Commission of Ohio Docketing Information System on**

**3/28/2018 3:26:51 PM**

**in**

**Case No(s). 17-1189-EL-BGN**

**Summary: Text Proof of Publications and Notice electronically filed by Mr. MacDonald W Taylor on behalf of Harrison Power LLC**

**BEFORE THE OHIO POWER SITING BOARD**

<b>In the Matter of the Application of</b>	)	
<b>Harrison Power LLC for a Certificate</b>	)	
<b>of Environmental Compatibility and</b>	)	<b>Case No. 17-1189-EL-BGN</b>
<b>Public Need for the Harrison Power</b>	)	
<b>Plant in Harrison County</b>	)	
	)	

**CORRECTED NOTICE OF COMPLIANCE AND REQUEST FOR WAIVER**

Harrison Power LLC (the "Applicant") sent the initial public notices required by Ohio Adm.Code 4906-3-09(A)(1) to relevant landowners and public officials on February 5, 2018. The same day, Applicant filed a "Notice of Compliance with public notice requirement" notifying the Board that Applicant had sent the notices to the required persons. Applicant's February 5 filing also identified all persons to whom notice was sent. The February 5 filing did not, however, include a copy of the initial public notices. Therefore, through this filing, Applicant is providing the Board with a copy of the initial public notices that were sent February 5, 2018. Because more than fourteen days has now elapsed since the initial public notices were sent, Applicant is requesting a waiver, to the extent necessary, from the fourteen-day requirement in Ohio Adm.Code 4906-3-10(A). Good cause exists for granting the waiver as the public notices were appropriately sent to the relevant landowners and public officials, but copies of the public notices were inadvertently not filed in the docket for Case No. 17-1189-EL-BGN.

Respectfully submitted,

\_\_\_\_\_  
/s/ MacDonald W. Taylor  
Michael J. Settineri (0073369)  
Ryan D. Elliott (0086751)  
MacDonald W. Taylor (0086959)  
VORYS, SATER, SEYMOUR AND PEASE LLP  
52 East Gay Street  
P.O. Box 1008  
Columbus, Ohio 43216-1008  
(614) 464-5462  
(614) 719-5146 (fax)

[mjsettineri@vorys.com](mailto:mjsettineri@vorys.com)  
[rdelliott@vorys.com](mailto:rdelliott@vorys.com)  
[mwtaylor@vorys.com](mailto:mwtaylor@vorys.com)

*Attorneys for Harrison Power LLC*

### **CERTIFICATE OF SERVICE**

The Ohio Power Siting Board's e-filing system will electronically serve notice of the filing of this document on the parties referenced in the service list of the docket card who have electronically subscribed to this case. In addition, the undersigned certifies that a courtesy copy of the foregoing document is also being served upon the persons below via electronic mail this 28th day of March 2018.

/s/ MacDonald W. Taylor

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## **NOTICE OF PROPOSED MAJOR UTILITY FACILITY**

Harrison Power LLC, a Delaware limited liability company and wholly owned by Ember Partners LP, is proposing to develop, build, and operate the Harrison Power Project (the Facility), a 1,100 megawatt natural gas-fired combined-cycle (CCGT) electric generating facility to be located in Harrison County, Ohio.

The proposed Facility is a state-of-the-art combined cycle natural gas fired turbine electric generating facility designed in a 2 train 1x1 configuration. The Facility will be tied into a gas transportation system with multiple feeds. The Facility will utilize two integrated natural gas fueled, CCGT electric power generating units, each with a dedicated supplementary-fired heat recovery steam generator (HRSG); two steam turbine generators (GTs); and two Air Cooled Condensers. Another major component is the auxiliary boiler, which has a maximum input capacity of 80 MMBtu/hr.

The proposed Facility, including the power generating facility, on-site switchyard, and ancillary equipment, is to be located on a 90 acre parcel within the Harrison County Industrial Park located within the Village of Cadiz, in Harrison County, Ohio. The Facility site is accessed via State Route 22 & 9002C with Industrial Park Road dissecting the Harrison County Industrial Park. The generating plant itself will be situated to the east of an existing pipeline easement. The power generating equipment, on-site switchyard, and other ancillary facilities will be located on approximately 30 acres of the 90 acre parcel. Other portions of the 90 acre parcel will be potentially used for storm water management.

Temporary laydown and construction parking will be situated on the 90 acre parcel or leased separately from the CIC. The subject property is located wholly on reclaimed coal strip mine land, and consists of land previously used for grazing. A reclamation pond is located on the western portion of the property, surrounded by moderate slopes on all sides. The area where the Facility will be located is flat.

A map showing the location and general layout of the proposed Facility is attached to this Notice.

Harrison Power LLC has filed with the Ohio Power Siting Board (Board or Power Siting Board) an application for a Certificate of Environmental Compatibility and Public Need to construct the Facility in Case No. 17-1189-EL-BGN, which is now pending before the Board. Copies of the Application were served upon the Mayor of the Village of Cadiz, the Harrison County Commissioners, the Cadiz Township Trustees, the Harrison County Community Improvement Corporation, the Harrison Soil and Water Conservation District, and the Harrison County Regional Planning Commission. A copy of the Application was also provided to and is available for public review at the Puskarich Public Library.

The Board follows the following criteria for reviewing an application for a major utility facility:

- (1) The basis of the need for the facility if the facility is an electric transmission line or gas pipeline;



(2) The nature of the probable environmental impact;

(3) That the facility 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;

(4) In the case of an electric transmission line or generating facility, that the facility 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 facility will serve the interests of electric system economy and reliability;

(5) That the facility will comply with Chapters 3704., 3734., and 6111. of the Revised Code and all rules and standards adopted under those chapters and under sections 1501.33, 1501.34, and 4561.32 of the Revised 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 office of aviation of the division of multi-modal planning and programs of the department of transportation under section 4561.341 of the Revised Code.

(6) That the facility will serve the public interest, convenience, and necessity;

(7) In addition to the provisions contained in divisions (A)(1) to (6) of this section and rules adopted under those divisions, what its impact will be on the viability as agricultural land of any land in an existing agricultural district established under Chapter 929. of the Revised Code that is located within the site and alternative site of the proposed major utility facility. Rules adopted to evaluate impact under division (A)(7) of this section shall not require the compilation, creation, submission, or production of any information, document, or other data pertaining to land not located within the site and alternative site.

(8) That 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.

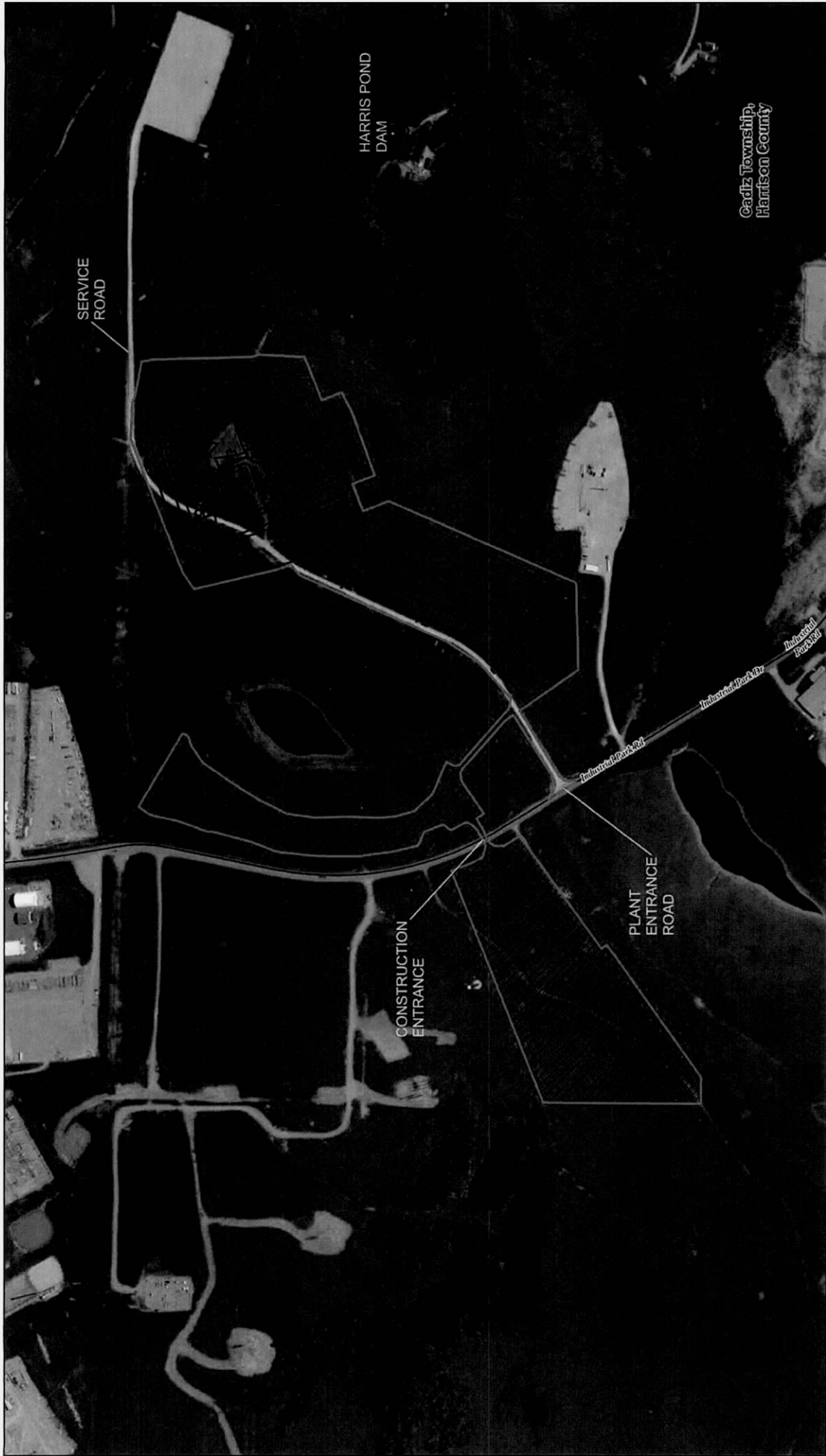
The public will be given an opportunity to comment on the proposed Facility. The public hearing for this proceeding shall consist of two, parts;


1. A local public hearing in this case will be held on April 5, 2018, at 6:00 p.m., at Puskarich Public Library, 200 East Market Street, Cadiz, Ohio 43907.

2. An adjudicatory hearing will commence on April 16, 2018, at 10:00 a.m., 11th floor, Hearing Room 11-C, at the offices of the Public Utilities Commission of Ohio, 180 East Broad Street, Columbus, Ohio 43215-3793.



Petitions to intervene in the adjudicatory hearing will be accepted by the Board up to 30 days following publication of the notice required by Ohio Admin. Code 4906-3-09. However the Board strongly encourages interested persons who wish to intervene in the adjudicatory hearing to file their petitions as soon as possible. Petitions should be addressed to Docketing Division, the Ohio Power Siting Board, 180 East Broad Street, Columbus, Ohio 43215-3793 and cite the above-listed case number.



 www.kleinfelder.com	PROJECT NO. 2018255 DRAWN BY: SNW CHECKED BY: KMK FILE NAME: HarrisonPowerPlant.aprx	Harrison County Ohio Aerial Imagery: ESRI		0 200 400 Feet 	Location of construction laydown areas have changed slightly. Harrison Power LLC will be submitting a Notice Regarding Modification of Project Footprint.	Harrison Power Transmission, LLC Figure 1 Facility Layout Harrison Power Plant Site Date: 2/5/2018 Sheet 1 of 1
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**This foregoing document was electronically filed with the Public Utilities**

**Commission of Ohio Docketing Information System on**

**3/28/2018 3:24:27 PM**

**in**

**Case No(s). 17-1189-EL-BGN**

Summary: Text Corrected Notice of Compliance and Request for Waiver electronically filed by Mr. MacDonald W Taylor on behalf of Harrison Power LLC

**BEFORE THE OHIO POWER SITING BOARD**

<b>In the Matter of the Application of Harrison Power LLC for a Certificate of Environmental Compatibility and Public Need for the Harrison Power Plant in Harrison County</b>	) ) ) ) ) )	<b>Case No. 17-1189-EL-BGN</b>
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**JOINT STIPULATION AND RECOMMENDATION**

**I. INTRODUCTION**

Applicant Harrison Power LLC (“HPL” or “Applicant”), the Staff of the Ohio Power Siting Board (“Staff”), and the Community Improvement Corporation of Harrison County, at times collectively referred to as the “Parties,” submit this Joint Stipulation and Recommendation (“Stipulation”) for adoption by the Ohio Power Siting Board (the “Board”). This Stipulation is intended by the Parties to resolve all matters pertinent to the certification and construction of the proposed Harrison Power Plant.

The Applicant intends to build the Harrison Power Plant as a 1,050 MW natural gas-powered generating facility in the Village of Cadiz, Harrison County, Ohio. Major project components include the natural gas-fired combined-cycle electric generating facility, as well as a switchyard and ancillary equipment. This state-of-the-art facility will utilize two advanced class GE 7HA.02 or MHPS M501JAC gas turbines, each with a heat recovery steam generator, steam turbine generator, and air-cooled condenser. The Harrison Power Plant will be connected to American Electric Power’s Nottingham Substation via a to-be-constructed transmission line, currently pending before the Board as Case No. 17-2084-EL-BTX.

Regardless of which of the two gas turbine models are selected, the Applicant will incorporate the best available pollution control technology, including dry low-NOx burners,

selective catalytic reduction, and oxidation catalysts. 100% of the Harrison Power Plant's water supply will be potable water from the Village of Cadiz. Wastewater (exclusive of sanitary sources) will be collected in a wastewater collection tank before discharge at Sally Buffalo Creek. Wastewater quality testing will be completed on-site to ensure compliance with the facility's NPDES outfall requirements. Sanitary Sewage will be treated in a biological treatment unit to meet all waste discharge requirements and discharged to the facility's outfall. Wastewater at the Harrison Power Plant will be generated by sanitary sources, equipment drains, equipment blowdown, and filtration backwash.

The two single shaft electric generators will each be connected to a transformer that will step up generator output from 22 kV to 138 kV for connection to the new switchyard at the Harrison Power Plant. The transformers will feed the collector bus located in the southern portion of the Project Site in the switchyard. An approximate 4.75 mile, 138 kV line (the subject of a separate proceeding) will connect the new 138 kV utility switchyard to the Nottingham Substation.

## **II. HISTORY OF THE APPLICATION**

On May 3, 2017, the Applicant filed a Pre-Application Notification Letter regarding the proposed Harrison Power Plant. A public informational meeting regarding the proposed Harrison Power Plant was held in Cadiz, Ohio on May 23, 2017. A second Pre-Application Notification Letter was filed on July 19, 2017. A second public informational meeting was held on July 27, 2017 in Cadiz, Ohio.

On September 29, 2017, the Applicant filed its Application and motions for waivers from the requirements to: submit a map showing all general sites which were evaluated, provide a

system impact study ("SIS"), provide a map of at least 1:24,000 scale of isopleths of air emission concentrations, and to submit plans for geological test borings.

On November 20, 2017, the Administrative Law Judge ("ALJ") granted Applicant's motion for waivers, but required that a SIS be submitted no less than 15 days prior to the Staff Report filing deadline. The ALJ additionally required that the Applicant submit geological test borings no later than 30 days prior to the commencement of construction.

On November 27, 2017, a letter of compliance regarding the Application was sent to the Applicant.

On January 8, 2018, the Applicant filed its Certificate of Service indicating that a copy of the complete and accepted Application was served upon the appropriate governmental officials and the local library.

On January 25, 2018, the ALJ issued an Entry scheduling hearings in the matter, directing the Staff to file its Staff Report of Investigation, and for parties to file their issues list and testimony. On February 20, 2018, the Applicant filed a notice of modification of the project footprint. On March 2, 2018, Applicant filed the SIS in compliance with the ALJ's November 20, 2017 Order.

A local public hearing was held on April 5, 2018 at 6:00 pm at the Puskarich Public Library, 200 East Market Street, Cadiz, Ohio. The adjudicatory hearing is currently scheduled for May 31, 2018 at 2:00 pm at the offices of the PUCO.

This Stipulation results from discussions among the Parties who acknowledge that this agreement is amply supported by the record and thus is entitled to careful consideration by the Board. Accordingly, the Parties recommend that the Board issue a Certificate of Environmental Compatibility and Public Need for the proposed Harrison Power Plant.

### **III. STIPULATION AND RECOMMENDATION**

#### **A. Recommended Conditions**

1. The facility shall be installed at the Applicant's proposed site as presented in the application and as modified and/or clarified by supplemental filings, replies to data requests and the recommendations in the *Staff Report of Investigation*.
2. The Applicant shall conduct a preconstruction conference prior to the start of any construction activities. Staff, the Applicant, and representatives of the prime contractor and all subcontractors for the project shall attend the preconstruction conference. The conference shall include a presentation of the measures to be taken by the Applicant and contractors to ensure compliance with all conditions of the certificate, and discussion of the procedures for on-site investigations by Staff during construction. Prior to the conference, the Applicant shall provide a proposed conference agenda for Staff review. The Applicant may conduct separate preconstruction conferences for each stage of construction.
3. At least 30 days before the preconstruction conference, the Applicant shall submit to Staff, for review to ensure compliance with this condition, one set of detailed engineering drawings of the final project design, including the facility, temporary and permanent access roads, any crane routes, construction staging areas, and any other associated facilities and access points, so that Staff can determine that the final project design is in compliance with the terms of the certificate. The final project layout shall be provided in hard copy and as geographically-referenced electronic data. The final design shall include all conditions of the certificate and references at the locations where the Applicant and/or its contractors must adhere to a specific condition in order to comply with the certificate.
4. If the Applicant makes any changes to the project layout after the submission of final engineering drawings, the Applicant shall provide all such changes to Staff in hard copy and as geographically-referenced electronic data. All changes will be subject to Staff review to ensure compliance with all conditions of the certificate, prior to construction in those areas.
5. Within 60 days after the commencement of commercial operation, the Applicant shall submit to Staff a copy of the as-built specifications for the entire facility. If the Applicant demonstrates that good cause prevents it from submitting a copy of the as-built specifications for the entire facility within 60 days after commencement of commercial operation, it may request an extension of time for the filing of such as-built specifications. The Applicant shall use reasonable efforts to provide as-built drawings in both hard copy and as geographically-referenced electronic data.
6. Prior to the commencement of construction activities in areas that require permits or authorizations by federal or state laws and regulations, the Applicant shall obtain and comply with such permits or authorizations. The Applicant shall provide copies of permits and

authorizations, including all supporting documentation, to Staff within seven days of issuance or receipt by the Applicant. The Applicant shall provide a schedule of construction activities and acquisition of corresponding permits for each activity at the preconstruction conference.

7. The certificate shall become invalid if the Applicant has not commenced a continuous course of construction of the proposed facility within five years of the date of journalization of the certificate.

8. As the information becomes known, the Applicant shall docket in the case record the date on which construction will begin, the date on which construction was completed, and the date on which the facility begins commercial operation.

9. With the exception of minor geotechnical work including borings, the Applicant shall not commence any construction of the facility until it has a signed Interconnection Service Agreement with PJM Interconnection, which includes construction, operation, and maintenance of system upgrades necessary to integrate the proposed generating facility into the regional transmission system reliably and safely. The Applicant shall docket in the case record a letter stating that the Agreement has been signed or a copy of the signed Interconnection Service Agreement.

10. At least 30 days prior to the preconstruction conference, the Applicant shall provide to Staff a copy of its public information program that informs affected property owners and tenants of the nature of the project, specific contact information of Applicant personnel who are familiar with the project, the complaint resolution process, the proposed timeframe for project construction, and a schedule for restoration activities. The Applicant shall give notification of planned construction to affected property owners and tenants at least seven days prior to commencement of construction.

11. During the construction and operation of the project, the Applicant shall submit a complaint summary report to Staff by the fifteenth day of January, April, July and October of each year. The report should include a list of all complaints received through its complaint resolution process, a description of the actions taken to resolve each complaint, and a status update if the complaint has yet to be resolved.

12. Prior to commencement of installation of facility components requiring lighting, the Applicant shall prepare a landscape and lighting plan that addresses the aesthetic and lighting impacts of the facility on nearby residences, including lighting locations. The Applicant shall provide the plan to Staff for review and confirmation that it complies with this condition.

13. The Applicant shall contact Staff, the Ohio Department of Natural Resources (ODNR), and the U.S. Fish and Wildlife Service (USFWS), within 24 hours if state or federal species are encountered during construction activities. Construction activities that could adversely impact



the identified plants or animals shall be halted until an appropriate course of action has been agreed upon by the Applicant, Staff, and the ODNR in coordination with the USFWS. Nothing in this condition shall preclude agencies having jurisdiction over the construction activities with respect to wildlife from exercising their legal authority over the facility consistent with law.

14. Construction in upland sandpiper preferred nesting habitat types shall be avoided during the species' nesting period of April 15 to July 31, unless coordination with the ODNR allows a different course of action.

15. The Applicant shall comply with fugitive dust rules by the use of water spray or other appropriate dust suppressant measures whenever necessary.

16. The Applicant shall meet all recommended and prescribed Federal Aviation Administration (FAA) and Ohio Department of Transportation (ODOT) Office of Aviation requirements to construct an object that may affect navigable airspace. This includes submitting coordinates and heights for all structures that penetrate the notification slope of any public use airport or that exceed 199 feet above ground level for ODOT Office of Aviation and FAA review prior to construction, and the non-penetration of any FAA Part 77 surfaces.

17. At least 10 days prior to the preconstruction conference, the Applicant shall file in this docket a copy of the FAA Determination of No Hazard letter for the two heat recovery steam generator stacks and proof of a resolution from the Harrison County Airport authority authorizing a traffic pattern change for runway 13 at the airport, a copy of the request to the FAA for the pattern change and documentation from the FAA indicating acceptance of the pattern change.

18. All applicable structures, including construction equipment shall be lit in accordance with FAA circular 70/7460-1 K Changes 2, Obstruction Marking and Lighting; or as otherwise prescribed by the FAA.

19. Within 30 days of construction completion, the Applicant shall file the as-built HRSG stacks or electrical support structure coordinates and heights with the FAA and the Harrison County Airport.

20. Prior to commencement of construction activities that require transportation permits, the Applicant shall obtain all such permits. The Applicant shall coordinate with the appropriate authority regarding any temporary or permanent road closures, lane closures, road access restrictions, and traffic control necessary for construction and operation of the proposed facility. Coordination shall include, but not be limited to, the county engineer, ODOT, local law enforcement, and health and safety officials. The Applicant shall detail this coordination as part of a final traffic plan submitted to Staff prior to the preconstruction conference for review and confirmation by Staff that it complies with this condition.

21. General construction activities shall be limited to the hours of 7:00 a.m. to 7:00 p.m., or until dusk when sunset occurs after 7:00 p.m. Impact pile driving and hoe ram operations, if required, shall be limited to the hours between 9:00 a.m. to 5:00 p.m., Monday through Friday and blasting operations, if required, shall be limited to the hours between 10:00 a.m. to 5:00 p.m. Monday through Friday. Construction activities that do not involve noise increases above ambient levels at sensitive receptors are permitted outside of daylight hours when necessary. The Applicant shall notify property owners or affected tenants within the meaning of Ohio Adm.Code 4906-3-03(B)(2) of upcoming construction activities including potential for nighttime construction activities.

22. In order to minimize adverse impacts associated with increased noise levels, the Applicant will use the mitigation measures included in the mitigated model or similar measures selected by the Applicant including, but not limited to, project cooperation agreements.

23. At least 30 days before the preconstruction conference, the Applicant shall submit to Staff for review and confirmation that it complies with this condition an emergency response plan to be used during construction. This plan shall be developed in consultation with the fire department(s) having jurisdiction over the area. The Applicant shall coordinate with fire, safety, and emergency personnel during all stages of the project.

#### **B. Other Terms and Conditions**

(1) This 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 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 an entry on rehearing being issued by the Board maintaining the material modification to the stipulation, each Party shall have the right, within ten (10) days of the Board's order on rehearing, to file a notice of termination of, and withdrawal from, the Stipulation. Upon notice of termination and withdrawal of the Stipulation by any Party, pursuant to the above provisions, the 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.

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

#### **IV. RECOMMENDED FINDINGS AND CONCLUSIONS OF LAW**

The Parties agree that the record in this case, provided the Board approves the Conditions in this Stipulation, contains sufficient probative evidence for the Board to find and determine, as Findings of Fact and Conclusions of Law, that:

##### **A. Recommended Findings of Fact**

1. Harrison Power LLC is licensed to do business in the State of Ohio.
2. The Harrison Power Plant qualifies as a major utility facility as defined in R.C. 4906.01(B)(1).
3. On May 3, 2017, the Applicant filed a Pre-Application Notification Letter informing the Board of a public informational meeting in Case No. 17-1189-EL-BGN.
4. On May 6, 2017, the Applicant published a notice in the Harrison News-Herald, a newspaper of general circulation in the project area, of the public informational meeting

scheduled to be held in Case No. 17-1189-EL-BGN on May 18, 2017. This Notice was filed with the Board on May 31, 2017.

5. The Applicant held a public informational meeting in Case No. 17-1189-EL-BGN at the Wallace Lodge located in Sally Buffalo Park in the Village of Cadiz, Ohio on May 18, 2017.

6. The Applicant filed a second Pre-Application Notification Letter informing the Board of a second public informational meeting in Case No. 17-1189-EL-BGN on July 19, 2017.

7. On July 20, Applicant published a notice in the Free Press Standard, a newspaper of general circulation in the project area, of the public informational meeting scheduled to be held in Case No. 17-1189-EL-BGN on July 27, 2017. This Notice was filed with the Board September 29, 2017.

8. The Applicant held a second public informational meeting in Case No. 17-1189-EL-BGN at the Puskarich Public Library in the Village of Cadiz, Ohio on July 27, 2017.

9. The Applicant submitted its Application in Case No. 17-1189-EL-BGN to construct the Harrison Power Plant on September 29, 2017.

10. On September 29, 2017, the Applicant filed a motion for waivers of certain filing requirements in Case No. 17-1189-EL-BGN. On September 29, 2017, the Applicant also filed a motion for protective order.

11. On November 20, 2017, the ALJ granted Applicant's motion for waivers.

12. On November 27, 2017, the Board issued a letter stating that the Board's Staff had received sufficient information to begin its review of the Application.

13. On January 4, 2018, the Applicant filed a Certificate of Service indicating that copies of the Application were served upon local public officials and libraries.

14. On January 4, 2018, the Applicant filed correspondence indicating that the Application fees were paid.

15. On January 25, 2018, the ALJ issued an Entry setting forth a scheduled hearing date and directing the Staff to file a Staff Report.

16. On February 5, 2018, the Applicant filed a Notice of Mailing indicating that the initial notice was sent on February 5, 2018 to government officials, libraries and affected property owners pursuant to Ohio Adm. Code 4906-3-09(A)(1).

17. On February 20, 2018, the Applicant filed a Notice Regarding Modification of Project Footprint.

18. On March 19, 2018, Applicant filed responses to Staff Data Requests.

19. On March 21, 2018, the Staff Report of Investigation ("Staff Report") was filed in Case No. 17-1189-EL-BGN.

20. On March 28, 2018, the Applicant filed a Proof of Publications and Notice indicating that the second notice was mailed on March 27, 2018 to government officials, libraries and property owners pursuant to Ohio Adm. Code 4906-03-09(A)(2), and was published in newspapers in general circulation in Harrison County and Carroll County on March 17, 2018 and March 22, 2018, respectively.

21. A local public hearing was held on April 5, 2018 at 6:00 pm at the Puskarich Public Library, 200 E. Market Street, Cadiz, OH 43907.

22. Because no electric transmission line or gas pipeline is being proposed in this Application, R.C. 4906.10(A)(1) is not applicable.

23. Adequate data on the Harrison Power Plant has been provided to determine the nature of the probable environmental impact as required by R.C. 4906.10(A)(2).

24. Adequate data on the Harrison Power Plant has been provided to determine that the facilities described in the Application and supplemental filings and subject to the Conditions in this Stipulation represent 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).

25. Adequate data on the Harrison Power Plant has been provided to determine that the proposed electric generating facility is consistent with regional plans for expansion of the electric power grid of the electric systems serving the State of Ohio and interconnected utility systems, that the Harrison Power Plant will serve the interests of electric system economy and reliability, and the requirements of R.C. 4906.10(A)(4) are met.

26. Adequate data on the Harrison Power Plant has been provided to determine that this facility will either comply with, or is not subject to, the requirements in the Ohio Revised Code regarding air and water pollution control, withdrawal of waters of the state, solid and hazardous waste, air navigation, and all regulations thereunder, as required by R.C. 4906.10(A)(5).

27. Adequate data on the Harrison Power Plant has been provided to determine that it will serve the public interest, convenience and necessity, as required by R.C. 4906.10(A)(6).

28. Adequate data on the Harrison Power Plant has been provided to determine what its impact will be on the viability as agriculture land of any land in the existing agricultural district established under R.C. Chapter 929 that is located within the site of the proposed facility, as required by R.C. 4906.10(A)(7).

29. Adequate data on the Harrison Power Plant has been provided to determine that the facility as proposed 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).

30. The record evidence in this matter provides sufficient factual data to enable the Board to make an informed decision.

**B. Recommended Conclusions of Law**

1. Harrison Power LLC is a “person” under R.C. 4906.01(A).

2. The proposed Harrison Power Plant is a major utility facility as defined in R.C. 4906.01(B)(1).

3. The record establishes the nature of the probable environmental impact from construction, operation and maintenance of the Harrison Power Plant under R.C. 4906.10(A)(2).

4. The record establishes that the Harrison Power Plant described in the Application and in the Notice of Modification of the Project Footprint, and subject to the conditions in this Stipulation represent the minimum adverse environmental impact, considering the state of available technology, and the nature and economics of the various alternatives, and other pertinent considerations under R.C. 4906.10(A)(3).

5. The record establishes that the Harrison Power Plant is consistent with regional plans for expansion of the electric power grid of the electric systems serving the State of Ohio and interconnected utility systems, and will serve the interests of electric system economy and reliability as required by R.C. 4906.10(A)(4).

6. The record establishes, as required by R.C. 4906.10(A)(5) that to the extent that it is applicable, construction of the proposed Harrison Power Plant will comply with the

requirements in the Ohio Revised Code regarding air and water pollution control, withdrawal of waters of the state, solid and hazardous waste, air navigation, and all rules and standards adopted under the relevant Chapters of the Ohio Revised Code.

7. The record establishes that the Harrison Power Plant described in the Application and in the Notice of Modification of the Project Footprint, and subject to the conditions in this Stipulation, will serve the public interest, convenience and necessity under R.C. 4906.10(A)(6).

8. The impact of the Harrison Power Plant on the viability as agricultural land of any land in an existing agricultural district has been determined under R.C. 4906.10(A)(7).

9. The record establishes that the Harrison Power Plant would incorporate maximum feasibility water conservation practices under R.C. 4906.10(A)(8).

10. Based on the record, the Parties recommend that the Board issue a Certificate of Environmental Compatibility and Public Need for construction, operation and maintenance of the Harrison Power Plant.

The undersigned hereby stipulate, agree and represent that they are authorized to enter into this Joint Stipulation and Recommendation on this 25th day of May, 2018. Furthermore, the Parties expressly agree that this Joint Stipulation and Recommendation may be amended and/or supplemented in a writing executed by the Parties.

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Respectfully submitted,

/s/ John Jones per authorization

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### **CERTIFICATE OF SERVICE**

The Ohio Power Siting Board's e-filing system will electronically serve notice of the filing of this document on the parties referenced in the service list of the docket card who have electronically subscribed to this case. In addition, the undersigned certifies that a courtesy copy of the foregoing document is also being served upon the persons below via electronic mail this 25th day of May 2018.

/s/ Michael J. Settineri

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**Commission of Ohio Docketing Information System on**

**5/25/2018 4:51:04 PM**

**in**

**Case No(s). 17-1189-EL-BGN**

**Summary: Stipulation - Joint Stipulation and Recommendation electronically filed by Mr. Michael J. Settineri on behalf of Harrison Power LLC**

**BEFORE  
THE OHIO POWER SITING BOARD**

In the Matter of the Application of	:	
Harrison Power, LLC for a Certificate of	:	Case No. 17-1189-EL-BGN
Environmental Compatibility and Public	:	
Need For An Electric Generating Facility	:	
in Harrison County, Ohio.	:	
	:	

**PREFILED TESTIMONY  
OF  
JON C. PAWLEY  
SITING, EFFICIENCY, AND RENEWABLE ENERGY DIVISION  
RATES AND ANALYSIS DEPARTMENT**

**Staff Exhibit 2**

**May 29, 2018**

1     1.     Q.     Please state your name and your business address.

2           A.     My name is Jon C. Pawley, and my business address is 180 East Broad  
3                 Street, Columbus OH 43215.

4

5     2.     Q.     By whom are you employed and what is your position?

6           A.     I am employed by the Public Utilities Commission of Ohio (Commission)  
7                 as a Utility Specialist 3 in the Siting, Efficiency and Renewable Energy  
8                 Division of the Commission's Rates and Analysis Department. My  
9                 position includes assigned duties by the Chairman of the Ohio Power Siting  
10                Board (Board) to investigate applications filed with the Board and assist in  
11                preparing staff reports of investigation.

12

13    3.     Q.     Please summarize your educational background and work experience.

14           A.     I received an Associate of Applied Science degree in Architectural  
15                 Technology from SUNY Alfred State College in 1986, a Bachelor of Arts  
16                 degree in Environmental Design from the University of Buffalo in 1991,  
17                 and a Master of City and Regional Planning degree from the Ohio State  
18                 University in 1993.

19

20                 I have been employed by the Commission for roughly twenty two years.

21                 More recently, my responsibilities at the Commission have primarily  
22                 involved social and cultural resource matters associated with site planning

1 of major utility facilities in the state of Ohio. I have also been the Staff  
2 lead on numerous applications for a Certificate of Environmental  
3 Compatibility and Public Need before the Board. Additionally, I have  
4 approximately twelve years' experience in public and private sector  
5 development planning.

6  
7 4. Q. Have you testified in prior proceedings before the Board?

8 A. Yes. I have testified in many cases before the Board concerning Staff's  
9 investigation and report findings and recommendations on proposed siting  
10 projects involving power plants, wind farms, substations, and transmission  
11 lines.

12  
13 5. Q. What is the purpose of your testimony in this proceeding?

14 A. I am sponsoring the Staff Report of Investigation (Staff Report) that was  
15 filed March 21, 2018 in this docket. I am the Staff project lead. I managed  
16 the Staff investigation and preparation of the Staff Report in this case. In  
17 addition, Staff is a signatory party supporting the Joint Stipulation and  
18 Recommendation filed May 25, 2018 in this docket.

19  
20 6. Q. What kind of case is this?

1           A.     The Applicant proposes to develop, construct, and operate a natural gas  
2                 fired combined-cycle power plant with a capacity of 1,050 MW in Cadiz,  
3                 Harrison County, Ohio.

4  
5     7.     Q.     Please summarize Staff's investigation that was conducted in this case?

6           A.     Staff's investigation included reviewing the application, conducting site  
7                 visits to the proposed facility location, acquiring additional information  
8                 from the applicant, obtaining input from state agencies that compose the  
9                 Board along with other relevant state and federal agencies, and preparing a  
10                Staff Report that presents Staff's analysis, conclusions, and  
11                recommendations. As a result of Staff's investigation, Staff is recom-  
12                mending that the Board approve the application, subject to the 23 condi-  
13                tions that are presented in the Staff Report.

14  
15    8.     Q.     Does this conclude your testimony?

16           A.     Yes, it does. However, I reserve the right to submit supplemental testi-  
17                 mony, as new information subsequently becomes available or in response  
18                 to positions taken by other parties.

19

## PROOF OF SERVICE

I hereby certify that a true copy of the foregoing Prefiled Testimony of **Jon C. Pawley** submitted on behalf of the Staff of the Ohio Power Siting Board, was served via electronic mail upon the following parties of record this 29th day of May, 2018.

/s/ John H. Jones

**John H. Jones**

Assistant Attorney General

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**in**

**Case No(s). 17-1189-EL-BGN**

Summary: Testimony Prefiled Testimony of Jon C. Pawley electronically filed by Ms. Tonnetta Scott on behalf of PUC

# Staff Report of Investigation

Harrison Power Plant  
Harrison Power LLC

Case No. 17-1189-EL-BGN

March 21, 2018



Power Siting  
Board

John R. Kasich, Governor | Asim Z. Haque, Chairman

Staff Ex. 1

**In the Matter of the Application of Harrison Power LLC )  
for a Certificate of Environmental Compatibility and )  
Public Need for an Electric Generating Facility in )  
Harrison County, Ohio. )**

**Case No. 17-1189-EL-BGN**

**Staff Report of Investigation**

Submitted to the  
OHIO POWER SITING BOARD

BEFORE THE POWER SITING BOARD OF THE STATE OF OHIO

**In the Matter of the Application of Harrison Power LLC )**  
**for a Certificate of Environmental Compatibility and )**  
**Public Need for an Electric Generating Facility in ) Case No. 17-1189-EL-BGN**  
**Harrison County, Ohio. )**

Chairman, Public Utilities Commission	Director, Department of Natural Resources
Director, Department of Agriculture	Public Member
Director, Development Services Agency	Ohio House of Representatives
Director, Environmental Protection Agency	Ohio Senate
Director, Department of Health	

To the Honorable Power Siting Board:

In accordance with the Ohio Revised Code (R.C.) 4906.07(C) and rules of the Ohio Power Siting Board (Board), the staff of the Public Utilities Commission of Ohio (Staff) has completed its investigation in the above matter and submits its findings and recommendations in this Staff Report for consideration by the Board.

The findings and recommendations contained in this report are the result of Staff coordination with the following agencies that are members of the Board: Ohio Environmental Protection Agency, the Ohio Department of Health, the Ohio Development Services Agency, the Ohio Department of Natural Resources, and the Ohio Department of Agriculture. In addition, Staff coordinated with the Ohio Department of Transportation, the Ohio Historic Preservation Office, the U.S. Fish and Wildlife Service, the U.S. Army Corps of Engineers, and the Federal Aviation Administration.

In accordance with R.C. 4906.07(C) and 4906.12, copies of this Staff Report have been filed with the Docketing Division of the Public Utilities Commission of Ohio and served upon the Applicant or its authorized representative, the parties of record, and pursuant to Ohio Administrative Code 4906-3-06, the main public libraries of the political subdivisions in the project area.

The Staff Report presents the results of Staff's investigation conducted in accordance with R.C. Chapter 4906 and the rules of the Board, and does not purport to reflect the views of the Board nor should any party to the instant proceeding consider the Board in any manner constrained by the findings and recommendations set forth herein.

Respectfully submitted,



Tamara S. Turkenton  
Director, Rates and Analysis  
Public Utilities Commission of Ohio

## TABLE OF CONTENTS

<b>I. POWERS AND DUTIES .....</b>	<b>1</b>
Ohio Power Siting Board .....	1
Nature of Investigation .....	1
Criteria .....	3
<b>II. APPLICATION .....</b>	<b>5</b>
Applicant .....	5
History of the Application .....	5
Project Description .....	7
Project Map .....	10
<b>III. CONSIDERATIONS AND RECOMMENDED FINDINGS .....</b>	<b>11</b>
Basis of Need .....	11
Nature of Probable Environmental Impact .....	12
Minimum Adverse Environmental Impact .....	18
Electric Grid .....	20
Air, Water, Solid Waste, and Aviation .....	23
Public Interest, Convenience, and Necessity .....	27
Agricultural Districts .....	30
Water Conservation Practice .....	31
<b>IV. RECOMMENDED CONDITIONS OF CERTIFICATE .....</b>	<b>33</b>
General Conditions .....	33
Socioeconomic Conditions .....	34
Ecological Conditions .....	35
Air, Water, Solid Waste and Aviation Conditions .....	35
Public Services, Facilities, and Safety Conditions .....	36

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## **I. POWERS AND DUTIES**

### **OHIO POWER SITING BOARD**

The authority of the Ohio Power Siting Board (Board) is prescribed by Ohio Revised Code (R.C.) Chapter 4906. R.C. 4906.03 authorizes the Board to issue certificates of environmental compatibility and public need for the construction, operation, and maintenance of major utility facilities defined in R.C. 4906.01. Included within this definition of major utility facilities are: electric generating plants and associated facilities designed for, or capable of, operation at 50 megawatts (MW) or more; electric transmission lines and associated facilities of a design capacity of 100 kilovolts (kV) or more; and gas pipelines greater than 500 feet in length and more than nine inches in outside diameter, and associated facilities, designed for transporting gas at a maximum allowable operating pressure in excess of 125 pounds per square inch. In addition, pursuant to R.C. 4906.20, the Board authority applies to economically significant wind farms, defined in R.C. 4906.13(A) as wind turbines and associated facilities with a single interconnection to the electrical grid and designed for, or capable of, operation at an aggregate capacity of 5 MW or greater but less than 50 MW.

Membership of the Board is specified in R.C. 4906.02(A). The voting members include: the Chairman of the Public Utilities Commission of Ohio (PUCO) who serves as Chairman of the Board; the directors of the Ohio Environmental Protection Agency (Ohio EPA), the Ohio Department of Health, the Ohio Development Services Agency, the Ohio Department of Agriculture, and the Ohio Department of Natural Resources (ODNR); and a member of the public, specified as an engineer, appointed by the Governor from a list of three nominees provided by the Ohio Consumers' Counsel. Ex-officio Board members include two members (with alternates) from each house of the Ohio General Assembly.

### **NATURE OF INVESTIGATION**

The Board has promulgated rules and regulations, found in Ohio Administrative Code (Ohio Adm.Code) 4906:1-01 et seq., which establish application procedures for major utility facilities and economically significant wind farms.

#### **Application Procedures**

Any person that wishes to construct a major utility facility or economically significant wind farm in this state must first submit to the Board an application for a certificate of environmental compatibility and public need.<sup>1</sup> The application must include a description of the facility and its location, a summary of environmental studies, a statement explaining the need for the facility and how it fits into the Applicant's energy forecasts (for transmission projects), and any other information the Applicant or Board may consider relevant.<sup>2</sup>

Within 60 days of receiving an application, the Chairman must determine whether the application is sufficiently complete to begin an investigation.<sup>3</sup> If an application is considered complete, the Board or an administrative law judge will cause a public hearing to be held 60 to 90 days after the

---

1. R.C. 4906.04 and 4906.20.

2. R.C. 4906.06(A) and 4906.20(B)(1).

3. Ohio Adm.Code 4906-3-06(A).



official filing date of the completed application.<sup>4</sup> At the public hearing, any person may provide written or oral testimony and may be examined by the parties.<sup>5</sup>

### **Staff Investigation and Report**

The Chairman will also cause each application to be investigated and a report published by the Board's Staff not less than 15 days prior to the public hearing.<sup>6</sup> The report sets forth the nature of the investigation and contains the findings and conditions recommended by Staff.<sup>7</sup> The Board's Staff, which consists of career professionals drawn from the staff of the PUCO and other member agencies of the Board, coordinates its investigation among the agencies represented on the Board and with other interested agencies such as the Ohio Department of Transportation (ODOT), the Ohio Historic Preservation Office, and the U.S. Fish and Wildlife Service (USFWS).

The technical investigations and evaluations are conducted pursuant to Ohio Adm.Code 4906-1-01 et seq. The recommended findings resulting from Staff's investigation are described in the Staff Report pursuant to R.C. 4906.07(C). The report does not represent the views or opinions of the Board and is only one piece of evidence that the Board may consider when making its decision. Once published, the report becomes a part of the record, is served upon all parties to the proceeding and is made available to any person upon request.<sup>8</sup> A record of the public hearings and all evidence, including the Staff Report, may be examined by the public at anytime.<sup>9</sup>

### **Board Decision**

The Board may approve, modify and approve, or deny an application for a certificate of environmental compatibility and public need.<sup>10</sup> If the Board approves, or modifies and approves an application, it will issue a certificate subject to conditions. The certificate is also conditioned upon the facility being in compliance with applicable standards and rules adopted under the Ohio Revised Code.<sup>11</sup>

Upon rendering its decision, the Board must issue an opinion stating its reasons for approving, modifying and approving, or denying an application for a certificate of environmental compatibility and public need.<sup>12</sup> A copy of the Board's decision and its opinion is memorialized upon the record and must be served upon all parties to the proceeding.<sup>13</sup> Any party to the proceeding that believes its issues were not adequately addressed by the Board may submit within 30 days an application for rehearing.<sup>14</sup> An entry on rehearing will be issued by the Board within 30 days and may be appealed within 60 days to the Supreme Court of Ohio.<sup>15</sup>

---

4. R.C. 4906.07(A) and Ohio Adm.Code 4906-3-08.

5. R.C. 4906.08(C).

6. R.C. 4906.07.

7. Ohio Adm.Code 4906-3-06(C).

8. R.C. 4906.07(C) and 4906.10.

9. R.C. 4906.09 and 4906.12.

10. R.C. 4906.10(A)

11. R.C. 4906.10.

12. R.C. 4906.11.

13. R.C. 4906.10(C).

14. R.C. 4903.10 and 4906.12.

15. R.C. 4903.11, 4903.12, and 4906.12.

## CRITERIA

Staff developed the recommendations and conditions in this *Staff Report of Investigation* pursuant to the criteria set forth in R.C. 4906.10(A), which reads, in part:

The board shall not grant a certificate for the construction, operation, and maintenance of a major utility facility, either as proposed or as modified by the board, unless it finds and determines all of the following:

- (1) The basis of the need for the facility if the facility is an electric transmission line or gas pipeline;
- (2) The nature of the probable environmental impact;
- (3) That the facility 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;
- (4) In the case of an electric transmission line or generating facility, that the facility 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 facility will serve the interests of electric system economy and reliability;
- (5) That the facility will comply with Chapters 3704, 3734, and 6111 of the Revised Code and all rules and standards adopted under those chapters and under sections 1501.33, 1501.34, and 4561.32 of the Revised 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 office of aviation of the division of multi-modal planning and programs of the department of transportation under section 4561.341 of the Revised Code;
- (6) That the facility will serve the public interest, convenience, and necessity;
- (7) In addition to the provisions contained in divisions (A)(1) to (6) of this section and rules adopted under those divisions, what its impact will be on the viability as agricultural land of any land in an existing agricultural district established under Chapter 929 of the Revised Code that is located within the site and alternative site of the proposed major utility facility. Rules adopted to evaluate impact under division (A)(7) of this section shall not require the compilation, creation, submission, or production of any information, document, or other data pertaining to land not located within the site and alternative site; and
- (8) That 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.

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## **II. APPLICATION**

### **APPLICANT**

Harrison Power LLC (Applicant) is a Delaware limited liability company that is a wholly owned subsidiary of Ember Partners LP (EmberClear), located in Houston, Texas. Harrison Power LLC would develop, build and operate the Harrison Power Plant. EmberClear is a natural gas energy developer and has developed projects across the northeast, Midwest and southern United States, including a 485 MW natural gas-fired power plant in Pennsylvania, with additional projects in various stages of construction and development.<sup>16</sup>

### **HISTORY OF THE APPLICATION**

Prior to formally submitting its application, the Applicant consulted with the Staff and representatives of the Board, regarding application procedures.

On May 3, 2017 and July 19, 2017, the Applicant filed pre-application notification letters regarding the project.

On May 18, 2017, the Applicant held a public informational meeting for the project at Sally Buffalo Park (Wallace Lodge) in Cadiz, Ohio. A second public informational meeting for the project was held at the Puskarich Public Library in Cadiz, Ohio on July 27, 2017.

On September 29, 2017, the Applicant filed the application for the Harrison Power Plant along with a request for certain waivers.

On November 14, 2017, the Assistant Attorney General filed correspondence regarding the Applicant's request for waivers on behalf of Staff.

On November 20, 2017, the Administrative Law Judge issued an Entry granting, in part, the Applicant's motion for waivers.

On November 27, 2017, the Director of Rates and Analysis, PUCO, issued a letter to the Applicant stating that the application had been found to comply with the requirements of Ohio Adm.Code 4906-01, et seq.

On December 27, 2017, Ohio Valley Jobs Alliance. Inc. filed a petition to intervene in the proceeding.

On January 25, 2018, the Administrative Law Judge issued an Entry scheduling a local public hearing for this case to be held on Thursday, April 5, 2018 at 6:00 p.m., at the Puskarich Public Library, 200 E. Market St., Cadiz, OH 43907. The adjudicatory hearing will commence on Monday, April 16, 2018, at 10:00 a.m., 11th floor, Hearing Room 11-C, at the offices of the Public Utilities Commission of Ohio, 180 E. Broad St., Columbus, OH 43215-3793.

---

16. *In the Matter of the Application of Harrison Power LLC for a Certificate of Environmental Compatibility and Public Need to Construct a Natural Gas-Fired Combined Cycle Electric Generation Facility in Harrison County, Ohio.*, Case No. 17-1189-EL-BGN, Application at pp. 1-3 (September 29, 2017 as supplemented February 20, 2018)

On February 20, 2018, the Applicant filed supplemental information modifying the parking and laydown areas for the project.

On March 2, 2018, the Applicant submitted the PJM Interconnection System Impact Study for the project.

On March 7, 2018, Hess Ohio Developments, LLC and CNX Gas Company LLC filed a petition to intervene in the proceeding.

On March 16, 2018, the Community Improvement Corporation of Harrison County filed a petition to intervene in the proceeding.

This summary of the history of the application does not include every filing in Case No. 17-1189-EL-BGN. The docketing record for this case, which lists all documents filed to date, can be found online at <http://dis.puc.state.oh.us>.

## **PROJECT DESCRIPTION**

The Applicant proposes to develop, construct, and operate a natural gas fired combined-cycle power plant with a capacity of 1,050 MW in Cadiz, Harrison County, Ohio.

### **Project Site**

The proposed location of the facility consists of a 90-acre parcel of land east of Highway 22 and adjacent to Industrial Park Road, located in the Cadiz Industrial Park within the village of Cadiz, Ohio. The project area and proposed facilities are shown in the map in this report.

### **Construction Laydown Areas**

The Applicant intends to deliver construction materials directly to the construction project site. The Applicant would use several areas at the construction site as temporary construction laydown/staging areas for material and equipment storage, construction trailers, air-cooled condensers, and parking. One laydown area would be an 8-acre area that is just west of an existing pond. There would be two 16-acre parking and laydown areas southwest of the construction project site. Next to each air cooled condenser would be a one-acre laydown area.

### **Generating Equipment**

The proposed facility would consist of combined-cycle, natural gas-fired generator equipment capable of 1,050 MW of net output. The proposed facility is designed as a series of single shaft combined cycle power trains. Each power train would be a 1x1x1 configuration, where the single shaft connects the combustion turbine and steam turbine generator. The facility would utilize two separate power-generating trains.

Each generator train would be configured with a combustion turbine, heat recovery steam generator (HRSG), steam turbine generator, and an air-cooled condenser. The Applicant is considering the General Electric GE 7HA.02 and the Mitsubishi Hitachi Power System (MHPS) M501JAC models. The facility would be capable of year-round operation but actual hours would depend upon energy needs in the region and would incorporate downtime for planned and unplanned maintenance events. Overall, the average heat rate for the combined-cycle power plant would be approximately 6,150 British thermal units/kilowatt-hour (Btu/kWh).<sup>17</sup> Details of the major equipment required at this proposed facility are provided below.

#### *Combustion Turbines*

The combustion turbines would consist of two GE 7HA.02 or MHPS M501JAC series natural gas turbines. The combustion turbines would use pipeline natural gas as the exclusive fuel. Nitrogen oxide (NOx) emissions from the combustion turbines would be minimized through the use of dry low NOx (DLN) burners. The combustion turbines would include evaporative coolers as inlet air cooling systems, which use water to increase the density of the turbine inlet air and increase performance on hot summer days.

#### *Heat Recovery Steam Generators*

Two HRSGs would be used to capture the exhaust gas heat from the combustion turbines. Each HRSG would be equipped with duct burners to provide additional peaking generation capacity.

---

17. Heat rate is a measure of the efficiency of electric power generation.

The HRSG would also incorporate selective catalytic reduction (SCR) and oxidation catalysts systems as best available control technology (BACT) for air pollution control.

#### *Combustion/Steam Turbine Generators*

Two combustion/steam turbine generators (CSTG) capable of generating 525 MW at 59°F would be housed in a building within the proposed facility compound.

#### *Air Cooled Condensers*

Air-cooled condensers would be used to condense the exhaust steam from the CSTG and return the condensate to the HRSGs in a closed loop system. Cooling would be achieved by moving air over the condenser tubes by utilizing a bank of fans.

#### *Transformers*

Each CSTG would be connected electrically to a transformer that would step up generator output from 23.5 kV to 138 kV.

#### *Auxiliary Boilers*

Auxiliary steam boilers, rated at 80 million Btu/hour would be used as needed to keep the HRSG warm during periods of facility shutdown and to provide steam to the CSTG during startup.

#### *Emergency Diesel Generators*

A diesel engine driven generator with a capacity of 1,000 kilowatts would be provided for safe shut down the facility in the event of a forced outage. The generator would provide power to essential services necessary to protect the equipment. Ultra-low sulfur diesel would be used as fuel, and would be stored in a 500-gallon double containment tank.

### **Air Emission Control and Monitoring Equipment**

The Applicant proposes the following air pollution control technologies. In order to minimize emissions of nitrogen oxides (NO<sub>x</sub>), the combustion turbines would have dry low NO<sub>x</sub> (DLN) burners. Selective catalytic reduction (SCR) systems would be installed and operated in the HRSG exhaust streams to further reduce NO<sub>x</sub> concentrations during operation of the facility. NO<sub>x</sub> emissions would be higher during facility start-up and shutdown, due to less efficient combustion during these periods.

The Applicant would use good combustion practices and an oxidation catalyst to control emissions of carbon monoxide (CO) and minimize volatile organic compounds (VOC) pollution. Good combustion practices include efficient operation and proper maintenance of the equipment and using the proper air to fuel ratio in the combustion turbines and HRSG.

Particulate matter (PM/PM<sub>10</sub>/PM<sub>2.5</sub>) and sulfur dioxide (SO<sub>2</sub>) emissions would be controlled through the use of low-sulfur, pipeline quality natural gas fuel.

A continuous emission monitoring system would be installed within each HRSG exhaust stack to monitor compliance with air permit requirements.

### **Water Supply, Treatment, Storage, and Discharge**

Potable water would be supplied to the site from the Village of Cadiz at a flow rate of up to 363,000 gallons per day. Water would also be stored on site in a 440,000-gallon fire/service water tank.



Some of the potable water would receive demineralization-polishing treatment for use in the evaporative cooler and makeup water to the HRSG and steam turbine. Demineralized water would be stored in a 385,000 gallon demineralized water storage tank.

Wastewater discharge would be to the Village of Cadiz's wastewater treatment plant and would consist of evaporative cooler blowdown, HRSG and air-cooled condenser blowdown, equipment drains, reverse osmosis rejection water, and sanitary wastewater.

### **Electrical System**

The electric power generated by each CSTG would be stepped up with two 23.5 kV to 138 kV step-up transformers. The step-up transformers would connect to voltage appropriate on-site collector busses and then to a 138 kV electric transmission line in the switchyard to AEP Ohio Transco's Nottingham substation, which is 4 miles from the project site. The electric transmission line was filed in Case No. 17-2084-EL-BTX.

### **Gas Supply**

The procurement of adequate natural gas supplies and pipeline delivery capacity is necessary for the successful operation of the facility. The Applicant intends to enter a contract to provide firm natural gas service to the project. The facility would require approximately 166 million cubic feet of natural gas per day, and the area gas supplies can deliver approximately 2,000 million cubic feet per day.

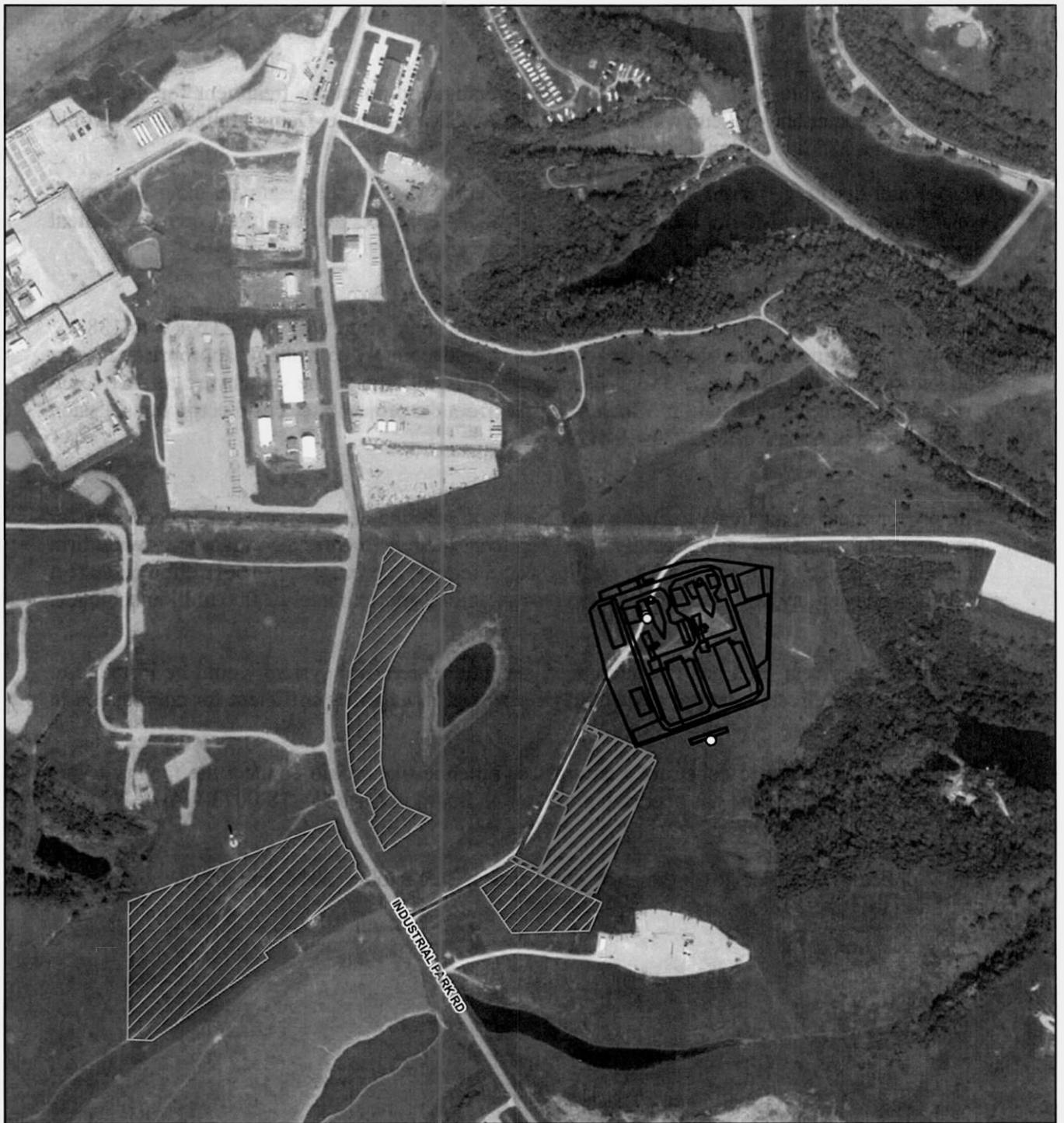
A preheating system, fuel gas filter/scrubber, and liquids removal system would be installed to assure that the delivered natural gas would be prepared to a quality sufficient for combustion in the gas-fired turbines.

A separate application to construct a natural gas pipeline that would connect the facility to the Republic Partners pipeline has been submitted to the Board in Case No. 18-0073-GA-BLN.

### **Project Timeline**

The Applicant proposes to commence construction in October 2018 and begin commercial operation by June 2021.





**Harrison County**



0 250 500



Feet

**1:9,000**

NAD 83 SP Ohio South (Feet)

○ Heaters

○ Switchyard

— Access Road

□ Facility Layout

▨ Laydown Areas

▩ Parking

## Overview Map

**17-1189-EL-BGN**

**Harrison Power Plant**

*Maps are presented solely for the purpose of providing a visual representation of the project in the staff report, and are not intended to modify the project as presented by the Applicant in its certified application and supplemental materials.*

### **III. CONSIDERATIONS AND RECOMMENDED FINDINGS**

In the Matter of the Application of Harrison Power LLC for a Certificate of Environmental Compatibility and Public Need for an Electric Generation Facility in Harrison County, Ohio, Staff submits the following considerations and recommended findings pursuant to R.C. 4906.07(C) and 4906.10(A).

#### **Considerations for R.C. 4906.10(A)(1)**

##### **BASIS OF NEED**

Pursuant to R.C. 4906.10(A)(1), the Board must determine the basis of the need for the facility only if the facility is an electric transmission line or gas pipeline. Staff has found this requirement to be inapplicable to this application.

##### **Recommended Findings**

Staff recommends that the Board find that the basis of need as specified under R.C. 4906.10(A)(1) is not applicable to this proposed electric generating facility, because the facility is neither an electric transmission line nor a gas pipeline.

## Considerations for R.C. 4906.10(A)(2)

### **NATURE OF PROBABLE ENVIRONMENTAL IMPACT**

Pursuant to R.C. 4906.10(A)(2), the Board must determine the nature of the probable environmental impact of the proposed facility. Staff has found the following with regard to the nature of the probable environmental impact.

#### **Socioeconomic Impacts**

##### *Demographics*

The proposed facility is located in Harrison County. In 2010, the population of Harrison County was approximately 15,900, and the population density was 39.4 persons per square mile.<sup>18</sup> The 2010 population of Ohio was 11,536,725, and the population density was 282.3 persons per square mile. Further, the population of Harrison County is projected to decrease to approximately 15,300 between 2010 and 2020.<sup>19</sup>

##### *Land Use*

The Applicant proposes to construct the project on a 90-acre parcel that it has under option for purchase from the Harrison County Community Improvement Corporation (CIC). The proposed project would occupy approximately 30 acres, and would include power generating equipment, an on-site switchyard, and other ancillary facilities. Temporary construction parking and laydown areas would be situated on the 90-acre parcel. Other portions of the 90-acre parcel potentially would be used for stormwater management, pending approval by the U.S. Army Corps of Engineers and Ohio Environmental Protection Agency.

The proposed project location is within an industrial park setting, in the village of Cadiz. Most of the surrounding land is owned by the CIC and is primarily designated for manufacturing use.

Of the land uses within one mile of the facility site, approximately 80 percent is vegetated or water land use, and was previously mined. No agricultural land is located within the boundaries of the proposed facility site or laydown areas. Residential land is located north and east of the proposed facility site, while commercial and industrial property exists to the northwest.

There are no structures within a 1,000-foot buffer of the project or its access road. The Applicant submitted supplemental information on February 20, 2018 that shifted the proposed parking and laydown area to the south within the project site.

##### *Recreation*

The closest recreational use is Sally Buffalo Park, a public park and facility located approximately 0.75 mile north of the project. The nearest school is Harrison Central Jr./Sr. High School, located approximately 1.75 miles from the project. In December 2015, Harrison Hills School District approved the construction of a new 190,000 square foot elementary school. The planned school

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18. United States Census Bureau, "State and County Quick Facts: Harrison County, OH," accessed October 18, 2017, <https://www.census.gov/quickfacts/fact/table/harrisoncountyohio,US/PST045216>.

19. Ohio Development Services Agency, "Population Characteristics and Projections: 2010 to 2040 Projected Population for Ohio Counties," accessed October 18, 2017, [http://development.ohio.gov/reports/reports\\_pop\\_proj\\_map.htm](http://development.ohio.gov/reports/reports_pop_proj_map.htm).

would be located approximately 1.1 miles from the project site and would house approximately 1,550 students from the countywide district.

None of the recreational areas identified within the 5-mile radius would be negatively impacted by the proposed facility, and recreational land use would not be altered as a result of the construction or operation of the proposed facility.

The facility site and laydown area are located within an area of the village of Cadiz that has been designated for industrial development.

#### *Cultural Resources*

In February 2017, the Applicant's cultural resources consultant performed an archaeological and historical/architectural literature review as part of the investigation for the project. The consultant determined that the project would not involve or impact any significant cultural resources or landmarks, and that no further cultural resource management work was considered to be necessary. No previously recorded archaeological or historical resources are located at or near the project site, and the project is located within a reclaimed strip mine, greatly limiting the likelihood of finding intact cultural resources. The findings were submitted to the Ohio Historic Preservation Office (OHPO). The OHPO responded to the consultant on March 21, 2017 in concurrence that this project would not affect historic properties listed on or eligible for the National Register of Historic Places. No further cultural resources work was identified as being needed for this project.

#### *Aesthetics*

Due to existing viewshed impacts and topography, visual impacts to scenic rivers, scenic routes or byways, and registered landmarks of historic, religious, archaeological, scenic, natural, or other cultural significance within five miles of the project area would be minimal. The facility would be visible from Sally Buffalo Park and nearby ball fields. However, the project would be located in an industrial park and would be compatible with other existing industrial and utility uses. The project site is located in a sloping pasture. No tree clearing or landscape alterations would further impact visibility. Facility lighting and paint colors would be selected and designed to minimize visual impacts.

#### *Economics*

Harrison Power LLC enlisted the expertise of FTI Consulting, Inc. to analyze the economic impacts of the construction and operation of the project on Eastern Ohio (defined as a local region of 26 counties that includes Harrison County) and the rest of Ohio.<sup>20</sup>

The Applicant filed some of the economic data, including the applicable capital and intangible costs plus the estimated annual operation and maintenance costs, under seal. It appears that the economic data submitted under seal meets the requirements set forth in Ohio Adm.Code 4906-4-06.

#### *Delays*

The Applicant states that delays in permitting could jeopardize its ability to participate in the 2021/22 PJM RPM Base Residual Auction and delay the facilities projected in-service date.

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20. Application at Appendix D.

All Staff recommendations for the requirements discussed in this section of the *Staff Report of Investigation* are included under the **Socioeconomic Conditions** heading of the Recommended Conditions of Certificate section.

## **Ecological Impacts**

### *Geology*

Harrison County is located within the unglaciated Allegheny Plateau Region. Sedimentary rocks that outcrop in the county belong to the Pennsylvanian and Permian Systems. Bedrock and exposed strata consist of sandstone, limestone, shale, and coal.

Formations that are a part of the Pennsylvanian System that outcrop in Harrison County are an upper portion of the Allegheny formation and all of the Conemaugh and Monongahela Formation. The lower 40 feet of the Washington Series represents the Permian System rock exposures in Harrison County.

Coal mining has been an important aspect of the local economy. The major coal seams are the Upper Freeport (#7) coal, Pittsburgh (#8) coal, and the Meigs Creek (#9). Many abandoned and active coalmines lie within the proposed project area. Although the Applicant plans to perform more research and subsurface drilling prior to construction, past/present coal mining activity should not result in finding the proposed site unsuitable for construction.

### *Soils and Soils Suitability*

The Applicant identified the soils in the project area through a literature review of the United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) web site. There are two soil units mapped in the project area according to the *Soil survey of Harrison County, Ohio*. Of particular note for each mapped soil unit are the general size within the project area and position on the landform of the mapped soil unit. The detailed information for the mapped soil units provide information helpful in designing the layout of the project. Key indicators include location as upland or side slope, suitability for building, prone to landslides, shrink-swell potential, frost action, low strength, etc., for a particular soil unit.

The two mapped units in the project area according to the *Soil Survey of Harrison County, Ohio* are the Morrison channery silty clay loam, 0 to 8 percent slopes (MoB) and Morrison channery silty clay loam, 8 to 25 percent slopes (MoD). The MoB covers around 63 percent of the project area and the MoD covers about 34 percent of the project area. Both soil units are well drained and do not have a propensity to flood or pond. Although these soils are typically found on shoulders, summits, ridges and hillslopes, the terrain at the project site overall is flat lying.

The Applicant will conduct a geotechnical drilling investigation prior to construction in order to obtain further site-specific detailed information and engineering properties of the soils for construction design purposes. The Applicant finds the mapped units in the project area suitable for construction. Staff did not find any issues regarding these soil types that would prevent or restrict construction of this facility.

### *Surface Waters*

The project area contains three ephemeral streams. No in water work is proposed, and no impacts to streams are anticipated.



Seven wetlands, totaling 0.72 acre, have been delineated in the project area. No category 3 wetlands were delineated. Three wetlands, totaling 0.13 acre, would be filled as a result of the project. A Nationwide Permit 39 was completed and submitted to the United States Army Corps of Engineers (USACE) in December 2017 for coverage of wetland impacts. Other wetlands in the project area would be fenced off and protected from construction impacts. Specifics on how wetlands would be further protected using erosion and sedimentation controls would be outlined in the Applicant's Stormwater Pollution Prevention Plan (SWPPP).

The project area does not overlap any 100-year floodplain areas.

#### *Vegetation*

The project area is located within a 94-acre tract of reclaimed coal strip mine land, and consists of grassland previously used for grazing. No tree clearing would be required and herbicide use is not expected. No impacts to rare or sensitive vegetation communities would occur.

#### *Threatened and Endangered Species*

The Applicant requested information from the ODNr and the USFWS regarding state and federal listed plant and animal species. Staff gathered additional information through field assessments and review of published ecological information. The following table shows the results of the information requests, field assessments, and document review.

BIRDS				
Common Name	Scientific Name	Federal Status	State Status	Presence in Project Area
Upland sandpiper	<i>Bartramia longicauda</i>	N/A	Endangered	Habitat includes large marshes and grasslands. Potential habitat present within project area.

MAMMALS				
Common Name	Scientific Name	Federal Status	State Status	Presence in Project Area
Indiana bat	<i>Myotis sodalis</i>	Endangered	Endangered	No tree clearing proposed within project area. Underground mines near project area.
northern long-eared bat	<i>Myotis septentrionalis</i>	Threatened	Species of Concern	No tree clearing proposed within project area. Underground mines near project area
black bear	<i>Ursus americanus</i>	N/A	Endangered	Due to the mobility of this species, the project is not likely to impact this species.

Potentially suitable habitat for the upland sandpiper (*Bartramia longicauda*) is present within the project area. In order to avoid impacts to this species the Staff recommends that construction in areas of potential habitat be avoided during the species' nesting period of April 15 through July 31, unless coordination with the ODNr allows a different course of action.

Due to a lack of suitable habitat and no proposed in-water work, impacts to other federal and state listed species are not anticipated.

All Staff recommendations for the requirements discussed in this section of the *Staff Report of Investigation* are included under the **Ecological Conditions** heading of the Recommended Conditions of Certificate section.

## **Public Services, Facilities, and Safety**

### *Public Services and Traffic*

The principal impact on public services would be increases in traffic on routes leading to the project area due to delivery of equipment and materials. Traffic management during the construction phase may be necessary in the immediate vicinity of the project area to ensure safe and efficient maintenance of existing traffic patterns and usages. The Applicant has committed to coordinating with local officials to ensure that the increase in traffic will be minimal.

Once the proposed facility is operational, related traffic would be minimal and would not be expected to impact local roadways significantly. Potential emergency service requirements would be coordinated with local officials.

### *Roads and Bridges*

Due to the location of the project, the Applicant anticipates that all project components would be delivered via rail and truck. Access to the project area for most construction traffic would be from Highway 22.

Rail transportation for larger equipment delivery would be utilized. The larger equipment would be shipped by rail to the nearest regional siding. The nearest rail siding on Highway 22 is at the Markwest/Marathon Petroleum site. At the rail siding the equipment would be unloaded by a lattice boom crane onto specially designed over the road transports. The heavy haul route from this vicinity is 4 miles to the Harrison Power Plant site. All heavy haul/oversized loads would be permitted by each load and will be coordinated with state and local authorities.

Staff recommends a requirement for the Applicant to develop a final traffic management plan that would include a road use agreement or necessary permits. As part of the plan, any damaged public roads and bridges would be repaired promptly to their previous condition by the Applicant under the guidance of the appropriate regulatory agency. Any temporary improvements would be removed unless the appropriate regulatory agency request that they remain in place.

### *Noise*

Noise impacts from construction activities would include site clearing and grading, placement of major structural concrete foundations, erection of structural steel, installation of mechanical and electrical equipment, and commissioning and testing of equipment. Many of the construction activities would generate significant noise levels during the final 4 to 6 months of construction. However, the adverse impact of construction noise would be temporary and intermittent, would occur away from most residential structures, and would be limited to daytime working hours. When possible, the Applicant would use electrical equipment instead of diesel engines and hydraulic equipment instead of pneumatic tools. The Applicant would also schedule noise-generating activities during the day, when the ambient background level is higher. The Applicant has committed to communicate actively with the residents in the area to learn about any noise complaints and to inform the community of unavoidable loud noise events so that residents are aware of the schedule.

The Applicant conducted a background ambient noise level study in order to understand the existing noise levels near the proposed facility. The study included short-term measurements at eight monitoring locations. Ambient noise level monitoring was conducted from June 19 through June 22, 2017. The ambient noise level monitoring locations were located 0.27 to 1.07 miles from

the project area and reasonably represent the project area. The results of that study showed ambient noise levels ranged from 42-68 A-weighted decibels (dBA). The Applicant has chosen the lowest ambient noise level, 42 dBA plus 5 dBA (47 dBA), as the design goal for the project.

AMBIENT NOISE LEVELS		
Monitoring location	Location relative to project	Lowest ambient L <sub>eq</sub> (dBA)
1	0.27 mi to the southwest	42
2	0.27 mi to the northwest	44
3	0.47 mi to the north	56
4	1.07 mi to the northeast	60
5	0.37 mi to the east	47
6	0.42 mi to the southeast	55
7	0.68 mi to the east	46
8	0.25 mi to the southeast	47

The Applicant estimated noise levels from the operation of the proposed facility by using SoundPLAN noise modeling software. The project would use noise reduction mitigation such as enclosing noisy equipment inside buildings, locating ventilation inlets on the north and west walls away from sensitive receptors to the east, and boiler feed pump noise reduction. Noise levels during operation would range from 42 to 48 dBA L<sub>eq</sub> at the monitoring locations. The largest net increase in sound level at a monitoring location was modeled to be 3 dBA. No noise sensitive receptor is modeled to have an operational impact greater than 47 dBA.

With the Applicant's adherence to the design goal and use of noise mitigation detailed in the application the project would be expected to have minimal adverse noise impacts on the adjacent community.

In order to minimize adverse impacts associated with increased noise levels, Staff recommends that the Applicant use the mitigation measures that were included in its noise model, or similar measures with equal or better performance, and include procedures in its complaint resolution process for resolving noise complaints.

All Staff recommendations for the requirements discussed in this section of the *Staff Report of Investigation* are included under the **Public Services, Facilities, and Safety Conditions** heading of the Recommended Conditions of Certificate section.

### **Recommended Findings**

Staff recommends that the Board find that the Applicant has determined the nature of the probable environmental impact for the proposed facility, and therefore complies with the requirements specified in R.C. 4906.10(A)(2), provided that any certificate issued by the Board for the proposed facility include the conditions specified in the section of this *Staff Report of Investigation* entitled Recommended Conditions of Certificate.



### **Considerations for R.C. 4906.10(A)(3)**

#### **MINIMUM ADVERSE ENVIRONMENTAL IMPACT**

Pursuant to R.C. 4906.10(A)(3), the proposed facility must represent the minimum adverse environmental impact, considering the state of available technology and the nature and economics of the various alternatives, along with other pertinent considerations.

##### **Site Selection**

The Applicant determined the best location for a power production facility would be in northeast Ohio based on its consideration of various factors, including: underutilized electricity infrastructure; nearby access to competitive Utica Shale natural gas supplies; a growing demand base as more manufacturing increases from access to the Utica Shale production; plentiful water supplies; road and rail transportation capabilities; and, a long history of proven skilled labor force. In addition, several members of the Applicant's development team had experience with the requirements and capabilities of the region from previously developing power plants for industrial users in northeast Ohio. Based on its review of potential locations and its chosen criteria, the Applicant determined that the Harrison County Industrial Park in the village of Cadiz was the optimal location for the facility. The location is relatively flat and has access for workers and heavy haul equipment. Additionally, the location is within an industrial park. The Applicant determined that these factors, as well as the application of the above-discussed criteria, make the facility location suitable.

The proposed project layout was a result of consideration of an existing pond on site, gas line easements, and undermining of coal by the prior owner. The project layout chosen by the Applicant avoids the pond and lies to the east of the gas line easements. The project layout also avoids placing heavy equipment such as the turbines directly over an undermined area.

The Applicant followed a reasonable process for site selection and its determination of a proposed layout for the facility.

##### **Minimizing Impacts**

The Applicant has sited and designed the Harrison Power Plant to minimize potential impacts. The project is located in an industrial park designated by the Village of Cadiz. Of the approximately 90 acres of leased land, approximately 30 acres would be permanently converted into built facilities. Pastureland accounts for all of the land that would be impacted by the proposed facility, and this land was previously utilized for surface mining activities. The immediate surrounding area is either open pasture or utility use, with adjacent industrial facilities.

Based on the review conducted by the Applicant's cultural resource consultant, no previously recorded cultural resources were identified at the project site and relatively few cultural resources were identified in the immediate vicinity of the project. The Ohio Historic Preservation Office responded in concurrence that this project would not affect historic properties listed on or eligible for the National Register of Historic Places and recommended that no further cultural resources work was needed for this project.

The proposed facility would have an overall positive impact on the local economy due to the increase in construction spending, wages, purchasing of goods and services, and annual tax revenues.

Construction of the proposed facility would not directly impact any streams. In order to minimize impacts to wetlands, the Applicant has completed and submitted a Nationwide Permit 39 to the United States Army Corps of Engineers. Additionally, the Applicant has committed to marking and fencing off wetlands on the periphery of the project site as an avoidance measure. Construction of the facility would not require work within mapped 100-year floodplains.

Impacts to any state and federal listed species can be avoided by following seasonal restrictions for construction in certain habitat types as detailed by the USFWS and the ODNR.

Noise impacts are expected during construction and operation of the facility. The adverse impact of construction noise would be temporary and intermittent, would occur away from most residential structures, and would be limited to daytime working hours. The Applicant would adhere to noise mitigation measures as detailed in its noise model.

The stacks for the power plant, as well as cranes used for construction, have the potential to interfere with airspace navigation for the Harrison County Airport. The FAA issued a Notice of Presumed Hazard to air navigation for the proposed stacks. The Applicant is working with the FAA and Harrison County Airport Authority on an air traffic pattern change that would allow them to receive a favorable determination from the FAA. Staff is recommending certain conditions to ensure minimal impact to airspace and air traffic patterns in the vicinity of the proposed power plant.

During the construction period, local, state, and county roads would experience a temporary increase in truck traffic due to deliveries of equipment and materials. The utilization of a local rail spur for delivery of plant components during construction would minimize impacts to local roads. A final delivery route plan from the rail spur to the plant site would be developed through discussions with local officials.

Due to existing viewshed impacts from other nearby industrial facilities and topography of the site, and the fact that no tree clearing is necessary for construction of the plant, the visual impacts would be most prominent to landowners in the immediate vicinity of the infrastructure itself. Through measures committed to by the Applicant to address lighting and paint colors, as well as the Staff recommended landscape and aesthetics plan, aesthetic impacts would be minimized.

### **Conclusion**

Staff concludes that the proposed project would result in both temporary and permanent impacts to the project area and surrounding areas. Due to the low potential to impact land use, cultural resources, surface water resources, wildlife, and Staff's recommended conditions to mitigate these impacts further, Staff concludes that the project represents the minimum adverse environmental impact.

### **Recommended Findings**

Staff recommends that the Board find that the proposed facility represents the minimum adverse environmental impact, and therefore complies with the requirements specified in R.C. 4906.10(A)(3), provided that any certificate issued by the Board for the proposed facility include the conditions specified in the section of this *Staff Report of Investigation* entitled Recommended Conditions of Certificate.

## CONSIDERATIONS FOR R.C. 4906.10(A)(4)

### **ELECTRIC GRID**

Pursuant to R.C. 4906.10(A)(4), the Board must determine that the proposed electric facilities are 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 facilities will serve the interests of electric system economy and reliability.

The purpose of this section is to evaluate the impact of integrating the proposed facility into the existing regional transmission grid. The Applicant proposes to construct a natural gas combined cycle electric generating facility, capable of producing 1,050 MW. The Applicant plans to construct a four-mile double-circuit 138 kV transmission line (Case No. 17-2084-EL-BTX) to interconnect the proposed facility through AEP Ohio Transmission Company's Nottingham 138 kV substation.<sup>21</sup>

#### **NERC Planning Criteria**

The North American Electric Reliability Corporation (NERC) is responsible for the development and enforcement of the federal government's approved reliability standards, which are applicable to all owners, operators, and users of the bulk power system (BPS). As an owner, operator, and/or user of the BPS, the Applicant is subject to compliance with various NERC reliability standards. NERC reliability standards are included as part of the system evaluations conducted by PJM.<sup>22</sup>

#### **PJM Interconnection**

The Applicant submitted its generation interconnection request for the proposed facility to PJM on October 25, 2016. PJM gave the application a queue position of AC1-103. The System Impact Study was released by PJM in March 2018.<sup>23</sup>

PJM studied the interconnection as an injection into AEP's Nottingham 138 kV substation. The Applicant requested a maximum facility interconnection of 1,050 MW, of which 1,026 MW would be capacity. Capacity represents the need for adequate generating resources to ensure that the demand for electricity can be met at all times. In PJM's case, that means that a utility or other electricity supplier is required to have the resources to meet its customers' demand plus a reserve amount. Suppliers can meet that requirement with generating capacity they own, with capacity purchased from others under contract, or with capacity obtained through PJM's capacity market auctions.

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21. *In the Matter of the Application by Harrison Power Transmission, LLC for a Certificate of Environmental Compatibility and Public Need for the Harrison Power 138 Kilovolt Transmission Line Project*, Case No. 17-2084-EL-BTX, (January 24, 2018)

22. PJM Interconnection, LLC is the regional transmission organization charged with planning for upgrades and administering the generation queue for the regional transmission system in Ohio. Generators wanting to interconnect to the bulk electric transmission system located in the PJM control area are required to submit an interconnection application for review of system impacts. The interconnection process provides for the construction of expansions and upgrades of the PJM transmission system, as needed to maintain compliance with reliability criteria with the addition of generation in its footprint.

23. PJM Interconnection, LLC, "System Impact Study, Queue Number AC1-103," accessed March 2, 2018, <http://pjm.com/planning/generation-interconnection/generation-queue-active.aspx>.

### **PJM Network Impacts**

PJM analyzed the bulk electric system with the proposed facility interconnected to the bulk power system via AEP's Nottingham 138 kV substation. A 2020 summer peak power flow model was used to evaluate the regional reliability impacts. The results indicated an overload on American Transmission Systems Inc. (ATSI) Nottingham-Yager 138 kV Transmission Line during a multiple contingency event. To mitigate the overload, ATSI would be required to reconductor the current 477 Aluminum Conductor Steel Reinforced (ACSR) wire to a 795 ACSR wire. The below chart displays the results of the PJM System Impact Study for the PJM regional footprint.<sup>24</sup>

<b>PJM REGIONAL SYSTEM IMPACTS</b>	
<b>Generator Deliverability - System Normal and Single Contingency Outage</b>	
<i>Plant Output: Capacity Level – 1,050 MW</i>	No problems identified
<b>Category C and D - Multiple Contingency Outages</b>	
<i>Plant Output: Capacity Level – 1,050 MW</i>	
<b>Overloaded Facility</b>	<b>Upgrade</b>
Nottingham-Yager #1 138 kV Transmission Line	Reconductor 18.5 miles of the Nottingham-Yager Transmission Line with 795 ACSR wire

### **Contribution to Previously Identified Overloads - Network Impacts**

PJM studied overloading where the proposed facility may affect earlier projects in the PJM Queue. No problems were identified as a result of this analysis.

### **Short Circuit Analysis**

The short circuit analysis study, which is part of the System Impact Study, evaluates the interrupting capabilities of circuit breakers impacted by the proposed generation addition. The results identified no overloaded circuit breakers.

### **Conclusion**

PJM analyzed the bulk electric system, with the facility interconnected to the transmission grid, for compliance with NERC, NERC Regional Reliability Councils, PJM and Transmission Owners reliability criteria. The PJM system studies indicated an overload on ATSI's Nottingham-Yager 138 kV Transmission Line during a multiple contingency event. To correct the overload violation, PJM will require ATSI to reconductor the transmission line with a 795 ACSR wire. In addition, no potential violations were found during the short circuit analysis.

### **Recommended Findings**

Staff recommends that the Board find that the proposed facility 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 facility would serve the interests of electric system economy and reliability. Therefore, Staff recommends that the Board find that the facility complies with the requirements specified in R.C. 4906.10(A)(4), provided that any certificate issued by the Board

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24. PJM Interconnection, LLC, "System Impact Study, Queue Number AC1-103," accessed March 2, 2018, <http://pjm.com/planning/generation-interconnection/generation-queue-active.aspx>.

for the proposed facilities include the conditions specified in the section of this *Staff Report of Investigation* entitled Recommended Conditions of Certificate.



### **Considerations for R.C. 4906.10(A)(5)**

#### **AIR, WATER, SOLID WASTE, AND AVIATION**

Pursuant to R.C. 4906.10(A)(5), the facility must comply with Ohio law regarding air and water pollution control, withdrawal of waters of the state, solid and hazardous wastes, and air navigation.

##### **Air**

The proposed project site is within an area classified as attainment for all National Ambient Air Quality Standards criteria air pollutants. Operational impacts on air quality would be minimized through the use of new gas turbine technology, and incorporating air pollution controls that satisfy Best Available Control Technology. An Air Quality Impact Assessment (AQIA) was conducted to exhibit the project's compliance with the National Ambient Air Quality Standards (NAAQS) set for O<sub>3</sub>, SO<sub>2</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, NO<sub>2</sub>, CO, and Pb. The results of the AQIA found all studied pollutants would remain below NAAQS significant impact levels.

Air pollution controls are proposed for the facility to minimize impacts to air quality. The primary air pollution control devices include dry low nitrogen oxide (DLN) burners in the gas turbines, selective catalytic reduction (SCR) systems, good combustion practices, high quality natural gas fuel, and oxidation catalysts in the HRSGs.

The proposed combustion turbines and duct burners utilize DLN burners integrated within the combustion turbines. The DLN burners would control the formation of nitrogen oxide (NO<sub>x</sub>) by pre-mixing fuel and air immediately prior to combustion. Pre-mixing inhibits formation of NO<sub>x</sub> by minimizing the flame temperature and the concentration of oxygen at the flame.

SCR is an air pollution control technology that is used to remove nitrogen oxides from the flue gases that are produced during combustion of fossil fuels in turbines or boilers. SCR removes nitrogen oxides through a catalyzed chemical reduction of NO<sub>x</sub> by ammonia that is introduced as a reactant in the flue gas in the presence of excess oxygen. This reaction generates nitrogen gas and water as the end products that are emitted from the stack into the atmosphere. The SCR systems would be installed in the HRSGs, and would reduce emissions of nitrogen oxides to two parts per million by volume. Unreacted ammonia would be limited to five parts per million.

Through the exclusive combustion of natural gas in the combustion turbine generators and duct burners in conjunction with good combustion practices, particulate matter (PM) emissions will be minimized. A PM<sub>10</sub>/PM<sub>2.5</sub> emissions limit of 0.008 pounds per million British thermal units (lbs/MMBtu) is proposed by the Applicant.

An oxidation catalyst system would be located within the HRSGs to control emissions of carbon monoxide (CO) and volatile organic compounds (VOC). Exhaust gases from the turbines pass over a catalyst bed where excess air would oxidize the CO and VOC. The oxidation catalysts would reduce emissions of CO to two parts per million by volume and VOC to 2 parts per million by volume.

Emissions from the facility would be tracked using a continuous emissions monitoring system (CEMS). The CEMS would continuously extract flue gas samples near the exhaust of the HRSGs and measure flue gas parameters. The primary emissions from the proposed facility would be CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O. The CEMS would detect a deterioration of performance before a failure of the

catalyst occurs. The facility would not operate if its SCR system is not functioning properly. Project emissions under all operating conditions would comply with permit requirements.

The air permit-to-install application for the project was submitted to the Ohio EPA in February 2017. The permit-to-install serves as the air construction permit and the initial operating permit. The Applicant would be required to apply for a Title V air operating permit within 12 months after initial startup. Additionally, the Applicant would need to submit a Title IV Acid Rain Program permit application for emissions of sulfur dioxide (SO<sub>2</sub>) and NO<sub>x</sub>. The Title IV permit must be submitted at least 24 months prior to beginning operation.

Construction impacts on air quality primarily consist of relatively minor emissions from the construction equipment and from fugitive dust emissions. Construction vehicles would emit insignificant amounts of VOC, SO<sub>2</sub>, CO, NO<sub>x</sub>, and PM. These emissions are not expected to cause any significant adverse impacts to air quality.

### **Water**

Construction of the proposed facility would not require the use of significant amounts of water. However, operation of the proposed facility would require the use of a significant amount of water. The maximum rate is approximately 363,312 gallons per day while the average rate of usage is approximately 88,416 gallons per day. The project is planning to obtain potable water through the Village of Cadiz.

Air cooling technology will be employed as the heat sink for each unit's steam cycle and associated closed cooling water loops. Under normal operating conditions, a minimal amount of water will be needed to replenish the cooling systems due to steam cycle blowdown and operational leakage. At certain times, extra water would be required to operate evaporative coolers at the inlet of each gas turbine.

The Applicant filed a permit coverage under the Ohio EPA's National Pollutant Discharge Elimination System (NPDES) general permit for storm water discharges associated with industrial activities on September 15, 2017. The Applicant would submit a SWPPP to the Ohio EPA as part of the NPDES permit. This SWPPP would be developed for the project pursuant to Ohio EPA regulations and would conform to the ODNR's Rainwater and Land Development Manual.

Stormwater flows from the developed site would be controlled through the use of a detention pond, an oil/water separator, common collection sump and other BMPs. The preliminary design reflects discharge of clean stormwater runoff from the stormwater collection pond and into Sally Buffalo Creek and through a bioswale channel outletting off site.

Wastewater from the facility would be collected in a wastewater collection tank before discharge into a stormwater collection pond, then to the outfall interconnection with Sally Buffalo Creek. Sanitary wastewater would be collected in an on-site lift station and discharged to the Village of Cadiz sewer system. The estimated average daily discharge would be 79,200 gallons, and the maximum daily discharge would be 219,456 gallons. Wastewater quality testing would be conducted on site to monitor compliance with the facility's discharge requirements.

### **Solid Waste**

The Applicant estimates that approximately 1,200 cubic yards of construction debris could be generated from construction of the proposed facility. Solid waste generated from construction

activities would include packing materials, office waste, scrap lumber, metals, cables, glass, cardboard containers, and other miscellaneous debris. In addition, during construction and pre-operational cleaning, some solvents and flushing materials would be used. During operation, SCR catalysts would be removed and returned to a catalyst vendor for regeneration, salvage, or disposal. Solid waste that can be neither recycled nor reused would be stored in on-site containers for disposal. The Applicant would develop procedures to ensure that potentially hazardous wastes are separated from normal waste, including segregation of storage areas and proper labeling of containers.

All solid waste generated would be trucked off site by licensed contractors in accordance with applicable regulatory requirements and managed in licensed facilities. The Applicant estimates the facility would generate 120 cubic yards of solid waste annually. The Applicant would have a Spill Prevention, Containment, and Countermeasure Plan in place and would follow manufacturers' recommendations for any spill cleanup. The Applicant's solid waste disposal plans comply with solid waste disposal requirements in R.C. Chapter 3734, and the rules and laws adopted under this chapter.

### **Aviation**

The tallest anticipated above ground permanent structures would be the HRSG stacks at 165 feet tall. The Applicant also indicated that it would utilize cranes during the construction of the proposed facility. The specific height and type of the construction cranes has yet to be finalized but will necessarily be higher than the 165-foot height of the HRSG stacks. A separate temporary construction permit will need to be obtained from the Federal Aviation Administration (FAA), which will detail the height, operating conditions, and duration of the crane work. Additionally, an application to construct the electric transmission interconnection line has been filed in Case No. 17-2084-EL-BTX. In that case, the anticipated heights of the above ground transmission support structures are expected to be from 80 feet to 175 feet tall. These proposed transmission support structures, HRSG stacks, and construction equipment have the potential to interfere with airspace navigation. The nearest airport is the Harrison County Airport, located 4,373 feet southwest of the facility.

The FAA administers a regulatory program to evaluate and authorize certain obstructions near airports and provide airport airspace analysis. The Applicant submitted a request for review by the FAA on January 3, 2018, for the 165-foot HRSG stacks. The FAA issued a Notice of Presumed Hazard to air navigation for the proposed stacks.

The Applicant is working with the FAA and Harrison County Airport (8G6) Authority on an air traffic pattern change in order to receive a favorable determination from the FAA.

Staff found that there were other public-use airports in the area of the proposed facility. These are Alderman (2P7), Jefferson County Airpark (2G2), Barnesville-Bradfield (6G5), Wheeling Ohio CO. (HLG), Trinity Medical Center West (8OI4), Carroll County-Tolson (TSO), and Eddie Dew Memorial Airpark (1G8) which are between 8 and 23 miles from the proposed power plant. The closest heliports are located from 2 to 3 miles from the project site and appear to be associated with the R&F Coal Company and Harrison Community Hospital. Neither of these public use airports or private heliports posed any air navigation concerns with the proposed facility.



Staff contacted the Ohio Department of Transportation Office of Aviation during the review of this application (in accordance with R.C. 4561.32) to coordinate review of potential impacts of the facility on local airports. Staff, the ODOT Office of Aviation, and the Harrison County Airport Authority president also discussed the project by conference call on February 28, 2018. The Harrison County Airport Authority president indicated that the Harrison County Airport Authority Board was considering the air traffic pattern change to resolve the presumed hazards to air navigation.

As the Applicant is continuing to work with the FAA and the Harrison County Airport Authority, Staff recommends conditions to address and prevent airspace navigation concerns.

All Staff recommendations for the requirements discussed in this section can be found under the **Air, Water, Solid Waste, and Aviation Conditions** heading of the Recommended Conditions of Certificate.

#### **Recommended Findings**

Staff recommends that the Board find that the proposed facility complies with the requirements specified in R.C. 4906.10(A)(5), provided that any certificate issued by the Board for the proposed facility include the conditions specified in the section of this *Staff Report of Investigation* entitled Recommended Conditions of Certificate.

### **Considerations for R.C. 4906.10(A)(6)**

#### **PUBLIC INTEREST, CONVENIENCE, AND NECESSITY**

Pursuant to R.C. 4906.10(A)(6), the Board must determine that the facility will serve the public interest, convenience, and necessity.

##### **Public Safety**

The Applicant would limit public access to the facility by installing a security fence around the project site with card-activated gates and operator-controlled access. In addition, the Applicant has indicated that there will be 24-hour per day manned security control at the power block access point.

The project would be constructed, operated, and maintained in accordance with applicable safety regulations, including Occupational Safety and Health Administration requirements, and industry standards. The facility personnel would be trained to operate the equipment in a safe and reliable manner. The Applicant stated that it would secure pertinent federal and state environmental permits, and construct and operate the facility in accordance with all applicable environmental and safety regulations.

The Applicant has committed to incorporate appropriate safety measures (e.g. containment and access to cleanup chemicals) and design to prevent and contain any accidental spill of on-site chemicals.

##### **Gas Pipeline Safety**

In order to operate the natural gas interconnection and associated equipment safely and reliably, and to minimize the possibility of failure in the gas supply system, the equipment should be built, operated, and maintained to meet the requirements in Title 49 CFR parts 191 and 192, the Federal Minimum Pipeline Safety Standards; part 199 and part 40, the Drug and Alcohol Regulations; R.C. 4905.90 through 4905.96, Natural Gas Pipeline Safety Standards; and Ohio Adm.Code 4901:1-16, Gas Pipeline Safety. The Applicant intends to comply with these gas pipeline safety regulations.

##### **Fire Protection System**

A complete fire protection/detection system would be provided for the facility. The system would include a fixed water fire suppression system, fire hose stations, hydrants, portable fire extinguishers, and detection and control systems. The fire protection system would be designed and installed in accordance with local fire department, National Fire Protection Association (NFPA) standards and insurer's recommendations.

The Applicant has committed to collaborate with local emergency responders to develop an emergency response plan that would address different potential emergencies, levels of response, and personnel and equipment resources.

##### **Gas Supply**

The facility would require, on average, 166 million cubic foot per day (MMCFD) of natural gas from area pipelines. The Applicant is considering a connection to the existing MarkWest natural gas processing plant, which is adjacent to the facility site, via a Republic Partners gas pipeline. The Applicant is also considering a second gas interconnection option to supply the facility. To realize this gas interconnection, a separate application to the Board to construct a natural gas

pipeline that would connect the power plant to the Republic Partners nearby pipeline has been submitted to the Board in Case No. 18-0073-GA-BLN.

MarkWest has three gas processing plants in eastern Ohio that are interconnected via pipeline. Staff concurs with the Applicant's assessment that the facility has access to over 2,000 MMCFD from area gas processing plants and that in the event that the MarkWest Cadiz natural gas processing plant is unavailable the facility will have continued access to other nearby gas processing plants.

Although pipeline gas is very clean, minor impurities need to be removed prior to entering combustion turbines. The Applicant intends to install a fuel gas filter/scrubber and gas heating/liquids removal system to improve overall plant efficiency.

The Applicant indicates it would contract to ensure gas transportation service to the facility. The transportation service would be a long-term year round service to ensure uninterrupted supply of gas to the project.

Because of the measures described above and the magnitude of the capital investment to construct the facility, Staff believes that the Applicant would take appropriate measures to ensure the proper operation of the facility. The procurement of adequate natural gas supplies and pipeline capacity are necessary components for the successful operation of the facility.

#### **Public Interaction**

The Applicant hosted public informational open houses for this project on May 18, 2017 and July 27, 2017. Attendees were provided the opportunity to speak with representatives of the Applicant about the proposed project and to provide feedback.

The Applicant served copies of the complete application on officials representing Harrison County, the Harrison County Community Improvement Corporation, the Harrison Soil and Water Conservation District, the Harrison County Regional Planning Commission, Cadiz Township, and the Village of Cadiz. The Applicant also sent a copy of the complete application to the Puskarich Public Library. Additionally, copies of the complete application are available for public inspection at the offices of the PUCO and online at <http://opsb.ohio.gov>.

During the construction and operation of the facility, the Applicant would use a comment form to gather any comments, issues, or concerns related to the facility.<sup>25</sup> Comment forms would be made available to the public at a central location to be determined by the Village of Cadiz and the Applicant. The Applicant would monitor responses to the forms.

The Applicant has committed to notifying, by mail, affected property owners and tenants at least seven days prior to the start of construction. However, Staff recommends a condition requiring the Applicant to provide at least 30 days notice prior to the start of construction.

The Administrative Law Judge issued an entry on January 25, 2018 scheduling a local public hearing and an adjudicatory hearing for this proceeding. The local public hearing, at which the Board will accept written or oral testimony from any person, is scheduled for April 5, 2018 at 6:00 p.m., at the Puskarich Public Library, 200 E. Market St., Cadiz, OH 43907. The adjudicatory

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<sup>25</sup> Application at Appendix C.

hearing is scheduled for April 16, 2018 at 10:00 a.m., at the offices of the PUCO, 11th floor, Hearing Room 11-C, 180 E. Broad St., Columbus, OH 43215.

On December 27, 2017, Ohio Valley Jobs Alliance, Inc. filed a petition for leave to intervene. On March 7, 2018, Hess Ohio Developments, LLC and CNX Gas Company LLC filed a petition for leave to intervene. On March 16, 2018, the Community Improvement Corporation of Harrison County filed a petition for leave to intervene. As of the filing of this Staff Report, the Board has received no public comments in this case.

### **Liability Insurance Plans**

The Applicant stated that it will carry general liability, property, and casualty insurance for the project site. Project related deliveries and vehicles would have appropriate insurance coverage.<sup>26</sup>

### **Land**

The facility would be located on a 90-acre parcel for which the Applicant has an option for purchase from the Harrison County Community Improvement Corporation (CIC). Construction parking and laydown areas would be situated on the 90-acre parcel or on additional acreage leased from the CIC.

All Staff recommendations for the requirements discussed in this section of the *Staff Report of Investigation* are included under the Recommended Conditions of Certificate section.

### **Recommended Findings**

Staff recommends that the Board find that the proposed facility would serve the public interest, convenience, and necessity, and therefore complies with the requirements specified in R.C. 4906.10(A)(6), provided that any certificate issued by the Board for the proposed facility include the conditions specified in the section of this *Staff Report of Investigation* entitled Recommended Conditions of Certificate.

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<sup>26</sup>. *Application* at p. 20.

### **Considerations for R.C. 4906.10(A)(7)**

#### **AGRICULTURAL DISTRICTS**

Pursuant to R.C. 4906.10(A)(7), the Board must determine the facility's impact on the agricultural viability of any land in an existing agricultural district within the project area of the proposed facility. The agricultural district program was established under R.C. Chapter 929. Agricultural district land is exempt from sewer, water, or electrical service tax assessments.

Agricultural land can be classified as an agricultural district through an application and approval process that is administered through local county auditors' offices. Eligible land must be devoted exclusively to agricultural production or be qualified for compensation under a land conservation program for the preceding three calendar years. Furthermore, eligible land must be at least 10 acres or produce a minimum average gross annual income of \$2,500.

No agricultural district lands were identified in the project area. No agricultural district land would be disturbed in association with the construction of the proposed facility. No impacts to field operations, irrigation, or field drainage systems associated with agricultural district lands would occur as a result of the construction, operation, or maintenance of the proposed facility. The project is located on reclaimed strip mined land, previously used for grazing, but not agricultural row-crop land.

The Applicant would also ensure that adjacent properties are not impacted by the construction of the facility.

#### **Recommended Findings**

Staff recommends that the Board find that the impact of the proposed facility on the viability of existing agricultural land in an agricultural district has been determined, and therefore complies with the requirements specified in R.C. 4906.10(A)(7), provided that any certificate issued by the Board for the proposed facility include the conditions specified in the section of this report entitled Recommended Conditions of Certificate.

**Considerations for R.C. 4906.10(A)(8)**

**WATER CONSERVATION PRACTICE**

Pursuant to R.C. 4906.10(A)(8), the proposed facility must incorporate maximum feasible water conservation practices, considering available technology and the nature and economics of the various alternatives.

Staff has reviewed the Applicant's proposed water balance and water consumption for the facility. While construction of the proposed facility would not require the use of significant amounts of water, operation of the proposed facility would require the use of a significant amount of water, approximately 88,000 gallons per day on average.

Water would be obtained through the Village of Cadiz water treatment plant, to be used for process water, fire protection, and sanitary uses. Therefore, the requirements under R.C. 1501.33 and 1501.34 are not applicable to this project.

The proposed facility design incorporates significant water conservation measures. In particular, the facility would use air-cooling, rather than a conventional wet cooling system. In addition, an air-cooled fin fan cooler would do cooling for each unit's auxiliary equipment.

**Recommended Findings**

The Staff recommends that the Board find that the proposed facility would incorporate maximum feasible water conservation practices, and therefore complies with the requirements specified in R.C. 4906 (A)(8). Further, the Staff recommends that any certificate issued by the Board for the certification of the proposed facility include the conditions specified in the section of this report entitled Recommended Conditions of Certificate.

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#### **IV. RECOMMENDED CONDITIONS OF CERTIFICATE**

Following a review of the application filed by Harrison Power LLC, and the record compiled to date in this proceeding, Staff recommends that a number of conditions become part of any certificate issued for the proposed facility. These recommended conditions may be modified because of public or other input received subsequent to the issuance of this report. At this time, Staff recommends the following conditions:

##### **GENERAL CONDITIONS**

Staff recommends the following conditions to ensure conformance with the proposed plans and procedures as outlined in the case record to date, and to ensure compliance with all conditions listed in this Staff Report:

- (1) The facility shall be installed at the Applicant's proposed site as presented in the application and as modified and/or clarified by supplemental filings, replies to data requests and the recommendations in this *Staff Report of Investigation*.
- (2) The Applicant shall conduct a preconstruction conference prior to the start of any construction activities. Staff, the Applicant, and representatives of the prime contractor and all subcontractors for the project shall attend the preconstruction conference. The conference shall include a presentation of the measures to be taken by the Applicant and contractors to ensure compliance with all conditions of the certificate, and discussion of the procedures for on-site investigations by Staff during construction. Prior to the conference, the Applicant shall provide a proposed conference agenda for Staff review. The Applicant may conduct separate preconstruction conferences for each stage of construction.
- (3) At least 30 days before the preconstruction conference, the Applicant shall submit to Staff, for review to ensure compliance with this condition, one set of detailed engineering drawings of the final project design, including the facility, temporary and permanent access roads, any crane routes, construction staging areas, and any other associated facilities and access points, so that Staff can determine that the final project design is in compliance with the terms of the certificate. The final project layout shall be provided in hard copy and as geographically-referenced electronic data. The final design shall include all conditions of the certificate and references at the locations where the Applicant and/or its contractors must adhere to a specific condition in order to comply with the certificate.
- (4) If the Applicant makes any changes to the project layout after the submission of final engineering drawings, the Applicant shall provide all such changes to Staff in hard copy and as geographically-referenced electronic data. All changes will be subject to Staff review to ensure compliance with all conditions of the certificate, prior to construction in those areas.
- (5) Within 60 days after the commencement of commercial operation, the Applicant shall submit to Staff a copy of the as-built specifications for the entire facility. If the Applicant demonstrates that good cause prevents it from submitting a copy of the as-built specifications for the entire facility within 60 days after commencement of commercial operation, it may request an extension of time for the filing of such as-built specifications. The Applicant shall use reasonable efforts to provide as-built drawings in both hard copy and as geographically-referenced electronic data.



- (6) Prior to the commencement of construction activities in areas that require permits or authorizations by federal or state laws and regulations, the Applicant shall obtain and comply with such permits or authorizations. The Applicant shall provide copies of permits and authorizations, including all supporting documentation, to Staff within seven days of issuance or receipt by the Applicant. The Applicant shall provide a schedule of construction activities and acquisition of corresponding permits for each activity at the preconstruction conference.
- (7) The certificate shall become invalid if the Applicant has not commenced a continuous course of construction of the proposed facility within five years of the date of journalization of the certificate.
- (8) As the information becomes known, the Applicant shall docket in the case record the date on which construction will begin, the date on which construction was completed, and the date on which the facility begins commercial operation.
- (9) The Applicant shall not commence any construction of the facility until it has a signed Interconnection Service Agreement with PJM Interconnection, which includes construction, operation, and maintenance of system upgrades necessary to integrate the proposed generating facility into the regional transmission system reliably and safely. The Applicant shall docket in the case record a letter stating that the Agreement has been signed or a copy of the signed Interconnection Service Agreement.
- (10) At least 30 days prior to the preconstruction conference, the Applicant shall provide to Staff a copy of its public information program that informs affected property owners and tenants of the nature of the project, specific contact information of Applicant personnel who are familiar with the project, the complaint resolution process, the proposed timeframe for project construction, and a schedule for restoration activities. The Applicant shall give notification of planned construction to affected property owners and tenants at least seven days prior to commencement of construction.
- (11) During the construction and operation of the project, the Applicant shall file a complaint summary report in the case record by the fifteenth day of January, April, July and October of each year. The report should include a list of all complaints received through its complaint resolution process, a description of the actions taken to resolve each complaint, and a status update if the complaint has yet to be resolved.

### **SOCIOECONOMIC CONDITIONS**

Staff recommends the following condition to address the impacts discussed in the **Socioeconomic Impacts** section of the Nature of Probable Environmental Impact:

- (12) Prior to commencement of any construction, the Applicant shall prepare a landscape and lighting plan that addresses the aesthetic and lighting impacts of the facility on nearby residences, including lighting locations. The Applicant shall provide the plan to Staff for review and confirmation that it complies with this condition.

## ECOLOGICAL CONDITIONS

Staff recommends the following condition to address the requirements discussed in the **Ecological Impacts** section of the Nature of Probable Environmental Impact:

- (13) The Applicant shall contact Staff, the Ohio Department of Natural Resources (ODNR), and the U.S. Fish and Wildlife Service (USFWS), within 24 hours if state or federal species are encountered during construction activities. Construction activities that could adversely impact the identified plants or animals shall be halted until an appropriate course of action has been agreed upon by the Applicant, Staff, and the ODNR in coordination with the USFWS. Nothing in this condition shall preclude agencies having jurisdiction over the construction activities with respect to wildlife from exercising their legal authority over the facility consistent with law.
- (14) Construction in upland sandpiper preferred nesting habitat types shall be avoided during the species' nesting period of April 15 to July 31, unless coordination with the ODNR allows a different course of action.

## AIR, WATER, SOLID WASTE AND AVIATION CONDITIONS

Staff recommends the following condition to address the requirements discussed in the **Air, Water, Solid Waste, and Aviation** section of the Nature of Probable Environmental Impact:

- (15) The Applicant shall comply with fugitive dust rules by the use of water spray or other appropriate dust suppressant measures whenever necessary.
- (16) The Applicant shall meet all recommended and prescribed Federal Aviation Administration (FAA) and Ohio Department of Transportation (ODOT) Office of Aviation requirements to construct an object that may affect navigable airspace. This includes submitting coordinates and heights for all structures that penetrate the notification slope of any public use airport or that exceed 199 feet above ground level for ODOT Office of Aviation and FAA review prior to construction, and the non-penetration of any FAA Part 77 surfaces.
- (17) At least 30 days prior to the preconstruction conference, the Applicant shall file in this docket a copy of the FAA Determination of No Hazard letter, the FAA temporary construction permit, and the ODOT Construction Permit for the two heat recovery steam generator stacks and any construction cranes.
- (18) All applicable structures, including construction equipment shall be lit in accordance with FAA circular 70/7460-1 K Changes 2, Obstruction Marking and Lighting; or as otherwise prescribed by the FAA.
- (19) Within 30 days of construction completion, the Applicant shall file the as-built HRSG stacks or electrical support structure coordinates and heights with the FAA and the Harrison County Airport.

## **PUBLIC SERVICES, FACILITIES, AND SAFETY CONDITIONS**

Staff recommends the following conditions to address the requirements discussed in the **Public Services, Facilities, and Safety** section of the Nature of Probable Environmental Impact:

- (20) Prior to commencement of construction activities that require transportation permits, the Applicant shall obtain all such permits. The Applicant shall coordinate with the appropriate authority regarding any temporary or permanent road closures, lane closures, road access restrictions, and traffic control necessary for construction and operation of the proposed facility. Coordination shall include, but not be limited to, the county engineer, ODOT, local law enforcement, and health and safety officials. The Applicant shall detail this coordination as part of a final traffic plan submitted to Staff prior to the preconstruction conference for review and confirmation by Staff that it complies with this condition.
- (21) General construction activities shall be limited to the hours of 7:00 a.m. to 7:00 p.m., or until dusk when sunset occurs after 7:00 p.m. Impact pile driving, hoe ram, and blasting operations, if required, shall be limited to the hours between 10:00 a.m. to 5:00 p.m., Monday through Friday. Construction activities that do not involve noise increases above ambient levels at sensitive receptors are permitted outside of daylight hours when necessary. The Applicant shall notify property owners or affected tenants within the meaning of Ohio Adm.Code 4906-3-03(3)(B)(2) of upcoming construction activities including potential for nighttime construction activities.
- (22) In order to minimize adverse impacts associated with increased noise levels, Staff recommends that the Applicant use the mitigation measures included in the mitigated model, or similar measures.
- (23) At least 30 days before the preconstruction conference, the Applicant shall submit to Staff for review and confirmation that it complies with this condition an emergency response plan to be used during construction. This plan shall be developed in consultation with the fire department(s) having jurisdiction over the area. The Applicant shall coordinate with fire, safety, and emergency personnel during all stages of the project.



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180 E. Broad St.  
Columbus, OH 43215

**BEFORE THE OHIO POWER SITING BOARD**

<b>In the Matter of the Application of</b>	)	
<b>Harrison Power LLC for a Certificate</b>	)	
<b>of Environmental Compatibility and</b>	)	<b>Case No. 17-1189-EL-BGN</b>
<b>Public Need for the Harrison Power</b>	)	
<b>Plant in Harrison County</b>	)	
	)	

**NOTICE REGARDING MODIFICATION OF PROJECT FOOTPRINT**

Harrison Power LLC (the "Applicant") provides this notice because it is modifying the project footprint for the Harrison Power Plant (the "Project") by relocating the original construction parking and a temporary construction laydown area to an approximately 16 acre area for a temporary construction laydown area and an approximately 12.5 acre area for construction parking and a temporary construction laydown area. The two areas are currently owned or will be purchased pursuant to options by the Harrison County Community Improvement Corporation, the same owner as the previous project footprint area. As part of this notice, the Applicant is providing the attached supplemental information regarding the additional acreage and has organized the information by the applicable rule in Chapter 4906-4 of the Ohio Administrative Code. The Applicant intends to present all information in this notice, including the attached figures and exhibits, at the evidentiary hearing in this matter, and will note the modification to the Project footprint in the next public notice to be published regarding the Project.

In addition, the Applicant is providing correspondence regarding the supplemental information to the public officials and other property owners identified in its February 5, 2018 filing in this case.

Respectfully submitted,

/s/ Michael J. Settineri

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*Attorneys for Harrison Power LLC*

### CERTIFICATE OF SERVICE

The Ohio Power Siting Board's e-filing system will electronically serve notice of the filing of this document on the parties referenced in the service list of the docket card who have electronically subscribed to this case. In addition, the undersigned certifies that a courtesy copy of the foregoing document is also being served upon the persons below via electronic mail this 20th day of February 2018.

/s/ Michael J. Settineri

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# **Supplemental Information regarding Modification of Project Footprint**

## **Case No. 17-1189-EL-BGN**

Harrison Power Project  
Village of Cadiz, Harrison County, Ohio

Submitted by:

**Harrison Power LLC**

3000 Wilcrest Drive, #200

Houston, TX 77042



### **UPDATED FIGURES**

Figure 2-1a: Project Location – New Laydown Areas

Figure 2-1b: Project Location – Comparison of New and Previous Laydown Areas

Figure 3-2: Surrounding Area – 2 Miles

Figure 3-3: Project and Vicinity

Figure 3-4a: Plot Plan

Figure 3-5: Natural Gas

Figure 4-1: Site Selection Constraints

Figure 8-1: Noise Monitoring Locations

Figure 8-3: Aquifers, Water Wells, Oil Wells, and Drinking Water Protection Areas

Figure 8-4: Soils and Floodplains

Figure 8-5: Existing Ecological Resources

Figure 8-6: Ecological Impacts

### **NEW EXHIBITS**

Exhibit A: Stream and Wetland Delineation Report

Exhibit B: Mitigation Agreement and Deposit Verification Letter

## INTRODUCTION:

Harrison Power LLC (the “Applicant”) is modifying the project footprint by removing a temporary construction laydown and parking area to the north of the proposed power plant location, adding an approximately 16-acre parcel to the west of Industrial Park Road for a temporary construction laydown area, and adding an approximately 12.5-acre parcel contiguous to the proposed power plant facility for construction parking and a temporary construction laydown area. These two added parcels are currently owned or will be purchased pursuant to options by the Harrison County Community Improvement Corporation (CIC). No additional wetland or stream impacts will result. In fact, impacts are less than the amount identified in the original OPSB application. A new stream and wetland delineation report has been included for supporting documentation. The addition of these two new areas will not require any new participating leaseholders, nor will any additional landowners become adjacent to the project as a result of the addition of the new laydown areas. Information on this notice is presented below following the format of OPSB rules with only the applicable rules being referenced and discussed. For example, because the notice does not impact the suitability of the site or the project schedule, those rule requirements are not referenced. Updated figures reflecting these changes and GIS mapping files are being provided to the OPSB concurrently with this filing.

## PROJECT SUMMARY AND APPLICANT INFORMATION:

### OPSB Rule 4906-4-02(A):

“(A) The applicant shall provide a summary of the proposed project. The summary should be suitable as a reference for state and local governments and for the public. The summary shall include the following:

- (1) A statement explaining the general purpose of the facility.
- (2) A description of the general location, size, and operating characteristics of the proposed facility.”

### Response [4906-4-02(A)(1)]:

Harrison Power LLC (HPL), a Delaware limited liability company and wholly owned by Ember Partners LP (EmberClear), is proposing to develop, build, and operate the Harrison Power Project (the Facility), a natural gas-fired combined-cycle (CCGT) electric generating facility to be located in Harrison County, Ohio. In September 2017, the Applicant submitted an Application for a Certificate of Environmental Compatibility and Public Need for the Harrison Power Project (the “Application”). As a result of a modification in the Project footprint, the Applicant is presenting information regarding two additional parcels, one approximately 16 acres and one approximately 12.5 acres in size, to assist the OPSB Staff during its investigation of the Application (the “Supplement”). This notice also includes the removal of a proposed temporary construction laydown and parking area north of the power plant facility. The two new parcels and the new Project footprint are shown on updated **Figure 2-1a: Project Location**. A comparison of the Project footprint and laydown areas with the new Project footprint and laydown areas is shown on Figure 2-1b. This document is organized by OPSB applicable rules, with any new information resulting from the footprint modification being presented under the applicable rules in Chapters 4906-3 and 4906-4 of the Ohio Administrative Code.

**Response [4906-4-02(A)(2)]:**

As described in the above section 4906-4-02(A)(1) response, the Applicant is modifying the footprint by adding two parcels of land currently owned (or will be purchased pursuant to options) by the Harrison County Community Improvement Corporation (CIC) and removing one parcel of land north of the proposed power plant location. The two new parcels are designated as Manufacturing District per the Village of Cadiz zoning designations, as shown on updated **Figure 3-3: Project and Vicinity**. The 16-acre parcel is located to the west of Industrial Park Road, directly across from a proposed temporary construction laydown area from the original application. The 12.5-acre parcel is located adjacent to the proposed facility footprint from the original application.

**PROJECT DESCRIPTION IN DETAIL AND PROJECT SCHEDULE IN DETAIL:****OPSB Rule 4906-4-03(A):**

“(A) The applicant shall provide a description of the project area's geography, topography, population centers, major industries, and landmarks.

(1) The applicant shall provide a map of at least 1:24,000 scale containing a two-mile radius from the project area and showing the following features:

- (a) The proposed facility.
- (b) Population centers and administrative boundaries.
- (c) Transportation routes and gas and electric transmission corridors.
- (d) Named rivers, streams, lakes, and reservoirs.
- (e) Major institutions, parks, and recreational areas.

(2) The applicant shall provide the area, in acres, of all owned and leased properties that will be used for construction and/or operation of the project, and the number of properties.”

**Response [4906-4-03(A)(1)]:**

A map showing transportation routes and gas and electric transmission corridors, rivers, streams, lakes, reservoirs, institutions, parks, recreational areas, the updated Facility footprint, administrative boundaries, and population centers is shown in updated **Figure 3-2**. A map showing the project and vicinity is shown in updated **Figure 3-3**. All maps are shown at least at the required scale. A plot plan of the project is shown in updated **Figure 3-4a**. Additional detail on gas pipelines in the area is shown in updated **Figure 3-5**.

**Response [4906-4-03(A)(2)]:**

The Facility will be located on approximately 94 acres that are currently under option by HPL for purchase from the CIC. The power generating equipment, on-site switchyard, and other permanent

ancillary facilities will be located on approximately 59 acres of the total. A portion of this area will potentially be used for stormwater management, pending approval by the U.S. Army Corps of Engineers (USACE) and Ohio Environmental Protection Agency (OHIO EPA). A temporary construction laydown area located west of the pond was proposed in the original application. The applicant is still planning on utilizing this area for temporary construction laydown. A temporary construction laydown area will now be constructed on a 16-acre parcel to the west of Industrial Park Road, and temporary construction laydown and construction parking areas will be situated on an additional 12.5-acre parcel covered by this notice. This facility will be accessed via State Route 22, State Route 9, and Industrial Park Road. The generating plant itself will be situated to the east of an existing pipeline easement. The subject property and two additional parcels are located wholly on reclaimed coal strip mine land, and consist of land used for grazing. A map showing topography is included as updated **Figure 3-4a**.

**OPSB Rule 4906-4-03(B)(2):**

“(B) The applicant shall provide a detailed description of the proposed generation facility.

(2) The applicant shall describe, in as much detail as is available at the time of submission of the application, the construction method, site preparation and reclamation method, materials, color and texture of surfaces, and dimensions of all facility components, including the following:

(j) Construction laydown areas.”

**Response [4906-4-03(B)(2)]:**

The Facility will be permitted as a 1,050-MW power plant configured in two (2), 1x1 single shaft combined cycle, natural gas fuel, with each unit consisting of one Combustion Turbine (CT), one Heat Recovery Steam Generator (HRSG), one Steam Turbine, one Electric Generator, and one Air Cooled Condenser (ACC). Updated **Figure 3-3** shows the new facility layout and temporary construction laydown areas proposed by this notice, as described and contrasted below.

- Temporary Construction Laydown Areas (as proposed in ORIGINAL application): A total of 19 non-contiguous acres consisting of two areas are available for temporary construction laydown during Project Construction. One of the areas, which is eight acres is west of the pond and will be primarily used as temporary construction laydown. The other area of 11 acres is north of the site and will be used for both parking and temporary construction laydown.
- Temporary Construction Laydown Areas and Construction Parking Area (proposed in this notice): A total of 27 non-contiguous acres consisting of three areas will be used for temporary construction laydown during Project Construction. One of the areas, which is approximately eight acres, is west of the pond and will be primarily used as temporary construction laydown. Another area, which is 16 acres in size, is located west of Industrial Park Road. The other area of 12.5 acres is adjacent to the power plant facility site. Approximately 6.3 acres of this parcel will be used for parking and 3.3 acres will be used as a temporary construction laydown area, as shown on updated **Figure 3-4a**.

**OPSB Rule 4906-4-03(B)(4):**

“(4) The applicant shall supply a map of at least 1:12,000 scale of the project area, showing the following features:

- (a) An aerial photograph.
- (b) The proposed facility, including all components listed in paragraph (B)(2) of this rule.
- (c) Road names.
- (d) Property lines.”

**Response [4906-4-03(B)(4)]:**

Updated **Figure 3-3** shows the proposed facility, roads, and property lines.

**PROJECT DESCRIPTION IN DETAIL AND PROJECT SCHEDULE IN DETAIL:**

**OPSB Rule 4906-4-04(B)(2):**

“(B) The applicant shall describe the process of designing the facility layout.

- (2) The applicant shall provide a description of the criteria used to determine the facility layout and site design, and a comparison of any site design alternatives considered, including equipment alternatives where the use of such alternatives influenced the site design.”

**Response [4906-4-04(B)(2)]:**

The proposed project layout was a result of consideration of a pond on site, gas line easements and undermining of coal by prior owner. HPL wanted to avoid the small pond so was relegated to constructing the facility on the east side of the gas line easements. HPL also wanted to avoid heavy equipment (turbines) from being built directly over an undermined area. Given these limitations, no site design alternatives were considered. Due to equipment evaluations; access consideration; parking requirements; and existing infrastructure present on site, the locations of the temporary construction laydown areas have changed. Updated **Figure 3-3** shows the current facility layout and proposed temporary construction laydown area locations.

**HEALTH AND SAFETY, LAND USE AND ECOLOGICAL INFORMATION:**

**OPSB Rule 4906-4-08(A)(5):**

“(A) The applicant shall provide information on health and safety.

- (5) The applicant shall provide a map of suitable scale showing the proposed facility, geological features of the proposed facility site, topographic contours, existing gas and oil wells, and injection wells.

- (a) Describe the suitability of the site geology and plans to remedy any inadequacies.

(b) Describe the suitability of soil for grading, compaction, and drainage, and describe plans to remedy any inadequacies and restore the soils during post-construction reclamation.”

**Response [4906-4-08(A)(5)]:**

The former western-most portion of the project area includes a pond at the bottom of a moderately sloping basin that is located at an elevation of 1,155 feet. The eastern portion of the project area has mildly sloping hills and ranges from an elevation of 1,175 feet to 1,240 feet. The additional temporary construction laydown areas are relatively flat and consist of pasture that exists on previously mined lands. Additional topographic contour information is needed for the 16-acre temporary construction laydown area. The 16-acre parcel ranges from an elevation of approximately 1,140 to 1,260 feet. Topographic contours for the 12.5-acre parcel can be seen on updated **Figure 3-4a**. There are no known geological inadequacies that are expected to impact construction or operation of the Facility. An updated figure showing the Facility with new temporary construction laydown area locations can be viewed in **Figure 3-4a**.

A subsurface exploration was performed on property approximately 1 mile from the site. This report summarized the area as having reclaimed strip mine spoils. The mine spoils consisted of various amounts of shale and sandstone fragments in a brown and gray lean clay matrix. It is assumed that the two additional temporary construction laydown areas will possess similar reclaimed strip mine spoils, due to historic mining on both parcels.

**Soils and Soil Suitability**

An analysis of soils in the project area was done on the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) web site. The area is comprised of Morrison channery silty clay loam, 0 to 8 percent slopes (MoB) and Morrison channery silty clay loam, 8 to 25 percent slopes (MoD). A soil map is included as updated **Figure 8-4**. Slope data will be submitted upon receipt of topographical survey data during final design of the facility.

MoB covers about 63 percent of the project area. MoB is typically found at a depth of more than 80 inches and is found on ridges, shoulders, and summits. It is well drained, and does not have the frequency to pond or flood. It is not considered hydric.

MoD covers about 34 percent of the project area. MoD is typically found at a depth of more than 80 inches and is found on hillslopes, backslopes, summits, and shoulders. It is well drained and does not have the frequency to pond or flood. It is not considered hydric. Table 8-11 includes a summary of the soil properties and characteristics from the USDA web site.



**Table 8–11**  
**Soil Properties and Characteristics**

Soil Series	Depth (in.)	Permeability (in./hr.)	Soil pH	Potential Frost Action
Morrison channery silty clay loam, 0 to 8 percent slopes (MoB)	0-1	0.00 to 0.14 in/hr	4.3	Moderate
	1-3		7.5	
	3-80		7.6	
Morrison channery silty clay loam, 8 to 25 percent slopes (MoD)	0-3	0.00 to 0.01 in/hr	7.5	Moderate
	3-80		7.5	
			7.6	

Based on a review of geological information, geological issues are not anticipated to restrict development at the Facility. Design and site preparation will utilize results of the geotechnical study. Soil will be seeded and restored back to existing quality following construction. An Erosion and Sediment Control Plan will be developed for the Facility, which will detail soil restoration activities.

**OPSB Rule 4906-4-08(B)(1):**

“(B) The applicant shall provide information on ecological resources.

(1) The applicant shall provide information regarding ecological resources in the project area.

(a) Provide a map of at least 1:24,000 scale containing a one half-mile radius from the project area, showing the following:

- (i) The proposed facility and project area boundary.
- (ii) Undeveloped or abandoned land such as wood lots or vacant fields.
- (iii) Wildlife areas, nature preserves, and other conservation areas.
- (iv) Surface bodies of water, including wetlands, ditches, streams, lakes, reservoirs, and ponds.
- (v) Highly-erodible soils and slopes of twelve percent or greater.

(b) Provide the results of a field survey of the vegetation and surface waters within one-hundred feet of the potential construction impact area of the facility. The survey should include a description of the vegetative communities, and delineations of wetlands and streams. Provide a map of at least 1:12,000 scale showing all delineated resources.

(c) Provide the results of a literature survey of the plant and animal life within at least one-fourth mile of the project area boundary. The literature survey shall include aquatic

and terrestrial plant and animal species that are of commercial or recreational value, or species designated as endangered or threatened.

(d) Provide the results of field surveys of the plant and animal species identified in the literature survey.”

**Response [4906-4-08(B)(1)(a)]:**

Updated **Figure 8-5** shows the boundary of the Facility (including the area one half-mile outside the Facility boundary), with information including: the location of wood lots or vacant fields; wildlife areas, nature preserves and other conservation areas; surface bodies of water, including wetlands, ditches, streams, lakes, reservoirs and ponds. A soil map is included as updated **Figure 8-4**.

Soils information from the NRCS soil survey is located in the wetland report in **Exhibit A**. Slope data will be submitted upon receipt of topographical survey data during final design of the facility.

**Response [4906-4-08(B)(1)(b)]:**

A Stream and Wetland Delineation Report was conducted for the Facility in November of 2017 and January of 2018. This updated delineation report has been attached as **Exhibit A**. Vegetative communities present within the project area include open fields, pasture, and previously mined areas. The Facility area consists of maintained fields. Land surrounding the project area consists of forest with scattered fields and industrial properties. Land within one-quarter mile of the Facility and temporary construction laydown areas is similar in character with open and fenced fields, residential areas, and developed industrial areas. A map showing delineated resources is included in updated **Figure 8-6**. Typical vegetation species data were recorded on datasheets as part of the routine wetland delineation.

**Response [4906-4-08(B)(1)(c),(d)]:**

Agency correspondence letters were sent to both the United States Fish and Wildlife Service and the Ohio Department of Natural Resources for the original project boundary. These agencies provided concurrence letters that no threatened and endangered species exist within the vicinity of or within 1 mile of the project area, with the exception of the Indiana Bat and Northern Long Eared Bat. Seasonal tree clearing restrictions to avoid impacts to these species were suggested; however, no tree clearing is planned for this project.

Since the project footprint has changed, a desktop review of the new project area was completed. State lists of threatened and endangered plant and animal species are typically based on their range within Harrison County, as reported from the ODNR-DOW and the USFWS county species distribution lists. Table 8-1 below outlines threatened and endangered plant and animal species within Harrison County, their state and federal status, general notes about their habitat, if potential habitat was observed, and what the impact assessment is.

Updated agency correspondence letters, showing the new project footprint, will be sent out when the Nationwide Permit 39 package is revised.



TABLE 8-1 ODNr and USFWS Listed Species within the Project Area

Common Name	Federal Status	State Status	General Habitat Notes	Potential Habitat Observed in Study Area	Impact Assessment
Black Bear ( <i>Ursus americanus</i> )	None	Endangered	Found in forests and nearby openings. When inactive, they occupy dens under fallen trees at ground level or above ground tree cavities, hollow logs, or under cave- like sites.	No	No suitable habitat was observed within the Project area. Impacts to this species are not anticipated.
Indiana Bat ( <i>Myotis sodalis</i> )	Endangered	Endangered	Forages in forest habitat and openings in forested habitat and utilizes caves and mines as winter hibernacula.	No	No potential hibernacula were observed within the Project area. Several potential Indiana bat roost trees were identified within the Project area during the field surveys. It is anticipated that these potential roost trees can be avoided or removed between October 15 and March 31. Therefore, impacts to this species are not anticipated.
Northern Long-Eared Bat ( <i>Myotis septentrionalis</i> )	Endangered	Threatened	Forages in forest habitat and openings in forested habitat and utilizes caves and mines as winter hibernacula.	No	No potential hibernacula were observed within the Project area. Several potential northern long-eared bat roost trees were identified within the Project area during the field surveys. However, it is anticipated that these potential roost trees can be avoided or removed between October 15 and March 31. Therefore, adverse effects to this species are not anticipated.
Philadelphia Panic Grass ( <i>Panicum philadelphicum</i> )	None	Endangered	This species typically inhabits river shores, sandbars, fields, roadsides, ditches and open woodlands.	No	No potential impact is likely to result, due to the high level of previous disturbance from historical mining and active grazing.
Narrow-leaved Blue-eyed Grass ( <i>Sisyrinchium mucronatum</i> )	None	Threatened	This species inhabits fields, meadows, shorelines and forest edges.	No	No potential impact is likely to result, due to the high level of previous disturbance from historical mining and active grazing.
Drummond's Aster ( <i>Symphyotrichum drummondii</i> )	None	Threatened	This species inhabits areas with part shade, sun, dry sandy or rocky soil; open woods, woodland edges, bluffs, and savannas.	No	No potential impact is likely to result, due to the high level of previous disturbance from historical mining and active grazing.

**OPSB Rule 4906-4-08(B)(2):**

“(2) The applicant shall provide information regarding potential impacts to ecological resources during construction.

(a) Provide an evaluation of the impact of construction on the resources surveyed in response to paragraph (B)(1) of this rule. Include the linear feet and acreage impacted, and the proposed crossing methodology of each stream and wetland that would be crossed by or within the footprint of any part of the facility or construction equipment. Specify the extent of vegetation clearing, and describe how such clearing work will be done so as to minimize removal of woody vegetation. Describe potential impacts to wildlife and their habitat.

(b) Describe the mitigation procedures to be utilized to minimize both the short-term and long-term impacts due to construction, including the following:

(i) Plans for post-construction site restoration and stabilization of disturbed soils, especially in riparian areas and near wetlands. Restoration plans should include details on the removal and disposal of materials used for temporary access roads and construction staging areas, including gravel.

(ii) A detailed frac out contingency plan for stream and wetland crossings that are expected to be completed via horizontal directional drilling.

(iii) Methods to demarcate surface waters and wetlands and to protect them from entry of construction equipment and material storage or disposal.

(iv) Procedures for inspection and repair of erosion control measures, especially after rainfall events.

(v) Measures to divert storm water runoff away from fill slopes and other exposed surfaces.

(vi) Methods to protect vegetation in proximity to any project facilities from damage, particularly mature trees, wetland vegetation, and woody vegetation in riparian areas.

(vii) Options for disposing of downed trees, brush, and other vegetation during initial clearing for the project, and clearing methods that minimize the movement of heavy equipment and other vehicles within the project area that would otherwise be required for removing all trees and other woody debris off site.

(viii) Avoidance measures for major species and their habitat.

**Response [4906-4-08(B)(2)(a)]:**

Preliminary impacts, as described in the original OPSB application, totaled 0.44 acres of permanent wetland impact. An updated Stream and Wetland Delineation Report was conducted for the Facility in November of 2017 and January of 2018. This updated delineation report has been attached as **Exhibit A**. Updated impacts as a result of construction of the proposed Harrison Power Plant are now 0.0381 acres of permanent fill impact to KLF-WETLAND04; 0.0732 acres of permanent fill impact to KLF-WETLAND05;

and 0.0208 acres of permanent fill impact KLF-WETLAND06, for a total of 0.1321 acres of permanent wetland impact.

A Nationwide Permit 39 package was completed and submitted to the United States Army Corps of Engineers (USACE) Pittsburgh District Office in December 2017. This permit package will be updated to include the updated Stream and Wetland Delineation Report and show construction fencing and complete avoidance of KLF-WETLAND08 and KLF-WETLAND09, which exist within the added 16-acre parcel. The elimination of the northern temporary construction laydown area, and the addition of the 16-acre and 12.5-acre parcels, will not result in impacts different from those described above. Wetland impacts have been mitigated using the In-Lieu Fee Program (ILFP). Because the project is proposing impacts to all Palustrine Emergent (PEM) wetlands, a 1:1 replacement ratio is proposed. Coordination with the USACE and the Stream and Wetland Foundation identified available credits in the project's service area (Upper Ohio – Wheeling HUC Code: 05030106). The applicant has entered into an agreement with the Stream and Wetland Foundation and has reserved 0.20 acres of ILFP credits. Please see the attached agreement and deposit verification letter included in **Exhibit B**.

During construction, limited recreational or commercial species are likely to be present. The game species include whitetail deer and eastern turkey, which will temporarily avoid the work area. No impacts to these species are likely to result from the construction of the proposed project. Cattle that were previously located on site have been relocated and will not be affected during construction and operations. To view acreage of aquatic impacts, see updated **Figure 8-6**. Clearing and grubbing will not occur in areas delineated as wetlands, with the exception of wetlands that will be permanently impacted.

**Response [4906-4-08(B)(2)(b)]:**

The following measures are proposed to ensure short-term and long-term construction impacts to ecological resources remain minimal. The wetlands and streams that are not proposed to be impacted will be marked with orange construction fencing to protect them from entry of construction equipment and material storage or disposal. No tree clearing is anticipated for this project. Mitigation for impacted wetlands will occur through the ILFP, as described in the above response to 4609-4-08(B)(2)(a). Any and all conditions imposed by the USACE upon approval of the Nationwide Permit 39 package will be followed during and after construction.

The following items will allow for site restoration:

**Restoration Plan:** A restoration plan will be developed, which will include details on the removal and disposal of materials used for temporary access roads and construction staging areas. A Stormwater Pollution Prevention Plan (SWPPP) will be developed for this project, which will further detail removal plans.

**E&S Control Plan:** A detailed Erosion and Sediment Control Plan (E&S plan) will be developed prior to initiating Facility construction. This plan will detail silt socks, stormwater collection ponds or any other controls to limit off-site transport of sediment and to provide protection to demarcated surface waters. In addition, a Notice of Intent will be filed with the OHIO EPA for coverage under the NPDES General Construction Stormwater Permit.

Revegetation: Areas impacted by construction and grading activities will be revegetated as soon as possible following completion of construction to stabilize exposed areas of soil in accordance with Ohio EPA regulations. The species of vegetation proposed for seeding will be chosen to ensure compatibility with the surrounding land use classifications. Measures will be taken to prevent the spread of invasive species through the revegetation process.

Dust Control: Water sprayers or other dust suppression methods will be employed on areas of exposed soils to minimize the potential for dust generation.

No avoidance measures were recommended by the ODNR for this project.

**OPSB Rule 4906-4-08(B)(3)(b):**

“(3) The applicant shall provide information regarding potential impacts to ecological resources during operation and maintenance of the facility.

(b) Describe the procedures to be utilized to avoid, minimize, and mitigate both the short- and long-term impacts of operation and maintenance. Describe methods for protecting streams, wetlands, and vegetation, particularly mature trees, wetland vegetation, and woody vegetation in riparian areas. Include a description of any expected use of herbicides for maintenance.”

**Response [4906-4-08(B)(3)(b)]:**

Based upon correspondence from the state and federal agencies; on site surveys; and updated literature surveys, state and federally threatened or endangered species or their habitats will not be impacted by Facility operations. Recreational or commercial species will also be unaffected by Facility operation; the Facility has been designed to limit ecological impact by being sited in a location with little terrestrial habitat diversity and that has been slated for industrial development. Updated **Figure 8-6** shows ecological impacts. Wetlands and streams that will not be impacted and are located near construction activities will be protected by appropriate BMPs, which will be established during the design of the E&S Plan. No herbicides are expected to be used during this project.

**OPSB Rule 4906-4-08(C)(1):**

(C) The applicant shall provide information on land use and community development.

(1) The applicant shall provide information regarding land use in the region and potential impacts of the facility.

(a) Provide a map of at least 1:24,000 scale showing the following within one-mile of the project area boundary:

(i) The proposed facility.

(ii) Land use, depicted as areas on the map. Land use, for the purposes of paragraph (C) of this rule, refers to the current economic use of each parcel. Categories should include residential, commercial, industrial, institutional, recreational, agricultural, and vacant, or as classified by the local land use authority.

- (iii) Structures, depicted as points on the map. Identified structures should include residences, commercial centers or buildings, industrial buildings and installations, schools, hospitals, churches, civic buildings, and other occupied places.
  - (iv) Incorporated areas and population centers.
- (b) Provide, for the types of structures identified on the map in paragraph (C)(1)(a) of this rule, a table showing the following:
- (i) For all structures within one thousand feet of the generation equipment or wind turbine, the distance between the structure and the equipment or nearest wind turbine.
  - (ii) For all structures within two hundred fifty feet of a collection line, access road, or other associated facility, the distance between the structure and the associated facility.
  - (iii) For each structure in the table, whether the structure is on a property that is being leased by the applicant for the proposed facility.
- (c) Provide an evaluation of the impact of the proposed facility on the above land uses identified on the map in paragraph (C)(1)(a) of this rule. Include, for each land use type, the construction impact area and the permanent impact area in acres, in total and for each project component (e.g., turbines, collection lines, access roads), and the explanation of how such estimate was calculated.
- (d) Identify structures that will be removed or relocated."

**Response [4906-4-08(C)(1)]:**

Updated **Figure 3-3** illustrates land use surrounding the Facility. As can be seen, the majority of the land uses on the project area consists of Manufacturing District land. There are no structures within a 1,000-foot buffer of the project or access road or within a 250-foot buffer of the project or access road. A table of structures within 1,000 feet and 250 feet from the site is therefore not needed.

The Facility's impact on surrounding land will be very minimal. As shown in updated **Figure 3-3**, the Facility is comprised of primarily Manufacturing District land. The MarkWest processing plant and Residential District land occupies the parcel to the north of the Facility. Manufacturing District land sits to the west. Approximately 59 acres categorized as Manufacturing District land will be permanently impacted by the project.

Updated **Figure 3-3** shows structures and land use within a mile of the Facility. The surrounding land within a 1 mile radius is very comparable to the immediate vicinity of the Facility. About 80% of the land is vegetated or water land use. Residential property is dispersed throughout the area.

Commercial property and development exists to the northwest of the Facility, the MarkWest Processing Plant. St. Teresa of Avila Catholic Church is the closest place of worship to the Facility, approximately 1.45 miles to the northeast. No worship places are located within a 1 mile radius. Sally Buffalo Park is

the only recreational land use located within a 1 mile radius. The park is approximately 0.55 miles to the north

**OPSB Rule 4906-4-08(D):**

“(D) The applicant shall provide information on cultural and archaeological resources.”

**Response [4906-4-08(D)]:**

No new information on cultural and archaeological resources has been provided, as the original report provided by the Applicant covered the two new additional parcels.

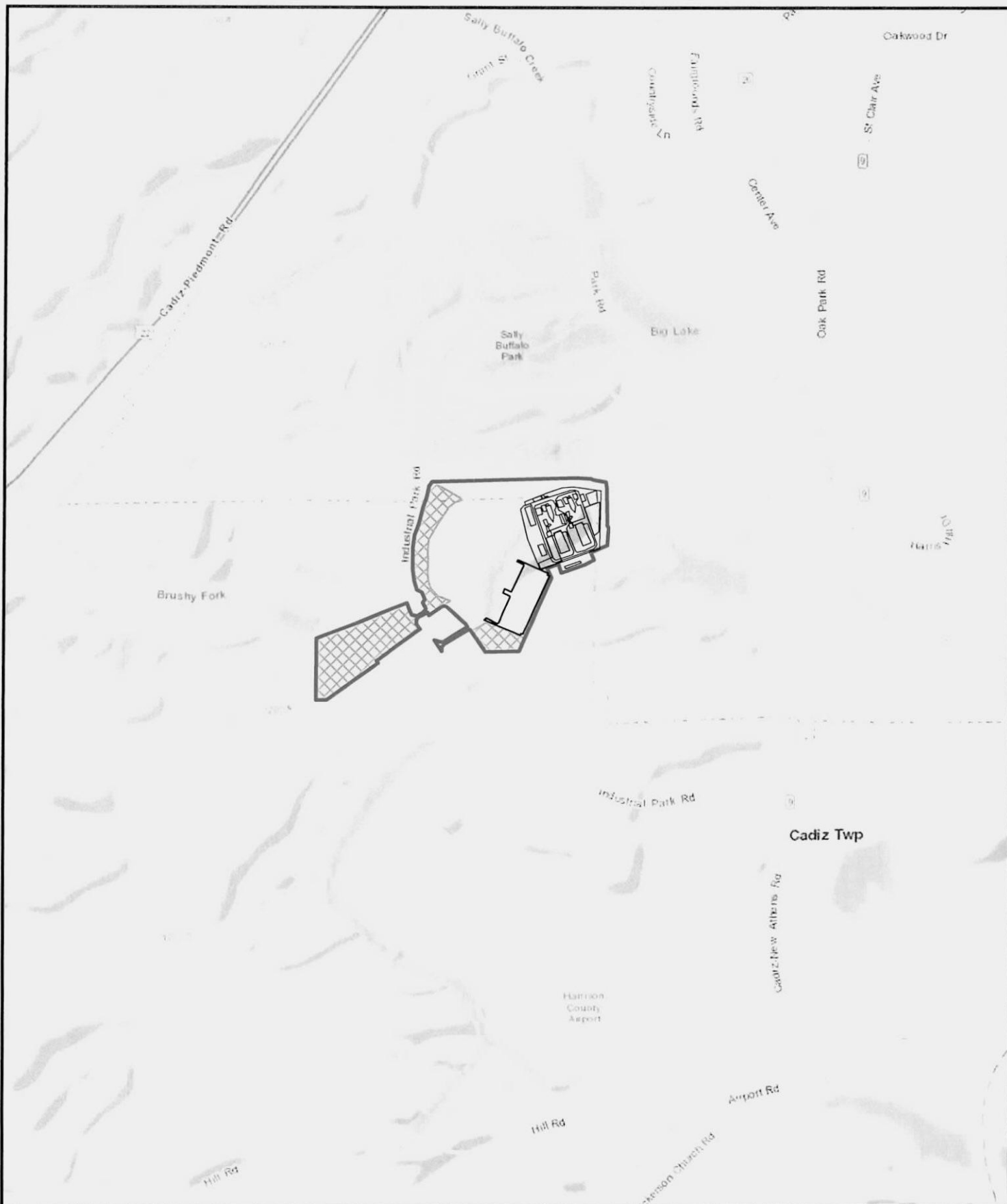
**OPSB Rule 4906-4-08(E):**



“(E) The applicant shall provide information regarding agricultural districts and potential impacts to agricultural land.”

**Response [4906-4-08(E)]:**

No agricultural land or agricultural district land will be impacted by the construction and operation of the updated facility footprint. As such, no additional information has been provided pertaining to this section.

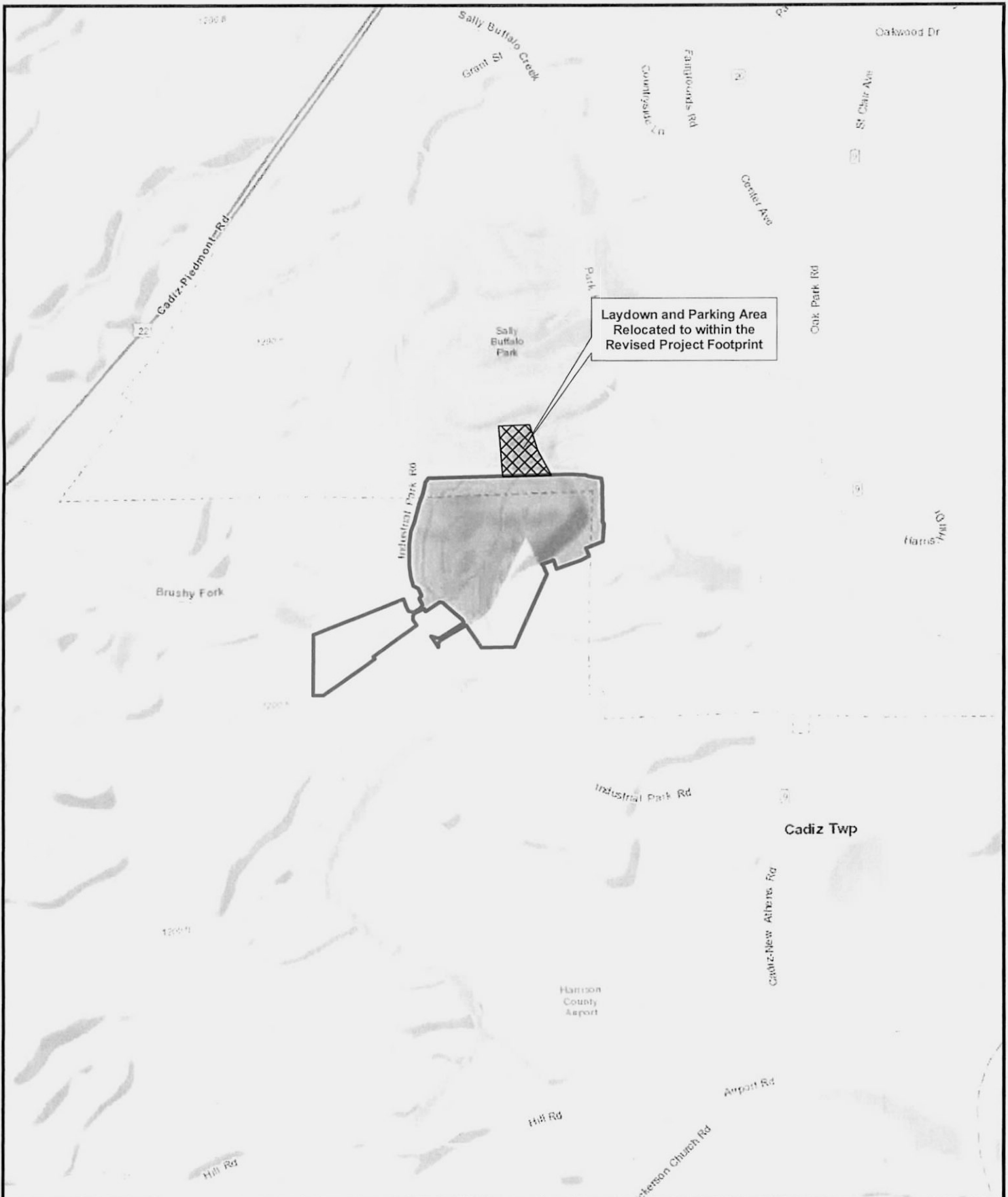




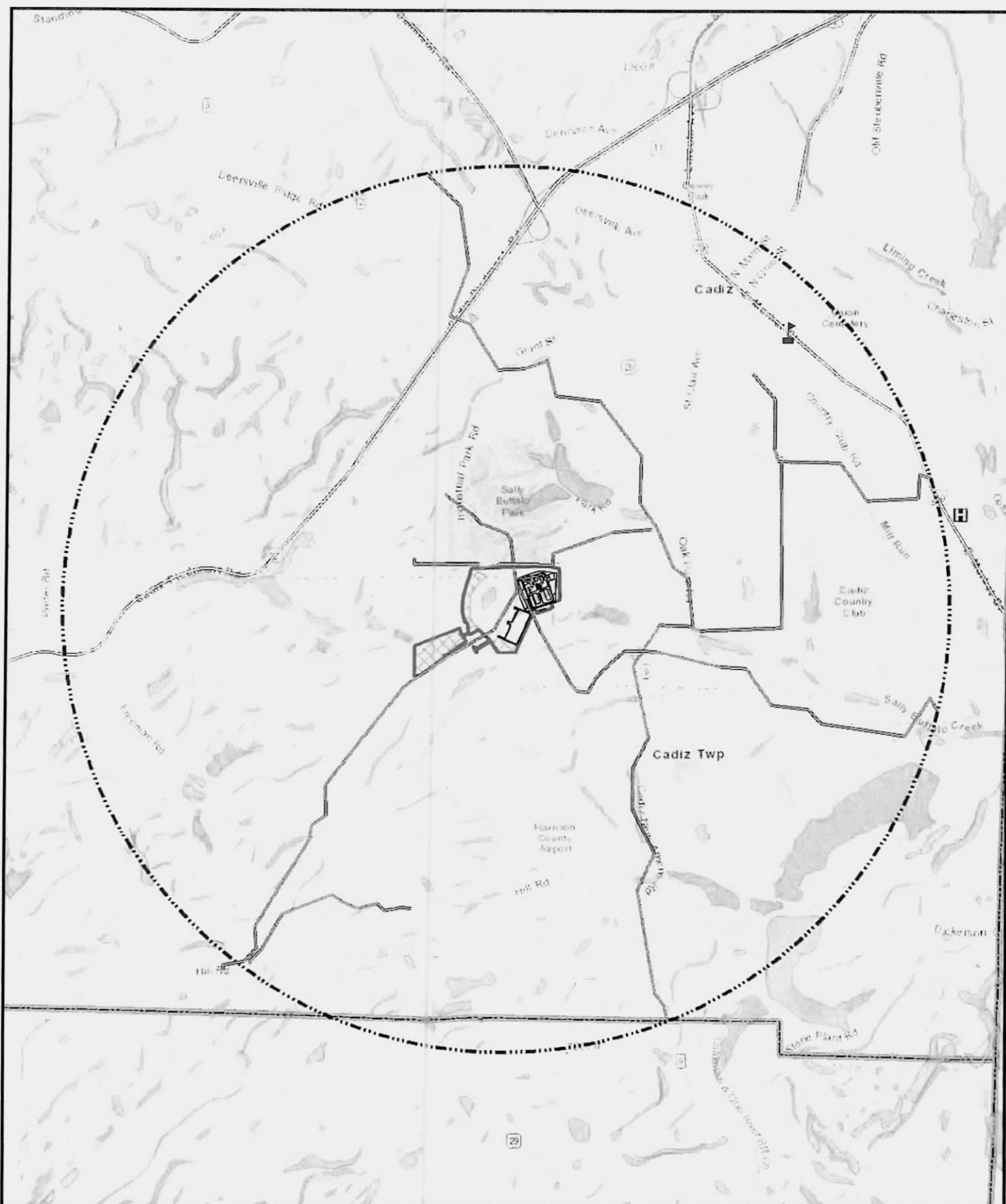
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**UPDATED FIGURES**

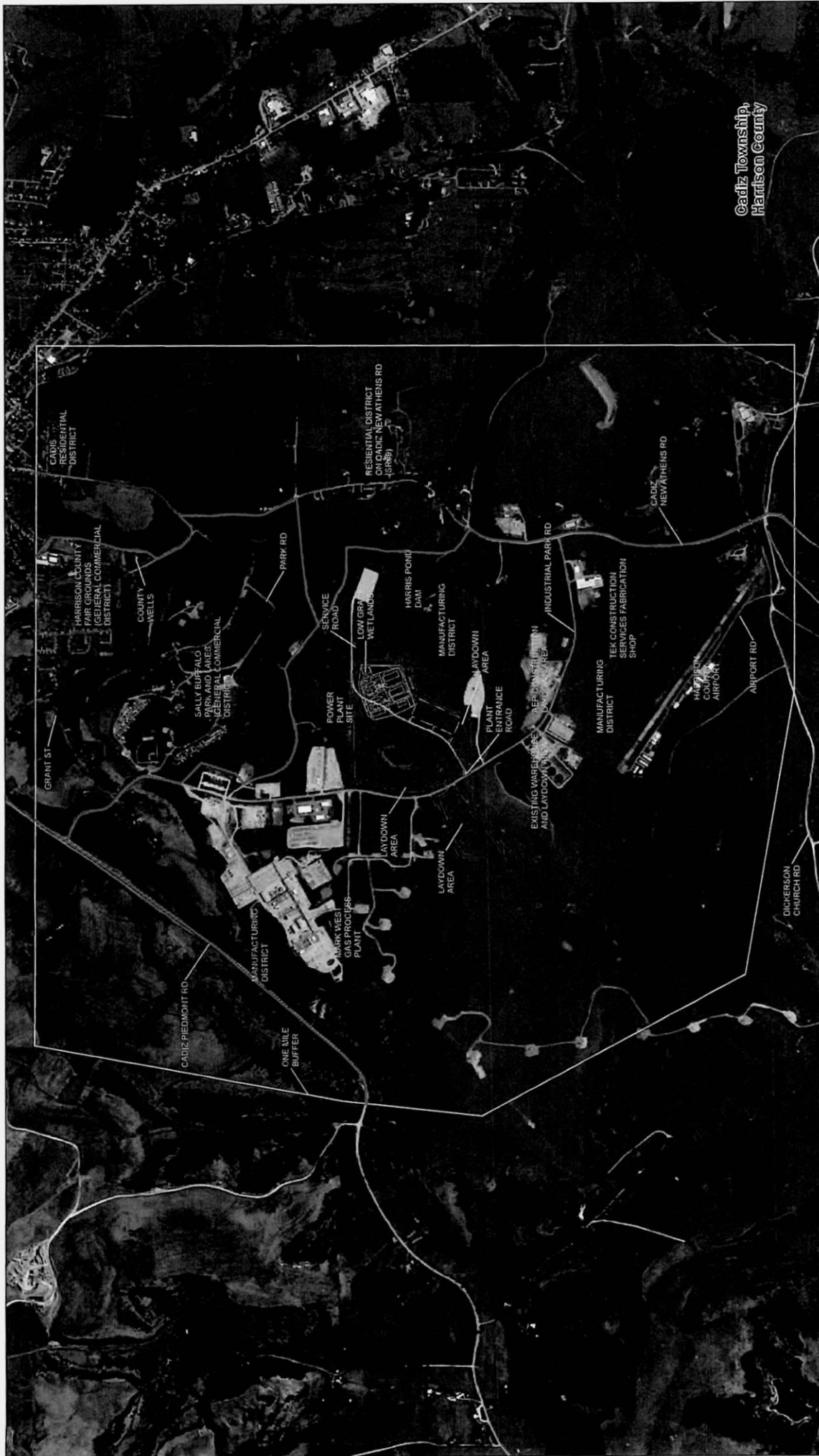




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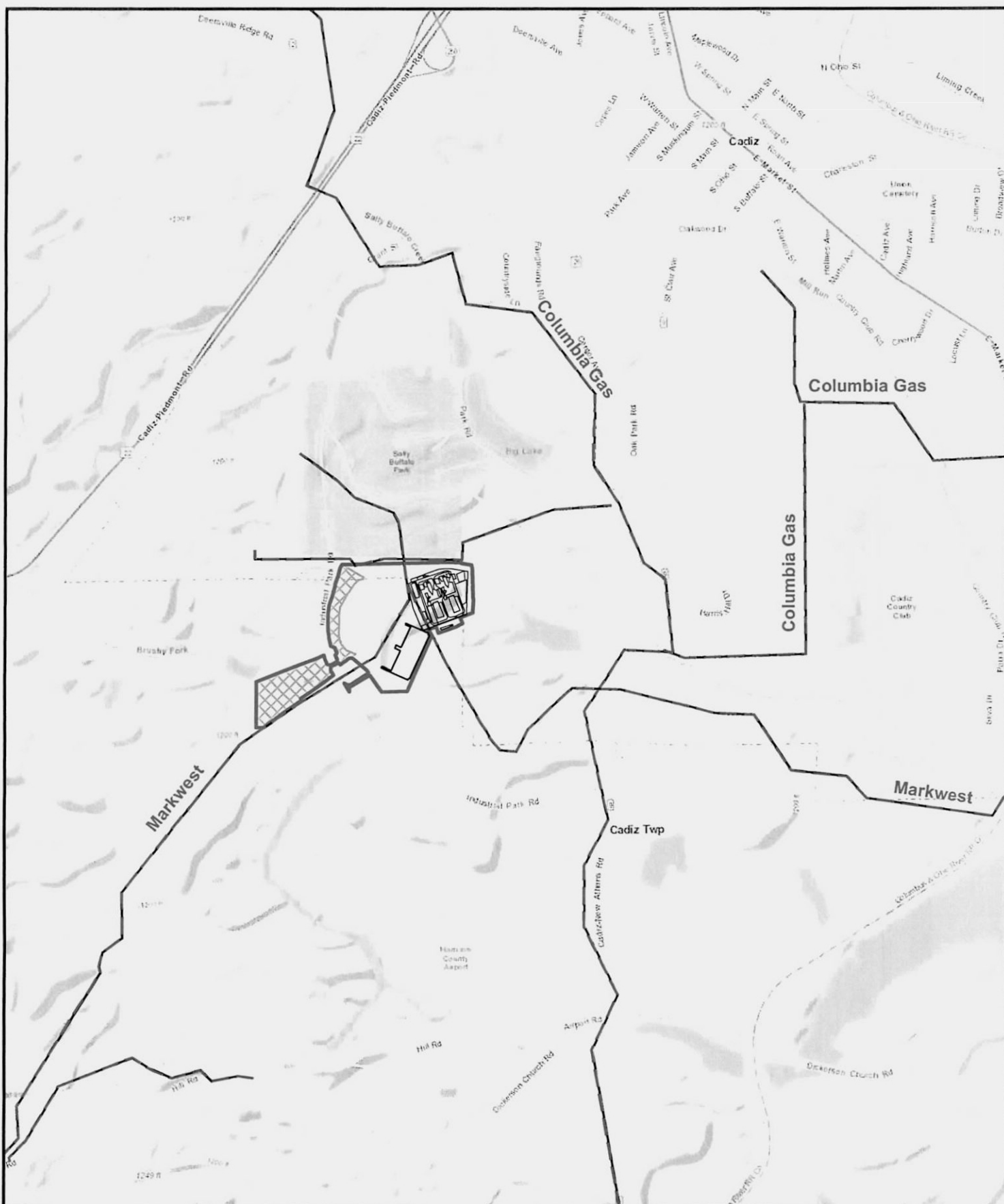




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	PROJECT NO. 20182255 DRAWN BY: SMW CHECKED BY: KMK FILE NAME: HarrisonPowerPlant_Fig-3			Harrison County Ohio Aerial Imagery: ESRI		<div> <div>             Harrison Power LLC              Figure 3-3              Project and Vicinity              Harrison Power Plant           </div> <div>             Date: 2/12/2018              Sheet 1 of 1           </div> </div>
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Cadiz Township,  
Harrison County

PROJECT NO. 20182255  
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 CHECKED BY: KMK  
 FILE NAME: HarrisonPowerPlant\_Fig4-1



Harrison County  
 Ohio  
 Aerial Imagery: ESRI

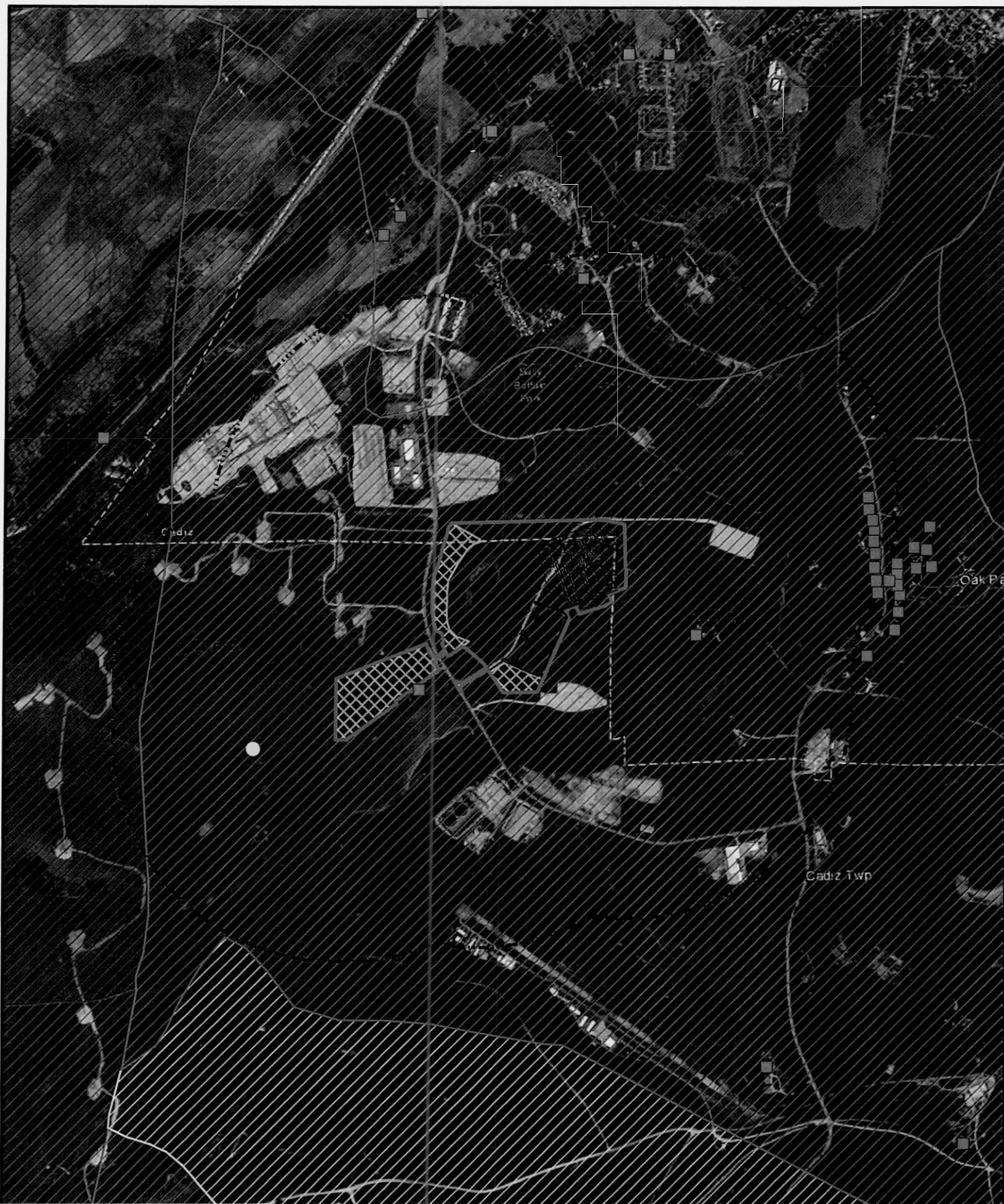
□ Project Footprint (93.7 ac)  
 Project Layout  
 — Existing AEP Transmission Line  
 — Existing Natural Gas Pipeline




Parcel Boundary

Harrison Power LLC  
 Figure 4-1  
 Site Selection Constraints  
 Harrison Power Plant  
 Date: 2/12/2018  
 Sheet 1 of 1



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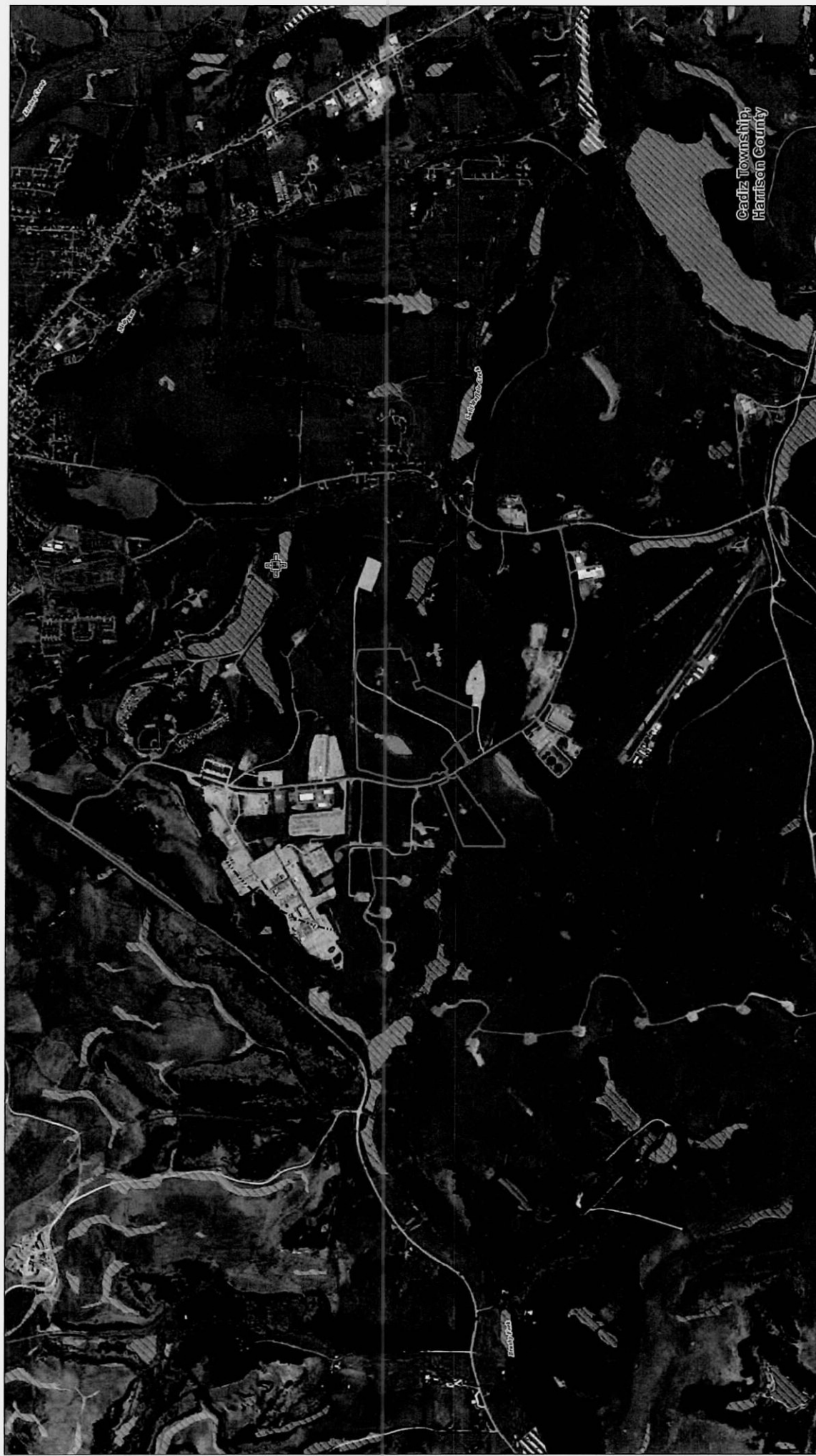


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 <p>The information contained on this graphic representation was prepared from a review of records and is subject to change without notice. It is not intended to be used for any purpose other than that for which it was prepared. The user assumes all liability for any errors or omissions. The use of this information is at the user's risk.</p>	PROJECT NO. 20182255	 <p>0 500 1,000 Ft</p>	 <p>Harrison County, Ohio</p>	<ul style="list-style-type: none"> <li>Project Footprint (93.7 ac)</li> <li>Project Layout</li> <li>Laydown Area</li> <li>Soil Unit Boundary</li> <li>FEMA 100 Year Floodzone (N/A)</li> </ul>	<b>Harrison Power LLC</b>  Figure 8-4 Soils and Floodplains Harrison Power Project Cadiz, OH
	DRAWN BY: SMW				
	CHECKED BY: JMV				
	FILE NAME: HarrisonPowerPlant_Fig8-4				
	DATE: 2/12/2018				



 KLEINFELDER Environmental & Engineering 10000 Highway 100, Suite 100 Cincinnati, OH 45241 Phone: (513) 251-1000 Fax: (513) 251-1001 Email: info@kleinfelder.com Website: www.kleinfelder.com	PROJECT NO.: 20180225 DRAWN BY: BMW CHECKED BY: KMK FILE NAME: HarrisonPowerPlant_Fig-5	Harrison County Ohio Aerial Imagery: EBN	0 750 1,500 Feet		0.5-Mile Buffer Project Footprint (93.7 ac) Delineated Ephemeral Stream Delineated PEM Wetland	Delineated PUB Wetland NHD Stream NMI Wetland	Wastewater Stream Tie-In	Harrison Power LLC Figure 8-5 Existing Ecological Resources Harrison Power Plant Date: 2/14/2018 Sheet 1 of 1
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	PROJECT NO. 2018255 DRAWN BY: SMW CHECKED BY: MKK FILE NAME: HarrisonPowerPlant_198-6			Harrison County Ohio Aerial Imagery: ESRI	0.5-Mile Buffer Project Footprint (93.7 ac) Delineated Ephemeral Stream Delineated PEM Wetland	Delineated PUB Wetland NHD Stream NMI Wetland	Wastewater Stream Tie-In Impacted Wetland 25' Wetland Setback	Harrison Power LLC Figure 8-6 Ecological Impacts Harrison Power Plant	Date: 2/14/2018 Sheet 1 of 1
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**EXHIBIT A**

# **STREAM AND WETLAND DELINEATION REPORT**

# **HARRISON POWER PROJECT**

**HARRISON COUNTY, OHIO**

**FEBUARY 2018**

Prepared for:

Harrison Power LLC  
3000 Wilcrest Road, Suite 200  
Houston, TX 70447


Prepared by:

Kleinfelder, Inc.  
230 Executive Drive, Suite 122  
Cranberry Township, PA 16066  
p | 724-772-7072    f | 724-772-7079



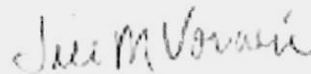
## REPORT CERTIFICATION

This report, including delineation details and conclusions, has been prepared under supervision and review by the persons named below. This report shall not be reproduced in full or in part without the written consent of Kleinfelder, Inc.



Date 2/16/18 Signature \_\_\_\_\_

Name: Robert J. Maggiore  
Title: Staff Professional I  
Kleinfelder, Inc.



Date 2/16/18 Signature \_\_\_\_\_

Name: Jill M. Vovaris  
Title: Project Manager III  
Kleinfelder, Inc.

## TABLE OF CONTENTS

EXECUTIVE SUMMARY .....	1
1.0 INTRODUCTION .....	2
2.0 STREAM & WETLAND DELINEATION PROCEDURES .....	2
3.0 BACKGROUND INFORMATION .....	3
3.1 Site Description .....	3
3.2 Soils Information .....	4
3.3 National Wetlands Inventory Status .....	4
4.0 STREAM & WETLAND DELINEATION RESULTS .....	4
4.1 Wetlands .....	5
4.2 Upland Habitats .....	7
4.3 Streams .....	7
5.0 CLOSING REMARKS .....	8
6.0 REFERENCES .....	9

## TABLES

Table 1	Summary of Wetlands
Table 2	Summary of Streams
Table 3	Mapped Soil Units within Project AOI

## FIGURES

Figure 1	Project Location Map
Figure 2	Aerial Imagery Map
Figure 3	Field Results Map

## APPENDICES

Appendix A	Aquatic Resource Summary Table
Appendix B	Wetland & Upland Datasheets
Appendix C	Ohio Rapid Assessment Method (ORAM) Forms
Appendix D	Stream Data Summary and Headwater Habitat Evaluation Index (HHEI) Forms
Appendix E	Site Photographs
Appendix F	Staff Qualifications



## **EXECUTIVE SUMMARY**

At the request of Harrison Power LLC, Kleinfelder, Inc. conducted stream and wetland delineations on November 21, 2017 and January 31, 2018. The 145.7-acre area of interest (AOI) of the proposed Harrison Power Project (Project), a natural gas-fired combined-cycle gas turbine electric generating facility located in Harrison County, Ohio. During the site reviews, 12 aquatic resources were identified within the AOI including: seven (7) palustrine emergent (PEM) wetlands, two (2) palustrine unconsolidated bottom (PUB) wetlands, and three ephemeral streams (Figure 2).



## STREAM AND WETLAND DELINEATION REPORT

---

### 1.0 INTRODUCTION

On behalf of Harrison Power LLC (HPL), Kleinfelder, Inc. (Kleinfelder) conducted stream and wetland delineations for the proposed Harrison Power Project (Project) area on November 21, 2017 and January 31, 2018. The area of interest (AOI) is located in Harrison County, Ohio and appears on the Jewett and Flushing, OH 7.5-minute United States Geological Survey (USGS) quadrangles as provided on the Project Location Map (**Figure 1**). The AOI for this investigation encompassed approximately 145.7 acres. Aquatic resources identified within the AOI are listed in **Tables 1 and 2** in **Appendix A**.

The following report documents current site conditions and the protocol used in determining the occurrence of wetland and stream habitats. Findings provided in this report are representative of field conditions that were documented at the time of the field investigation.

### 2.0 STREAM & WETLAND DELINEATION PROCEDURES

Kleinfelder biologists (Robert Maggiore and Kaitlyn Kiehart) conducted stream and wetland delineations within the proposed AOI on November 21, 2017 and January 31, 2018. The stream and wetland delineations were completed in accordance with the wetland delineation methodology outlined in the 1987 *Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory, 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region (United States Army Corps of Engineers, 2012). This approach utilizes the three parameters of vegetation, soils, and hydrology to identify and delineate wetlands. In situations when one or more of these parameters was absent due to natural, seasonal, or man-made disturbances, a determination was made as to whether the missing parameter(s) would occur under normal circumstances. This determination is based on other data, field indicators, and best professional judgement.

Prior to fieldwork, field biologists reviewed available mapping (topographic, aerial imagery, and historic aerial imagery) to identify areas containing wet signatures which may be indicative of possible wetland areas and to understand the nature of wetlands and/or streams that may be encountered. Additionally, a desktop evaluation was conducted for soils, National Wetland Inventory (NWI) wetlands, National Hydrography Dataset (NHD) streams, and Federal Emergency Management Agency (FEMA) floodplains that may be located onsite. **Figure 2** displays these items with respect to the Project location.

During delineation activities, the boundaries and centerlines of surface water features were recorded using a Trimble GeoXH 6000 Model with attached Tornado or Zephyr external antenna. Vegetation, soils, and hydrology were documented at sampling stations throughout the AOI. The information obtained at sampling stations is documented on data forms as per the 1987 United States Army Corps of Engineers (USACE) Manual Protocol (**Appendix B**) and the Ohio Rapid Assessment Method (ORAM) in **Appendix C**. Nomenclature and indicator status of vegetative species was identified using the USACE 2016 National Wetland Plant List (NWPL). Wetlands and streams were classified according to Cowardin et al. (1979) guidelines.

Streams were identified based on the presence of defined bed and banks and an observable ordinary high water mark. Geomorphic traits such as flow regime, bank height, width and depth, sinuosity, stream bed substrate, relative erosion, dominant riparian vegetation and percent riparian canopy cover were recorded. In addition to geomorphic features, streams were assessed to determine if macroinvertebrates were present. Summary data for identified streams is included in **Appendix D**.

All identified streams were characterized as perennial, intermittent, or ephemeral. The USACE defines perennial, intermittent, and ephemeral streams as follows (Environmental Laboratory, 1987):

- Perennial streams are defined as having running water throughout the majority of the year with groundwater contributing to stream flow.
- Intermittent streams are defined as having running water during certain times of the year when groundwater contributes to stream flow.
- Ephemeral streams are defined as having running water primarily after storm events and are dry the majority of the year because the water table is generally well below the stream bed.

### **3.0 BACKGROUND INFORMATION**

#### **3.1 Site Description**

The Project is located within Harrison County Industrial Park, a commercial/industrial zone that has been previously surface and sub-surfaced mined and restored to a greenfield. The land cover of the AOI consists mainly of open grasslands, PEM and PUB wetlands, and a forested hillside with a minimal riparian area along the southeast side of the AOI. Land use within the area is dominated by agricultural with several pipelines that traverse through the AOI. Adjacent land uses consist of commercial/industrial areas.

### 3.2 Soils Information

The Natural Resource Conservation Service (NRCS) Web Soil Mapper identified two (2) soil units occurring within the AOI as shown in **Table 3**.

TABLE 3: MAPPED SOIL UNITS WITHIN PROJECT AOI			
MUSYM	NAME	SLOPE	HYDRIC RATING <sup>1</sup>
MoB	Morristown channery silty clay loam	0 to 8 percent	5
MoD	Morristown channery silty clay loam	8 to 25 percent	5

1. Hydric rating is based on soil component type

Soils information specific to wetlands identified is located within datasheets in **Appendix B** of this report.

### 3.3 National Wetlands Inventory Status

The National Wetland Inventory (NWI) Program under the U.S. Fish and Wildlife Service (USFWS) is responsible for the mapping and inventory of major wetlands within the United States. The USFWS Wetlands Mapper (<http://www.fws.gov/Wetlands/Data/Mapper.html>) was used to review NWI wetlands within the AOI. Based on USFWS Wetlands Mapper, one (1) NWI wetland (PUBGx) was identified within the AOI.

## 4.0 STREAM & WETLAND DELINEATION RESULTS

Kleinfelder identified nine (9) wetlands and three (3) streams within the AOI. A summary of documented habitat conditions within these aquatic resources as well as upland habitats is provided in **Sections 4.1, 4.2, and 4.3** below. Refer to the Field Results Map (**Figure 3**) for the location of mapped features, sample point locations, and photograph reference information. Habitat and biological conditions specific to sampling locations within each wetland are found on datasheets in **Appendix B** and **Appendix C**. Habitat and biological conditions specific to each stream are found on stream forms in **Appendix D**. Photographs of each wetland and stream within the AOI are presented in **Appendix E**. Qualifications of the individuals who participated in the stream and wetland delineations and development of this report are provided in **Appendix F**.

#### 4.1 Wetlands

Listed below is a summary description of the identified wetlands. These descriptions are based on data collected at sampling locations and general observations made throughout the wetland areas.

**KLF-WETLAND01** – This wetland consists of open water habitat that is situated within a depressional old mine spoil pit that occurs in the southwest portion of the AOI. Fringe herbaceous vegetation consisted of orchard grass (*Dactylis glomerata*), hybrid cattail (*Typha x glauca*), and farewell summer (*Symphyotrichum lateriflorum*). Examined soils met the hydric soils criteria for having a depleted matrix. Determination of wetland hydrology was based on surface water, saturation, sediment deposits, inundation visible on aerial imagery, water-stained leaves, true aquatic plants, drainage patterns, and geomorphic position.

**KLF-WETLAND02** – This wetland consists of open water habitat that is situated within a depressional old mine spoil pit in the central-northwest portion of the AOI. Fringe herbaceous vegetation consisted of black bent (*Agrostis gigantea*) and barnyard grass (*Echinochloa crus-galli*). Examined soils met the hydric soils criteria for having a depleted matrix. Determination of wetland hydrology was based on surface water, saturation, sediment deposits, inundation visible on aerial imagery, water-stained leaves, true aquatic plants, drainage patterns, and geomorphic position.

**KLF-WETLAND03** – This wetland consists of emergent habitat that is situated within a depression that occurs above KLF-STREAM01 in the northern portion of the AOI. Soils were disturbed due to previous strip mining activities. Dominant herbaceous vegetation consisted of shallow sedge (*Carex lurida*), lamp rush (*Juncus effusus*), and common spike rush (*Eleocharis palustris*). Examined soils met the hydric soils criteria for having a depleted matrix. Determination of wetland hydrology was based on surface water, oxidized rhizospheres on living roots, drainage patterns, and geomorphic position.

**KLF-WETLAND04** – This wetland consists of emergent habitat that is situated within a depression that occurs in the eastern portion of the AOI. Soils were disturbed due to previous strip mining activities. Dominant herbaceous vegetation consisted of shallow sedge (*Carex lurida*) and common spike rush (*Eleocharis palustris*). Examined soils met the hydric soils criteria for having a depleted matrix. Determination of wetland hydrology was based on surface water, oxidized rhizospheres on living roots, geomorphic position, and the FAC-neutral test.

**KLF-WETLAND05** – This wetland consists of emergent habitat that is situated within a depression that occurs in the eastern portion of the AOI. Soils were disturbed due to previous strip mining activities. Dominant herbaceous vegetation consisted of black bent (*Agrostis*

*gigantea*), barnyard grass (*Echinochloa crus-galli*), and yellow bristle grass (*Setaria pumila*). Examined soils met the hydric soils criteria for having a depleted matrix. Determination of wetland hydrology was based on surface water, oxidized rhizospheres on living roots, geomorphic position, and the FAC-neutral test.

**KLF-WETLAND06** – This wetland consists of emergent habitat that is situated within a depression that occurs in the eastern portion of the AOI. Soils were disturbed due to previous strip mining activities. Dominant herbaceous vegetation consisted of shallow sedge (*Carex lurida*), common spike rush (*Eleocharis palustris*), and white clover (*Trifolium repens*). Examined soils met the hydric soils criteria for having a depleted matrix. Determination of wetland hydrology was based on surface water, oxidized rhizospheres on living roots, geomorphic position, and the FAC-neutral test.

**KLF-WETLAND07** – This wetland consists of emergent habitat that is situated within a depression surrounded by secondary growth forest in the southeast portion of the AOI. KLF-WETLAND07 receives hydrology from ephemeral streams KLF-STREAM02 and KLF-STREAM03. Dominant herbaceous vegetation consisted of hybrid cattail (*Typha x glauca*), shallow sedge (*Carex lurida*), and rice cut grass (*Leersia oryzoides*). Examined soils met the hydric soils criteria for having a depleted matrix. Determination of wetland hydrology was based on surface water, high water table, saturation, water-stained leaves, hydrogen sulfide odor, oxidized rhizospheres on living roots, drainage patterns, geomorphic position, and the FAC-neutral test.

**KLF-WETLAND08** – This wetland consists of emergent habitat that is situated within a depression that occurs in the southwest portion of the AOI. Soils were disturbed due to previous strip mining activities. Dominant herbaceous vegetation consisted of shallow sedge (*Carex lurida*) and barnyard grass (*Echinochloa crus-galli*). Examined soils met the hydric soils criteria for having a depleted matrix. Determination of wetland hydrology was based on surface water, high water table, saturation, oxidized rhizospheres on living roots, and the FAC-neutral test.

**KLF-WETLAND09** – This wetland consists of emergent habitat that is situated within a depression that occurs in the southwest portion of the AOI. Soils were disturbed due to previous strip mining activities. Dominant herbaceous vegetation consisted of shallow sedge (*Carex lurida*) and barnyard grass (*Echinochloa crus-galli*). Examined soils met the hydric soils criteria for having a depleted matrix. Determination of wetland hydrology was based on surface water, high water table, saturation, oxidized rhizospheres on living roots, and the FAC-neutral test.



## 4.2 Upland Habitats

Upland communities observed onsite consisted of agricultural hay fields that were once cattle grazing areas, open pipeline right-of-way (ROW), forested hillslopes, and an industrial/commercial road. Dominant vegetation observed within the canopy stratum included American beech (*Fagus grandifolia*), black walnut (*Juglans nigra*), tuliptree (*Liriodendron tulipifera*), sugar maple (*Acer saccharum*), and black cherry (*Prunus serotina*). The saplings of larger trees dominated the sapling stratum. The shrub stratum was dominated by Allegheny blackberry (*Rubus allegheniensis*), autumn olive (*Elaeagnus umbellata*), and rambler rose (*Rosa multiflora*). Orchard grass (*Dactylis glomerata*), meadow false rye grass (*Schedonorus pratensis*), broom-sedge (*Andropogon virginicus*), red clover (*Trifolium pratense*), Queen Anne's lace (*Daucus carota*), and timothy (*Phleum pratense*) dominated the herbaceous stratum. No dominant species were identified within the woody vine stratum. Observed soils generally consisted of a thin A-horizon and B-horizon, often mixed due to strip mining, comprised of silt loam and silty clay loam.

Sample points not exhibiting hydrophytic vegetation, hydric soil, and/or wetland hydrology were classified as upland. Refer to the field data sheets provided in **Appendix A** for additional information specific to the upland conditions documented within the AOI.

## 4.3 Streams

Three ephemeral streams were observed within the AOI. The identified streams are unnamed tributaries to Sally Buffalo Creek.

**KLF-STREAM01** – This stream is an ephemeral stream that flows southwest into KLF-WETLAND02. The stream is comprised mainly of riffle morphology and exhibits low sinuosity. The stream possesses an average OHWM of 1-foot wide. Stream banks are steeply sloped and average 1.5-feet in height. Within the AOI, this stream is bounded mainly by pasture. No canopy cover over the stream was observed. Substrate within the channel is dominated by silt and clay. At the time of the investigation, no macroinvertebrates or water flow was observed.

**KLF-STREAM02** – This stream is an ephemeral stream that flows south into KLF-WETLAND07. The stream is comprised mainly of riffle morphology and exhibits moderate sinuosity. The stream possesses an average OHWM of 1-foot wide. Stream banks are moderately sloped and average 1-foot in height. Within the AOI, this stream is bounded mainly by forest. Estimated canopy over the stream is 70 percent. Substrate within the channel is dominated by silt. At the time of the investigation, no macroinvertebrates or water flow was observed.

**KLF-STREAM03** – This stream is an ephemeral stream that flows east into KLF-WETLAND07. The stream is comprised mainly of riffle morphology and exhibits low sinuosity. The stream possesses an average OHWM of 2-feet wide. Stream banks are steeply sloped and average 2-feet in height. Within the AOI, this stream is bounded by pasture and forest. Estimated canopy over the stream is 65 percent within the forested portion. Substrate within the channel is dominated by cobble and boulder, due to previous strip mining activities. At the time of the investigation, no macroinvertebrates or water flow was observed.

## **5.0 CLOSING REMARKS**

This report presents an unverified Jurisdictional Determination of the Project site based on the author's scientific opinion. Formal determination of jurisdiction regarding wetlands and waters of the United States can only be determined by the USACE with the submittal of a jurisdictional determination request by the Project Applicant. All work was done in accordance with the 1987 USACE Wetland Delineation Manual and the Eastern Mountain and Piedmont Regional Supplement. Aquatic resources described within this report are those which were identified within an AOI provided by HPL. All depictions and accounts described within this report are based on field observations made at the time of the investigation.

Wetland delineation studies are generally conducted in order to support permit applications for various projects including power development. Wetlands can be subject to national, state, and/or local regulations that can vary in regulatory scrutiny across political and agency boundaries. Aquatic resource boundaries identified in the field will be considered preliminary unless confirmed by Federal and/or State agencies (jurisdictional determination or otherwise). Preliminary boundaries of aquatic resources are acceptable for permitting; however, final determination rests solely at the discretion of the government entity or entities, and may occur at any point during the permit process. The decision may depend on the applicable law or regulations governing the decision. As engineers and scientists, we cannot provide legal advice nor guarantee any government ruling. We also cannot accept responsibility for any change in law or regulation.

## 6.0 REFERENCES

- Cowardin, L.M., V. Carter V., F.C. Golet, and E.T. LaRoe. 1979. *Classification of Wetlands and Deepwater Habitats of the United States*. U.S. Fish and Wildlife Service Report No. FWS/OBS/-79/31. Washington, D.C.
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- U.S. Army Corps of Engineers. 2012. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region Version 2.0*, ed. J.F. Berkowitz, J.S. Wakely, R.W. Lichvar, C.V. Noble. ERDC/EL TR-12-9. Vicksburg, MS: U.S. Army Engineer Research and Development Center.



FIGURE 1

PROJECT LOCATION MAP

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Project Center:  
40.251860  
-81.015560

 <small>The information contained on this graphic representation has been compiled from a variety of sources and is subject to change without notice. KLEINFELDER makes no representations or warranties, express or implied, as to accuracy, completeness, timeliness, or suitability for use of any information. This information is intended for use as a field survey product only and is designed to be used as a reference only. The user is responsible for the accuracy and reliability of the information contained on this graphic representation and is the sole risk of the party using or publishing the information.</small>	PROJECT NO. 20182715	 0 1,000 2,000 Ft	 Harrison County, Ohio	AOI (145.7 ac)  Jewett and Flusing, OH 7.5' USGS Quadrangle	<b>Harrison Power LLC</b>  Figure 1 Project Location Harrison Power Project
	DRAWN BY: SMW				
	CHECKED BY: JMV				
	FILE NAME: HarrisonPower_WDGR_1811_v1				
	DATE: 2/9/2018				

FIGURE 2

AERIAL IMAGERY MAP

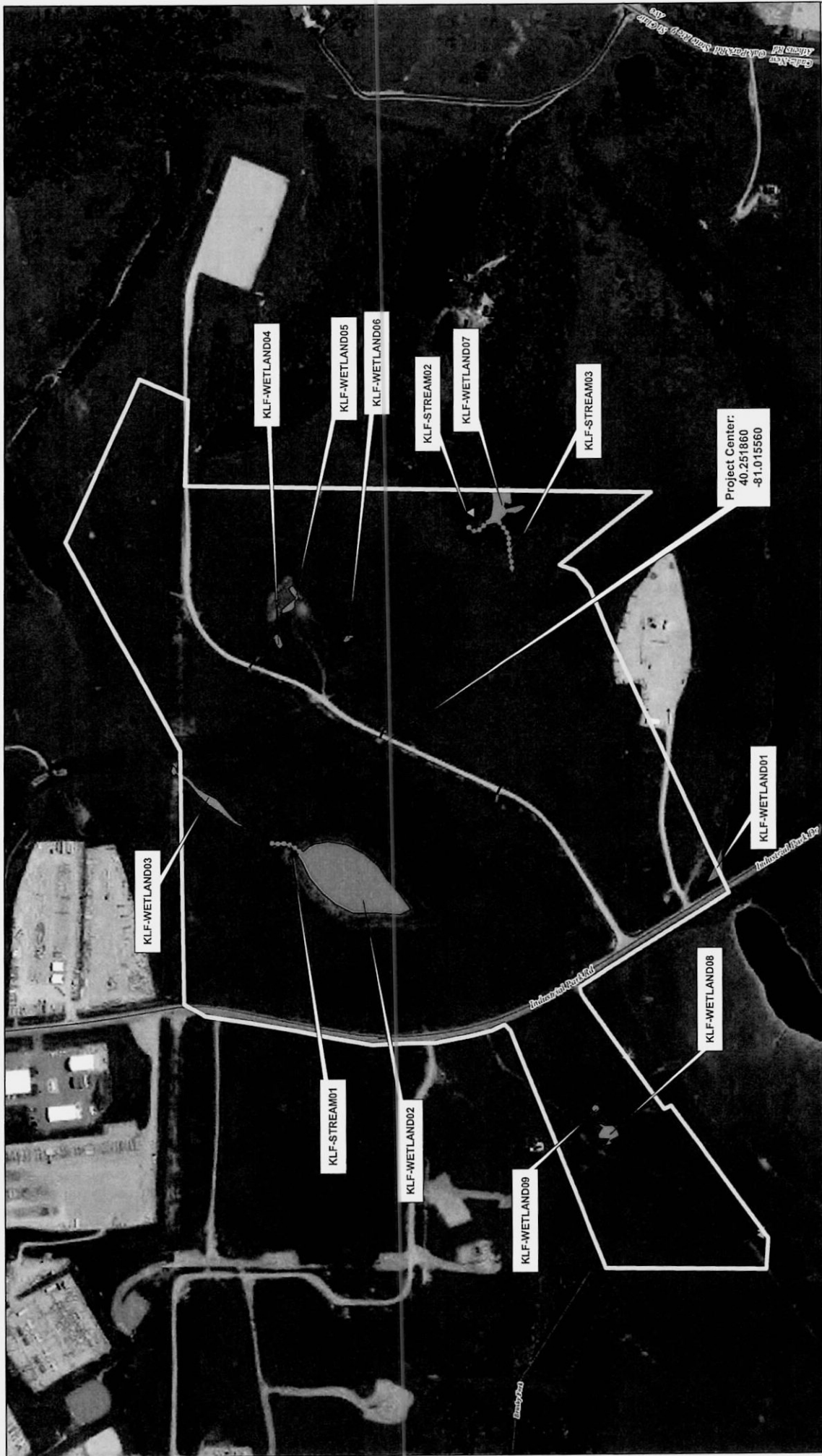
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**FIGURE 3**

**FIELD RESULTS MAP**

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	PROJECT NO. 20182715 DRAWN BY: CDC CHECKED BY: JMY FILE NAME: HarrisonPower_W05R1_fig_1	Harrison County Ohio Aerial Imagery: ESRI	AOI (145.7 ac) Ephemeral Stream PEM Wetland PUB Wetland	Existing Culverts Existing Features Existing Road	Harrison Power LLC Figure 3 Field Results Map Harrison Power Project Date: 2/9/2018
	