

Staff Report of Investigation

Butler County Phase II Natural Gas Pipeline Project

Case No. 22-1072-GA-BTX

September 27, 2023



Power Siting
Board

Mike DeWine, Governor | Jenifer French, Chair

In the Matter of the Application of Duke Energy Ohio, for a)
Certificate of Environmental Compatibility and Public Need)
for the construction of a Natural Gas Pipeline in Butler)
County, Ohio)

Case No. 22-1072-GA-BTX

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 Duke Energy Ohio, for a)
Certificate of Environmental Compatibility and Public Need)
for the construction of a Natural Gas Pipeline in Butler)
County, Ohio)**

Case No. 22-1072-GA-BTX

Chair, Public Utilities Commission
Director, Department of Agriculture
Director, Department of Development
Director, Environmental Protection Agency
Director, Department of Health

Director, Department of Natural Resources
Public Member
Ohio House of Representatives
Ohio Senate

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 or OPSB), 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 (Ohio EPA), the Ohio Department of Health (ODH), the Ohio Department of Development (ODOD), the Ohio Department of Natural Resources (ODNR), and the Ohio Department of Agriculture (ODA). In addition, Staff coordinated with the Ohio Department of Transportation (ODOT), the Ohio Historic Preservation Office (OHPO), the U.S. Fish and Wildlife Service (USFWS), and the U.S. Army Corps of Engineers (USACE).

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 to be 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.

Sincerely,



Michael Williams
Executive Director
Ohio Power Siting Board

TABLE OF CONTENTS

I. EXECUTIVE SUMMARY	1
I. POWERS AND DUTIES.....	1
Ohio Power Siting Board.....	1
Nature of Investigation.....	2
Criteria.....	3
II. APPLICATION.....	5
Applicant	5
History of the Application.....	5
Project Description	5
Project Map	7
III. CONSIDERATIONS AND RECOMMENDED FINDINGS	16
Nature of Probable Environmental Impact	18
Minimum Adverse Environmental Impact	28
Air, Water, Solid Waste, and Aviation.....	30
Public Interest, Convenience, and Necessity	33
Agricultural Districts and Agricultural Land	35
Water Conservation Practice	36
IV. RECOMMENDED CONDITIONS OF CERTIFICATE.....	37

I. EXECUTIVE SUMMARY

The authority of the OPSB is prescribed by Ohio Revised Code (R.C.) Chapter 4906. R.C. 4906.10 specifies that 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 eight specified criteria. Staff investigated the application presented by AEP Ohio Transmission Company, Inc. (Applicant) and recommends that the Board approve the Applicant's request for a certificate of environmental compatibility and public need subject to the proposed conditions contained in this report.

I. POWERS AND DUTIES

OHIO POWER SITING BOARD

The authority of the OPSB is prescribed by Ohio Revised Code (R.C.) Chapter 4906. R.C. 4906.03 and 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 five MW or greater but less than 50 MW. R.C. 4906.13 excludes from economically significant wind farms, one or more wind turbines and associated facilities that are primarily dedicated to providing electricity to a single customer at a single location and that are designed for, or capable of, operational at an aggregate capacity of less than 20 MW, measured at the customer's point of interconnection (POI) to the electrical grid.

Membership of the Board is specified in R.C. 4906.02(A). The voting members include: the Chairperson of the Public Utilities Commission of Ohio (PUCO or Commission) who serves as Chairperson of the Board; the directors of the Ohio EPA, the ODH, the ODOD, the Ohio ODA, and the 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. In addition, the Board shall include four legislative members who may participate fully in all the board's deliberations and activities except that they shall serve as nonvoting members. The speaker of the Ohio house of representatives shall appoint one legislative member, and the president of the Ohio senate and minority leader of each house of the Ohio General Assembly shall each appoint one legislative member. In all cases involving an application for a certificate or a material amendment to an existing certificate for a utility facility, as defined in R.C. 303.57, the Board shall include two voting ad hoc members, as described in R.C. 4906.021

NATURE OF INVESTIGATION

The Board has promulgated rules and regulations, found in Ohio Administrative Code (Ohio Adm.Code) 4906 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.¹ 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.²

Within 60 days of receiving an application, the Chairperson must determine whether the application is sufficiently complete to begin an investigation.³ 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 official filing date of the completed application.⁴ At the public hearing, any person may provide written or oral testimony and may be examined by the parties.⁵ Not later than three days after an application for a certificate, or a material amendment to an existing certificate, for a utility facility, as defined in R.C. 303.57, is found to be in compliance with R.C. 4906.06(A), is accepted by the Board, and the filing fee is paid by the applicant, the board shall provide a copy of the application to each board of trustees and each board of county commissioners of the townships or counties in which the facility is to be located.⁶

Staff Investigation and Report

The Chairperson 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.⁷ The report sets forth the nature of the investigation and contains the findings and conditions recommended by Staff.⁸ 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 ODOT, the OHPO, and the 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

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).

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

5. R.C. 4906.08(C).

6. See R.C. 4906.31(A).

7. R.C. 4906.07.

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

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.⁹ A record of the public hearings and all evidence, including the Staff Report, may be examined by the public at any time.¹⁰

Board Decision

The Board may approve or deny an application for a certificate of environmental compatibility and public need as filed, or modify and approve it upon such terms, conditions, or modifications as the board considers appropriate.¹¹ The certificate shall be subject to R.C. 4906.101, 4906.102, and 4906.103 and is also conditioned upon the facility being in compliance with applicable standards and rules adopted under the Ohio Revised Code.¹²

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.¹³ 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.¹⁴ 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.¹⁵ An entry on rehearing would then be issued by the Board within 30 days and may be appealed within 60 days to the Supreme Court of Ohio.¹⁶

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;

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

10. R.C. 4906.09 and 4906.12.

11. R.C. 4906.10(A).

12. R.C. 4906.10.

13. R.C. 4906.11.

14. R.C. 4906.10(C).

15. See R.C. 4903.10 and 4906.12.

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

- (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 section 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 multimodal 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.

II. APPLICATION

APPLICANT

Duke Energy Ohio, Inc. (Duke Energy Ohio or Applicant) is a natural gas company as defined in R.C. 4905.03 and a public utility as defined in R.C. 4905.02. The Applicant is primarily engaged in the transmission and distribution of electricity, and the transportation and sale of natural gas in portions of Ohio. The Applicant and its subsidiary, Duke Energy Kentucky, Inc., provide transmission and distribution services for natural gas to approximately 525,000 customers. Duke Energy Ohio is a subsidiary of Duke Energy Corporation. Duke Energy Corporation is based in Charlotte, North Carolina.

HISTORY OF THE APPLICATION

On December 19, 2022, the Applicant filed a pre-application notification letter regarding the project.

On January 17, 2023, the Applicant held a public informational meeting to discuss the project with interested persons and landowners.

On April 13, 2023, the Applicant filed its application for a certificate to construct the project.

On June 12, 2023, the Executive Director of the OPSB issued a letter of compliance regarding the application to the Applicant.

A local public hearing has been scheduled for October 12, 2023.

An evidentiary hearing is scheduled to commence on October 24, 2023.

This summary of the history of the application does not include every filing in case number 22--1072-GA-BTX. 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 construct a new approximately 5.1-mile to 6.1-mile natural gas pipeline (Butler County Phase 2 Natural Gas Pipeline). The Applicant would construct, own and operate the pipeline, which would be located in Butler County. The project would connect the existing Dicks Creek Station, Yankee Station, and the Butler Station. The proposed pipeline would be 16 inches in diameter, have a nominal wall thickness of 0.375 inches, would be operated at 438 pounds per square inch gauge (psig) with a maximum operating design pressure of 1,000 psig. The pipeline would replace the existing CG07B pipeline, which would be abandoned in place. In addition to the pipeline itself, the Applicant would install one main valve at the beginning and end of the pipeline, a new pig launcher at the existing Dicks Station, and a new receiver near the existing Yankee Station. The Applicant's consultant utilized field survey data to help identify route alternatives and ultimately to select the Applicant's Preferred and Alternate routes.

Preferred Pipeline Route

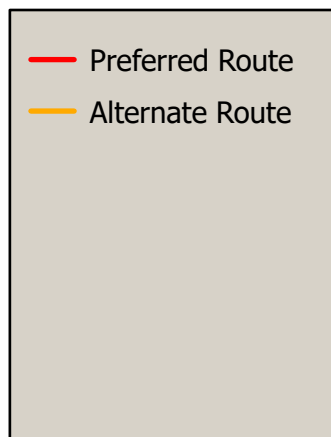
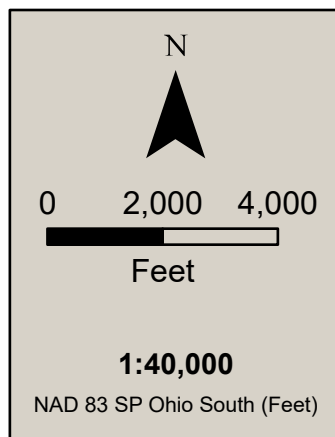
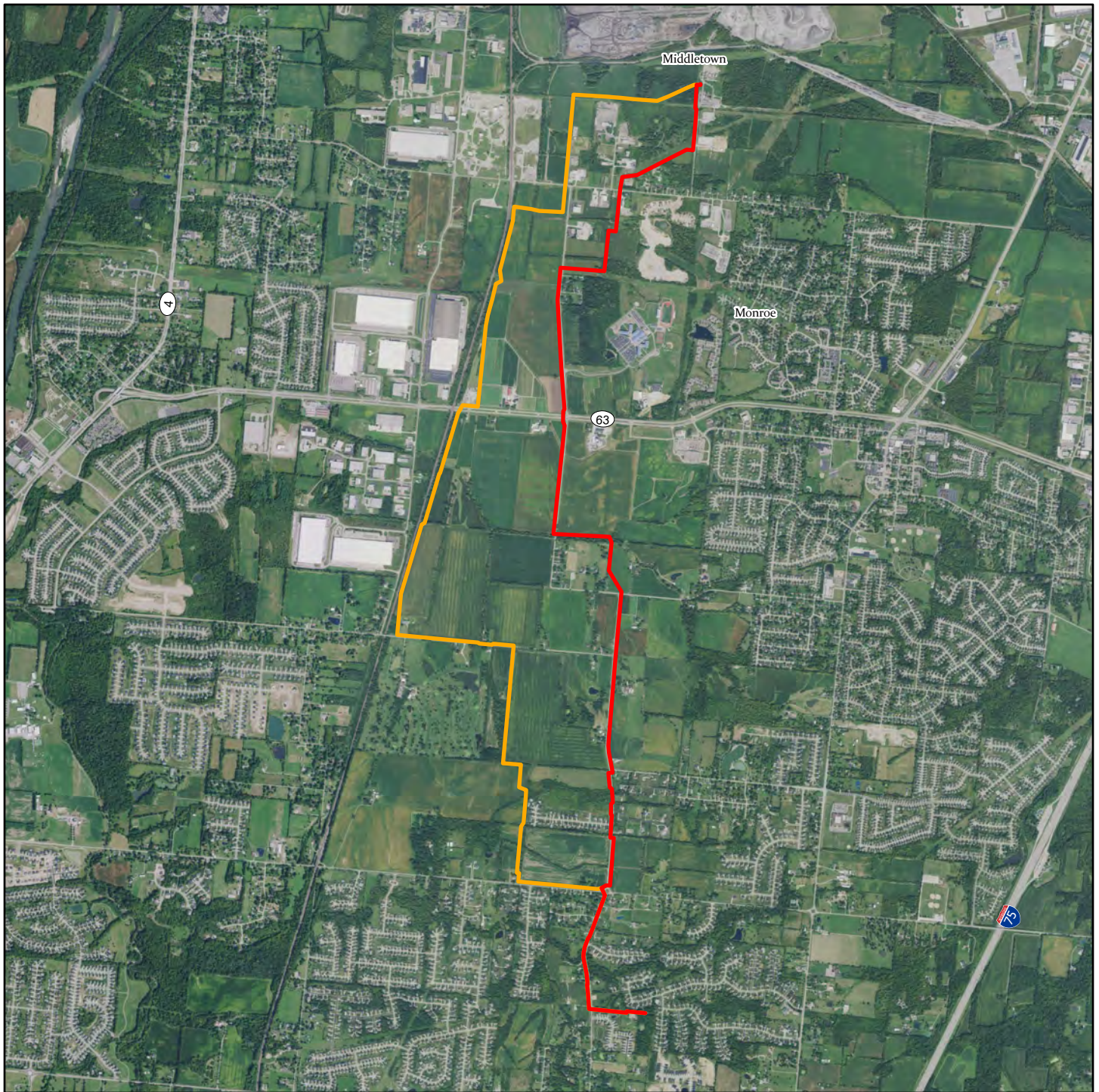
The Preferred Route is approximately 5.1 miles in length. The Preferred Route begins at the existing Dicks Station just north of Todhunter Road and travels southwest until it reaches Yankee Road where it travels due south through predominantly agricultural land until it reaches the Dudley Memorial Park area. From the park, it travels east where it would tie-in with the existing Butler Station.

Alternate Pipeline Route

The Alternate Route is approximately 6.1 miles in length. The Alternate Route begins at the existing Dicks Station just north of Todhunter Road where it travels mostly southwest along an existing railroad corridor through mostly agricultural land until it reaches Hankins Road. The route then travels east along Hankins Road before turning south along the east side of the Pleasant Hill Golf Club until it reaches Kyles Station Road. The route then travels east before turning south again towards Dudley Memorial Park where the route would then tie-in to the Butler Station.

Project Schedule

The Applicant plans to complete final transmission line engineering design work prior to construction, which is anticipated to begin in May 2025 and be completed in April 2026.

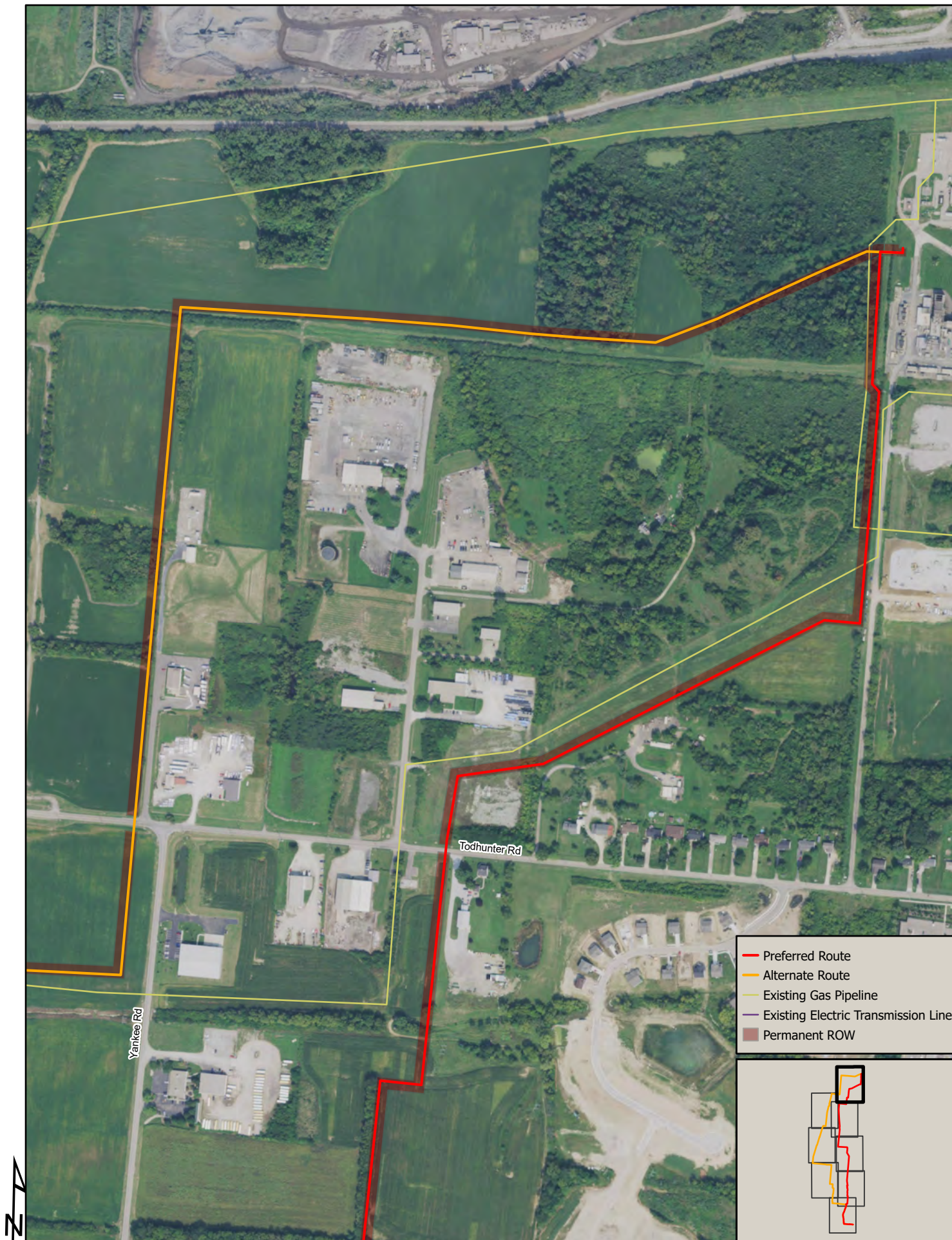


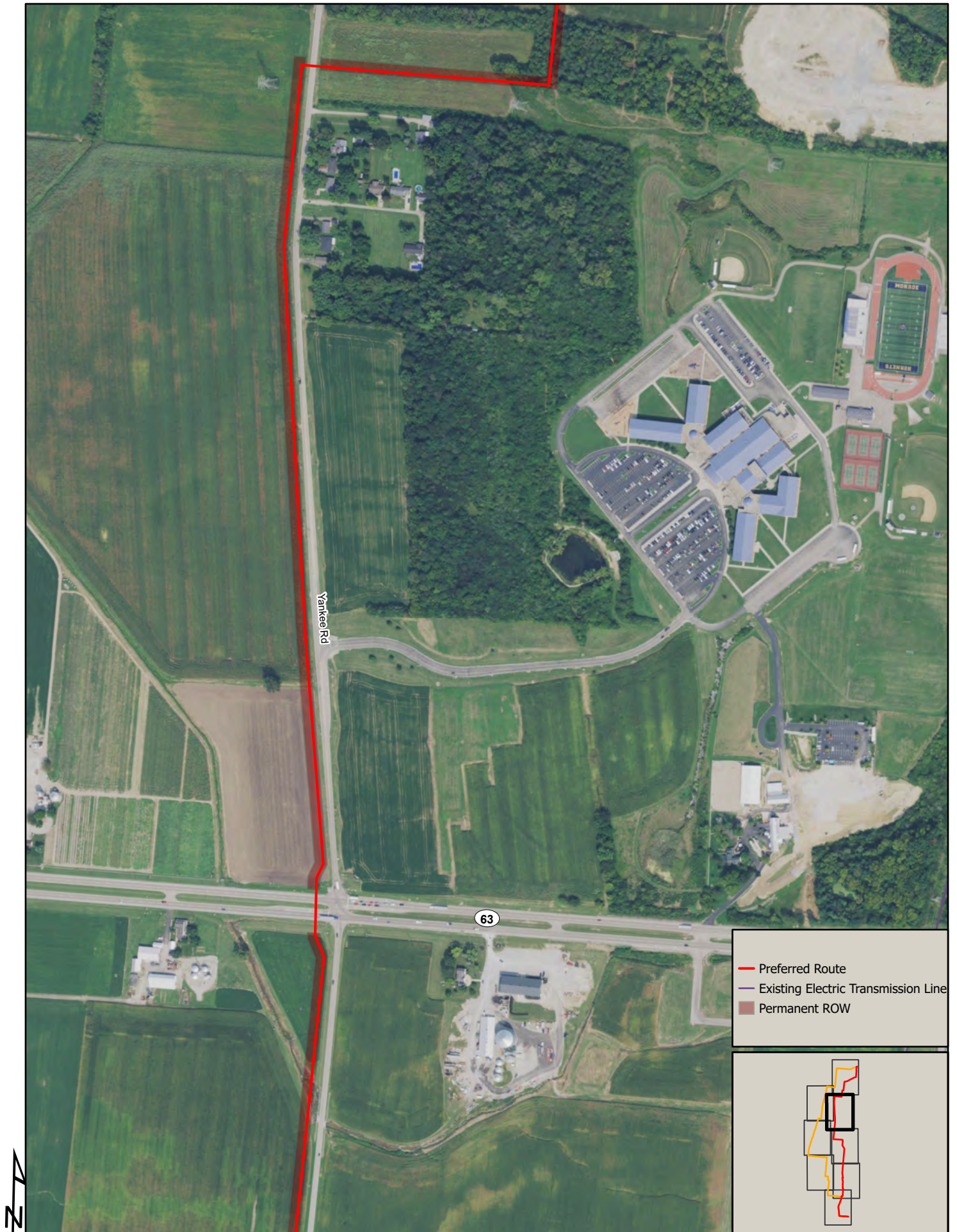
Overview Map

22-1072-GA-BTX

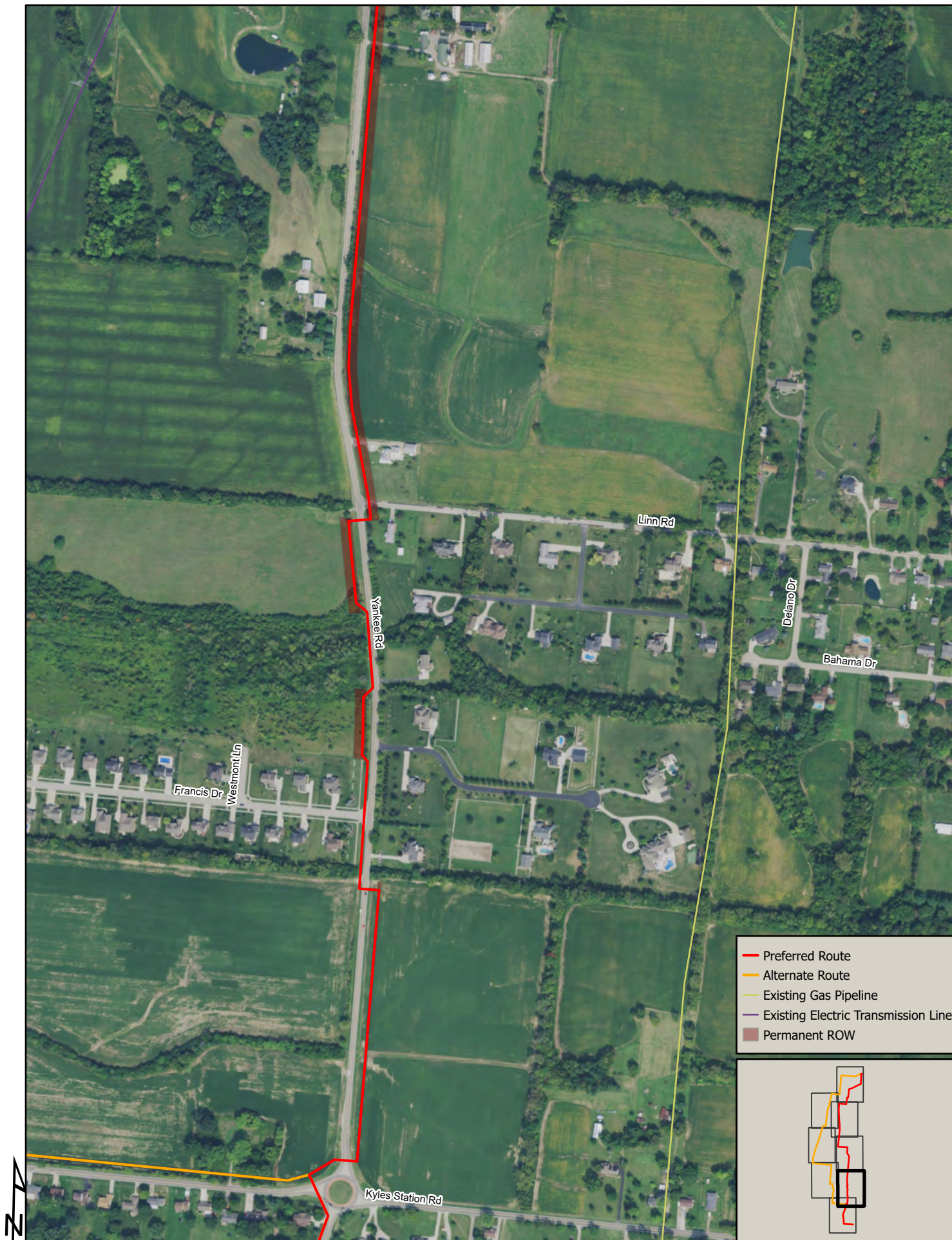
**Butler County Phase 2
Natural Gas Pipeline**

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.





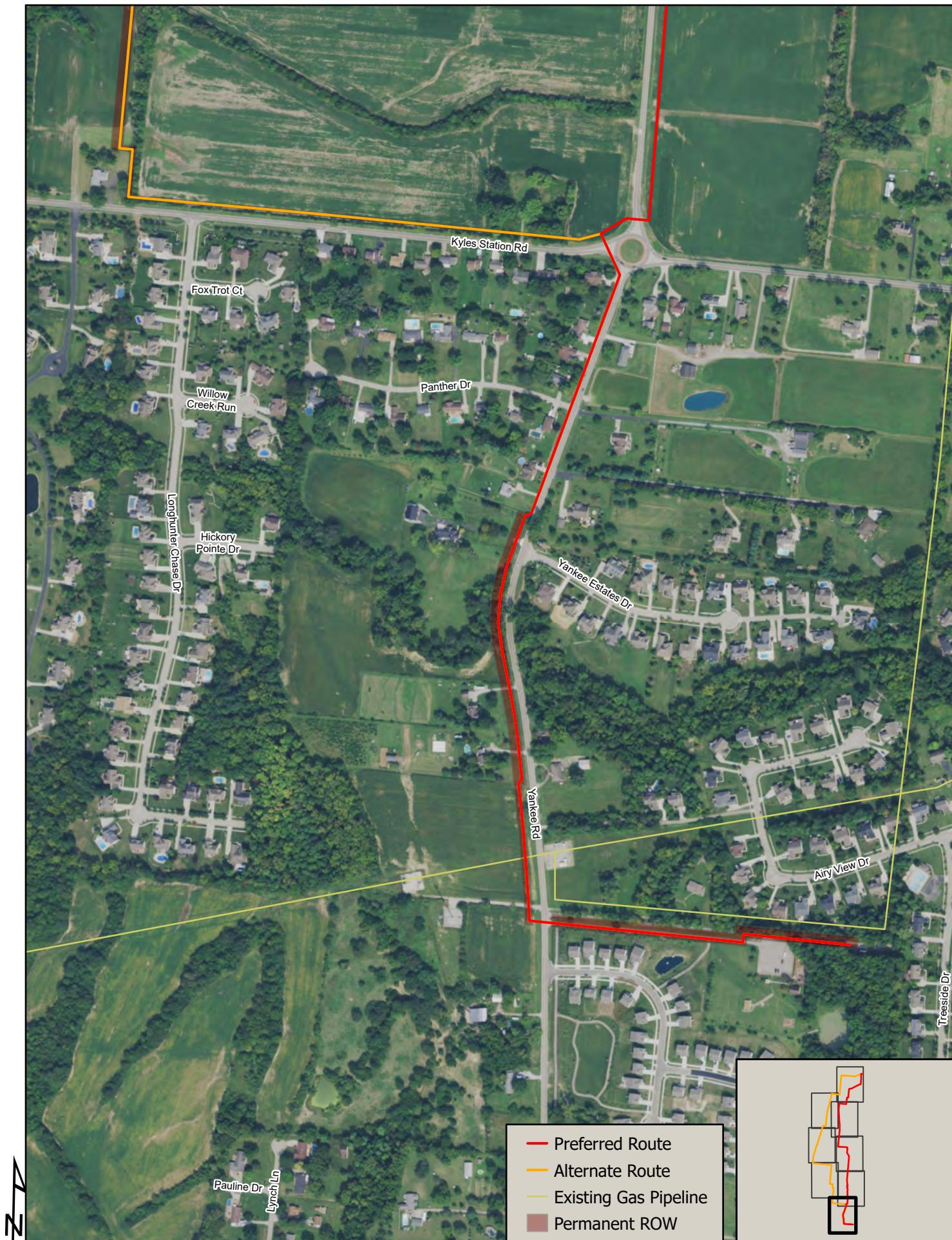












III. CONSIDERATIONS AND RECOMMENDED FINDINGS

In the Matter of the Application of AEP Ohio Transmission Company, Inc for a Certificate of Environmental Compatibility and Public Need, 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 need for the facility if the facility is an electric transmission line or gas pipeline. Staff has found the following with regard to the basis of need for the facility.

Purpose of Proposed Facility

The Applicant proposes to install a replacement natural gas pipeline of 16 inches diameter and length 5.1 to 6.1 miles (Preferred and Alternate routes, respectively), known as the Butler County Phase 2 Natural Gas Pipeline, also to be designated as line C380, which would allow the Applicant to meet new federal regulatory and reliability requirements, including those set forth by the Hazardous Materials Association for gas transmission pipelines. This project would replace an aging steel gas pipeline (CG07b) of 16 inches diameter in need of improvements, that was installed before existing federal and state safety regulations were in place. The completed line would serve as a connection between the existing Dicks Creek Station, Yankee Station, and the Butler Station.

System Conditions, Local Requirements, and Other Pertinent Factors

The Applicant states that the existing pipeline serves as a link between itself and supply sources from three interstate pipelines. Natural gas may flow to the north or toward the south depending on the demand and present supply mixture making it a bi-directional supply line. Large industrial customers make up the demand to the north, while residential and commercial customers to the south compose the majority of its system. In response to a data request, the Applicant states that it would endeavor to acquire all permanent and temporary land rights, including access and option agreements prior to the start of construction. Through this process, the Applicant would explain the project needs and property impacts to all owners and owner representatives, and if no agreement can be reached, it would take necessary steps to gain possession by appropriation.

Long-Term Forecast Report

The project was included in the Applicant's 2020 Long-Term Forecast Report to the Public Utilities Commission of Ohio, as it is needed to maintain the present service level and continuity in the Duke Energy Ohio natural gas system.¹⁷

17. Duke Energy Ohio, Inc., "Long-Term Forecast Report", filed as OPSB Case No. 20-1086-GA-FOR, June 8, 2020, ODOE Form FG3-2, Specifications of Planned Gas Transmission Lines, page 5-15.

System Economy and Reliability

The Applicant states the existing pipeline, originally installed in 1965, is a vintage gas transmission pipeline that has been in service for decades and is constructed of material made with low-frequency electric resistance longitudinal seam welds. Pipes made with this type of material are known to experience higher failure rates than those made with more modern pipe material. The Applicant is reluctant to perform the hydrostatic testing on the existing pipeline and expressed concern regarding soil contamination, erosion, and potential damage to nearby homes and roadways due to any washout that would follow a failed hydrostatic test. The Applicant states that the in-line inspection (ILI) and the retrofitting of the pipeline can be performed before the hydrostatic testing is performed. The Applicant claims there is not imminent danger to the public in the service area due to the aging pipeline. Based on these factors, the Applicant has chosen to replace the aging pipeline rather than perform the preparation, assessments, and testing needed to confirm the reliability and integrity of the pipeline.

Recommended Findings

Staff recommends that the Board find that the basis of need for the project has been demonstrated and therefore complies with the requirements specified in R.C. 4906.10(A)(1), 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)(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.

Community Impacts¹⁸

Regional Planning

The proposed natural gas transmission pipeline would support increased regional growth. The pipeline would not conflict with area regional planning. The pipeline would foster increased availability of natural gas to surrounding municipalities, better operational flexibility, and enhanced reliability. The installation and operation of the pipeline would also be expected to aid regional development by increasing local tax revenues.

Land Use

The project would not have a profound effect upon surrounding land uses, as those uses would continue without significant restrictions. The land use within the project area is a mix of agricultural, rural residential, commercial, industrial, residential, and minimal undeveloped forested. Farming activities would experience only minor disruptions that would occur during construction.

There are no airports, schools, cemeteries, or churches within 200 feet of the centerline of either route. The Preferred and Alternate Routes have one park within 1,000 feet of the centerline of the route. There would be 206 houses within 1,000 feet and 2 houses within 100 feet of centerline for the Preferred Route, as compared to 197 houses within 1,000 feet and 3 houses within 200 feet of the Alternate Route. Significant impacts to residential, commercial, industrial, recreational, and institutional land uses are not anticipated.

Recreation

Operation of the facility would not pose significant impacts to any recreational area. Dudley Memorial Park is crossed by the common portion of both routes along the northern edge of the

18. "It is the mission of the Ohio Department of Development to help create jobs and build strong communities in Ohio, while ensuring accountability and transparency of taxpayer money exceptional customer service." (Ohio.gov, *Department of Development*, <https://www.development.ohio.gov/feat/whatisdsa.htm>). RC 122.011(A)(6) states, in part, that the department of development shall develop and promote plans and programs designed to assure that state resources are efficiently used, economic growth is properly balanced, community growth is developed in an orderly manner, and local governments are coordinated with each other and the state, and for such purposes may, among other things, cooperate with and provide technical assistance to state departments, regional and local planning commissions, and other appropriate organizations for the solution of community problems. According to R.C. 122.01(B)(1), "community problems' includes, but is not limited to, taxation, fiscal administration, governmental structure and organization, intergovernmental cooperation, education and training, employment needs, community planning and development, air and water pollution, public safety and the administration of justice, housing, mass transportation, community facilities and services, health, welfare, recreation, open space, and the development of human resources."

park boundary for approximately 0.25 miles. Temporary impacts may occur to the use of the park during construction.

Aesthetics

Except for small control valves, the proposed natural gas transmission line project envisions very few above ground facilities. Aesthetic impacts would be primarily confined to construction and these impacts would be temporary, lasting only until the project's restoration is completed. Upon project completion, above ground safety markers would be installed at various points along the project centerline, however their aesthetic impact would be negligible.

Cultural Resources

In August and September 2022, the Applicant developed and submitted cultural resources survey work plans to the OHPO. Work plans were approved by the OHPO in September and October 2022. This review was based on data provided by the OHPO online geographic information system mapping, Ohio Historic Inventory, the Ohio Archaeological Inventory, National Register of Historic Places (NRHP) files, and various county atlases. The Applicant also obtained information on historic cemeteries from the Ohio Genealogical Society. The initial literature review revealed 14 previously identified architectural resources, 16 known archaeological sites, and no NRHP listed historically significant sites or resources.

The Applicant then performed a Phase I survey along the Preferred Route in December 2022 through February of 2022. The Phase I report documented one previously unrecorded archaeological site. This site was recommended for avoidance or further study. The site would be avoided by the project. With this avoidance, the OPHO has concurred that there will be no impacts to archaeological sites.

The Applicant also conducted a field study to survey for architectural resources along the Preferred Route in May 2023. This survey identified seven historic properties, six of which would have no direct sight of the project. One property would have an oblique view of the southern station. The OPHO has concurred that there will be no impacts to historic properties.

Staff has determined that the Preferred Route represents the minimal adverse impact to cultural resources. The Applicant has been granted a waiver of fully developed information regarding the Alternate Route. The application and Programmatic Agreement indicate that if the Board selects the Alternate Route, then additional archaeological and architectural field studies would need to be performed.

Economics

The Applicant would be responsible for the construction, ownership, operation and maintenance of the proposed project. The Applicant's total estimated intangible and capital cost for the Preferred Route was \$56.3 million and for the Alternate Route was \$57 million. The following table provides a breakdown of these cost estimates.

INTANGIBLE AND CAPITAL COSTS		
	Preferred Route	Alternate Route
Land and Land Rights	\$5,700,000	\$5,832,000
Structures and Improvements	\$44,596,317	\$44,796,317
Pipe Equipment	\$2,722,615	\$2,943,300
Measuring and Regulating Equipment	\$566,583	\$566,583
Right-of-way Clearing, Roads, Trails, or other Access	\$2,694,162	\$2,872,800
Total	\$56,279,677	\$57,011,000

The Applicant would remit property taxes annually on the installed utility facilities. The annual property tax estimate for the Preferred Route is \$1.07 million and for the Alternate Route is \$1.08 million.

Liability Insurance

The Applicant is self-insured and maintains additional liability insurance for any damages that may occur during the construction or operation of the proposed line.

Public Services, Facilities, and Safety

Traffic, Roads and Bridges¹⁹

The Applicant indicates it will develop an outreach program to keep the public informed about traffic impacts before construction begins and throughout the process. This includes but is not limited to maintaining a project specific website and hotline, media and public official outreach, doors hangers and postcards. A temporary increase in truck traffic is anticipated during the construction phase of the project. The temporary increase in traffic would be related to movement and delivery of construction equipment and materials. Some nighttime work and lane closures would likely be required for project construction to help minimize overall construction impacts. No other additional traffic is anticipated for the project beyond periodic mowing or removal of vegetation from the right-of-way. The jack and bore method proposed at the road crossings would also minimize traffic impact. The proposed project would not impact railroad traffic in the area. Staff recommends that the Applicant coordinate with all appropriate authorities to ensure minimal transportation related impacts.

Noise

Construction noise may include excavation, pipeline installation, backfilling, traditional boring, horizontal directional drilling (HDD), blasting, and rock hammering and/or breaking. The total duration of construction of the pipeline is expected to be twelve months. Construction at any

19. The entity responsible for maintaining roads and bridges within Ohio depends on many factors. See, e.g., ODOT, Roadway Infrastructure Maintenance Responsibility Manual, <https://www.transportation.ohio.gov/wps/portal/gov/odot/programs/maintenance-operations/rimr/rimr>. obtain and comply with appropriate road closure permitting agencies such as the Putnam and Hancock County Engineers and ODOT.

location along the project would typically occur for a duration of less than one month. Construction activities would be limited primarily to daytime hours in residential and institutional areas. The Applicant would notify residential and institutional property owners or tenants of the upcoming construction activities for the pipeline in the same manner as required for the public information program, as stated in Ohio Adm.Code 4906-3-03(B)(2), including the potential for the after-hours activities.

Operation of the proposed natural gas pipeline would produce audible noise during maintenance activities, but maintenance activities are expected produce noise impacts that are less than ambient noise levels at all sensitive noise receptors.

Geology²⁰

The uppermost bedrock units throughout the study area include the Arnheim, Grant Lake, and the Miamitown Shale-Fairview Formation Undivided. Review of the geotechnical borings acquired by the Applicant to date indicate that bedrock was encountered at 8.5 feet below surface in the northernmost portion of the project area. The gas pipeline would be installed at approximately six feet below surface. It is unlikely bedrock would be encountered during any portions of the proposed construction, therefore, the Applicant does not intend to conduct any blasting activities.²¹ The application also indicates there is not a need to bore through bedrock at the proposed jack and bore locations.²²

The project area is located within a part of the state designated as a karst geology area.²³ One suspected karst feature has been identified within the study area but is located outside of the proposed right-of way. The nearest known karst feature is approximately five miles north of the project area.²⁴ Due to both the glacial drift overburden thickness and the lack of documented

20. According, in part, to R.C. 1505.01, the ODNR's division of geological survey "[s]hall advise, consult, or collaborate with representatives of agencies of the state...on problems or issues of a geological nature when requested by such an agency...." One of the missions of the ODNR Division Geological Survey is "to provide geologic information and services needed for responsible management of Ohio's natural resources." (ODNR, Division of Geological Survey, *About the Division*, <<https://ohiodnr.gov/wps/portal/gov/odnr/discover-and-learn/safety-conservation/about-ODNR/geologic-survey/division-of-geologic-survey/division-of-geologic-survey>>). This includes studying and investigating, among other things, glacial and surficial geology, bedrock geology, and geological hazards. According to ODNR a "geologic hazard or 'geohazard' is a geologic condition, either manmade or natural, that poses a potential danger to life and property. Ohio is home to a number of potential geohazards, including karst, mine subsidence, earthquakes, landslides, and shore erosion." (ODNR, *Geologic Hazards*, <<https://ohiodnr.gov/wps/portal/gov/odnr/discover-and-learn/safety-conservation/about-ODNR/geologic-survey/geologic-hazards>>).

21. Applicant's June 15, 2023 response to Staff's second data request.

22. Applicant's June 15, 2023 response to Staff's second data request – Geotechnical Engineering Report by Terracon.

23. Karst terrain is formed within carbonate (e.g. limestone or dolomite) or evaporite (e.g. anhydrite or gypsum) rocks through mineral dissolution caused by movement of water. Most common karst features include the formation of underground caves or channels, or the formation of depressions and sinkholes at the surface. Generally, karst features, and the likelihood of karst development are most prevalent in areas where the carbonate bedrock is overlain by 20 feet or less of glacial till material. Limestone and dolomite are the most common carbonate bedrock. Generally, Limestone is more prone to dissolution than dolomite.

24. Ohio Karst Interactive Map https://gis.ohiodnr.gov/website/dgs/karst_interactivemap/.

karst features in the area, karst is not expected to be a factor during construction or operation of the proposed project.

The project area contains less than one percent steep (>12%) slopes.^{25,26} The Applicant would implement erosion control measures during both pre and post-construction phases. Therefore, slopes and erodibility of soils are not expected to be of significant concern. The project area does contain some hydric soils, primarily along the Alternate Route. Staff's review of the boring logs conducted at the gas main crossings indicated groundwater isn't expected to present any construction constraints. However, per the recommendations of the Geotechnical Engineering Report, the possibility of groundwater level fluctuations should be considered when developing the design and construction plans for the project.

The ODNR's review of the application indicated there are 10 oil and gas well related records located within one mile of the proposed project area. The ODNR discusses a nearby gas storage operation where a portion of the Alternate Route crosses a section of that property owned by Enterprise TE Products Pipeline Company LLC, which is located to the immediate west of the project area. The Applicant has indicated that no oil and gas wells, gas storage wells, or injection wells are located within the right-of-way of the proposed pipeline's Preferred or Alternate Route."²⁷ Therefore, Staff concludes that these subsurface features would not impact the proposed project.

The Geotechnical Engineering Report indicates it was performed specifically to support evaluation and design of jack and bores for the proposed road crossings (six crossings along Preferred Route) as well as foundation support for a launcher/receiver slab at the northern and southernmost portions of the proposed pipeline routes. Both proposed routes would also cross existing gas and hazardous liquid pipelines.

Conclusion

Based on the data and considerations provided within the application, and information request submittals to date, and based on Staff assessment (with consideration and input from the ODNR) there appears to be no particular geological features or soil conditions within the project area that are incompatible with construction and operation of a gas pipeline at the proposed Preferred or Alternative Routes.

Ecological Impacts

*Surface Waters*²⁸

The Applicant's consultant conducted a wetland and stream delineation survey of the project area in September and December 2022 and February 2023. Along the Preferred Route, the

25. Application at page 97.

26. Applicant's September 19, 2023 response to Staff's fourth data request – updated Appendix 8 - Figure 1 (Ecological Map) depicting slope.

27. Applicant's June 15, 2023 response to Staff's second data request.

28. The Ohio EPA website states: "The Division of Surface Water ensures compliance with the federal Clean Water Act and works to increase the number of water bodies that can be safely used for swimming and fishing. The

consultant identified three Category 1 wetlands totaling 0.09 acres as well as thirteen streams, including four perennial, five intermittent, and four ephemeral.²⁹ Along the Alternate Route, the consultant identified one Category 1 wetland and one Category 2 wetland totaling 0.59 acres as well as seventeen streams, including three perennial, eight intermittent, and six ephemeral. No high-quality Category 3 wetlands were identified along either route.

Construction of the Preferred Route would result in a total of 0.05 acres of temporary impact across all three delineated wetlands as well as approximately 990 linear feet of impact across twelve streams. Construction of the Alternate Route would result in 0.1 acres of temporary impact to one Category 1 wetland as well as approximately 1,040 linear feet of impact across fifteen streams. Wetland impacts would be due to the temporary side-casting of wetland soils along the trench line for installation of the pipeline. Stream impacts would be due the use of trenching methods to install the pipeline at stream crossings. All construction access stream crossings would utilize temporary timber mat bridging. Wetlands and streams would be returned to their pre-construction conditions to the extent practicable.

Regardless of route selection, the Applicant would obtain coverage under the U.S. Army Corp of Engineers Nationwide Permit 12 – Oil or Natural Gas Pipeline Activities for wetland impacts resulting from construction of this project. Additionally, the Applicant would obtain coverage under the Ohio EPA National Pollutant Discharge Elimination System (NPDES) Construction General Permit OHC000006. The Applicant may also obtain an Ohio EPA Isolated Wetland Permit and an Isolated Ephemeral Stream Permit, depending on the jurisdictional determinations made for the wetlands and streams onsite.

Both routes would also require an Erosion and Sediment Control Permit from Butler County. Both this permit and the NPDES permit would require the development and approval of a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP would identify additional controls and best management practices to be followed during construction and operation to further avoid potential impacts. The Applicant would also clearly stake or flag the boundaries of delineated surface waters and any other environmentally sensitive areas prior to construction.

division issues permits to regulate wastewater treatment plants, factories and storm water runoff; develops comprehensive watershed plans aimed at improving polluted streams; and samples streams, lakes and wetlands — including fish, aquatic insects and plants — to determine the health of Ohio's water bodies." (Ohio EPA, *About Us: Surface Water*, <https://www.epa.ohio.gov/About#127147228-surface-water>); The U.S. Army Corps of Engineers website states: "The U.S. Army Corps of Engineers (USACE) Regulatory Program involves the regulating of discharges of dredged or fill material into waters of the United States and structures or work in navigable waters of the United States, under section 404 of the Clean Water Act and section 10 of the Rivers and Harbors Act of 1899." (USACE, *Obtain a Permit*, <https://www.usace.army.mil/Missions/Civil-Works/Regulatory-Program-and-Permits/Obtain-a-Permit/>); The Ohio Department of Natural Resources (ODNR) website states: "The Division of Water Resources manages statewide oversight of dams & levees, floodplains, and the collection and management of data related to the state's water resources." (ODNR, *Division of Water Resources*, <https://ohiodnr.gov/wps/portal/gov/odnr/discover-and-learn/safety-conservation/about-odnr/water-resources/water-resources>).

29. Wetlands falling within the purview of the Clean Water Act are regulated within Ohio by R.C. 6111, et seq. and Ohio Adm.Code 3745-1-50, et seq. Ohio Adm.Code 3745-1-54 establishes wetland categories.

The Applicant may utilize HDD for one stream crossing for both the Preferred and Alternate routes. HDD is typically preferred to open-cut trenching when crossing surface water resources as impacts can be avoided in most cases. However, the HDD process includes the risk of an inadvertent return. An inadvertent return occurs when the drilling lubricant, typically water or a non-toxic, fine clay bentonite slurry, is forced through cracks in bedrock and/or surface soils. If use of HDD is incorporated into final site design plans, the Applicant would develop an inadvertent return contingency plan that would be implemented at any stream crossing which uses this method. Staff recommends that the Applicant have an environmental specialist on site during construction activities where HDD activities may impact surface waters. The environmental specialist should have authority to stop HDD activities to ensure that any impacts related to an inadvertent return are addressed.

No portion of either the Preferred or Alternate routes overlap with any Federal Emergency Management Agency 100-year floodplains.

Threatened and Endangered Species³⁰

The Applicant received environmental review of the project from the USFWS and the ODNR on October 13 and November 14, 2022, respectively. The following tables provide the results of the information requests, field assessments, and document review.

30. Based on agency coordination with the USFWS and ODNR, identified species of concern are, in general, defined as those species that are protected under the federal Endangered Species Act of 1973, as amended (16 U.S.C. §§ 1531-1544) and/or according to the Conservation of Natural Resources within R.C. 1518.01-1518.99; 1531.25; and 1531.99. *See also e.g.*, R.C. 1531.08 states, in part: “In conformity with Section 36 of Article II, Ohio Constitution, providing for the passage of laws for the conservation of the natural resources of the state, including streams, lakes, submerged lands, and swamplands, and in conformity with this chapter and Chapter 1533. of the Revised Code, the chief of the division of wildlife has authority and control in all matters pertaining to the protection, preservation, propagation, possession, and management of wild animals and may adopt rules under section 1531.10 of the Revised Code for the management of wild animals.”

One of the missions of the ODNR is to “conserve and improve the fish and wildlife resources and their habitats and promote their use and appreciation by the public so that these resources continue to enhance the quality of life for all Ohioans.” In carrying out this mission, the ODNR considers the “status of native wildlife species [to be] very important” and therefore lists wildlife species needing protection. (ODNR, *State Listed Species*, <https://ohiodnr.gov/wps/portal/gov/odnr/discover-and-learn/safety-conservation/about-ODNR/wildlife/state-listed-species>).

MAMMALS				
Common Name	Scientific Name	Federal Status	State Status	Presence in Project Area
Indiana bat	<i>Myotis sodalis</i>	Endangered	Endangered	No suitable winter hibernacula were observed in the Project area. Potentially suitable summer foraging and roosting habitat was observed in the project area.
Northern Long-Eared bat	<i>Myotis septentrionalis</i>	Threatened	Endangered	No suitable winter hibernacula were observed in the Project area. Potentially suitable summer foraging and roosting habitat was observed in the project area.
Little Brown bat	<i>Myotis lucifugus</i>	N/A	Endangered	No suitable winter hibernacula were observed in the Project area. Potentially suitable summer foraging and roosting habitat was observed in the project area.
Tri-colored bat	<i>Perimyotis subflavus</i>	N/A	Endangered	No suitable winter hibernacula were observed in the Project area. Potentially suitable summer foraging and roosting habitat was observed in the project area.
INVERTEBRATES				
Common Name	Scientific Name	Federal Status	State Status	Presence in Project Area
Rayed bean	<i>Villosa fabalis</i>	Endangered	Endangered	No potentially suitable habitat observed in project area.
FISH				
Common Name	Scientific Name	Federal Status	State Status	Presence in Project Area
Tonguetied minnow	<i>Exoglossum laurae</i>	N/A	Endangered	Potentially suitable habitat present in project area.
American eel	<i>Anguilla rostrata</i>	N/A	Threatened	Potentially suitable habitat present in project area.
REPTILES				
Common Name	Scientific Name	Federal Status	State Status	Presence in Project Area
Kirtland's snake	<i>Clonophis kirtlandii</i>	N/A	Threatened	No potentially suitable habitat observed in project area.
AMPHIBIANS				
Common Name	Scientific Name	Federal Status	State Status	Presence in Project Area
Cave salamander	<i>Eurycea lucifuga</i>	N/A	Endangered	No potentially suitable habitat observed in project area.

This project is within range of the Indiana bat, northern long-eared bat, little brown bat, and the tricolored bat. The ODNR and the USFWS have recommended that no clearing of trees greater than three inches diameter be conducted from April 1 through September 30 to prevent impacts to these species. The Applicant is currently proposing up to 0.7 acres of tree clearing for the Preferred Route and 3.7 acres of clearing for the Alternate Route. The Applicant has committed to the seasonal tree clearing restriction recommended by the ODNR and the USFWS. No potential winter hibernacula were identified within or near the project area.

This project is within range of the tongue-tied minnow and the American eel. The ODNR recommends that no in-water work in a perennial stream occur between March 15 and June 30 to prevent impacts to these species. The Applicant is currently proposing to conduct in-water work during this restricted period. The Applicant has provided proof of coordination with the ODNR regarding this proposal. No surveys for these species are required, however the Applicant must submit a waiver request to the ODNR for approval of in-water work during the restricted period. The Applicant has committed to obtaining this waiver prior to conducting any in-water work in a perennial stream.

Vegetation

The following table reflects the different vegetative communities present in the project area for both the preferred and alternative route construction work zones (CWZ).

VEGETATIVE COMMUNITIES WITHIN PROJECT AREA*		
Vegetation Community Type	Acres Crossed by CWZ (Preferred Route)	Acres Crossed by CWZ (Alternate Route)
Agricultural (cultivated crops, pasture, etc.)	36.2	47.2
Developed (commercial, industrial, institutional, recreational, and residential land)	8	14.05
Wetland	0.05	0.1
Woodlot	0.7	3.7

The Applicant proposes to clear a 50-foot-wide right-of-way for the transmission line, with an additional 25 feet of width used as needed for construction of the project. The total 75-foot width makes up the CWZ. Vegetative impacts would occur primarily in agricultural land regardless of route selection. Impact on vegetative communities within developed land would be sustained mostly by maintained landscaping and mowed lawn. Because the project consists mostly of buried pipeline, most impacts to vegetative communities would be temporary in nature. Permanent vegetative impacts would be sustained by areas which are currently wooded, as the Applicant is proposing to clear trees in the right-of-way.

Temporarily impacted areas would be restored to pre-construction conditions. Restoration activities would include decompacting the soil in disturbed agricultural fields and resspreading of stockpiled soil, cleaning out of temporary stormwater management practices, and reseeding of disturbed areas. Erosion control methods specific in the project SWPPP would be utilized along riparian areas to stabilize and restore vegetation. Where wetlands are disturbed, topsoil would

be segregated and then replaced after construction has completed. Wetland areas would be allowed to self-reestablish, however the Applicant has stated that additional seeding would occur where existing seed banks do not repopulate the area.

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.

Route Selection

The primary factors in route selection were the locations of the existing Dicks Station, Yankee Station, and the Butler Station. The Applicant identified and quantified sensitive land uses. The analysis evaluated ecological factors such as wetlands, protected species and plant habitats, streams and preservation of existing woodlots. Visual impact assessments and proximity to residences and road crossings were also quantified. Cultural resources were evaluated in consultation with the OHPO. Finally, engineering and maintenance costs were weighed. As part of its analysis, the Applicant solicited landowner feedback in finalizing potential routes. Staff finds the Applicant's process to determine a Preferred and Alternate Route to be reasonable.

Minimizing Impacts

Geologic features are similar for both routes and no portion of either route appear to be precluded from construction due to geological features or soil condition concerns. The Applicant has sited the facility to avoid surface waters to the greatest extent possible. The Preferred Route would result in 0.05 acres of temporary impact to wetlands and 990 linear feet of temporary impacts to streams. The Alternate Route would result in 0.1 acres of temporary impact to wetlands and 1,040 linear feet of temporary impact to streams. The Applicant identified several listed species that could be present in the project area. Impacts to these species can be avoided by following seasonal restrictions for construction in certain habitat types.

The Applicant would mitigate noise impacts by limiting construction activities to daylight hours whenever feasible. Impacts to cultural and recreational resources are not anticipated. Visual impacts are limited due to the majority of the project being underground. To minimize individual land use conflicts, the Applicant sought feedback from landowners to reduce footprint impacts to their properties, and to utilize existing corridors to the greatest extent possible to limit new additional impacts.

Conclusion

While both the Preferred and Alternate routes are viable, Staff concludes that the Preferred Route is a more efficient land use and best minimizes overall potential impacts.

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 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 proposed project is not an electric transmission line or generating facility, therefore this section does not apply.

Recommended Findings

Staff recommends that the Board find that the requirements specified in R.C. 4906.10(A)(4) are not applicable to the certification of the proposed project.

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.

Air³¹

Air quality permits are not required for construction or operation of the proposed facility, because there are no criteria air pollutants associated with operation of the facility. However, fugitive dust rules adopted under R.C. Chapter 3704 may be applicable to the construction of the proposed facility. The Applicant intends to keep the surrounding areas free from excessive dust from construction activities. Specifically, the Applicant stated that during excessively dry periods, dust suppression would be implemented where necessary through irrigation and/or mulching. The Applicant would control temporary and localized fugitive dust by using best management practices (BMP) as recommended by *ODNR's Rainwater and Land Development Manual*. These BMP practices include maintaining vegetative cover and timely temporary and permanent seeding, mulching areas, leaving soil in a rough state, watering roads, and chemical stabilizers or wetting agents.

This project would not include any stationary sources of air emissions and, therefore, would not require air pollution control equipment.

Water³²

The Applicant anticipates obtaining environmental permits as necessary. The Applicant would mitigate potential water quality impacts associated with aquatic discharges by obtaining coverage through an NPDES construction storm water general permit from the Ohio EPA with submittal of a notice of intent. This permit requires development and implementation of a SWPPP. The SWPPP would describe and outline BMPs to control soil erosion and minimize

31. The Revised Code provides for the Ohio EPA to administer and enforce the provisions of R.C. Ch. 3704 with regards to air pollution control. See e.g., RC 3704.03, 3704.161. The Ohio EPA Division of Air Pollution Control ensures compliance with the federal Clean Air Act and the Emergency Planning and Community Right-to Know Act as part of its mission to attain and maintain air quality at a level that protects the environment and public health. (Ohio EPA, Division of Air Pollution Control, <https://www.epa.ohio.gov/dapc/#188913097-featuredtopics>). The Division of Air Pollution Control develops and enforces rules in the Ohio Administrative Code, which assist the state of Ohio to: attain and maintain the National Ambient Air Quality Standards (NAAQS) contained in the Clean Air Act; fulfill the requirements set forth by the Ohio General Assembly in R.C. 3704; and protect and maintain healthy air quality for the citizens of the state of Ohio. (See, Ohio EPA, Division of Air Pollution Control Rules and Laws,).

32. The Revised Code provides for the Ohio EPA to be the lead agency in administering the provisions of Ch. 6111 with regards to water quality. See e.g., RC 6111.041. For example, the Ohio EPA, among other things, “ensures compliance with the federal Clean Water Act and works to restore and enhance the integrity of Ohio’s waters.” (Ohio EPA Website, Division of Surface Water, <https://www.epa.ohio.gov/dsw/SurfaceWater/LiveTabId/113292#:~:text=Ensures%20compliance%20with%20the%20federal,the%20integrity%20of%20Ohio's%20waters.&text=We%20issue%20permits%20to%20regulate,aimed%20at%20improving%20polluted%20streams>). The CWA establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters. (US EPA, Summary of Clean Water Act, <https://www.epa.gov/laws-regulations/summary-clean-water-act>).

sedimentation in nearby watercourses. BMPs would include installing and maintenance of silt fence and filter socks where appropriate to minimize stormwater runoff. The Applicant would also obtain the Butler County Stormwater District's Lot Erosion and Sediment Control Permit.

The Applicant intends to discharge the hydrostatic test water to the Butler County Department of Environmental Services' sanitary sewer system. For any water that can't be discharged to that sewer system, the Applicant would apply for and comply with Ohio EPA NPDES General Permit No. OHH000004 for discharges of hydrostatic test water.³³ The Applicant intends to filter the water discharge through a dewatering filter basin structure after adhering to the Ohio EPA NPDES General Permit No. OHH000004's monitoring and sampling requirements. The exact location(s) of the discharge would be determined after the Applicant finalizes the design and the construction contractor is hired.

Direct impacts to streams and wetlands would be covered under the U.S. Army Corps of Engineers Section Nationwide Permit 12 or the Ohio EPA Isolated Wetland Permit, as applicable. With these measures, construction and operation of this facility would comply with requirements of R.C. Chapter 6111, and the rules and laws adopted under that chapter.

Solid Waste³⁴

To address potential interactions with contaminated soils or hazardous materials, the Applicant conducted an environmental desktop review within a 1-mile radius of the proposed routes. This included a review of Federal National Priority List; Comprehensive Environmental Response, Compensation and Liability Act sites; No Further Remedial Action Plan sites; Resource Conservation and Recovery Act sites, etc. The Applicant would further evaluate potential environmental concerns along the selected route and conduct further investigations, if necessary to properly identify if contaminated soil or hazardous materials would require special site management, transport, and disposal during construction of the pipeline. In the event that contaminated or discolored soil is identified, the Applicant would submit soil samples to a certified laboratory for analysis to determine transport and disposal requirements. The Applicant stated that contaminated soil and/or hazardous materials would be appropriately transported and disposed of at designated, approved disposal facilities.

The Applicant intends to keep the right-of-way clean of all refuse and debris resulting from the work. All construction-related debris would be disposed of at an authorized solid waste disposal facility.

The Applicant intends that all materials stored on-site would be kept in a neat, orderly manner in their appropriate containers. The manufacturer's safety data sheets would be retained and available on-site.

Operation of the project would not result in any significant generation of solid waste.

33. Duke Energy Ohio, Inc.'s Response to Staff Data Requests 01-008 and 01-009.

34. The Revised Code generally provides for Ohio EPA to administer and enforce the provisions of Chapters 3714. and 3734., in particular with regard to solid waste facilities, infectious waste treatment facilities and construction and demolition debris facilities.

The Applicant's solid waste disposal plans would comply with solid waste disposal requirements set forth in R.C. Chapter 3734.

Aviation³⁵

The above ground structures are construction cranes which would be 40 feet tall or less. That height is under the height requirement from the Federal Aviation Administration (FAA), pursuant to 14 CFR Part 77.9(a), for filing a Form 7460-1. Further, Staff found that the nearest public airport, Middletown Regional, is over four miles away from the project and no impacts to it are anticipated from the proposed project.

In accordance with R.C. 4906.10(A)(5), Staff contacted the ODOT Office of Aviation during the review of this application in order to coordinate review of potential impacts of the facility on local airports. As of the date of this filing, no such concerns have been identified.

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.

35. The FAA is the authority in the U.S. government responsible for regulating all aspects of civil aviation, including issuing determinations on petitions for objects that penetrate the nation's airspace. The FAA conducts aeronautical studies for new structures that will exceed 200 feet in height under the provisions of 49 U.S.C. 44718, and applicable 14 CFR Part 77. Pursuant to R.C. 4561.32, ODOT regulates the height and location of structures and objects within any airport's clear zone surface, horizontal surface, conical surface, primary surface, approach surface, or transitional surface.

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.

Pipeline Safety

This construction project would consist of installing approximately 5.1 to 6.1 miles of 16-inch diameter steel pipeline with an MAOP of 438 pounds per square inch gauge (psig).

The Pipeline Safety Regulations (49 C.F.R. 192) are promulgated by the U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration, and adopted by Ohio in Ohio Adm.Code 4901:1-16-03. The design pressure allowed for steel pipe is described in the Pipeline Safety Regulations, Subpart C. These regulations use an engineering formula known as Barlow's Formula that calculate a maximum pressure the pipe can be exposed to (known as Specified Minimum Yield Strength, or SMYS). In order to use the formula, the outside diameter, wall thickness, and grade of the steel used to construct the pipe must be known. An engineering design safety factor is then applied to limit pipe operation to a certain fraction of SMYS. The engineering design safety factor is dependent on the class location of the pipe, which is determined by the population density in the area around the pipe.

Information provided in the application shows the 16-inch pipeline would have a wall thickness equal to 0.375 inches. The grade of the piping is not provided, however other information provided by the application implies the pipe would be manufactured in accordance with American Petroleum Institute (API) Specification 5L, Grade X-65. The application indicates that the proposed pipeline MAOP is 438 psig, and the line is planned to operate up to this pressure. Pipeline system design pressure would be 1,000 psig, which means the actual pressure containing capacity of all materials would be 1,000 psig even though the system is not currently intended to operate that high. An application of Barlow's formula shows that 16-inch X-65 grade piping with a wall thickness of 0.375 inches designed for a Class 4 location yields a design pressure of 1,224 psig, which is above the 1,000 psig design pressure referenced in the application. Therefore, the proposed pipeline would operate within the design limits prescribed by the Pipeline Safety Regulations.

The construction methods the Applicant intends to use appear to be consistent with the requirements of the Pipeline Safety Regulations for the construction and operation of transmission lines. The Applicant also intends to place caution tape above the installed piping as an additional safety measure to warn potential excavators in the event of a failure of the state one-call utility protection system.

Staff requests the Applicant inform the PUCO at least two weeks prior to the start of the project so that welding qualifications, welding procedures, nondestructive testing procedures, and other applicable plans and procedures may be reviewed in advance.

Based on the information provided in the application, Staff believes that the Applicant would be able to construct, operate, or maintain the line in accordance with the Pipeline Safety Regulations along either of the proposed routes.

Public Interaction and Participation

The Applicant hosted a public informational meeting for the project and maintains a website with information about the project, including contact information. The Applicant will notify affected property owners and tenants via door hangers or field notices 30 days prior to the start of construction. The Applicant will mail postcards to these same properties 1 to 2 weeks before construction begins. The Applicant will establish a complaint resolution procedure respond to customer concerns during construction and restoration.

The Administrative Law Judge scheduled a public hearing and an evidentiary hearing for this proceeding. The public hearing will be held on Oct. 12, 2023, at 5 p.m. at Liberty Heights Church, 7904 Princeton Road in Liberty Township, Ohio. The evidentiary hearing is scheduled for October 24, 2023, at 10 a.m., in Hearing Room 11-C, at the offices of the Public Utilities Commission of Ohio, 180 East Broad Street, Columbus, Ohio 43215.

As of the filing of this report, the OPSB has not received public comments in this case. Public comments are available to view online in the case record at <http://dis.puc.state.oh.us>.

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.

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

AGRICULTURAL DISTRICTS AND AGRICULTURAL LAND

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 Preferred and Alternate routes of the proposed utility facility. The agricultural district program was established under R.C. Chapter 929. Agricultural district land is exempt from sewer, water, and 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.

If the Preferred Route is selected, approximately 36.2 acres of agricultural land would be disturbed including approximately 21.1 acres of agricultural district land. If the Alternate Route is selected, approximately 47.2 acres of agricultural land would be disturbed including approximately 19.1 acres of agricultural district land. The Applicant states the disturbed agricultural land would be restored for agricultural use when the project construction is completed. The project would not affect the designation of agricultural district lands.

The construction and operation of the proposed facility would disturb the existing soil and could lead to broken drainage tiles. A drain tile system consists of laterals, which are branches off a main, and main lines. Main lines can allow water to flow into or out of one parcel to another. Locating and avoiding damage to drain tile mains can help prevent the pooling of water on project parcels and adjacent parcels. The Applicant has committed to work with landowners and tenants to locate and minimize or avoid impacts to drain tiles.

The Applicant has committed to take steps in order to address potential impacts to farmland, including repairing all drainage tiles damaged during construction and restoring temporarily impacted land to its original use. Excavated topsoil would be separated during construction and returned as topsoil after construction.

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 Staff Report of Investigation* 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.

Construction of the proposed facility would not require the use of significant amounts of water. Water may be utilized for dust suppression during excessively dry periods of active construction and as needed.

Water may also be used for hydrostatic testing of the pipe.³⁶ Hydrostatic testing is a pipeline integrity testing method. The Applicant plans to use approximately 261,000 gallons of water for hydrostatic testing in segments of the pipeline. The Applicant intends to discharge the hydrostatic test water to the Butler County Department of Environmental Services' sanitary sewer system. For any water that can't be discharged to that sewer system, the Applicant would apply for and comply with the Ohio EPA NPDES General Permit No. OHH000004 for discharges of hydrostatic test water.³⁷ The Applicant intends to filter the water discharge through a dewatering filter basin structure after adhering to the Ohio EPA NPDES General Permit No. OHH000004's monitoring and sampling requirements. The exact location(s) of the discharge would be determined after the Applicant finalizes the design and the construction contractor is hired.

Operation of the proposed facility would not require the use of significant amounts of water.

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. 4906.10(A)(8), 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.

36. Application at page 31.

37. Duke Energy Ohio, Inc.'s Response to Staff Data Requests 01-008 and 01-009.

IV. RECOMMENDED CONDITIONS OF CERTIFICATE

Following a review of the application filed by Duke Energy Ohio, 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 as a result of public or other input received subsequent to the issuance of this report. At this time, 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:

General Conditions

Staff has generally listed the below conditions in chronological order for ease of reference and review. The inclusion of a condition within a specified section is not intended to waive its potential application to other stages of a project and the specific language of each condition controls its application within the project.

- (1) The Applicant shall install the Preferred Route, utilize equipment and construction practices, and implement mitigation measures as described in the application and as modified and/or clarified in supplemental filings, replies to data requests, and recommendations in this Staff Report of Investigation.
- (2) 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 unless the Board grants a waiver or extension of time.
- (3) As the information becomes known, the Applicant shall file in the public docket the date on which construction will begin, the date on which construction was completed, and the date on which the facility begins commercial operation.
- (4) The certificate authority provided in this case shall not exempt the facility from any other applicable and lawful local, state, or federal rules or regulations nor be used to affect the exercise of discretion of any other local, state, or federal permitting or licensing authority with regard to areas subject to their supervision or control.
- (5) In the event that the Alternate Route is chosen as the final route, prior to construction, the Applicant shall conclude its Phase I cultural resources survey program for the Alternate Route, including any laydown area(s) and access roads. If the resulting survey work discloses a find of cultural significance, or a site that could be eligible for inclusion on the National Register of Historic Places, then the Applicant shall follow the guidelines of the programmatic agreement between the Applicant and OHPO.

Preconstruction

- (6) The Applicant shall conduct a preconstruction conference prior to the commencement of any construction activities. The Applicant may conduct separate preconstruction conferences for each stage of construction. Notice of the date and location of the

preconstruction conference shall be provided to Staff at least 30 days in advance. Staff, the Applicant, and representatives of the primary contractor and all subcontractors for the project shall attend the preconstruction conference. The conference shall include a presentation of planned phase of construction and the conditions of the certificate, the measures to be taken by the Applicant and contractors to ensure compliance with all conditions of the certificate, discussion of the procedures for on-site investigations by Staff during construction, summary of additional studies and surveys not specified by conditions, and a summary of work done for previous phases of construction. At least 30 days prior to the conference, the Applicant shall provide Staff with a summary of the status of deliverables required within the conditions, and if the conference is for a phase of construction, the Applicant shall provide Staff with a list of the conditions which would apply to that phase. 14 days prior to the conference, the Applicant shall provide a proposed conference agenda for Staff review and shall file a copy of the agenda on the case docket.

- (7) Prior to the commencement of construction activities in areas that require permits or authorizations by federal, state, or local 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 and shall file such permits or authorizations on the public docket. The Applicant shall provide a schedule of construction activities and acquisition of corresponding permits for each activity at the preconstruction conference(s). Any permit violation received by the Applicant from the permitting agency shall be provided on the case docket within seven days of receipt.
- (8) At least 30 days prior to the initial preconstruction conference, the Applicant shall provide Staff, for review and acceptance, the final geotechnical engineering report. This report shall include a final summary statement addressing the geologic and soil suitability. This report shall also address any inadequacies found and proposed remedies if applicable.
- (9) At least 30 days prior to the start of construction, the Applicant shall file a copy of the complaint resolution procedure for construction and restoration of the project on the public docket. At least seven days prior to the start of construction, the Applicant shall notify via mail affected property owners and tenants. These notices shall provide information about the project, including contact information and a copy of the complaint resolution procedure. The start of construction notice shall include written confirmation that the Applicant has complied with all pre-construction related conditions of the certificate, as well as a timeline for construction and restoration activities. The Applicant shall file a copy of these notices on the public docket.
- (10) The Applicant shall coordinate with the appropriate authorities regarding traffic and transportation requirements necessary for construction and operation of the proposed facility. To assure compliance with this condition, prior to the preconstruction

conference, the Applicant shall file a final transportation management plan, this plan shall include (but not be limited to) the following:

- a. A summary of coordination with appropriate authorities regarding traffic and transportation requirements, including temporary road closures, road use agreements, driveway permits, lane closures, road access restrictions, and traffic control necessary for construction and operation of the proposed facility.
 - b. Documentation of this coordination, with copies of applicable permits or authorizations, or schedule for obtaining permits or authorizations not yet applicable.
 - c. A description of best management practices that would be implemented to maintain clean roads free of construction debris and excess mud.
 - d. Details summarizing signage and other best management practices that would ensure construction vehicles only use designated transportation routes.
 - e. Mapping of roads to be used for construction that includes identifying any anticipated permitting/authorization requirements in their respective locations.
- (11) The Applicant shall make welding qualifications, welding procedures, and nondestructive testing procedures available to PUCO's Gas Pipeline Safety section Staff for review no later than 21 days before construction work will start.

Construction

- (12) The Applicant shall file on the public docket a complaint summary report by the fifteenth day of April, July, October, and January of each year during construction and through the first five years of operation. The report shall include a list of all complaints received through the Applicant's complaint resolution program, a description of the actions taken toward the resolution of each complaint, and a status update if the complaint has yet to be resolved.
- (13) 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, 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 or light pollution at sensitive receptors are permitted outside of daylight hours when necessary. The Applicant shall notify Staff and affected property owners or tenants of upcoming construction activities including potential for nighttime construction activities.
- (14) The Applicant shall remove all construction staging area and access road materials after completion of construction activities, as weather permits, unless otherwise directed by the landowner. Impacted areas shall be restored to preconstruction conditions in

compliance with the Ohio EPA General NPDES permit(s) obtained for the project and the approved Stormwater Pollution Prevention Plan created for this project. All construction debris and any contaminated soil shall promptly be removed and properly disposed of in accordance with Ohio EPA regulations.

- (15) Prior to the use of horizontal directional drilling, the Applicant shall provide Staff with an inadvertent return contingency plan detailing monitoring, environmental specialist presence, containment measures, cleanup, and restoration.
- (16) The Applicant shall have a Staff-approved environmental specialist on site during construction activities that may affect sensitive areas. The environmental specialist shall be familiar with water quality protection issues and potential threatened or endangered species of plants and animals that may be encountered during project construction. Approval of the environmental specialist(s) is determined through submittal of a resume(s) showing applicable experience and/or credentials, which shall be submitted at least 14 days prior to the preconstruction conference. The environmental specialist shall have authority to stop construction to assure that unforeseen environmental impacts do not progress and recommend procedures to resolve the impact. Sensitive areas may include, but are not limited to, wetlands and streams, and locations of threatened or endangered species. At least 14 days prior to the preconstruction conference, a map shall be provided to Staff focusing on sensitive areas which would be impacted during construction with information on the construction activities and when the environmental specialist would be present.
- (17) The Applicant shall adhere to seasonal cutting dates of October 1 through March 31 for the removal of trees three inches or greater in diameter to avoid impacts to listed bat species, unless coordination with the Ohio Department of Natural Resources and the U.S. Fish and Wildlife Service allows a different course of action. If coordination with these agencies allows clearing between April 1 and September 30, the Applicant shall docket proof of completed coordination on the case docket prior to clearing trees.
- (18) Should construction be delayed beyond five years of the date of the certificate, certain wildlife surveys may be required to be updated as determined by Staff and the ODNR.
- (19) The Applicant shall contact Staff, the ODNR, and the USFWS within 24 hours if state or federal listed species are encountered during construction activities. Construction activities that could adversely impact the identified plants or animals shall be immediately halted until an appropriate course of action has been agreed upon by the Applicant, Staff, and the appropriate agencies.
- (20) The Applicant shall conduct no in-water work in perennial streams from April 15 through June 30 to reduce impacts to indigenous aquatic species and their habitat unless coordination efforts with the ODNR allows a different course of action. If coordination with the ODNR allows in-water work in perennial streams between April 15 and June 30, the Applicant shall file proof of such coordination on the docket.

Post Construction/Operation

- (21) 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 in both hard copy and as geographically referenced electronic data. 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.

OPSB Staff Report Distribution List
(the following individuals were provided a copy of this report)

Jenifer French, Chair
Public Utilities Commission of Ohio
180 E. Broad St.
Columbus, OH 43215

Gregory Slone
OPSB Public Member
6123 Sugar Maple Dr.
Westerville, OH 43082

Lydia Mihalik, Director
Ohio Department of Development
77 S. High St., 29th Floor
Columbus, OH 43216

Senator Kent Smith
Ohio Senate
Senate Building
1 Capitol Square
Columbus, Ohio 43215

Bruce T. Vanderhoff, M.D.
Director of Health
Ohio Department of Health
246 N. High St., P.O. Box 118
Columbus, OH 43215

Senator Bill Reineke
Ohio Senate
Senate Building
1 Capitol Square
Columbus, Ohio 43215

Brian Baldrige, Director
Ohio Department of Agriculture
8995 E. Main St.
Reynoldsburg, OH 43068

Rep. Sharon Ray
Ohio House of Representatives
77 South High Street
Columbus, Ohio 43215

Anne Vogel, Director
Ohio EPA
50 W. Town St., Suite 700
Columbus, OH 43215

Rep. Michael Skindell
Ohio House of Representatives
77 South High Street
Columbus, Ohio 43215

Mary Mertz, Director
Ohio Department of Natural Resources
2045 Morse Rd., Building D-3
Columbus, OH 43229

The Lane Libraries, Hamilton Lane Branch
Carol Bowling, Branch Manager
300 North Third Street
Hamilton, Ohio 45011



An Equal Opportunity Employer and Service Provider

www.OPSB.ohio.gov
(866) 270-OPSB (6772)

180 E. Broad St.
Columbus, OH 43215-3793

**This foregoing document was electronically filed with the Public Utilities
Commission of Ohio Docketing Information System on**

9/27/2023 12:17:17 PM

in

Case No(s). 22-1072-GA-BTX

Summary: Staff Report of Investigation electronically filed by Robert A. Holderbaum
on behalf of PUCO Staff.