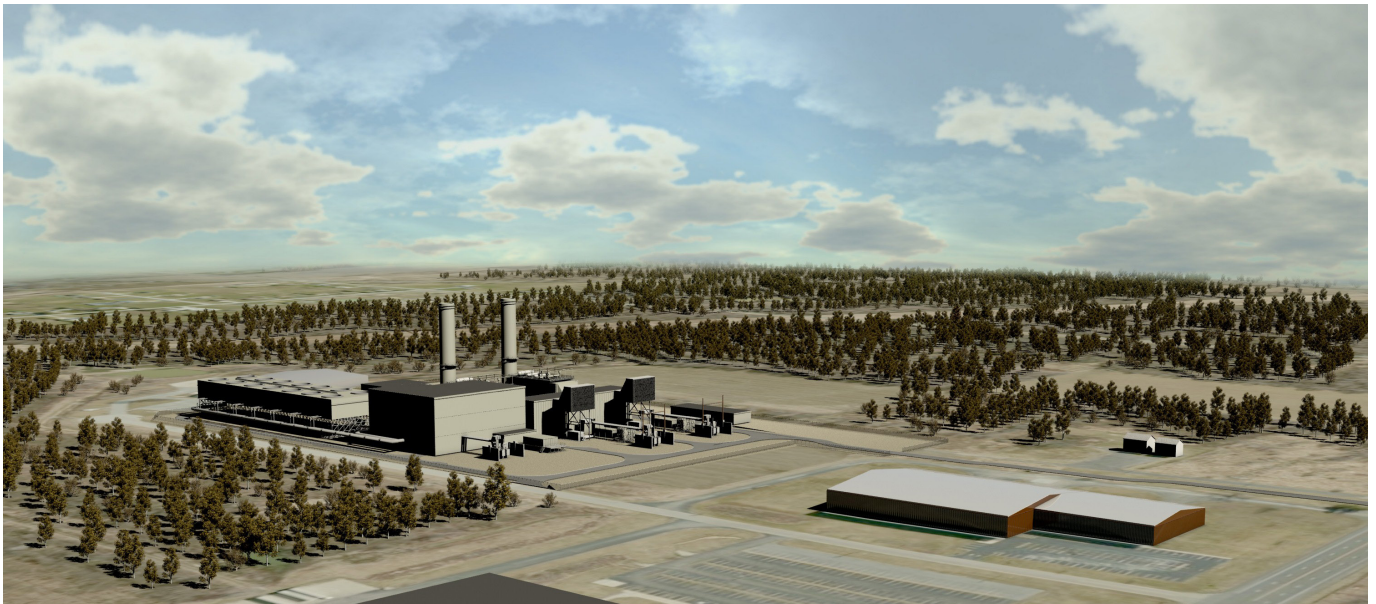


**AMENDMENT APPLICATION TO THE
Ohio Power Siting Board FOR A
Certificate of Environmental Compatibility
and Public Need FOR THE Lordstown Energy Center**



SUBMITTED BY: **Clean Energy Future - Lordstown, LLC**



COLUMBUS | CLEVELAND
CINCINNATI-DAYTON
MARIETTA

BRICKER & ECKLER LLP
100 South Third Street
Columbus, OH 43215-4291
MAIN: 614.227.2300
FAX: 614.227.2390

www.bricker.com
info@bricker.com

Sally W. Bloomfield
614.227.2368
sbloomfield@bricker.com

January 22, 2016

Via Hand Delivery

Ms. Barcy McNeal
Administration/Docketing
Ohio Power Siting Board
180 East Broad Street, 11th Floor
Columbus, Ohio 43215-3793

**Re: Clean Energy Future-Lordstown, LLC,
Case No. 16-131-EL-BGA**

Dear Ms. McNeal:

Enclosed for filing in the above-referenced case is a copy of the Application of Clean Energy Future-Lordstown, LLC for an Amendment to its Certificate of Environmental Compatibility granted September 17, 2015 in Case No. 14-2322-EL-BGN. In addition, we have provided the Staff of the Ohio Power Siting Board ("Board") ten disks and five hard copies of the Application. Pursuant to Ohio Administrative Code Rule 4906-3-11(B), the Applicant makes the following declarations:

Name of Applicant:	Clean Energy Future-Lordstown, LLC whose president is William Siderewicz, P.E. 24 Proctor Street Manchester, MA 01944
---------------------------	---

Name/Location of Proposed Facility:	Clean Energy Future-Lordstown, LLC Lordstown, Ohio
--	---

Authorized Representative Technical:	William Siderewicz, P.E. Clean Energy Future-Lordstown, LLC 24 Proctor Street Manchester, MA 01944 Telephone: (617) 501-7094 E:mail: bills@perpower.com
---	--

Case No. 16-131-EL-BGA
January 22, 2016
Page 2

Authorized Representative

Legal:

Sally W. Bloomfield
Dylan Borchers
Bricker & Eckler LLP
100 South Third Street
Columbus, OH 43215
Telephone: 614-227-2368, -4914
Facsimile: 614-2990
sbloomfield@bricker.com
dborchers@bricker.com

Notarized Statement:

The attached Affidavit of William Siderewicz, P.E.,
on behalf of Clean Energy Future-Lordstown, LLC will be
filed separately.

Sincerely on behalf of
CLEAN ENERGY FUTURE-LORDSTOWN, LLC



Sally W. Bloomfield

Attachment

TABLE OF CONTENTS

LIST OF TABLES	vii
LIST OF UPDATED FIGURES.....	viii
LIST OF UPDATED APPENDICES	viii
ACRONYMS AND ABBREVIATIONS	ix
4906-13-01 Project Summary and Facility Overview	1
(A) PROJECT SUMMARY AND OVERVIEW	1
(1) General Purpose of the Facility	1
(2) Description of the Facility	1
(3) Site Selection Process	2
(4) Principal Environmental and Socioeconomic Considerations.....	2
(a) <i>Potential Construction Impacts</i>	3
(b) <i>Potential Operational Impacts</i>	3
(5) Project Schedule	3
4906-13-02 Project Description and Schedule	4
(A) DETAILED DESCRIPTION OF PROPOSED GENERATION AND ASSOCIATED FACILITIES	4
(1) Project Details.....	4
(a) <i>Generating Units</i>	4
(b) <i>Land Area Requirements</i>	4
(c) <i>Fuel Quantity and Quality</i>	5
(d) <i>Plant Emissions</i>	5
(e) <i>Water Requirements</i>	5
(2) Description of Major Equipment	5
(3) Transmission Line Interconnect	5
(4) New Gas Transmission Line.....	7
(B) DETAILED PROJECT SCHEDULE	7
(1) Schedule.....	7
(2) Delays	7

4906-13-03	Site Alternatives Analysis	8
(A)	SITE SELECTION STUDY	8
(1)	Site Selection Process	8
(a)	<i>Description of Study Area</i>	8
(b)	<i>Study Area and Site Map</i>	8
(c)	<i>Siting Criteria</i>	8
(d)	<i>Process for Identifying the Proposed Site</i>	8
(e)	<i>Factors in Selecting the Proposed Site</i>	8
(2)	Constraint Map	8
(B)	SUMMARY TABLE OF EVALUATED SITES	8
(C)	ADDITIONAL SITE SELECTION STUDIES	8
4906-13-04	Technical Data	9
(A)	SITE	9
(1)	Geography and Topography	9
(2)	Aerial Photograph	9
(3)	Site Mapping	9
(4)	Geology and Seismology	10
(a)	<i>Geological Issues</i>	10
(b)	<i>Soils and Soil Suitability</i>	10
(5)	Hydrology and Wind	10
(a)	<i>Characteristics of Directly Affected Waterbodies</i>	10
(b)	<i>Potential for Flooding or High Wind Conditions</i>	10
(c)	<i>Aquifer Mapping</i>	10
(B)	LAYOUT AND CONSTRUCTION	10
(1)	Site Activities	10
(a)	<i>Test Borings</i>	10
(b)	<i>Removal of Vegetation</i>	10
(c)	<i>Grading and Drainage</i>	11
(d)	<i>Access Roads</i>	11
(e)	<i>Removal and Disposal of Debris</i>	11
(f)	<i>Post-Construction Reclamation</i>	11

(2)	Layout	11
(3)	Structures	11
(a)	<i>Dimensions</i>	11
(b)	<i>Construction Materials</i>	12
(c)	<i>Color and Texture</i>	12
(d)	<i>Pictorial Sketches</i>	12
(e)	<i>Unusual Features</i>	12
(4)	Plans for Construction	12
(5)	Future Plans	12
(C)	EQUIPMENT	12
(1)	Description of Major Generating Equipment	12
(a)	<i>Heat Recovery Steam Generators</i>	12
(b)	<i>Steam Turbine Generator</i>	12
(c)	<i>Fuel Gas System</i>	12
(d)	<i>Steam System</i>	12
(e)	<i>Condensate System</i>	13
(f)	<i>Feedwater System</i>	13
(g)	<i>Cooling Water System/Steam Condensing</i>	13
(h)	<i>Closed Loop Auxiliary/Cooling Water System</i>	13
(i)	<i>Fire Protection System</i>	13
(j)	<i>Water System</i>	13
(k)	<i>Demineralizer</i>	13
(l)	<i>Wastewater System</i>	13
(m)	<i>Backup Generation</i>	13
(n)	<i>Transformers</i>	13
(2)	Emissions Control and Safety Equipment	13
(a)	<i>Flue Gas Emissions Control</i>	13
(b)	<i>Equipment Reliability and Efficiency Reduction</i>	14
(c)	<i>Effluent Control Equipment</i>	14
(d)	<i>Public Safety Equipment</i>	14

(3) Other Major Equipment.....	14
(a) Combustion Turbine Air Inlet Coolers	14
(b) Auxiliary Boiler.....	14
(c) Fuel Gas Preheaters	14
(d) Fire Water Pump – Diesel Engine Driven.....	14
(e) Oil/Water Separator.....	14
4906-13-05 Financial Data	15
(A) OWNERSHIP.....	15
(B) CAPITAL AND INTANGIBLE COSTS.....	15
(1) Estimated Capital and Intangible Costs.....	15
(2) Capital Cost Comparison.....	15
(3) Present Worth and Annualized Capital Costs.....	15
(C) OPERATION AND MAINTENANCE EXPENSES	15
(1) Estimated Annual Operation and Maintenance Expenses	15
(2) Operation and Maintenance Expenses Comparison	15
(3) Present Worth and Annualized Operation and Maintenance Expenses	15
(D) DELAYS	15
4906-13-06 Environmental Data.....	16
(A) GENERAL	16
(B) AIR	16
(1) Preconstruction	16
(a) Description of Ambient Air Quality	16
(b) Description of Pollution Control Equipment.....	16
(c) Description of Regulatory Applicability	16
(d) Required Permits to Install and Operate Air Pollution Sources	16
(e) Air Monitoring Stations and Major Source Mapping.....	16
(f) Demonstration of Regulatory Compliance	16
(2) Construction.....	16
(3) Operation	16
(a) Description of Air Monitoring Plans	16
(b) Estimated Air Concentration Isopleths.....	17

(c)	<i>Potential Failure of Air Pollution Control Equipment</i>	17
(C)	WATER	17
(1)	Preconstruction	17
(a)	<i>List of Permits</i>	17
(b)	<i>Location of Survey Data Sources</i>	17
(c)	<i>Description of Data Sampling Stations</i>	17
(d)	<i>Water Quality of Receiving Stream</i>	17
(e)	<i>Water Discharge Permit Information</i>	17
(2)	Construction	17
(a)	<i>Location of Water Monitoring and Gauging Stations</i>	17
(b)	<i>Aquatic Discharges</i>	17
(c)	<i>Mitigation Plan</i>	18
(d)	<i>Changes to Flow Pattern</i>	18
(3)	Operation	18
(a)	<i>Location of Water Monitoring and Gauging Stations</i>	18
(b)	<i>Water Pollution Control Equipment and Treatment Process</i>	18
(c)	<i>NPDES Permit</i>	18
(d)	<i>Water and Water-Borne Wastes</i>	18
(e)	<i>Water Conservation</i>	18
(D)	SOLID WASTE	18
(1)	Preconstruction	18
(2)	Construction	18
(3)	Operation	18
(4)	Licenses and Permits	19
4906-13-07	Social and Ecological Data	20
(A)	HEALTH AND SAFETY	20
(1)	Demographic Characteristics	20
(2)	Atmospheric Emissions	20
(3)	Noise	20
(a)	<i>Construction Noise Levels</i>	20
(b)	<i>Operational Noise Levels</i>	20

(c)	<i>Identification of Noise-Sensitive Areas</i>	20
(d)	<i>Description of Equipment and Noise Mitigation Measures</i>	20
(4)	<i>Water</i>	20
(a)	<i>Construction and Operation Impacts to Public and Private Water Supplies</i>	20
(b)	<i>Impact of Pollution Control Equipment Failures on Public and Private Water Supplies</i>	21
(B)	ECOLOGICAL IMPACT	21
(1)	<i>Site Information</i>	21
(a)	<i>Mapping</i>	21
(b)	<i>Vegetation Survey</i>	21
(c)	<i>Species Survey</i>	21
(d)	<i>Ecological Study</i>	21
(e)	<i>List of Major Species</i>	22
(2)	<i>Construction</i>	22
(a)	<i>Impact of Construction on Undeveloped Areas</i>	22
(b)	<i>Impact of Construction on Major Species</i>	23
(c)	<i>Mitigation for Short-Term and Long-Term Construction Impacts</i>	23
(3)	<i>Operation</i>	23
(a)	<i>Impact of Operation on Undeveloped Areas</i>	23
(b)	<i>Impact of Operation on Major Species</i>	23
(C)	ECONOMICS, LAND USE AND COMMUNITY DEVELOPMENT	23
(1)	<i>Land Use</i>	23
(a)	<i>Land Use Mapping</i>	23
(b)	<i>Residential Structures</i>	23
(c)	<i>Land Use Impact</i>	23
(d)	<i>Structures to be Removed or Relocated</i>	23
(e)	<i>Formally Adopted Plans for Future use of the Site and Surrounding Lands</i>	24
(f)	<i>Applicant Plans for Concurrent or Secondary Uses of the Site</i>	24
(2)	<i>Economics</i>	24
(a)	<i>Annual Total Present Worth of Construction and Operation Payroll</i>	24
(b)	<i>Construction and Operation Employment</i>	24

(c) <i>Increase in Local Revenue</i>	24
(d) <i>Economic Impact on Local Commercial and Industrial Activities</i>	24
(3) Public Services and Facilities	24
(4) Impact on Regional Development	24
(a) <i>Impact on Regional Development</i>	24
(b) <i>Compatibility with Regional Plans</i>	24
(D) CULTURAL IMPACT	25
(1) Cultural Resource Mapping	25
(2) Cultural Resource Impacts	25
(3) Cultural Resource Landmarks	25
(4) Land and Water Recreation Areas	25
(5) Recreational Areas and Potential Impacts	25
(6) Measures to Minimize Visual Impacts	25
(E) PUBLIC RESPONSIBILITY	25
(1) Public Interaction Program	25
(2) Liability Compensation Plans	25
(F) AGRICULTURAL DISTRICTS	25
(1) Agricultural Land Mapping	25
(2) Potential Impact to Agricultural Lands	26
(a) <i>Potential Construction, Operation and Maintenance Impacts</i>	26
(b) <i>Agricultural Mitigation Practices</i>	26
(3) Potential Impact on Agricultural Viability	26

LIST OF UPDATED TABLES

Table 02-2 Comparison of Ringbus Interconnection Routes	6
---	---

LIST OF UPDATED FIGURES

Section 4906-13-01 – Project Summary and Facility Overview

- Figure 01-1 – Project Location

Section 4906-13-02 – Project Description and Schedule

No change to figures with the exception of:

- Figure 2-1D – Project Area within Five Miles
- Figure 02-2– Proposed Facility and Vicinity
- Figure 02-6 – Ringbus Site Layout
- Figure 02-7 – Ringbus Interconnection Layout

Section 4906-13-03 – Site Alternatives Analysis

No change to figures.

Section 4906-13-04 – Technical Data

No change to figures with the exception of:

- Figure 04-2 – Soils and Floodplain Map
- Figure 04-6 – Aquifers, Water Wells, Oil and Gas Wells and Drinking Water Protection Areas

Section 4906-13-05 – Financial Data

- No figures

Section 4906-13-06 – Environmental Data

No change to figures.

Section 4906-13-07 – Social and Ecological Data

No change to figures with the exception of:

- Figure 07-3 – Natural Resource Characteristics of the Site and Surroundings
- Figure 07-4 – Ecological Impact
- Figure 07-5 – Surrounding Land Use
- Figures 07-7D – Cultural and Recreational Areas
- Figure 07-8 – Agricultural Land

LIST OF UPDATED APPENDICES

No change to appendices.

ACRONYMS AND ABBREVIATIONS

CEF-L	Clean Energy Future – Lordstown, LLC
EMF	electric and magnetic fields
the Facility	Lordstown Energy Center
the Facility Site	An approximately 17-acre property on which the Lordstown Energy Center will be constructed
kV	kilovolt
OHI	Ohio Historic Inventory
OPSB	Ohio Power Siting Board
Ringbus Interconnection	A 100-foot wide electrical transmission corridor connecting the Facility Site to the Ringbus Site
Ringbus Interconnection Property	Approximately 70-acre property, stretching from north to northeast of the Facility Site, within which the Ringbus Interconnection will be routed
Ringbus Property	Approximately 71-acre property, located northeast of the Facility Site on which the 5-breaker ringbus will be located
Ringbus Site	An approximately 4.5-acre parcel, located within the Ringbus Property, proposed for the 5-breaker ringbus
ROW	right-of-way
SHPO	Ohio State Historic Preservation Office
SR	State Route

(A) PROJECT SUMMARY AND OVERVIEW

No change since original filing.

(1) General Purpose of the Facility

No change since original filing.

(2) Description of the Facility

As a preliminary matter, Clean Energy Future – Lordstown, LLC (CEF-L) is aware that the new rules are in effect, but inasmuch as the application to which this amendment refers was filed under the rules in existence before December 11, 2015, this amendment application tracks the designations of the older rules. CEF-L believes that it has addressed anything that is substantively necessary in the new rules.

The original filing addressed the Lordstown Energy Center (the Facility), a new natural gas-fired combined cycle electric generating facility to be developed, built, owned, and operated by CEF-L. The Facility is proposed on a 17-acre, rectangular-shaped parcel (the Facility Site) located east of State Route 45 (SR 45) in the Village of Lordstown, Trumbull County, Ohio. No change in the Facility has occurred since the original filing.

This Amendment, submitted to the Ohio Power Siting Board (OPSB) addresses changes associated with the 5-breaker ringbus and the electrical interconnection (Ringbus Interconnection) that will connect the Facility to the regional power grid. As final design was being completed, some of the technical layout elements were refined and improved, at the suggestion of FirstEnergy. These engineering adjustments will make the interconnection easier to complete, and can be completed at a lower capital cost, to the benefit of ratepayers. Figure 01-1

shows the area for which environmental studies were presented in the original filing and the proposed layout of the transmission/ringbus features.

FirstEnergy requested that the layout of the ringbus be rotated, as shown in Figure 01-1, to better meet its design requirements and minimize the cost of their “looping” of their existing double-circuit 345-kV lines into the ringbus. This layout adjustment slightly increased the acreage needed for the ringbus from the originally proposed 3.5 acres to approximately 4.5 acres (Ringbus Site). The entire Ringbus Site remains within the 71-acre optioned property located between the two FirstEnergy 345-kilovolt (kV) transmission line corridors (Ringbus Property). This minor engineering adjustment has a capital cost savings of \$4.1 million, which, in turn, would reduce costs to ratepayers.

In addition to the layout adjustments associated with the ringbus, FirstEnergy requested the movement of Pole 5, from the immediate edge of the existing right-of-way (ROW) to a position that allows for a longer span. The adjusted location moves the crossing north of that pole (and with less line sag), eliminating the need for a costly “lift” of the existing pole for construction of the new line. The entire Ringbus Interconnection remains with the approximately 70-acre area originally evaluated (Ringbus Interconnection Property).

None of the proposed adjustments or refinements are proposed on land not previously discussed or studied in the original filing.

(3) Site Selection Process

No change since original filing.

(4) Principal Environmental and Socioeconomic Considerations

No change since original filing.

(a) *Potential Construction Impacts*

No change since original filing.

(b) *Potential Operational Impacts*

No change since original filing.

(5) Project Schedule

No change since original filing.

(A) DETAILED DESCRIPTION OF PROPOSED GENERATION AND ASSOCIATED FACILITIES

An update of sheet D of Figure 02-2 shows the proposed Facility and surrounding area on an aerial photograph overlay, including proximate transportation and utility corridors as well as major features of the Facility; no other sheets from this figure have changed. The modified 4.5-acre Ringbus Site and Ringbus Interconnection are depicted east of the Facility Site, along with the alternate access road, previously reviewed by OPSB Staff.

(1) Project Details

(a) *Generating Units*

No change since original filing.

(b) *Land Area Requirements*

Approximately 4.5 acres of land will be occupied by the ringbus. Although this represents an additional 1 acre of permanent land use, slightly less tree clearing (0.2 acre) will be required based on the rotation and adjustment of the Ringbus Site location.

With the ringbus layout adjustments, and an adjusted pole location, the Ringbus Interconnection will be 3,814 feet in length, approximately 400 feet longer than originally proposed. This route will require approximately 4.1 acres of clearing, 0.6 acres more than identified in the original filing.

No other change in land area requirements has occurred since the original filing.

(c) *Fuel Quantity and Quality*

No change since original filing.

(d) *Plant Emissions*

No change since original filing.

(e) *Water Requirements*

No change since original filing.

(2) Description of Major Equipment

No change since original filing

(3) Transmission Line Interconnect

At the request of FirstEnergy, slight adjustments have been made to the Ringbus Interconnection. Conductors from the Facility will cross Henn Parkway in a northerly direction from the on-site collector bus and immediately be connected to Pole 1, a single steel pole, allowing the lines to make a 90 degree turn to the east. Poles 2, 3, and 4 will also be single steel poles, each approximately 750 feet apart in an easterly heading and within a 100-foot ROW. The poles are proposed in such a way as to avoid any construction in existing wetlands while also minimizing tree clearing.

Pole 5 will bring the Ringbus Interconnection to the edge of the FirstEnergy ROW containing the Highland to Hanna 345-kV circuit and the 138-kV circuit. FirstEnergy recently completed a construction project to “lift” the Highland to Hanna 345-kV circuit from an H-style three wooden pole design to a single metal pole design. The adjacent 138-kV system remains on a metal truss-tower structure. Based upon coordination with First Energy, the Ringbus Interconnection will be constructed under First Energy’s existing lines. In order to do so, Pole 5 will be a more traditional H-design. Pole 5 has

been shifted northward to allow for a longer span of the FirstEnergy ROW. The adjusted location moves the crossing north of FirstEnergy’s new 170-foot steel pole, eliminating the need for a costly “lift” of the existing pole for construction of the new line.

As shown in Figure 02-7, Pole 6, another H-tower, lies east of the First Energy ROW. The Ringbus Interconnection will proceed from Pole 6 in a northeast direction to Pole 7, a single steel pole, which allows the lines to make a 90 degree turn to the south. From Pole 7, the conductors will proceed south into the northwest corner of the Ringbus Site, into a dead-end structure.

A comparison of key features associated with the Ringbus Interconnection routes is provided in Table 02-2.

**TABLE 02-2
COMPARISON OF RINGBUS INTERCONNECTION ROUTES**

Characteristics	New Proposed Route	Original Proposed Route	Original Alternate Route
Total Length	3,814 feet	3,438 feet	3,875 feet
Number of Poles	7	7	7
Maximum Height of Poles	100	100	100
Wetland Fill	None	None	None
Wetland Clearing	0.3 acres	0.14 acres	0.51 acres
Tree Clearing	4.1 acres	3.5 acres	6.7 acres
EMF	Complies with standard	Complies with standard	Complies with standard

The intention is to subdivide the specific area to be used for the ringbus, such that when the ringbus is built, it can be conveyed (with the land) to FirstEnergy. First Energy will be able to reach the Ringbus Site via a new access road to be built from the end of Goldner Lane, crossing Mud Creek using an existing culvert. The updated ringbus conceptual design (Figure 02-6) was developed with input from FirstEnergy.

(4) New Gas Transmission Line

No change since original filing.

(B) DETAILED PROJECT SCHEDULE

(1) Schedule

No change since original filing.

(2) Delays

No change since original filing.

(A) SITE SELECTION STUDY

(1) Site Selection Process

(a) *Description of Study Area*

No change since original filing.

(b) *Study Area and Site Map*

No change since original filing.

(c) *Siting Criteria*

No change since original filing.

(d) *Process for Identifying the Proposed Site*

No change since original filing.

(e) *Factors in Selecting the Proposed Site*

No change since original filing.

(2) Constraint Map

No change since original filing.

(B) SUMMARY TABLE OF EVALUATED SITES

No change since original filing.

(C) ADDITIONAL SITE SELECTION STUDIES

No change since original filing.

(A) SITE

(1) Geography and Topography

No change since original filing in geographic or topographic features.

The Ringbus Site was previously identified as a 3.5-acre parcel within the 71-acre Ringbus Property. Layout adjustments, made at the request of FirstEnergy, rotated the Ringbus and require an additional acre of land. The new Ringbus Site remains within the Ringbus Property, which was previously studied and discussed in the original filing.

As reviewed by OPSB Staff, access to the Ringbus Site will be off the cul-de-sac on Goldner Lane, crossing over Mud Creek on an existing access road and culvert. This existing access road was used by FirstEnergy for its heavy construction, and would require improvements only at the approach to the Ringbus Site. The access road proposed in the original filing would have been an entirely new road and required additional improvements and impacts.

(2) Aerial Photograph

No change since original filing.

(3) Site Mapping

The adjusted Ringbus Site is still situated within an open field with only a perimeter of trees, covering approximately 1.23 acres, being cleared. The adjusted Ringbus Interconnection route will require 4.1 acres of tree clearing within the 100-foot wide ROW.

(4) Geology and Seismology

(a) *Geological Issues*

No change since original filing.

(b) *Soils and Soil Suitability*

No change since original filing.

(5) Hydrology and Wind

(a) *Characteristics of Directly Affected Waterbodies*

No change since original filing.

(b) *Potential for Flooding or High Wind Conditions*

No change since original filing.

(c) *Aquifer Mapping*

No change since original filing.

(B) LAYOUT AND CONSTRUCTION

No change since original filing.

(1) Site Activities

(a) *Test Borings*

No change since original filing.

(b) *Removal of Vegetation*

The adjusted Ringbus Site is situated within an open field to minimize tree clearing, with only approximately 1.3 acres to be cleared. The adjusted Ringbus Interconnection will require 4.1 acres of tree clearing within the 100-foot wide ROW.

(c) *Grading and Drainage*

No change since original filing.

(d) *Access Roads*

No change since original filing, except for selection of the access alternative to reach the Ringbus Site. Access to the Ringbus Site will not utilize the newly constructed road extending from the end of the Goldner Lane cul-de-sac, but will utilize an existing roadway that currently extends east off the Goldner Lane cul-de-sac and passes north over an existing culvert in Mud Creek to reach the existing transmission lines. From that point, CEF-L will extend the existing road to the Ringbus Site without any additional impacts to wetlands.

(e) *Removal and Disposal of Debris*

No change since original filing.

(f) *Post-Construction Reclamation*

No change since original filing.

(2) Layout

The adjusted Ringbus layout is provided in Figure 02-6 and the adjusted route for the Ringbus Interconnection is provided in Figure 02-7. No other change since original filing.

(3) Structures

(a) *Dimensions*

No change since original filing.

(b) *Construction Materials*

No change since original filing.

(c) *Color and Texture*

No change since original filing.

(d) *Pictorial Sketches*

No change since original filing.

(e) *Unusual Features*

No change since original filing.

(4) **Plans for Construction**

No change since original filing.

(5) **Future Plans**

No change since original filing.

(C) **EQUIPMENT**

(1) **Description of Major Generating Equipment**

No change since original filing.

(a) *Heat Recovery Steam Generators*

No change since original filing.

(b) *Steam Turbine Generator*

No change since original filing.

(c) *Fuel Gas System*

No change since original filing.

(d) *Steam System*

No change since original filing.

(e) *Condensate System*

No change since original filing.

(f) *Feedwater System*

No change since original filing.

(g) *Cooling Water System/Steam Condensing*

No change since original filing.

(h) *Closed Loop Auxiliary/Cooling Water System*

No change since original filing.

(i) *Fire Protection System*

No change since original filing.

(j) *Water System*

No change since original filing.

(k) *Demineralizer*

No change since original filing.

(l) *Wastewater System*

No change since original filing.

(m) *Backup Generation*

No change since original filing.

(n) *Transformers*

No change since original filing.

(2) Emissions Control and Safety Equipment

(a) *Flue Gas Emissions Control*

No change since original filing.

(b) *Equipment Reliability and Efficiency Reduction*

No change since original filing.

(c) *Effluent Control Equipment*

No change since original filing.

(d) *Public Safety Equipment*

No change since original filing.

(3) *Other Major Equipment*

No change since original filing.

(a) *Combustion Turbine Air Inlet Coolers*

No change since original filing.

(b) *Auxiliary Boiler*

No change since original filing.

(c) *Fuel Gas Preheaters*

No change since original filing.

(d) *Fire Water Pump – Diesel Engine Driven*

No change since original filing.

(e) *Oil/Water Separator*

No change since original filing.

(A) OWNERSHIP

No change since original filing.

(B) CAPITAL AND INTANGIBLE COSTS

(1) Estimated Capital and Intangible Costs

No change since original filing.

(2) Capital Cost Comparison

No change since original filing.

(3) Present Worth and Annualized Capital Costs

No change since original filing.

(C) OPERATION AND MAINTENANCE EXPENSES

(1) Estimated Annual Operation and Maintenance Expenses

No change since original filing.

(2) Operation and Maintenance Expenses Comparison

No change since original filing.

(3) Present Worth and Annualized Operation and Maintenance Expenses

No change since original filing.

(D) DELAYS

No change since original filing.

(A) GENERAL

No change since original filing.

(B) AIR

(1) Preconstruction

(a) *Description of Ambient Air Quality*

No change since original filing.

(b) *Description of Pollution Control Equipment*

No change since original filing.

(c) *Description of Regulatory Applicability*

No change since original filing.

(d) *Required Permits to Install and Operate Air Pollution Sources*

No change since original filing.

(e) *Air Monitoring Stations and Major Source Mapping*

No change since original filing.

(f) *Demonstration of Regulatory Compliance*

No change since original filing.

(2) Construction

No change since original filing.

(3) Operation

(a) *Description of Air Monitoring Plans*

No change since original filing.

(b) *Estimated Air Concentration Isopleths*

No change since original filing.

(c) *Potential Failure of Air Pollution Control Equipment*

No change since original filing.

(C) WATER

No change since original filing.

(1) Preconstruction

(a) *List of Permits*

No change since original filing.

(b) *Location of Survey Data Sources*

No change since original filing.

(c) *Description of Data Sampling Stations*

No change since original filing.

(d) *Water Quality of Receiving Stream*

No change since original filing.

(e) *Water Discharge Permit Information*

No change since original filing.

(2) Construction

(a) *Location of Water Monitoring and Gauging Stations*

No change since original filing.

(b) *Aquatic Discharges*

No change since original filing.

(c) *Mitigation Plan*

No change since original filing.

(d) *Changes to Flow Pattern*

No change since original filing.

(3) **Operation**

(a) *Location of Water Monitoring and Gauging Stations*

No change since original filing.

(b) *Water Pollution Control Equipment and Treatment Process*

No change since original filing.

(c) *NPDES Permit*

No change since original filing.

(d) *Water and Water-Borne Wastes*

No change since original filing.

(e) *Water Conservation*

No change since original filing.

(D) **SOLID WASTE**

(1) **Preconstruction**

No change since original filing.

(2) **Construction**

No change since original filing.

(3) **Operation**

No change since original filing.

(4) Licenses and Permits

No change since original filing.

No change to introductory language since original filing.

(A) HEALTH AND SAFETY

(1) Demographic Characteristics

No change since original filing.

(2) Atmospheric Emissions

No change since original filing.

(3) Noise

No change since original filing.

(a) *Construction Noise Levels*

No change since original filing.

(b) *Operational Noise Levels*

No change since original filing.

(c) *Identification of Noise-Sensitive Areas*

No change since original filing.

(d) *Description of Equipment and Noise Mitigation Measures*

No change since original filing.

(4) Water

No change since original filing.

**(a) *Construction and Operation Impacts to Public and Private Water
Supplies***

No change since original filing.

(b) *Impact of Pollution Control Equipment Failures on Public and Private Water Supplies*

No change since original filing.

(B) ECOLOGICAL IMPACT

(1) Site Information

(a) *Mapping*

Figure 07-4 has been updated to illustrate the adjusted Ringbus Interconnection and Ringbus Site. As shown in the figure, no wildlife areas, nature preserves or other conservation areas are present. No change has occurred since the original filing.

(b) *Vegetation Survey*

No change since original filing.

(c) *Species Survey*

No change since original filing. As documented for the prior configuration, no Eastern Massasauga has been determined to occur in this area and grassland birds are not considered to be a nesting concern.

(d) *Ecological Study*

Wetland Assessment

A forested wetland system, confirmed by the USACE, extends across the Ringbus Interconnection Property. The majority of wetland areas across this property are connected and associated with the unnamed tributary to Mud Creek, although several smaller wetlands have also been delineated in this area. Although wetlands will be traversed by overhead

electrical lines associated with the Ringbus Interconnection, no wetland fill is proposed. All structures associated with the Ringbus Interconnection will be placed in upland areas.

The ringbus has been sited to avoid impact to wetland areas, including use of an existing culverted crossing to provide access to the Ringbus Property.

Ecological Impact Study

The adjusted Ringbus Site is situated on an open field with only a perimeter of trees, covering approximately 1.3 acres, proposed to be cleared. This modification is a slight reduction in tree clearing as compared to the original filing.

The Ringbus Interconnection Property is a mixture of open fields and forested area. The adjusted Ringbus Interconnection requires 4.1 acres of clearing within the 100-foot wide ROW.

(e) List of Major Species

No change since original filing.

(2) Construction

(a) Impact of Construction on Undeveloped Areas

No change since original filing with the exception of adjustments in impact areas associated with the updated Ringbus Interconnection and Ringbus Site. Approximately 1.3 acres of clearing will be required for the the Ringbus Site (0.2 acre less than for the prior layout), while the adjusted Ringbus Interconnection requires approximately 4.1 acres of tree clearing within the 100-foot wide ROW (0.6 acre more than for the prior

layout). No significant impacts to ecological resources are anticipated that would require special mitigation measures.

(b) *Impact of Construction on Major Species*

No change since original filing.

(c) *Mitigation for Short-Term and Long-Term Construction Impacts*

No change since original filing.

(3) Operation

(a) *Impact of Operation on Undeveloped Areas*

No change since original filing.

(b) *Impact of Operation on Major Species*

No change since original filing.

(C) ECONOMICS, LAND USE AND COMMUNITY DEVELOPMENT

(1) Land Use

(a) *Land Use Mapping*

No change since original filing.

(b) *Residential Structures*

No change since original filing.

(c) *Land Use Impact*

No change since original filing.

(d) *Structures to be Removed or Relocated*

No change since original filing.

(e) *Formally Adopted Plans for Future use of the Site and Surrounding Lands*

No change since original filing.

(f) *Applicant Plans for Concurrent or Secondary Uses of the Site*

No change since original filing.

(2) Economics

(a) *Annual Total Present Worth of Construction and Operation Payroll*

No change since original filing.

(b) *Construction and Operation Employment*

No change since original filing.

(c) *Increase in Local Revenue*

No change since original filing.

(d) *Economic Impact on Local Commercial and Industrial Activities*

No change since original filing.

(3) Public Services and Facilities

No change since original filing.

(4) Impact on Regional Development

(a) *Impact on Regional Development*

No change since original filing.

(b) *Compatibility with Regional Plans*

No change since original filing.

(D) CULTURAL IMPACT

No change since original filing, other than completion of the cultural survey process.

(1) Cultural Resource Mapping

No change since original filing.

(2) Cultural Resource Impacts

No change since original filing.

(3) Cultural Resource Landmarks

A No change since original filing.

(4) Land and Water Recreation Areas

No change since original filing.

(5) Recreational Areas and Potential Impacts

No change since original filing.

(6) Measures to Minimize Visual Impacts

No change since original filing.

(E) PUBLIC RESPONSIBILITY

(1) Public Interaction Program

No change since original filing.

(2) Liability Compensation Plans

No change since original filing.

(F) AGRICULTURAL DISTRICTS

(1) Agricultural Land Mapping

No change since original filing.

(2) Potential Impact to Agricultural Lands

(a) *Potential Construction, Operation and Maintenance Impacts*

No change since original filing.

(b) *Agricultural Mitigation Practices*

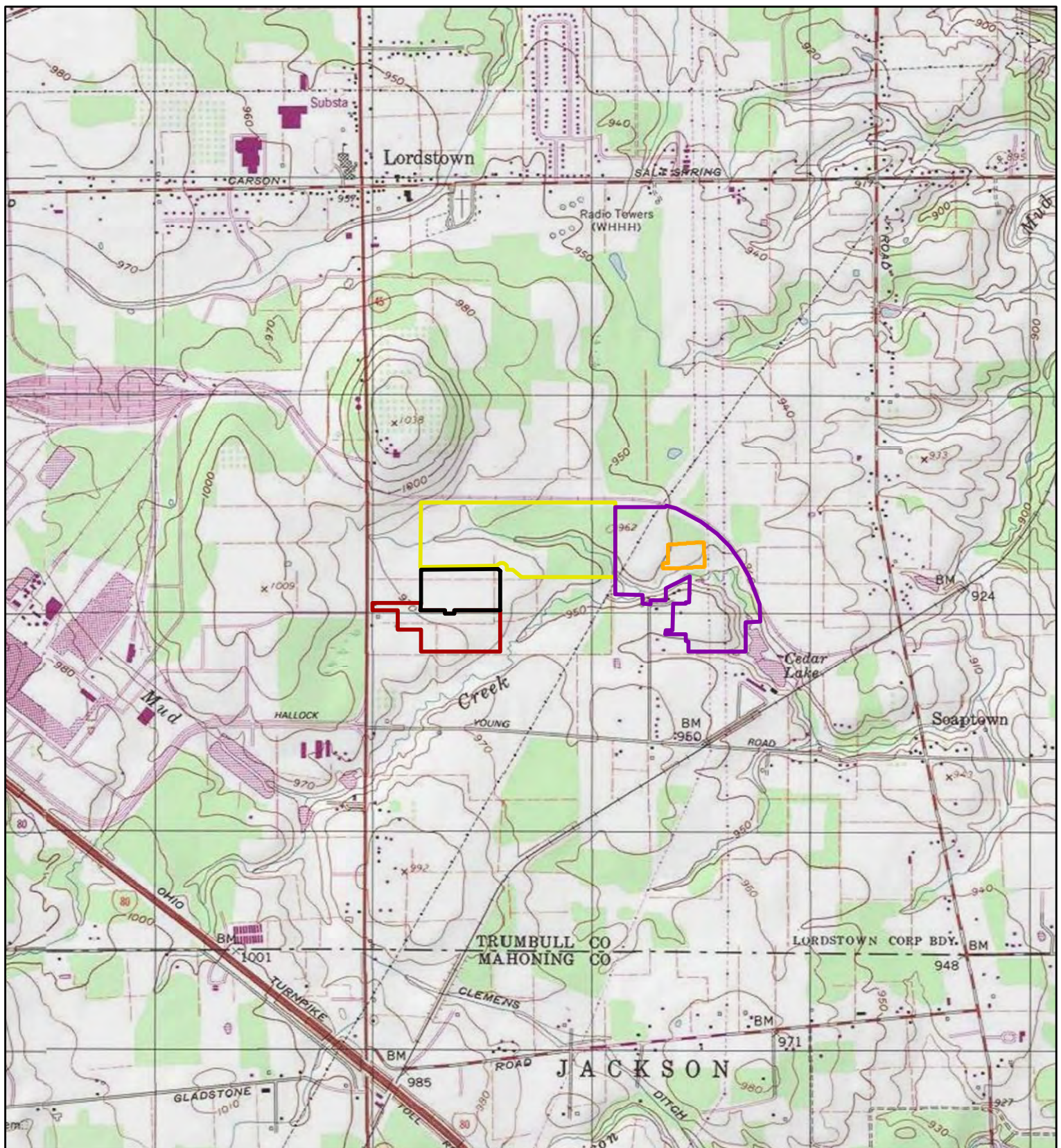
No change since original filing.

(3) Potential Impact on Agricultural Viability

No change since original filing.

Updated Figures

- Figure 01-1 – Project Location
- Figure 02-1D – Study Area
- Figure 02-2 – Proposed Facility and Vicinity
- Figure 02-6 – Ringbus Layout
- Figure 02-7 – Ringbus Interconnection Layout
- Figure 04-2 – Soils and Floodplain
- Figure 04-6 – Wells
- Figure 07-3 – Natural Resource Characteristics
- Figure 07-4 – Ecological Impacts
- Figure 07-5 – Land Use
- Figure 07-7D – Cultural and Recreational Areas
- Figure 07-8 – Agricultural Land



Legend

- Facility Site
- Laydown Area
- Ringbus Site
- Ringbus Property
- Ringbus Interconnection Property

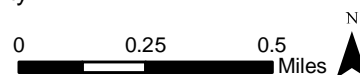
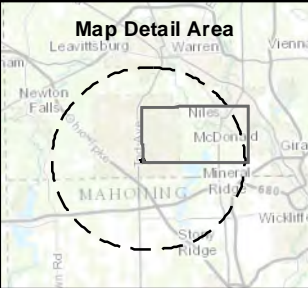
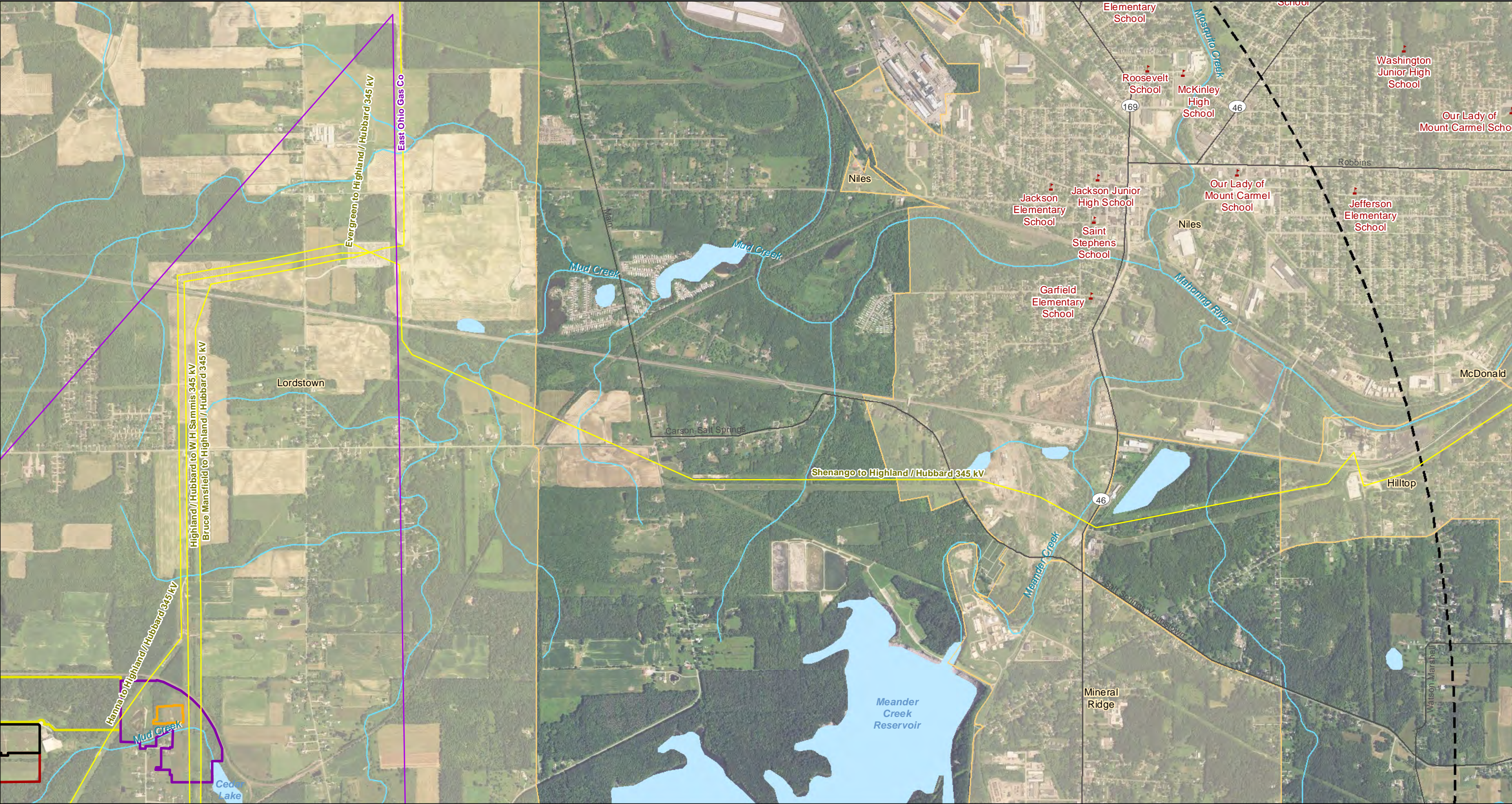


Figure 01-1
Project Location

Lordstown Energy Center
Village of Lordstown, Ohio



Legend

- Facility Site
- Laydown Area
- Ringbus Site
- Ringbus Property
- Ringbus Interconnection Property

- 5-mile Radius
- County Boundary
- Municipal Boundary
- Natural Gas Pipeline
- Transmission Line

- Interstate
- Major Road
- Stream/River
- Waterbody
- Hospital
- School

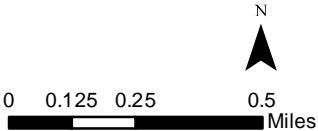
















Figure 02-1D
Project Area within Five Miles

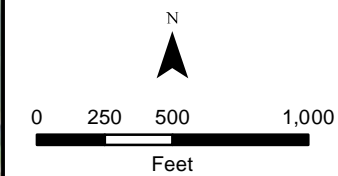
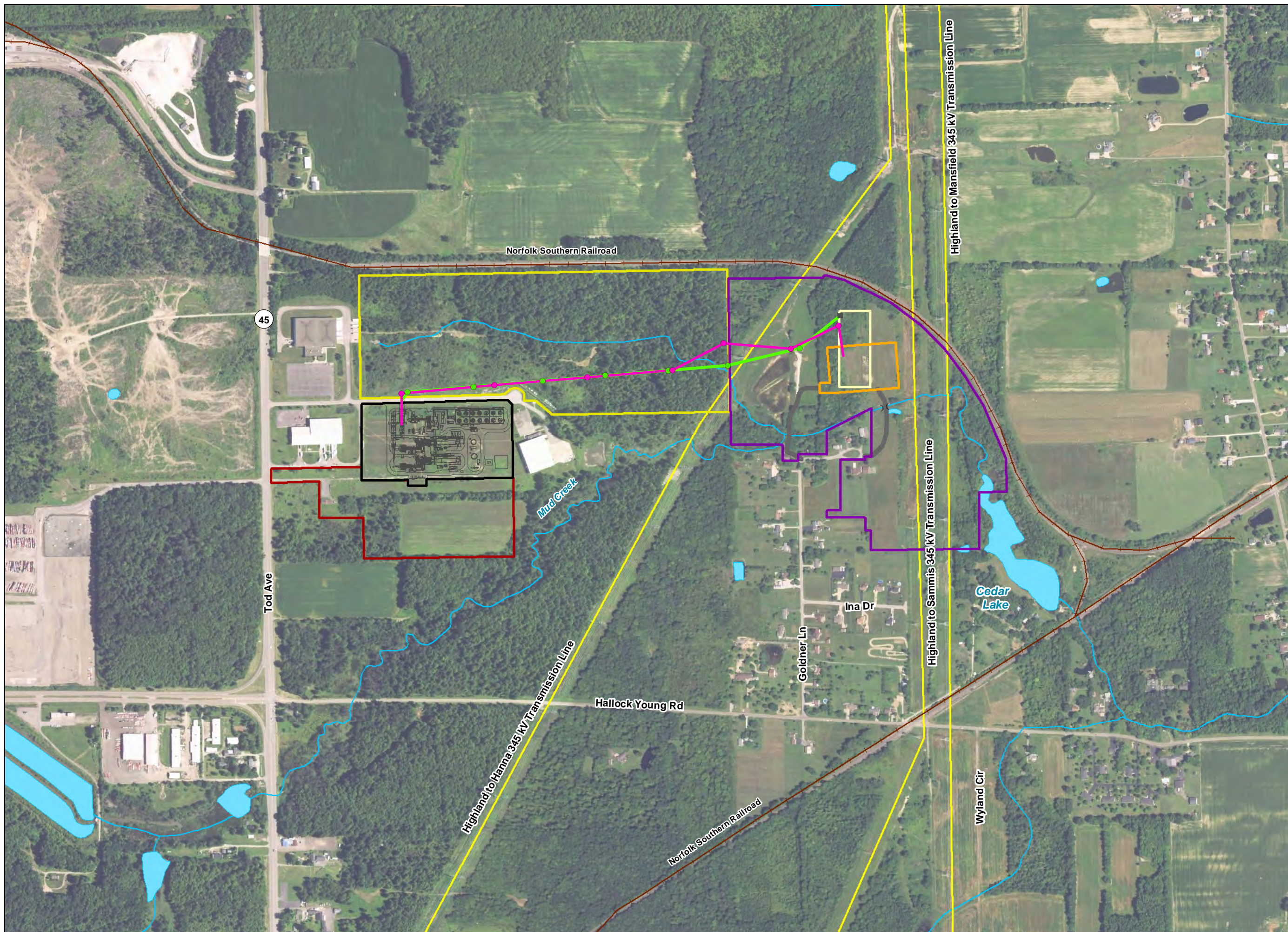
Lordstown Energy Center
Village of Lordstown, Ohio

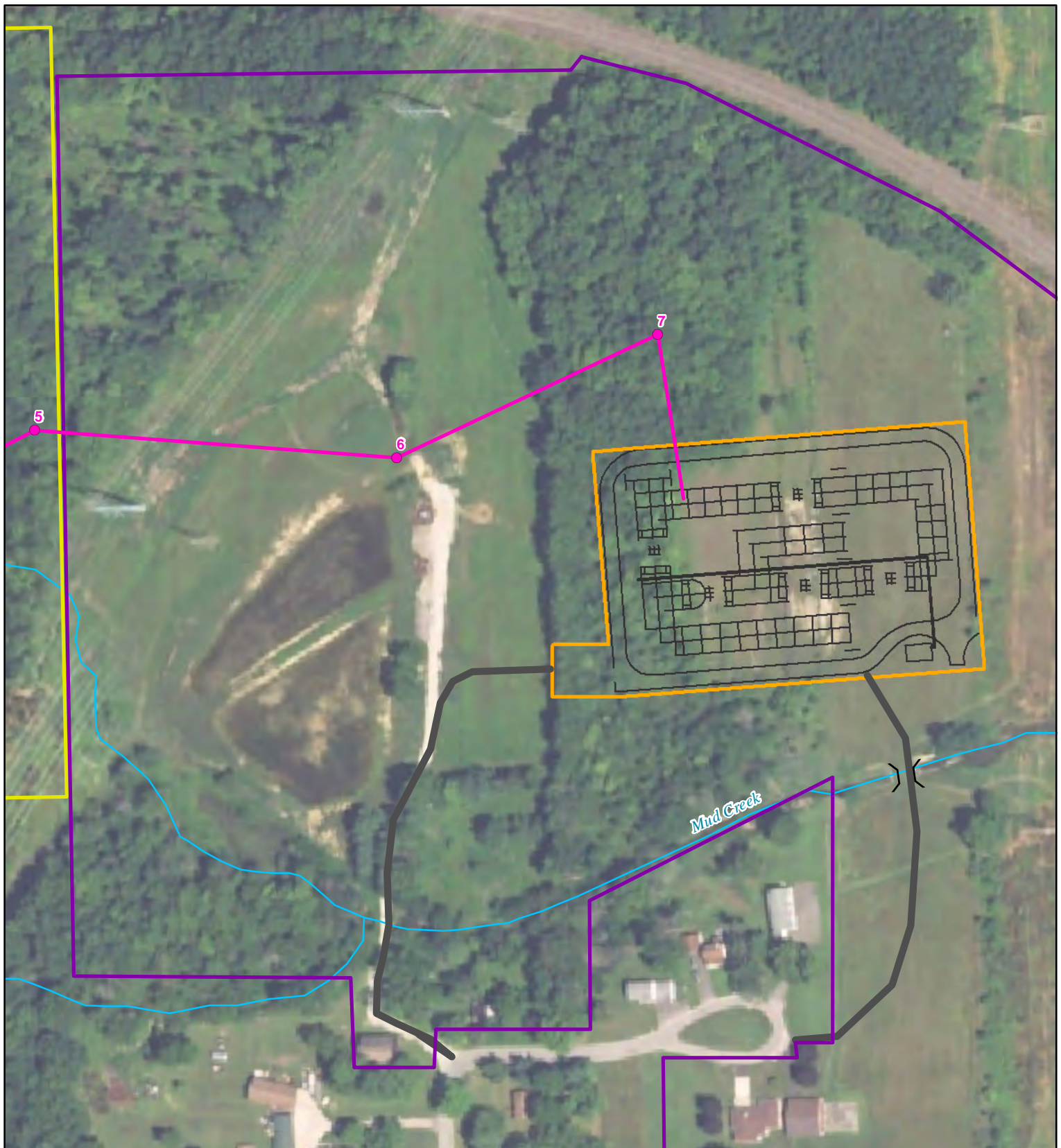
**Figure 02-2
Proposed Project
and Vicinity**

Lordstown Energy Center
Village of Lordstown, Ohio

Legend

-  Facility Site
-  Laydown Area
-  Ringbus Site
-  Adjusted Ringbus Site
-  Ringbus Property
-  Ringbus Interconnection Property
-  Ringbus Interconnection
-  Adjusted Ringbus Interconnection
-  Access Road
-  Railroad
-  Electric Transmission Line
-  Waterbody
-  Stream
-  Existing Culvert





Legend

- Ringbus Site
- Ringbus Property
- Ringbus Interconnection Property
- Ringbus Interconnection

- Access Road
- ~ Stream
-)) Existing Culvert

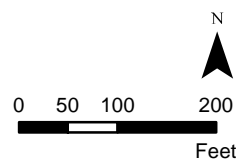


Figure 02-6
Ringbus Layout

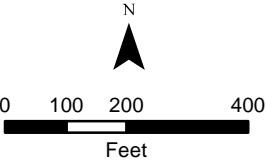
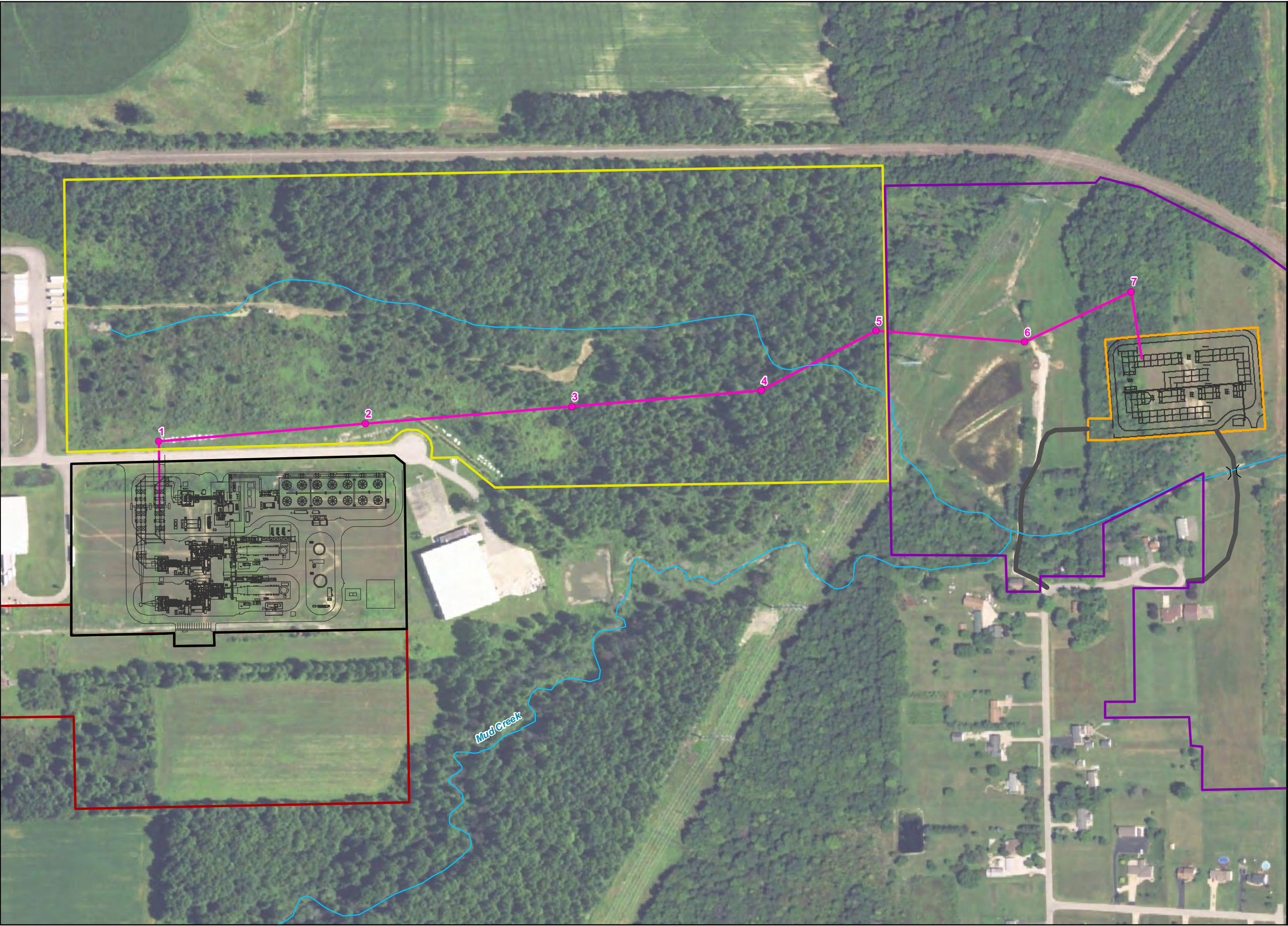
Lordstown Energy Center
Village of Lordstown, Ohio

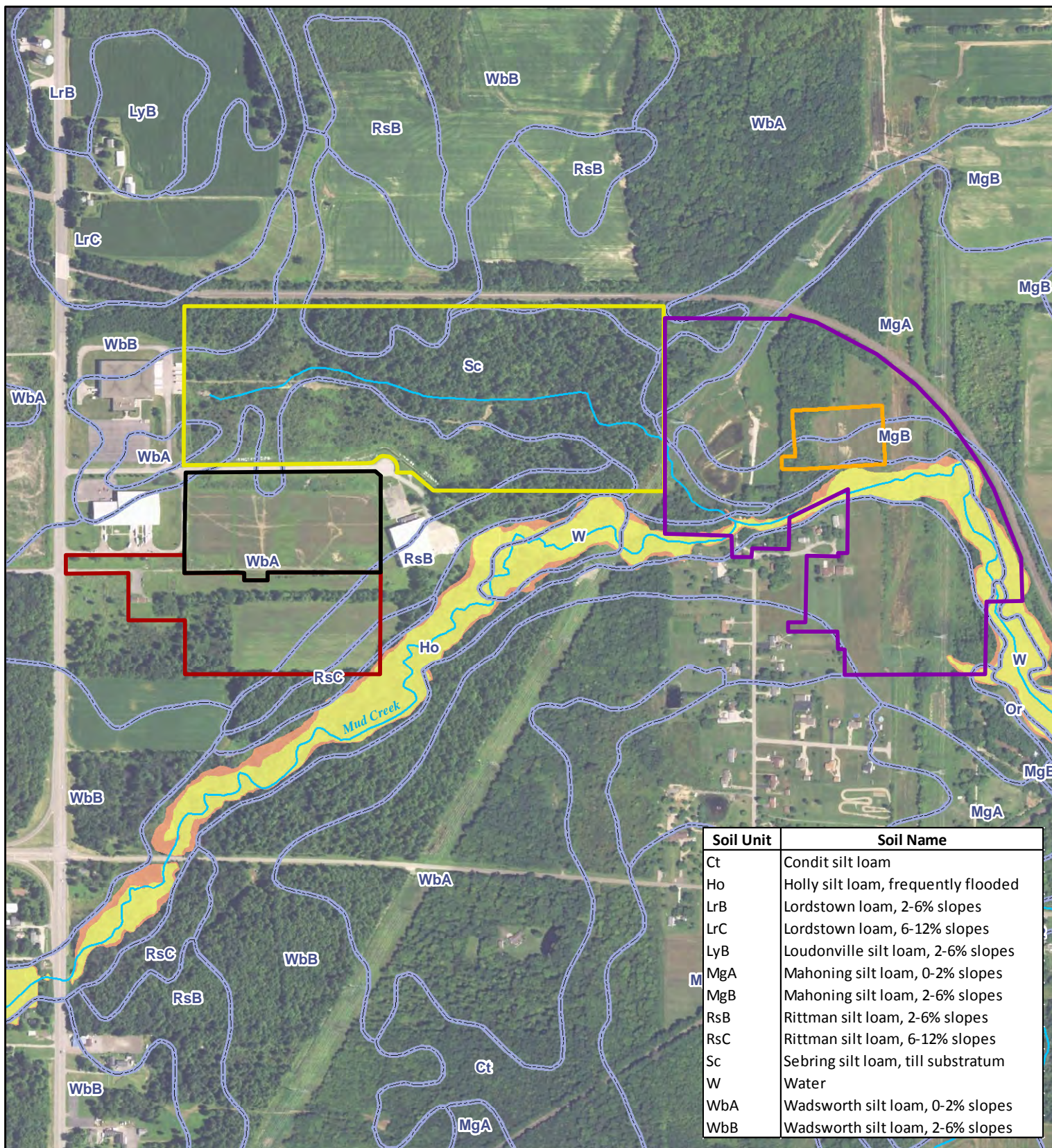
Figure 02-7
Ringbus Interconnection
Layout

Lordstown Energy Center
Village of Lordstown, Ohio

Legend

- Facility Site
- Laydown Area
- Ringbus Site
- Ringbus Property
- Ringbus Interconnection Property
- Ringbus Interconnection
- Access Road
- Stream
- Existing Culvert





Legend

- Facility Site
- Laydown Area
- Ringbus Site
- Ringbus Property
- Ringbus Interconnection Property

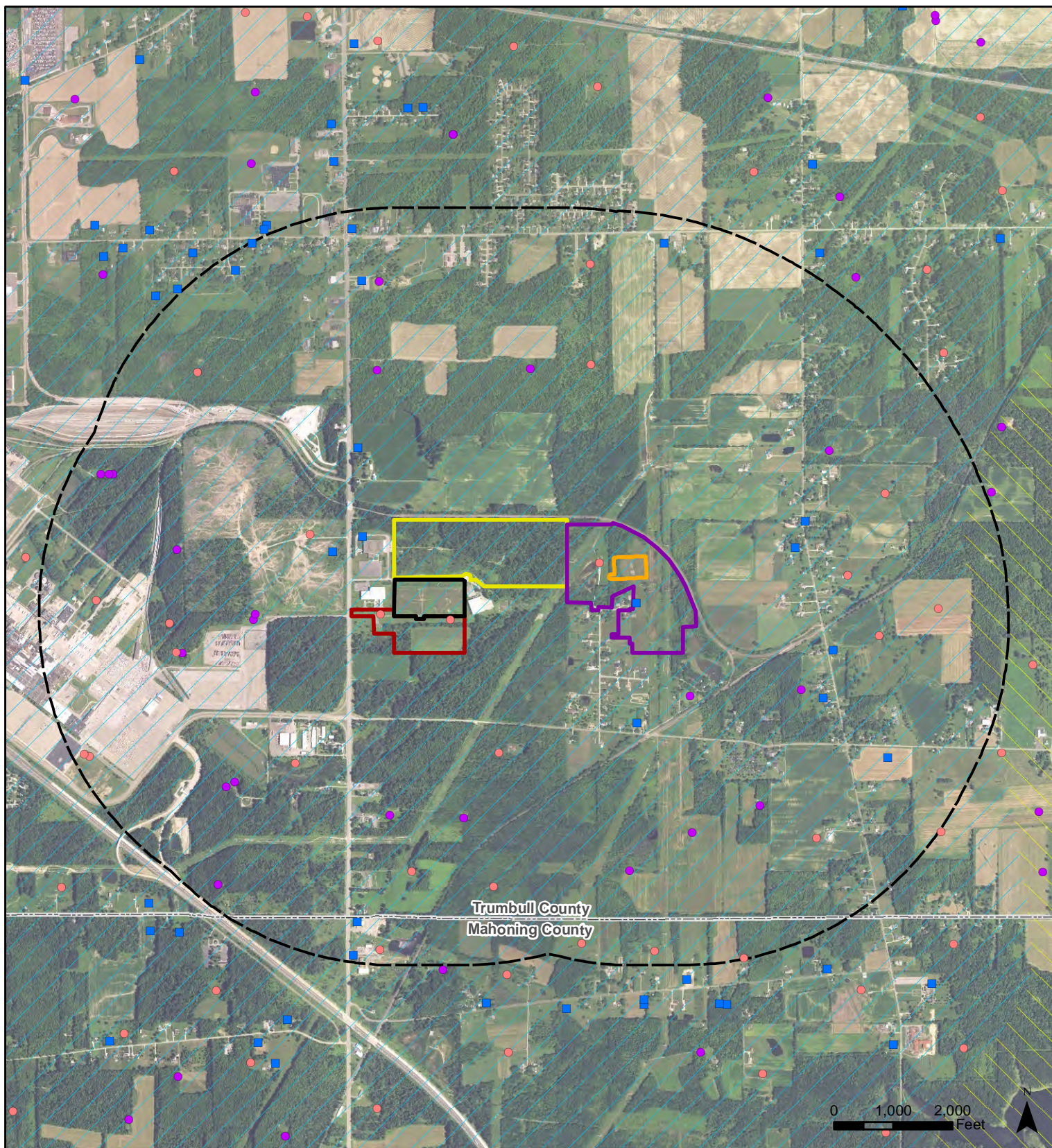
- ~~~~~ Stream
- Soil Unit Boundary
- 100-year Flood Zone
- 500-year Flood Zone

0 250 500 1,000
Feet



Figure 04-2
Soils and Floodplain

Lordstown Energy Center
Village of Lordstown, Ohio



Legend

- Facility Site
- Laydown Area
- Ringbus Site
- Ringbus Property
- Ringbus Interconnection Property
- 1-mile Radius

- Alliance Thin Upland Aquifer
- Mahoning Buried Valley Aquifer
- Gas Well
- Oil Well
- Oil and Gas Well
- Water Well

Notes: No drinking water protection areas known in the project vicinity.
Oil/gas wells and water wells from ODNR.

Figure 04-6
Aquifers, Water Wells,
Oil and Gas Wells and
Drinking Water Protection Areas

Lordstown Energy Center
Village of Lordstown, Ohio

Figure 07-3
Natural Characteristics of
the Site and Surroundings

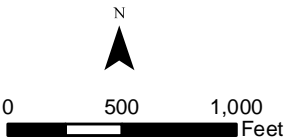
Lordstown Energy Center
Village of Lordstown, Ohio

Legend

- Facility Site
- Laydown Area
- Ringbus Site
- Ringbus Property
- Ringbus Interconnection Property
- 1/2-mile Radius
- Stream
- NWI Wetlands
- Delineated Wetlands
- Slope > 12%
- Mitigation Area

Note: No wildlife areas, nature preserves, or other conservation areas are located within the scope of this figure.

Imagery Source: NAIP 1-m 2013



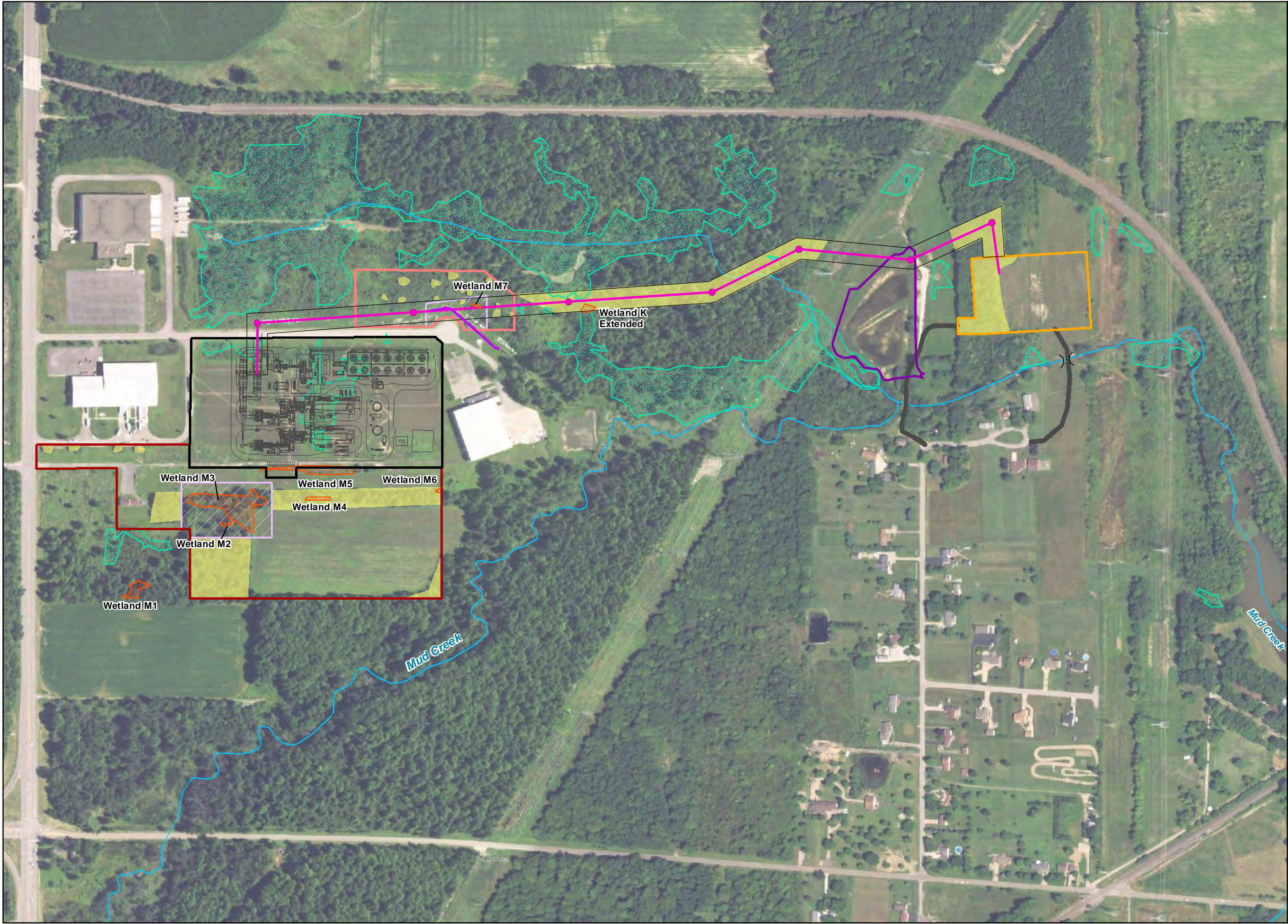
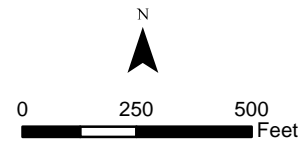
**Figure 07-4
Ecological Impacts**

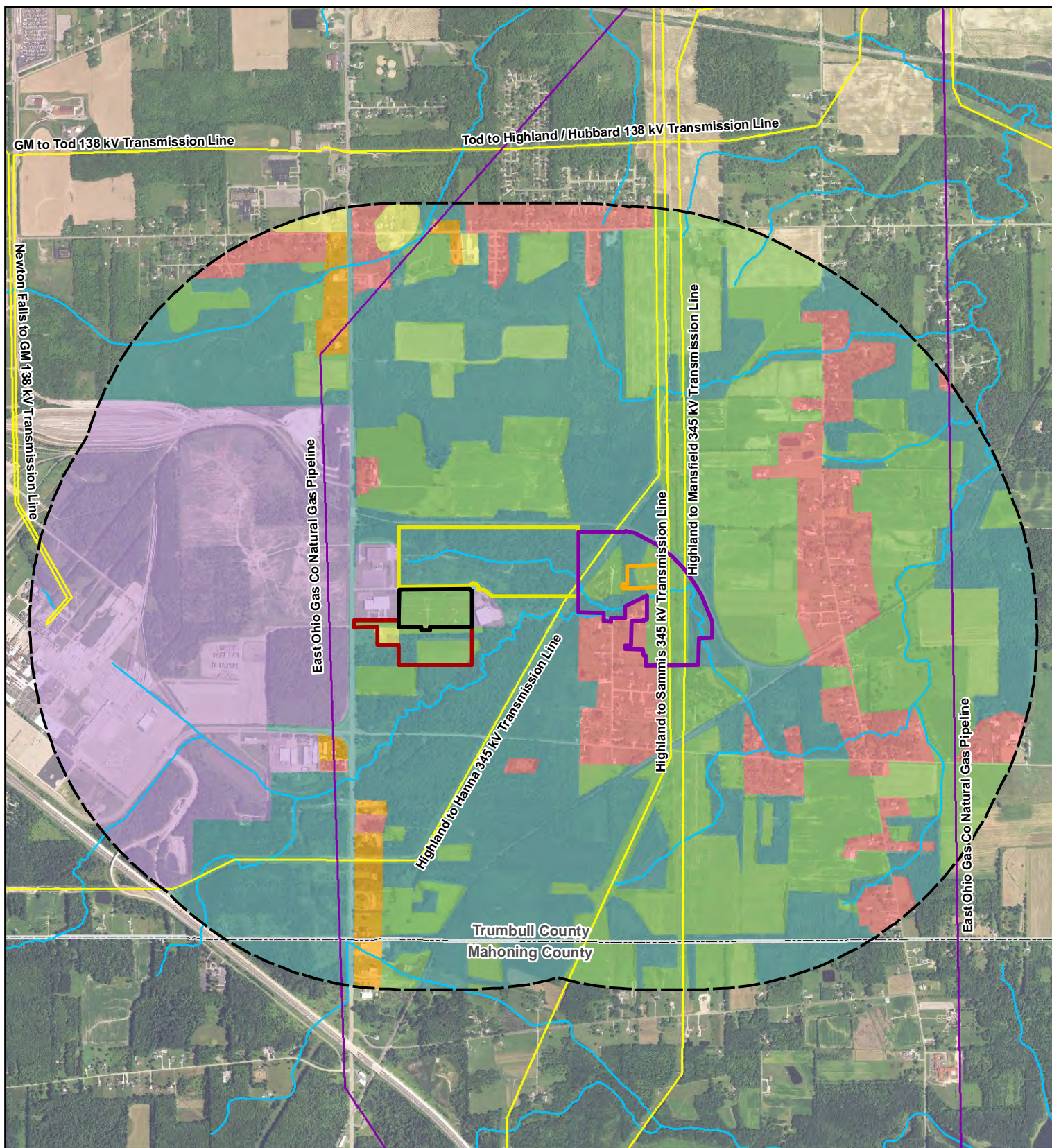
Lordstown Energy Center
Village of Lordstown, Ohio

Legend

- Facility Site
- Laydown Area
- Ringbus Site
- Northern Laydown Area
- Mitigation Area
- Delineated Wetlands
- Additional Wetlands
- Ringbus Interconnection
- 100-foot ROW
- Tree Clearing
- Wetland Avoidance Area
- Access Road to Ringbus Site
- Stream
- Drainage Swale
- Existing Culvert

Imagery Source: NAIP 1-m 2013





Legend

- Facility Site
- Laydown
- Ringbus Site
- Ringbus Property
- Ringbus Interconnection Property
- 1-mile Radius
- Stream

- Transmission Line
- Natural Gas Pipeline
- Agricultural
- Commercial
- Forested/Open Space
- Industrial
- Institutional
- Residential

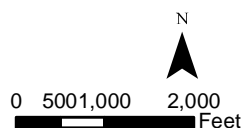
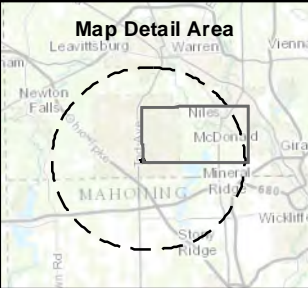
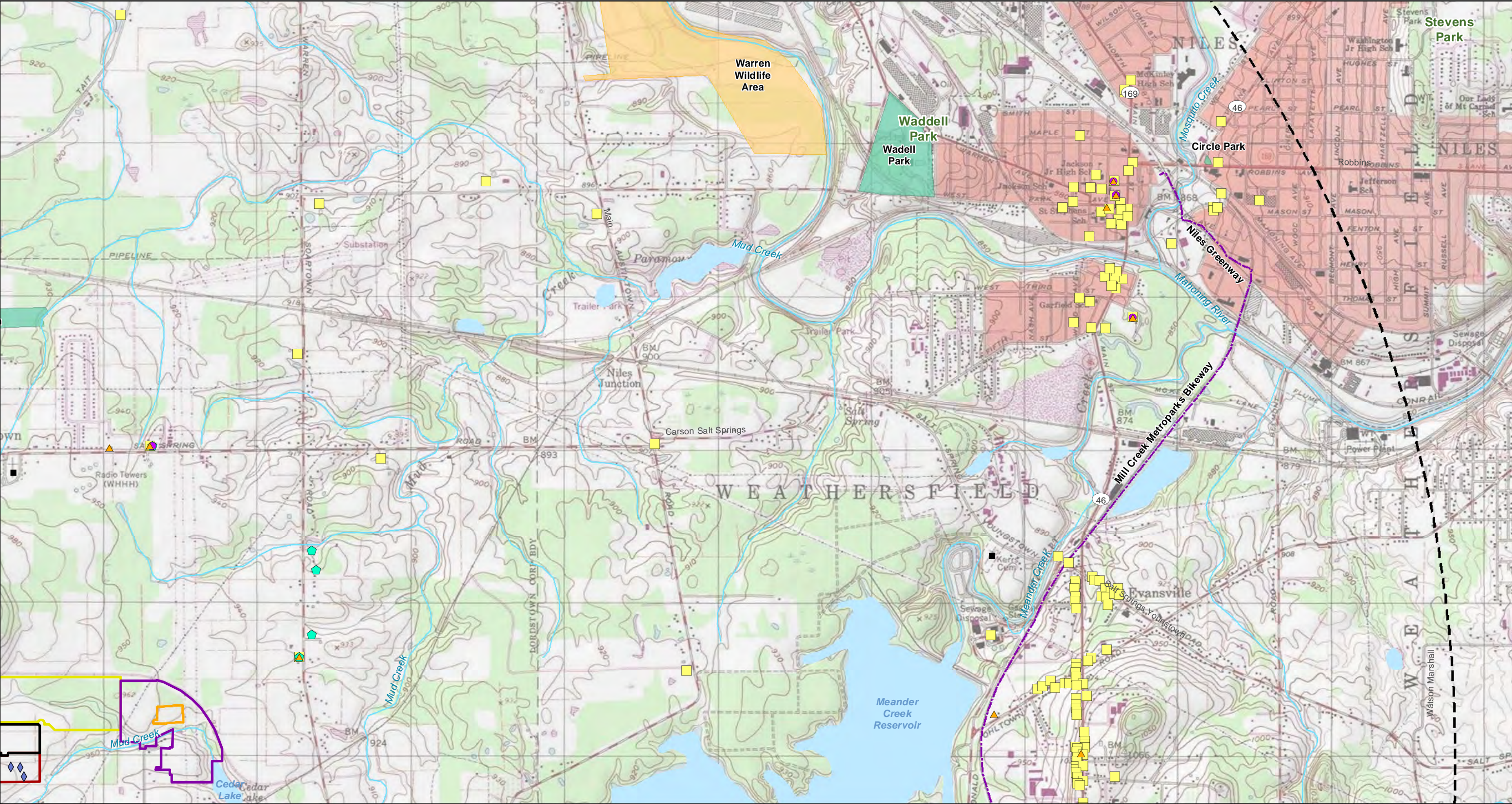


Figure 07-5
Surrounding Land Use

Lordstown Energy Center
Village of Lordstown, Ohio



Legend

- | | | | |
|----------------------------------|-----------------|------------------|-----------------------|
| Facility Site | 5-mile Radius | City/County Park | Historical Resource |
| Laydown Area | County Boundary | Golf Course | Historical Field Data |
| Ringbus Site | Stream/River | Wildlife Area | NRHP Site |
| Ringbus Property | Waterbody | Bikeway | OHI Site |
| Ringbus Interconnection Property | State Park | Cemetery | Archeology Site |

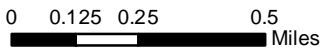
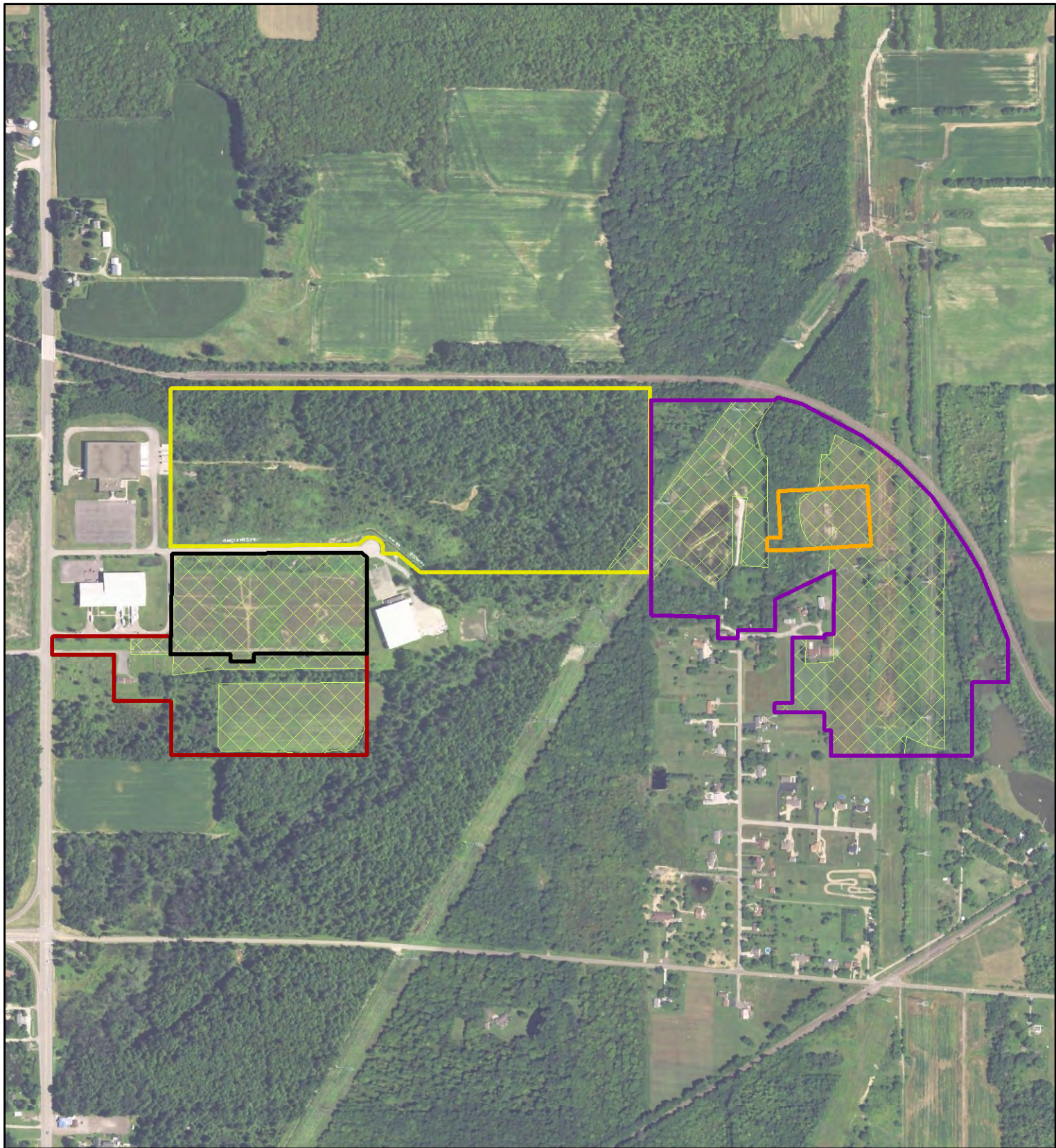


Figure 07-7D
Cultural and Recreational Areas
Lordstown Energy Center
Village of Lordstown, Ohio



Legend

-  Facility Site
-  Laydown Area
-  Ringbus Site
-  Ringbus Property
-  Ringbus Interconnection Property
-  Agricultural Land

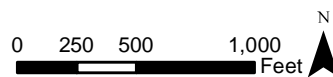


Figure 07-8
Agricultural Land

Lordstown Energy Center
Village of Lordstown, Ohio

This foregoing document was electronically filed with the Public Utilities

Commission of Ohio Docketing Information System on

1/22/2016 2:49:50 PM

in

Case No(s). 16-0131-EL-BGA

Summary: Application of Clean Energy Future-Lordstown, LLC for an Amendment to its Certificate of Environmental Compatibility electronically filed by Teresa Orahod on behalf of Sally Bloomfield