AGRICULTURAL IMPACT STATEMENT


DATCP File Photo

DATCP #4653

ANR Heartland Pipeline Project
Brown, Racine, Sheboygan, Waukesha and Winnebago Counties
FERC Docket # CP25-79-000

WISCONSIN DEPARTMENT OF AGRICULTURE, TRADE AND CONSUMER PROTECTION

PUBLISHED AUGUST 25, 2025

AGRICULTURAL IMPACT STATEMENT

DATCP 4653

ANR Heartland Pipeline Project

Brown, Racine, Sheboygan, Waukesha and Winnebago Counties

WISCONSIN DEPARTMENT OF AGRICULTURE, TRADE AND CONSUMER PROTECTION

Authors

Kirsten Biefeld
Agricultural Impact Statement Program Manager
Bureau of Land and Water Resources (DATCP)

Tim Jackson
Bureau of Land and Water Resources (DATCP)

Travis Nickel
Bureau of Land and Water Resources (DATCP)

PUBLISHED AUGUST 25, 2025

LETTER TO THE READER

Dear Reader,

Through the Agricultural Impact Statement ("AIS") program, agricultural operations have the opportunity to provide feedback, document impacts, and suggest alternative solutions when their agricultural lands are affected by an entity with the potential powers of eminent domain. The AIS program also provides affected agricultural landowners time to gather information to make well-informed decisions before a study begins. Lastly, the AIS program makes suggestions and recommendations to study initiators to promote study alternatives and management practices that would reduce potential impacts to agricultural lands and operations.

The AIS program also serves the needs of the study initiator by conducting the AIS analysis and publishing the statement within a timely manner as required by Wis. Stat. § 32.035. In addition, the AIS program provides a continuing presence throughout study development and oversight processes in order to support agricultural operations and the statewide priority to preserve prime farmland.

The Agricultural Impact Statement program and the WI Department of Agriculture, Trade and Consumer Protection are honored to provide this essential state service to the agricultural landowners and operators of the state.

Thank you,

TABLE OF CONTENTS

TABLES

FIGURES

ACRONYMS

AEA	Agricultural Enterprise Area
AI	Agricultural Inspector
AIN	Agricultural Impact Notification
AIS	Agricultural Impact Statement
CREP	Conservation Reserve and Enhancement Program
CRP	Conservation Reserve Program
DATCP	Department of Agriculture, Trade and Consumer Protection (the Department)
EI	Environmental Inspector
FP	Farmland Preservation Program
FSA	Farm Service Agency
HDD	Horizontal Directional Drilling
IAM	Independent Agricultural Monitor
LR	Launch/Receiver Facility
MFL	Managed Forest Law
PACE	Purchase of Agricultural Conservation Easement
FERC	Federal Energy Regulatory Commission
ROW	Right-of-Way
USDA	U.S. Department of Agriculture
USH	U.S. Highway
WisDNR	Wisconsin Department of Natural Resources

TERMS

Easement	Easements are contracts – bound to the property – which allow another party the right to use or enter a property without owning the property. Easements may be temporary (i.e. time limited) or permanent.
Greenfield Location	An area of undeveloped land that has not been built on before.
Horizontal Directional Drilling	A technique involving the drilling of an underground pilot hole to tunnel for an extended linear distance to avoid surface disturbance to a resource like a waterbody, wetland, or infrastructure. The pilot hole is enlarged through successive ream borings with progressively larger bits. Finally, a pre-welded segment of pipe is pulled or pushed through the completed tunnel.
Mitigation	Avoiding, minimizing, rectifying (repairing), reducing, eliminating, compensating for, or monitoring environmental & agricultural impacts.
Open Trench	The excavation of a trench to install individual sections of a pipeline. After the pipeline is installed, the trench is backfilled with soil.
Launch/Receiver Facility	Facilities that safely load and remove pipeline inspection gauges into the pipeline.
Lift-and-Lay	The process of excavating and removing an existing pipe, while collocating a new pipe in the same open trench.
Pipeline Inspection Gauges	A device that allows for inspection and cleaning inside a pipeline without stopping the flow of natural gas within the pipeline
Prime Farmland	Defined by the U.S. Department of Agriculture as land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and that is available for these uses.
Right-of-Way (ROW)	The right to cross another's property for transportation or transmission purposes, such as roads, powerlines, and pipelines.
Severance	Splitting an agricultural parcel into two or more smaller parcels
Three-Lift Soil Handing	A soil handling method requiring the excavation and stockpiling of 1) topsoil, 2) subsoil and 3) substratum in three separate piles. After excavation and construction is complete, the excavated soils are backfilled in the reverse order from which they were removed (i.e. last soil removed is the first soil backfilled).
Topsoil	The thin, top layer of soil where the majority of nutrients for plants is found.

Uneconomic Remnant	The property remaining after a partial taking of property, if the property remaining is of such size, shape, or condition as to be of little value or of substantially impaired economic viability.
Wasteland	Small or irregularly shaped areas within a remnant agricultural field that are not able to be cultivated. These areas reduce the amount of tillable acres within a remnant field, which may also impact the economic viability of the remnant field.

SUMMARY OF AGRICULTURAL IMPACT STATEMENT

The Wisconsin Department of Agriculture, Trade and Consumer Protection ("Department") has prepared Agricultural Impact Statement ("AIS") 4653 for a natural gas pipeline lateral proposed by the ANR Pipeline Company, ("ANR"), a subsidiary of TC Energy. The proposed pipeline (referred to as "ANR Heartland Project" or "the Project") proposes approximately 70 miles of new pipeline in Illinois and Wisconsin in four locations (PL-1, PL-2, PL-3, PL-4), the replacement and upsizing of approximately 1.5 miles of existing pipeline, the construction or modification of four compressor stations, the construction or modification of 5 meter stations and additional construction or modifications to aboveground facilities. ANR has indicated the primary reason for the Project is to increase capacity to support the electric grid reliability by providing a consistent and reliable fuel source for power generation, especially during disruptions such as extreme weather events. The pipeline will also aid in providing power during the transition from relying on coal-fired power generation to renewable energy sources in the region (DATCP, 2025a). This AIS analysis focuses on Project elements that propose to affect agricultural land within Wisconsin only.

The Wisconsin portion of the project includes Segments PL-3 and PL-4, associated minor aboveground appurtenance facilities, as well as four above station facilities, which are located across eastern Wisconsin in Brown, Racine, Sheboygan, Waukesha and Winnebago Counties (Figure 1). The proposed Project will directly affect thirty-nine agricultural landowners and approximately 122 acres of agricultural lands within Wisconsin.

The Federal Energy Regulatory Commission (FERC) has authority over the Project and the ANR must obtain a Certificate of Public Convenience and Necessity (CPCN) and Abandonment Authority to obtain the right to proceed with the Project. Through the issuance of a certificate, the FERC would select the project route and other project criteria ANR shall follow. To date, ANR has submitted a CPCN application for the Project to the FERC under FERC Docket ID: CP25-79-000 and is awaiting a ruling from the FERC. The Department will provide the FERC with AIS #4653 as evidence to aid in determining the outcome of ANR's CPCN application.

In accordance with Wis. Stat. §32.035(3), ANR has provided the Department with the necessary information and materials to conduct an AIS. The Department has also contacted the agricultural property owners and operators impacted by the Project route. In accordance with Wis. Stat. §32.035(4)(b), the Department has reviewed and analyzed ANR materials and the comments from the affected agricultural property owners and operators to assess the agricultural impacts of the proposed project. Through the AIS analysis, the Department offers a set of recommendations and conclusions to ANR and the agricultural landowners and operators to help mitigate current and future impacts on agricultural lands and agricultural operations along the Project route.

The set of recommendations are located within the AIS Recommendation Section beginning on page 13. The AIS analysis begins on page 16 with information on the project located in Section 2.

Information and conclusions on the agricultural setting of Brown, Racine, Sheboygan, Waukesha and Winnebago Counties and impacted areas can be found in Section 3. The agricultural impacts of the project on the impacted land, landowners and operators can be found in Section 4. Appendices for AIS 4653 contain the following information: additional project figures and tables from ANR (Appendix A), ANR's Agricultural Mitigation Plan (AMP) for the Project (Appendix B), FERC's Upland Erosion Control, Revegetation and Maintenance Plan (Appendix C), Three-lift Soil Candidate Key (Appendix D), information on the appraisal and compensation process (Appendix E), a copy of Wisconsin's agricultural impact statement statute (Appendix F), and various additional sources of related information for agricultural landowners and operators (Appendix G).

If ANR deviates from the selected alternatives or the selected sites, ANR shall re-notify the Department. The Department shall review the re-notification for new potential impacts to agricultural lands and may generate an addendum to this AIS, if warranted.

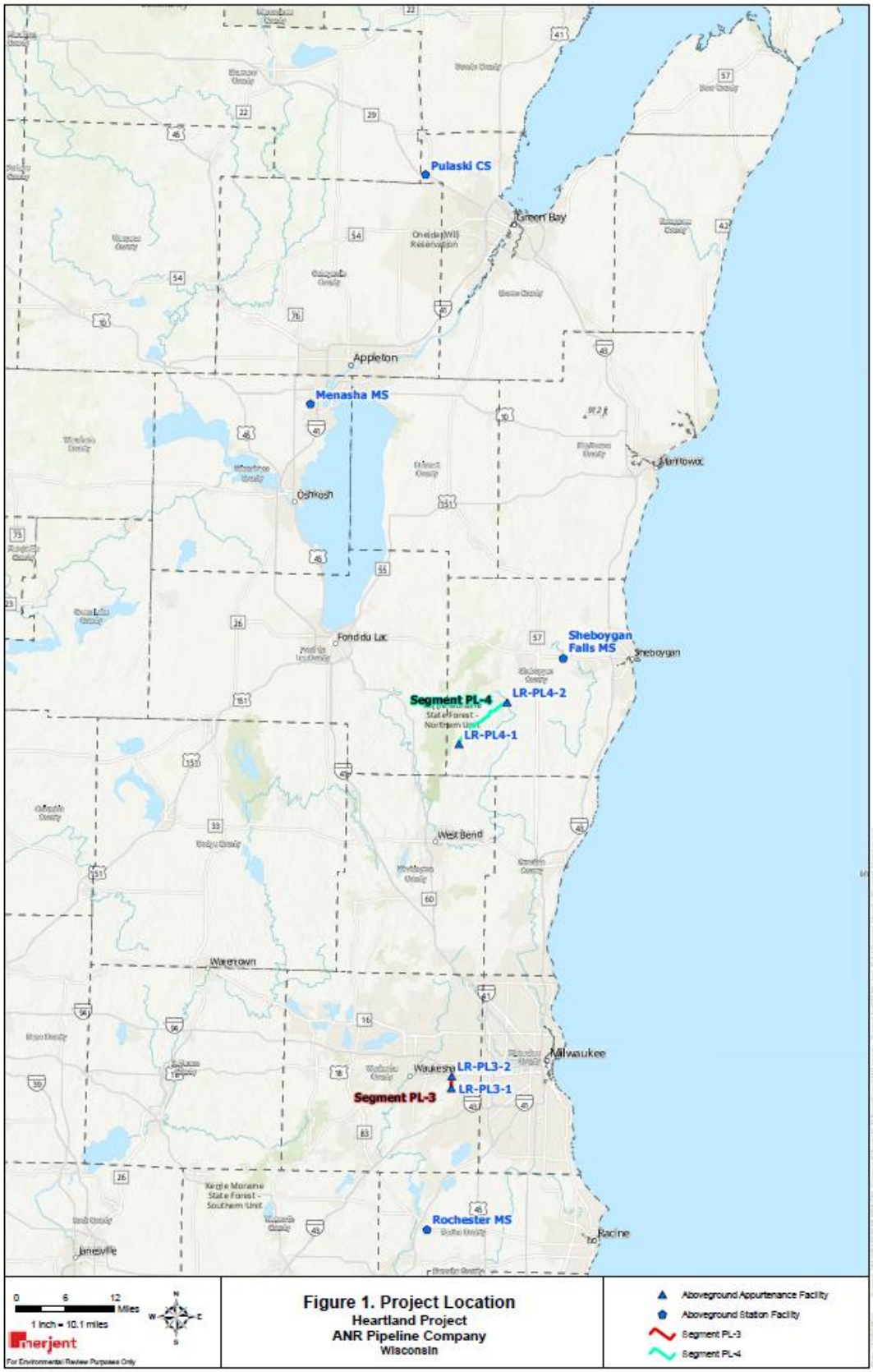

Figure 1: Location of the ANR Heartland Project route in Brown, Racine, Sheboygan, Waukesha and Winnebago Counties (DATCP, 2025a).

AGRICULTURAL IMPACT STATEMENT RECOMMENDATIONS

The Department has reviewed and analyzed the materials provided by ANR Pipeline Company (ANR) and comments from the affected agricultural property owners and operators regarding the proposed Project. Should FERC approve the Project, the Department provides the following recommendations, in accordance with Wis. Stat. §32.035(4)(b) to FERC, ANR and agricultural landowners and operators to help mitigate impacts on agricultural lands and agricultural operations resulting from the Project.

Recommendations to ANR Pipeline Company (ANR)

ANR has reviewed the following recommendations made by the Department but did not comment on the recommendations or recommend changes to AIS 4653.

1) The Department recommends ANR follow all the mitigation efforts described in Section 5.3 through Section 5.7 to mitigate Project impacts to or regarding: soil health, agricultural infrastructure, compensation, drainage and erosion and conservation practices.

2) ANR should inform the affected agricultural property owners who have soils that are candidates for the three-lift soil handling method. At the same time, ANR should also inform these property owners how three-lift soil handling could preserve the productivity of their fields and distribute a copy of ARM-LWR-294 or a similar publication.

3) ANR should provide landowners with direct phone numbers and email addresses to ANR project staff such as the Environmental Inspector and project contractors that are able to respond to a range of topics including but not limited to: environmental & agricultural impacts, land acquisition & ROW, project schedule, access limitations, compensation for release of lands from conservation programming and project complaints.

4) If there is adequate growing season for a crop to mature and be harvested after ANR has acquired an interest in the impacted lands, but before construction along the Project corridor begins, ANR should allow the current agricultural operators to harvest a crop for that season to the extent possible or ANR shall compensate the agricultural operators for crop damages.

5) ANR should provide appropriate compensation to all landowners with land enrolled in a conservation easement or farm program, if the landowner must reimburse the administering agency for the land's removal or alteration. These conservation or farm programs could include, but are not limited to, Conservation Reserve Program (CRP), Conservation Reserve and Enhancement Program (CREP), Farmland Preservation Program (FP), or the Managed Forest Law program (MFL).

6) ANR should consult the Department 1) as soon as a route is selected, affording as much time as possible prior to construction regarding the status of effective agreements, if any are identified, within the project corridor and 2) for information regarding required releases of land and repayment of funds for any CREP or FP agreements within the chosen project corridor.

7) ANR is advised to consult the applicable County Land Conservation Department on the existence of installed SWRM conservation practices within the Project area.

8) ANR should implement training for all construction supervisors, inspectors, and crews to ensure that they understand the steps needed to protect the integrity of agricultural lands and operations during project construction and restoration.

Recommendations to Agricultural Landowners and Operators

1) Landowners should review ANR's agricultural *mitigation* plan as shown in Appendix B to learn about the methods and practices ANR will use to mitigate project impacts to or regarding: *topsoil,* soil compaction, drainage, drain tiles, dewatering, erosion, fencing, weed control, irrigation, compensation, feed supply & dairy operations, biosecurity, etc.

2) Landowners should review the recommended mitigation efforts described in Section 5.3 through Section 5.7 to mitigate project impacts to or regarding: soil health, agricultural infrastructure, compensation, drainage and erosion and conservation practices.

3) Landowners who have soils that have been identified as candidates for the three-lift soil handling method should request that ANR use three-lift soil handling for those soils. Landowners should also review the Department's three-lift soil handling publication ARM-LWR-294 for additional information.

4) The Department recommends that the landowners or farm operators with a CREP or CRP agreement consult with their local FSA contact and discuss the impacts of the proposed project to determine what information is necessary to share with the ANR in order to maintain compliance with CREP or CRP agreements, as well as to receive any necessary FSA authorizations or approvals.

5) The Department recommends that agricultural landowners work with ANR to discuss agricultural practices that may be impacted by the project and provide a list of and contact information for land operators, renters or tenants that ANR may reach out to for a complete understanding of these practices.

6) The construction of a new pipeline is a non-conforming land use on lands subject to an effective farmland preservation agreement according to Wis. Stat. § 91.62(1)(c). For agricultural lands covered by an effective FP agreement, where a non-conforming land use is planned, landowners are required to release the affected lands prior to the initiation of the non-conforming land use. Landowners should contact the Department to release affected agricultural lands from an effective FP agreement.

7) Landowners with conservation easements within the ROW should consult with the conservation program provider to determine if any effects will occur due to the land's alteration or removal from the contract. If the landowner is charged a fee for removing or altering the land within the conservation easement, the landowners should contact the ANR staff member, as designated by ANR, responsible for handling compensation for release of lands from conservation programs.

8) Landowners who are aware of any SWRM cost-shared practices on their farm within the proposed Project area should consult with the County Land Conservation Department to determine 1) the compatibility of the proposed ROW easement with the existing conservation practice and 2) if any effects will occur due to alteration of a practice during construction activities.

9) Landowners concerned about potential impacts to their agricultural land should keep records of the conditions of the ROW before, during, and after construction, including field moisture conditions, historic presence/absence of ponded water prior to the start of construction for post-construction comparisons, crop yield records and photographs taken every season.

10) Landowners should fully describe and discuss property improvements and agricultural operations with appraisers so the appropriate value of the affected property is established.

11) Prior to the start of construction, landowners should identify for ANR where construction activities may interfere with farm operations, farm building/facilities or farming infrastructure including but not limited to drain tiles, wells, watering systems, drainage ditches, drainage tile, culverts, fencing, farm access roads, or grain bins.

12) Affected farmland owners should inform any associated tenant agricultural operators if an easement has or will be obtained by ANR on the land they rent, regardless if by judicial offer or voluntary negotiation.

AGRICULTURAL IMPACT STATEMENT

1. INTRODUCTION

The Wisconsin Department of Agriculture, Trade and Consumer Protection ("Department") has prepared Agricultural Impact Statement ("AIS") 4653 in accordance with Wis. Stat. §32.035 for a natural gas pipeline proposed by the ANR Pipeline Company ("ANR"). ANR is a subsidiary of TC Energy. The proposed pipeline project (referred to as "ANR Heartland Project" or "the Project") is located in Wisconsin and Illinois. In Wisconsin, the Project travels through central and southeastern portions of the state as shown in Figure 1. ANR has indicated the primary reason for the Project is to increase capacity to support the electric grid reliability by providing a consistent and reliable fuel source for power generation, especially during disruptions such as extreme weather events. The pipeline will also aid in providing power during the transition from relying on coal-fired power generation to renewable energy sources in the region (DATCP, 2025a).

According to Wis. Stat. §32.035, the AIS is designed to be an informational and advisory document that describes and analyzes the potential effects of a proposed project on agricultural operations and agricultural resources, but it cannot stop a project. The Department is required to prepare an AIS when the actual or potential exercise of eminent domain powers involves an acquisition of any interest in more than five acres of land from any agricultural operation. The term agricultural operation includes all owned and rented parcels of land, buildings, equipment, livestock, and personnel used by an individual, partnership, or corporation under single management to produce agricultural commodities.

The AIS reflects the general objectives of the Department in its recognition of the importance of conserving vital agricultural resources and maintaining a healthy rural economy. The Department is not involved in determining whether or not eminent domain powers will be used or the amount of compensation to be paid for the acquisition of any property.

ANR has submitted an application for a Certificate of Public Convenience and Necessity (CPCN) to the Federal Energy Regulatory Commission (FERC) to obtain approval to construct the Project. The FERC has assigned the Project FERC Docket ID: CP25-79-000, which can be followed within the FERC eLibrary Filing System. The FERC will analyze the need for the project and the potential environmental and community impacts in an Environmental Assessment (EA). In addition, the FERC will receive testimony and hold hearings to further assess the impacts of this project. Afterwards, the FERC will approve, modify, or deny ANR's proposed project. Construction on the project cannot begin before ANR receives a CPCN from the FERC, as well as permits and approvals from other regulatory entities.

As established under Wis. Stat. §32.035(4)(d), if ANR intends to actualize its powers of condemnation in Wisconsin at any point during the project through a jurisdictional offer(s), ANR

may not negotiate with an owner or make a jurisdictional offer until 30 days after the agricultural impact statement has been published. If ANR deviates from the selected alternative or the selected sites within Wisconsin, ANR shall re-notify the Department. The Department shall review the re-notification for new potential impacts to agricultural lands and may determine to generate an addendum to this AIS.

Should ANR actualize its powers of condemnation for this acquisition, information on the appraisal and compensation process under eminent domain is provided within Appendix E. The full text of Wis. Stat. §32.035 is included in Appendix F. Additional references to statutes that govern eminent domain and condemnation processes and other sources of information are also included in Appendices E and F.

2. PROJECT DESCRIPTION

2.1. Project Summary

ANR has provided the Department with an agricultural impact notification (AIN) and requested spatial materials for analysis for the proposed project (DATCP, 2025a). The AIN and materials from ANR serve as the main reference documents for the Project. The proposed project route represented here is ANR's proposed route, but the route may still be subject to minor changes by ANR. As the scope of Wis. Stat. §32.035 is limited to agricultural impacts, this analysis will only examine and evaluate the aspects of the Project that affect agricultural lands within Wisconsin. A full list of the impacted acres for each agricultural landowner is provided in Appendix A, Table 1.

2.2. Federal Energy Regulatory Commission (FERC)

As an interstate natural gas pipeline project, the U.S. Federal Energy Regulatory Commission ("FERC") holds regulatory decision authority over the Project. ANR must obtain permission from FERC through the granting of a Certificate of Public Convenience and Necessity ("CPCN") before ANR can construct the project. ANR submitted their application for a CPCN to FERC in March 2025 and FERC assigned docket number CP25-79-000 to ANR's application, which can be followed on FERC's online *eLibrary* at https://elibrary.ferc.gov/eLibrary/search.

Through a pre-application filing process, FERC evaluated the scope of potential environmental impacts from the Project and determined to prepare an Environmental Assessment ("EA"). The EA process allows FERC to analyze the need for the Project and the potential environmental and community impacts caused by it. During the time of analysis for AIS 4653, the EA was in the process of being drafted and reviewed. When complete, FERC will publish the EA for the Project to the *elibrary* under docket number CP25-79-000. FERC will also receive testimony and hold hearings to further assess the impacts of this Project as part of the CPCN process. At the conclusion of the CPCN process, FERC will either approve ANR's application as presented, approve the application

with modifications, or deny the application to construct the proposed Heartland Project. Should FERC grant a CPCN, ANR still cannot construct the project until it receives all other Federal and State permits and approvals. As a state level regulator, the Department has participated with FERC throughout the EA process as a cooperating agency.

2.3. Project Purpose

ANR has indicated the primary reason for the Project is to increase capacity to support the electric grid reliability, especially during disruptions such as extreme weather events. The pipeline will additionally aid in maintaining required power supply during the transition from relying on coal-fired power generation to renewable energy sources (DATCP, 2025a).

2.4. Project Location

In Wisconsin, the proposed Project occurs within 5 counties and 8 municipalities, as seen in Table 1 below. The route generally occurs across eastern Wisconsin as shown in Figure 1.

Table 1: Wisconsin Counties and Municipalities Impacted by ANR's Heartland Project.

Pipeline Facility	County	Municipality Type	Municipality Name
Segment PL-3*	Waukesha	City	New Berlin
Segment PL-4*	Sheboygan	Town	Scott
Segment PL-4*	Sheboygan	Town	Mitchell
Segment PL-4*	Sheboygan	Town	Lyndon
Above Ground Facility - Pulaski CS	Brown	Town	Pittsfield
Above Ground Facility - Rochester MS	Racine	Village	Rochester
Above Ground Facility - Sheboygan Falls MS	Sheboygan	Town	Sheboygan Falls
Above Ground Facility - Menasha MS	Winnebago	Town	Neenah

*also includes minor, aboveground facilities described in Section 2.5 Project Design.
Abbreviations: MS = Metered Station; CS = Compressor Station

2.5. Preferred Project Design

The ANR Heartland Project includes both new construction and rebuild of existing pipeline and development of new construction or modifications to existing compressor and meter stations.

Mainline 301 or Segment PL-3 consists of replacement and upsizing of approximately 1.5 miles of the existing ANR Line 301 in the City of New Berlin, Waukesha County. This portion of Line 301 pipeline diameter consists of 18-inch and 20-inch diameter pipes and are proposed to be replaced with 30-inch diameter pipeline (DATCP, 2025a). The Two River Lateral Loop or Segment PL-4, consists of the installation of approximately 8.1 miles of new 12-inch diameter pipeline loop next to the existing ANR Line 380 in the towns of Scott, Mitchell and Lyndon in Sheboygan County (DATCP, 2025a).

The Project also proposes the construction or modification of one compressor station and three meter stations, as well as aboveground appurtenance facilities associated with PL-3 and PL-4 (see Section 2.5.2 Above Ground Facilities for additional details).

The Project also proposes the construction of Segments PL-1 and PL-2, the construction of the other two new compressor stations, the modification of one existing compressor station, and the construction of two new meter stations. However, as these aspects of the project are located within Illinois and are outside of the purview of the Department, they will not be discussed further within this AIS. Additionally, the analysis within this AIS will focus on Project elements that propose to affect agricultural land.

2.5.1. Pipeline Installation Methods

For segment PL-3, approximately 1.5-mile-long portion of the existing ANR Line 301 will be replaced and upsized. For 0.8 miles of this segment, the pipeline replacement will involve excavating the existing pipeline, removing the existing pipeline from the ground and install the new pipeline in the same trench in what is a called a "lift-and-lay" approach. ANR denoted that this approach is feasible along a portion of this segment where ANR operates adjacent, co-located pipelines with shared ROW. Energy supply through the pipeline will not be impacted during construction as it is possible to temporarily divert existing natural gas deliveries to other pipelines in the area (DATCP, 2025a). The remaining 0.7 mile portion of Segment PL-3 will be installed with horizontal directional drilling (HDD) that allows ANR to avoid industrial and residential areas, a railroad, a trail and high-voltage powerlines. Once the new pipeline is placed, the existing pipeline will be retired from service and abandoned in place (DATCP, 2025a).

For Segment PL-4, ANR proposes to install approximately 8.1 miles of new pipeline parallel to the existing ANR Line 380. As there is only a single pipeline operated by ANR along this proposed segment, ANR denotes that the lift-and-lay installation is not feasible (DATCP, 2025a). The new pipeline will instead be installed adjacent to the existing pipeline for the majority of Segment PL-4, offset approximately 25-50 feet in a method called a "parallel lay". There is one area where the new pipeline will be installed in a new alignment due to restrictions with the existing pipeline's location (Figure 2). ANR denotes this diverging alignment is due to the existing pipeline's proximity to residential development and environmentally sensitive areas, as well as potential engineering limitations (DATCP, 2025a). This new alignment would install a pipeline and require an easement impacting approximately eight acres of land that is indicated within the AIN materials to be in agricultural use.

In agricultural lands, trench depth should be deep enough to allow a minimum of 4 feet of soil cover over the top of the pipeline to avoid possible interference with farming equipment. Within the AIN materials, ANR discusses that typical trench depth will range from 4 to 10 feet deep, though ANR denotes that the depth will be increased in some agricultural lands based on site-specific

landowner or agency depth requirements (DATCP, 2025a). In some areas where there are obstacles or shallow bedrock, the excavated trench may need to be deeper and wider. No blasting activities are proposed for the Project due to the proximity to natural gas pipelines currently in operation. In the event bedrock is encountered within the trench, ANR will remove it using mechanical methods such as hammering and ripping (DATCP, 2025a). For a general overview of the typical construction practices used to install a natural gas pipeline, please read the Department's Natural Gas Pipeline Construction Process publication ARM-LWR-562 available at agimpact.wi.gov.

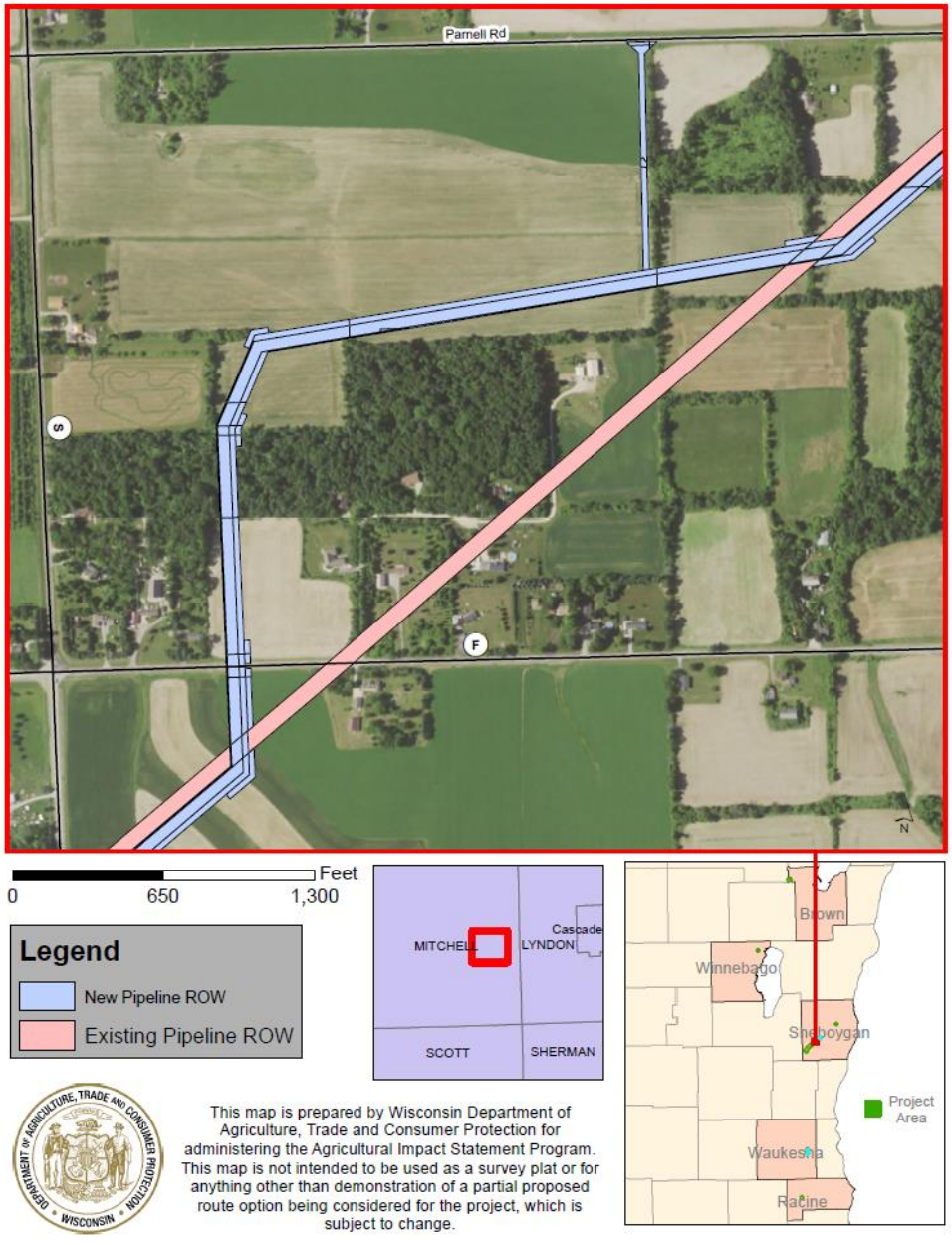

Figure 2: Segment PL-4 where proposed pipeline diverges from paralleling existing pipeline location.

2.5.2. Above Ground Facilities

Within Wisconsin, there are four aboveground station facilities where construction or modifications are proposed as part of the project:

- Construction of the new Pulaski Compressor Station in Brown County
- Modifications are planned to occur at the following existing facilities:
    - Menasha Meter Station in Winnebago County
    - Sheboygan Falls Meter Station in Sheboygan County
    - Rochester Meter Station in Racine County

Of these facilities, the Pulaski Compressor Station is proposed to affect approximately twenty-three acres of agricultural land and the Rochester Meter Station is proposed to affect approximately three acres of agricultural land (Table 2).

Table 2: Agricultural Land Impacted by Aboveground Station Facilities.

Segment ID	Landowner Name	Parcel State ID	Impacted Acres
Pulaski CS	DOUGLAS M HOLEWINSKI	009PI-537	0.0032
	LARDINOIS FARMS I INC	009PI-536-2	3.65
	WILLIAM & PATRICIA LARDINOIS, ETAL	009PI-540	16.50
	WILLIAM A & PATRICIA M LARDINOIS, ETAL	009PI-539	2.87
Pulaski CS Total			23.02
Rochester MS	DANIEL E MEIER	101176031901007000	2.13
	DANIEL E MEIER	101176031912003000	0.013
	HEIDI M MEIER	101176031901007002	0.92
Rochester MS Total			3.06
Grand Total			26.08

Segments PL-3 and PL-4 have associated, minor aboveground appurtenance facilities as well. These changes include:

- The installation of a new Launch/Receiver (LR) facility at the exiting Milwaukee MS, along Segment PL-3, to be called LR-PL3-1.
- Modifications to an existing mainline valve located at the existing Milwaukee point of delivery along Segment PL-3.
- The installation of a new LR at the existing Sod Farm LR site, along Segment PL-3, to be called LR-PL3-2.
- The installation of a new LR at the existing Kewaskum CS, along Segment PL-4, to be called LR-PL4-1.
- The installation of a new LR at a greenfield site, along Segment PL-4, to be called LR-PL4-2.

Table 3: Agricultural Land Impacted by Minor Aboveground Appurtenance Facilities

Segment ID	Easement Type	Landowner Name	Parcel State ID	Impacted Acres
PL-3	New Permanent Easement (ROW)	MICHAEL J WISTL	133NBC 1166999004	0.046
	Work in Existing ROW (ROW)	MICHAEL J WISTL	133NBC 1166999004	0.063
PL-3 Total				0.11
PL-4	New Permanent Easement (ROW)	DAVID I FORD	11759010124910	0.0053
			11759010124920	0.080
	Work in Existing ROW (ROW)	DAVID I FORD	11759010124910	0.028
			11759010124920	0.12
PL-4 Total				0.23
Grand Total				0.34

2.5.3. Project Design Alternatives

ANR considered three other design alternatives: 1) a greenfield pipeline in lieu of the proposed pipeline 2) a pipeline-only alternative with no compression and 3) a compression-only alternative with no pipeline (DATCP, 2025a). ANR did not choose any of these design alternatives as analysis indicated that the alternatives did not result in materially less environmental impact than the proposed Project while still meeting the Project's purpose and need.

2.6. Project Right-of-Way (ROW)

Throughout the proposed project corridor, ANR proposes to use a 50ft-wide construction ROW. A majority of Segment PL-3's construction ROW will be located within ANR's existing permanent easement, while almost the entirety of Segment PL-4's construction ROW would require new permanent easement of 50 feet in width. All areas of the construction ROW will be restored to pre-existing conditions following construction.

For pipeline facilities portions of the Project, temporary workspace will be used for additional temporary storage of equipment and materials. Temporary workspace will be located within existing permanent easements and temporary easements.

2.7. Project Schedule

According to the AIN and pending issuance of all state and local permits, ANR plans to begin project construction as early as mid-2026 and anticipates that all facilities will be in service by November 2027 (DATCP, 2025a). Land acquisitions have been ongoing since Fall 2024.

2.8. Alternative Routes

ANR designed the proposed route based off of pipeline modeling studies that resulted in suitable and efficient means for delivering natural gas to its customers while placing the new loop and replacement pipelines adjacent to existing pipelines.

During the planning process, ANR denoted two areas on Segment PL-4 where existing homes and features made the original route undesirable and considered another route option (Figure 3a and 3b). For both cases, while the proposed route resulted in additional agricultural land impacted (approximately two more agricultural acres overall), ANR's review determined that the reroute to be further from residences and the alternate route not a substantial environmental advantage (DATCP, 2025a).

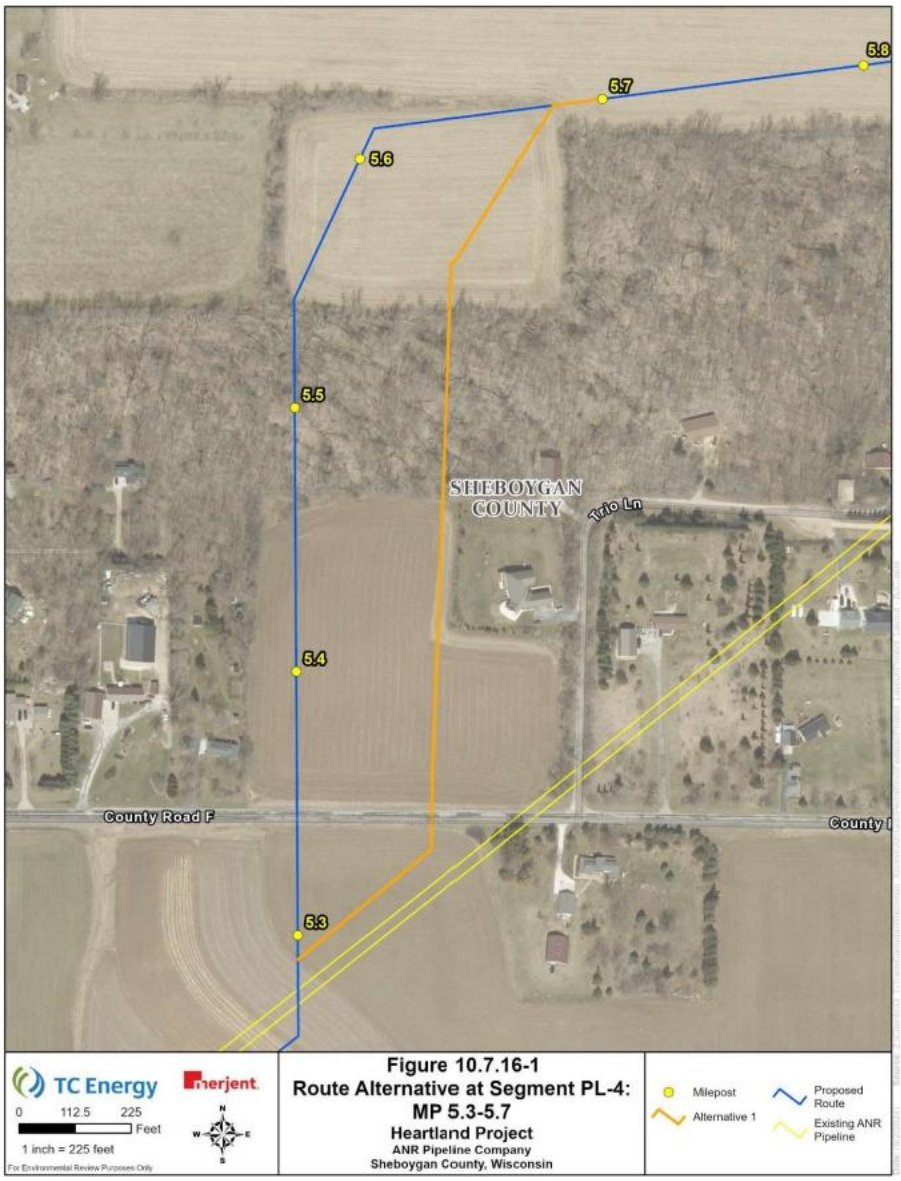

Figure 3a and 3b: Aerial images of route alternatives ANR considered on two different areas of Segment PL-4, ANR 2025a.

2.9. Off-ROW Access Roads

While ANR denoted that it will use existing public roads, private roads and field roads whenever possible, the Project proposes the use of temporary access roads to gain access to the construction work area (Table 4). Some temporary access roads will be existing dirt or gravel roads that will be improved so that they are suitable for construction traffic. ANR denotes that road improvements will be left in place following construction, unless otherwise requested by the landowner (DATCP, 2025a).

Table 4: Access Road Locations Proposed on Agricultural Land by the Project

Landowner	State Parcel ID	Segment ID	Impacted Acres
DANIEL E MEIER	101176031912003000	Rochester MS	0.0025
DANIEL E MEIER	101176031901007000	Rochester MS	0.30
GERLACH TRUST	11759012163760	PL4	0.61
JAMES J EFFERTZ	11759012163620	PL4	0.012
MICHAEL J WISTL	133NBC 1165960004	PL3	0.053
MICHAEL J WISTL	133NBC 1165960005	PL3	0.078
MICHAEL J WISTL	133NBC 1165960006	PL3	0.22
MICHAEL J WISTL	133NBC 1166999004	PL3	0.39
MICHAEL J WISTL	133NBC 1165960009	PL3	0.41

2.10. Staging Areas and Laydown Yards

ANR plans to create eight staging areas to support construction activities (Table 5). These staging areas will provide space for temporary offices, parking, equipment and material storage, and pipe preassembly and staging (DATCP, 2025a). At the time of this AIS analysis, there are no staging areas proposed for aboveground station facilities. ANR denoted that all staging areas will be restored to pre-existing conditions following construction (DATCP, 2025a).

Table 5: Staging Areas Proposed on Agricultural Land by the Project

Landowner	Parcel State ID	Segment ID	Acres Impacted
DAVID I FORD	11759010124910	PL4	0.099
DAVID I FORD	11759010124920	PL4	0.11
MICHAEL J WISTL	133NBC 1166999004	PL3	0.81
SCHLADWEILER PROPERTIES LLC	11759022312150	PL4	11.21

3. AGRICULTURAL SETTING

3.1. Farmland Preservation

Wisconsin's farmland preservation (FP) program provides local governments and landowners with tools to aid in protecting agricultural land for continued agricultural use and to promote activities that support the larger agricultural economy. Lands that are planned for FP by the county and included in a certified zoning district or located within an Agricultural Enterprise Area (AEA) are afforded land use protections intended to support agriculture and are eligible for the farmland preservation tax credit.

Through this program, counties adopt a state-certified FP plan that maps areas identified as important for FP and agricultural development based upon reasonable and objective criteria. Based on the plan, local governments may choose to adopt a FP zoning ordinance or designate AEAs to achieve further land protections and ensure that farmland covered by the plan is eligible for FP tax credits. Such ordinances must be certified and AEAs must be designated by the Department. Landowners who are eligible in either or both AEA and FP zoning areas and claim the tax credit are required to follow the state soil and water conservation standards to protect water quality and soil health.

3.1.1. Farmland Preservation Planning

Brown County

The Department certified Brown County's current FP plan in 2017 for a ten-year period ending in 2027 (DATCP, 2017). The criteria for land planned for FP in Brown County includes areas with soils suitable for agricultural production, lands with historic agricultural or ag-related uses, lands in close proximity to agricultural infrastructure, undeveloped natural resource or open space areas that connect farmland, and excludes areas planned for non-agricultural development in the next 15 years (DATCP, 2017). All towns in Brown County have lands that are planned for FP as part of the county's FP Plan. Approximately 23.02 acres planned for farmland preservation in the county's FP plan are affected by the Project's proposed construction of the Pulaski Compressor Station.

Racine County

The Department certified Racine County's current FP plan in 2024 for a ten-year period ending in 2034 (DATCP, 2024). There are no lands planned for FP in Racine County that are affected by the Project.

Sheboygan County

The Department certified Sheboygan County's current FP plan in 2023 for a ten-year period ending in 2033 (DATCP, 2023a). The criteria for land planned for FP in Sheboygan County includes land with soils suitable for agricultural production, land with historic agricultural or agriculture-related uses, land in close proximity to agricultural infrastructure, land in undeveloped natural resource or open-space uses that connect other farmland, and land that is not planned for development in the next 15 years (DATCP, 2023a). All towns in Sheboygan County have lands that are planned for FP as part of the county's FP Plan. Approximately 51.34 acres planned for farmland preservation in the county's FP plan are affected by the Project's proposed Segment PL-4.

Waukesha County

The Department certified Waukesha County's current FP plan in 2023 for a ten-year period ending in 2033 (DATCP, 2023b). There are no lands planned for FP in Waukesha County that are affected by the Project.

3.1.2. Farmland Preservation Zoning

Establishing FP zoning strengthens farmland protections beyond what an FP plan affords. ANR has applied for a CPCN from FERC, under the authority of Section 7 of the Natural Gas Act. If such certificate is issued, the project will be a permitted use in the FP zoned area under Wis. Stat. § 91.44(f). If a CPCN is not issued, the project will be subject to conditional use regulations in the FP zoned area under Wis. Stat. § 91.46(4) and must meet the requirements listed under Wis. Stat. § 91.46(4)(a)-(4)(e). ANR should consult with all applicable local zoning authorities to identify if additional restrictions apply and to ensure compliance with local zoning regulations.

Brown County

The Town of Pittsfield has adopted town zoning, which includes a certified FP zoning district. The certified FP zoning district for the Town of Pittsfield is the AG-FP zoning district (DATCP, 2017). This zoning district restricts covered lands to agricultural uses and uses compatible with agriculture and is certified to be consistent with the state's FP Law, Chapter 91. If a CPCN certificate is not issued by FERC, impacted parcels zoned AG-FP by the Town of Pittsfield would require a conditional use permit under Wis. Stat. § 91.46(4) for a transportation, communications, pipeline, electric transmission, utility or drainage use, to remain in the district.

Racine County

There are no certified FP zoning jurisdictions located within the Project's proposed area in Racine County.

Sheboygan County

Within Sheboygan County the towns of Lyndon and Scott have adopted town zoning, which includes multiple certified FP zoning districts. The certified FP zoning districts for the Town of Lyndon are the A-1, A-1-RZ, A-1-S and A-PR zoning districts (DATCP, 2023a). The certified FP zoning districts for the Town of Scott are the A-1, A-1-S and A-PR zoning districts (Sheboygan, 2023). These zoning districts restrict covered lands to agricultural uses and uses compatible with agriculture and are certified to be consistent with the state's FP Law, Chapter 91. If a CPCN certificate is not issued by FERC, impacted parcels in these zoning districts would require a conditional use permit under Wis. Stat. § 91.46(4) for transportation, communications, pipeline, electric transmission, utility or drainage use, to remain in the district.

Waukesha County

There are no certified FP zoning jurisdictions located within the Project's proposed area in Waukesha County.

3.1.3. Agricultural Enterprise Areas

AEAs are community-led efforts to establish designated areas important to Wisconsin's agricultural future. This designation highlights the importance of the area for local agriculture and further supports local farmland preservation and agricultural development goals. Designation as an AEA also enables eligible landowners to enter into FP agreements. Through an FP agreement, a landowner agrees to voluntarily restrict the use of his/her land to agriculture for a minimum of ten years (or fifteen years if signed before December 8, 2023) in exchange for eligibility for the farmland preservation tax credit. It is possible that new agreements could be enrolled between the time of this analysis and potential construction of finalized designs related to the project corridor. The Department recommends ANR consult the Department in the year preceding construction regarding the status of effective agreements within the project corridor and for information regarding required releases of land from effective farmland preservation agreements.

A review of the Department's AEA program shows no AEAs in Brown, Racine, Sheboygan or Waukesha counties will be affected by the Project (DATCP, 2025b).

Prior to 2009, owners of eligible farmland could sign 10- to 25-year FP agreements outside of AEA boundaries. There are no effective pre-2009 FP agreements located in Brown, Racine, Sheboygan or Waukesha counties.

3.2. Drainage Districts

Drainage districts are local governmental entities governed under Wis. Stat. Ch. 88 and organized under a county drainage board for the primary purpose of draining of lands for agricultural use (DATCP, 2021). Landowners who benefit from drainage pay assessments to cover the cost to construct, maintain, and repair the district's drains. According to the Department, approximately 190 active districts exist within 27 of Wisconsin's 72 counties.

A review of the Department's Drainage Program database indicates that no drainage districts will be directly impacted by the Project.

3.3. Conservation Programs

Voluntary conservation programs such as the USDA Conservation Reserve Enhancement Program (CREP) and the USDA Conservation Reserve Program (CRP) are financial incentive programs to

help agricultural landowners meet their conservation goals. The USDA and the Department jointly administer the CREP program in Wisconsin.

It is the responsibility of the landowner to maintain their CREP or CRP agreements, and they can work with the ANR to maintain this compliance. The Department recommends that the landowners or farm operators with a CREP or CRP agreement consult with their local FSA contact and discuss the impacts of the proposed project to determine what information is necessary to share with the ANR in order to maintain compliance with CREP or CRP agreements.

3.3.1. Conservation Reserve Enhancement Program (CREP)

The CREP program pays eligible agricultural landowners enrolled within the program to install filter strips along waterways or to return continually flooded fields to wetlands while leaving the remainder of the adjacent land in agricultural production. To be eligible for CREP payments, a recipient must have agricultural lands in crop production that are within 150 ft of a stream or water body or 1,000 ft from a grassland project area (DATCP, 2019).

A review of the Department's CREP records indicates that as of June 2025, the Project will not encroach upon any effective agreements or easements in Brown, Racine, Sheboygan or Waukesha counties.

While the Department did not identify agreements within the Project area at this time, there is a chance that new agreements can appear prior to or during the construction phase. The Department advises the ANR to:

- Work with landowners to identify effective CREP agreements prior to any construction or site disturbance activities.
- Coordinate with the appropriate Wisconsin CRP contact regarding effective CRP contracts within the project area and coordinate with FSA regarding impact mitigation to CREP enrolled lands and/or potential contract (CRP-1) releases within 12 months of expected construction or site disturbance activities.
- To limit situations of CRP-1 contract termination, limit site disturbance of CRP/CREP to times outside of the Primary Nesting Season (May 15th to August 1st).
- Consult with the Department as soon as possible, ideally 12 months, prior to any construction or site disturbance activities to determine the impact of the selected route on any CREP easements consult with the Department on impacts to any state agreements that may require termination and repayment of funds. If any portion of the CRP-1 contract is terminated by USDA-FSA, the corresponding area under the state CREP agreement must also be terminated. Termination of any part of a CREP agreement requires repayment of any funds issued to the landowner under the terms of the agreement.

3.3.2. Conservation Reserve Program (CRP)

The CRP program is a land conservation program administered by the Farm Service Agency of the USDA. In exchange for a yearly rental payment, eligible agricultural landowners enrolled in the program agree to remove highly erodible land from agricultural production and plant resource-conserving plant species such as grasses or trees that will improve environmental health and quality (USDA, 2022). Eligible agricultural landowners must possess lands with the potential for long-term improvements to water quality, prevent soil erosion or establish beneficial wildlife habitats according to the USDA Environmental Benefits Index (USDA, 2022). CRP enrollment information is privileged to the USDA and CRP program participants. The Department is therefore unable to determine if any of the impacted agricultural parcels are enrolled within the CRP program, unless landowners voluntarily share this information with the Department.

Of the seven responses to the Department's pre-construction questionnaire, one of the landowners impacted by the project included that part of their land is enrolled within CRP.

The Department advises ANR to:

- Work with landowners to identify effective CRP agreements prior to any construction or site disturbance activities.
- Coordinate with the appropriate Wisconsin CRP contact regarding effective CRP contracts within the project area and coordinate with FSA regarding impact mitigation to CRP enrolled lands and/or potential contract (CRP-1) releases within 12 months of expected construction or site disturbance activities.

3.3.3. Managed Forest Law (MFL)

The MFL program is a voluntary sustainable forestry program administered by the Department of Natural Resources (WisDNR) under subch. III of ch. NR 46. In exchange for reduced property taxes eligible landowners commit to a 25-50 year sustainable forest management plan on their privately owned woodlands. Sustainable forestry practices such as harvesting mature timber according to sound forest management practices and reforestation and afforestation of land to meet the size and density requirements are required in enrolled landowner's management plans. Land with buildings or improvements associated with buildings are not eligible for MFL. Exceptions such as utility right of ways are permitted such that the project and its ROW will not interfere with future or current MFL eligibility (WisDNR, 2017).

The Department recommends that all landowners review potential implications of the Project's proposed area to their MFL enrolled lands. Impacted landowners should visit the WisDNR Forestry Assistance Locator website https://apps.dnr.wi.gov/fal to find their local DNR Tax Law Forestry Specialist and discuss the implication of the route to their MFL enrolled lands.

A review of statewide parcel data indicates that the Project will not impact lands enrolled within the MFL program.

3.3.4. Purchase of Agricultural Conservation Easement Programs

The 2009 - 2011 State of Wisconsin budget authorized the state Purchase of Agricultural Conservation Easement (PACE) Program under Wis. Stats. § 93.73, which is intended to provide matching funds to assist local governments and non-profits with the purchase of permanent agricultural conservation easements. The intent of the PACE program is to preserve agricultural land of significance at risk of development and to provide an additional layer of permanent protection to certified FP planned areas and designated AEAs. Post PACE acquisition, the partnering local entity and the Department co-hold the agricultural conservation easement voluntarily purchased from landowners. At the time of this analysis, the state's PACE Program is not currently funded or accepting new applications. However, the state holds 17 PACE easements. A review of the Department's PACE Program shows the Project would not impact any state-held PACE easements.

Counties and private non-governmental organizations such as land trusts may also hold agricultural conservation easements. Based on a review of publicly available online resources, the Department could not find any record of a county held or non-governmental organization held agricultural conservation easement that would be impacted by the Project (NCED, 2025). There may be other public or private conservation easements that were not identified within the federal database that DATCP reviewed. DATCP recommends that ANR works with the landowners to verify if there are other conservation agreements that have not yet been identified

3.3.5. Soil and Water Resource Management Grant Program (SWRM)

The state has a SWRM program with goals including enhancing surface and groundwater protections, providing financial and technical assistance for locally led conservation and addressing soil and water resource concerns. Through the SWRM Program, the Department allocates funds to County Conservation Departments to facilitate landowner cost-share for installation of conservation practices. When a cost-share contract is issued under Wis. Stat. §92.14, a landowner and or grant recipient agrees to install and maintain the conservation practice according to an operation and maintenance plan.

Landowners who are aware of any SWRM cost-shared practices on their farm within the proposed Project area should consult with the County Land Conservation Department to determine 1) the compatibility of the proposed ROW easement with the existing conservation practice and 2) if any effects will occur due to alteration of a practice during construction activities.

ANR is advised to consult the applicable County Land Conservation Department on the existence of installed SWRM conservation practices within the Project area. Practices that are not maintained in accordance with the terms of the contract operation and maintenance plan may be subject to repayment of cost-shared funds. If a landowner is required to repay any cost-share funds because a construction impact resulted in a violation of the SWRM contract, the landowners should contact the ANR staff member, as designated by ANR, responsible for handling compensation for release of

lands from conservation programs. The landowner should be compensated for any termination of SWRM grant contract resulting from a construction impact.

4. AGRICULTURAL IMPACTS

In addition to being a key component of Wis. Stat. §32.035, documenting the agricultural impacts of a project provides the ANR and the agricultural landowner the opportunity to better understand the project in its own right as well as learn how the project will impact agriculture. Furthermore, the documentation of agricultural impacts by agricultural landowners and operators creates the opportunity for them to consider alternatives that may reduce impacts to agricultural lands. To promote the opportunity for alternatives, the Department has used information provided by ANR for this AIS and information gathered from agricultural landowners to analyze the potential agricultural impacts of the Wisconsin portion of the ANR Heartland Project in Brown, Racine, Sheboygan, Waukesha and Winnebago Counties. The analysis of the agricultural impacts and conclusions drawn from it form the basis of the Department's recommendations within the AIS Recommendation Section above.

4.1. Landowner Rights

Before constructing the Project, ANR will be acquiring easement contracts for permanent ROW and temporary construction areas. These easement contracts grant the utility the right to construct, operate, maintain, inspect, and repair the pipeline. According to Wisconsin Statute § 196.745, the utility is required to maintain the natural gas pipeline in an adequate and safe manner. All vegetation will be removed from the easement for construction of the pipeline. In addition, maintenance of the in-service pipeline will require continuing management of vegetation that grows within the easement. The type of vegetation that is allowed to grow within the easement and how vegetation is maintained are all subject to the easement contract. Regarding liability, the landowner is not liable for the construction, operation, maintenance, or repair of the pipeline, provided the landowner has not damaged any project facilities. Additional information about the appraisal and compensation process is included in Appendix E: Appraisal and Compensation Process.

After the easement is acquired by the utility, the easement seller still owns the land. Furthermore, no member of the public, other than utility employees or representatives, have access to the easement without the landowner's permission. Under normal conditions, utilities typically make every effort to notify landowners before they anticipate accessing the easement. In emergency response situations, the utility has the right to access the easement without permission from the landowner. The easement contract will contain all specifics regarding access, rights, responsibilities, and liabilities and should be thoroughly reviewed by the landowner prior to signing.

4.2. Agricultural Land Acquisitions & Easements

In order to implement the proposed Project within Wisconsin, ANR will affect approximately 122 acres of agricultural land based on the selected route, access roads and laydown yards. ANR already holds easements for a portion of these affected agricultural lands. For the remaining agricultural lands, ANR plans to use a combination of temporary and permanent easements to obtain the necessary rights to construct the Project. The Department analyzed all impacted agricultural lands, regardless of the lands' current easement status, for the proposed Construction Project.

The Department attempted to contact 39 agricultural landowners and agricultural tenant operators impacted by the Project routes who had any agricultural impacts as shown in Appendix A – Table 1. The following section relays the feedback and comments received from stakeholders and agricultural landowners through the Department's efforts. The information obtained helped form the basis of the Department's analysis of agricultural impacts to specific agricultural landowners and agricultural landowners in general. ANR has also engaged in a public outreach campaign in the affected area to gather public and stakeholder input, however this information was not included within the AIN.

Agricultural tenant operators impacted by the Project may be eligible for a farm replacement payment from ANR in accordance with Wis. Stat. §32.19(4m)(b) if ANR exercises the powers of eminent domain through a jurisdictional offer to the agricultural property owner. A voluntary sale between ANR and an agricultural property owner, after a jurisdictional offer has been made, would not negate the potential for a farm replacement payment.

4.3. Agricultural Landowner Concerns

To gather additional information about the project's impact to agricultural lands and farm operations, the Department attempted to contact all 39 agricultural landowners impacted by the Project as shown in Appendix A – Table 1.

In total, the Department mailed 39 surveys. Agricultural landowners were given the opportunity to respond by mail or call the AIS program manager to give a verbal response. A total of 9 agricultural landowners responded, resulting in a response rate of 23%.

The majority of the respondents (8 of the total 9 landowners, or 89%) reported their agricultural operations consisted of cropland. Of the total respondents, 11% or 1 landowner cited that the impacted parcels had pastureland, 22% or 2 landowner cited that they were managed woodlands, and 11% or 1 landowner cited that their impacted parcels had idle land. Four respondents (56%) also indicated their agricultural operations possessed livestock and farm animals, including dairy cattle, replacement dairy cattle, beef cattle, sheep/goats, poultry and horses.

When asked to select any of the concerns shown in Figure 4 about the Project, the primary concern identified by respondents was crop yield (Figure 4). Respondents were also concerned about impacts related to erosion control, fencing, access, grassed waterways, residence or buildings, soil productivity and health, firewood and other (established trees being removed) as shown in Figure 4.

Agricultural landowners were also asked to indicate if they participated in any conservation or agricultural programming including FP agreements, FP zoning, CREP, CRP and MFL. One respondent indicated that they have land enrolled in the CRP program. Respondents did not report participation in FP, FP zoning, CREP, MFL or any other conservation or agricultural program.

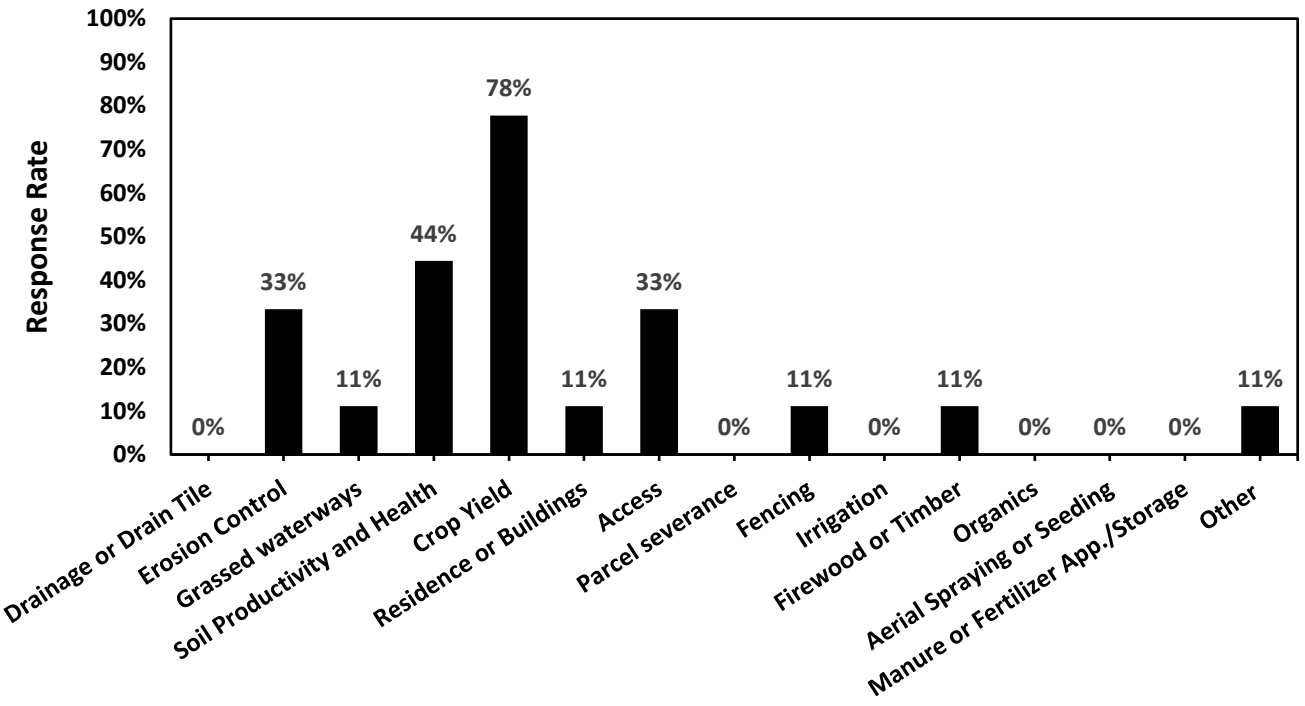

Figure 4: Landowner concerns resulting from the proposed Project.

The Department also requested agricultural landowners report the current land use within the proposed Project ROW, as shown in Figure 5. The most common (67% of respondents) land use reported within the Project ROW was cropland. Crop Production is defined as an "Agricultural use" under Wis. Stat. § 91.01(2) if it's conducted for the purpose of producing an income or livelihood. Beyond cropland, managed woodlands (with 22%), idle land (11%) and pasture (11%) made up the remaining land use types reported within the project area, as shown in Figure 5.

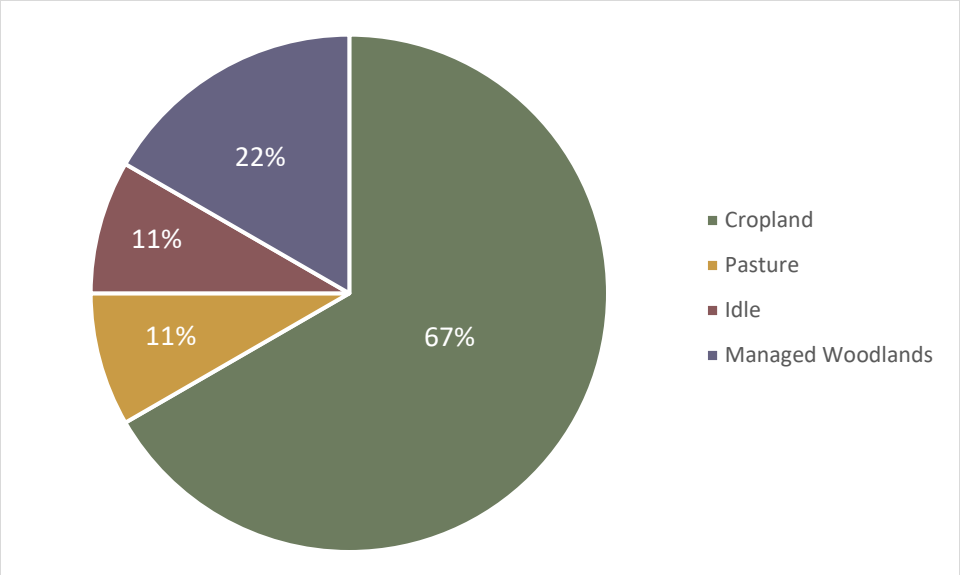

Figure 5: Land use within the proposed Project area as reported by pre-construction questionnaire respondents.

4.3.1. Landowner Concern Conclusions

After reviewing and analyzing agricultural landowner responses obtained from the Department's pre-construction questionnaire surveys, the Department has identified the following priority areas of agricultural landowner concerns: crop yield, soil productivity and health, access and erosion control (Figure 4). Landowners were primarily concerned about soil health, access and crop losses. There was also concern about nearby property values being devalued.

Some landowners shared concerns unique to their property that were not captured within the Department's general analysis in Figure 4. For example, Anthony and Diane Schauble expressed concerns with livestock wellbeing during construction as it may cause disruption in the operations, reconfiguring of fences and disturbing the animals with construction dust and noise. The Department recommends that landowners with concern for impacts to livestock and livestock-related structures posed by the Project review Section 5.4.2 "Fencing", 5.5.2 "Feed Supply and Dairy Operations", and 5.7.2 "Construction Noise and Dust" regarding ANR's associated BMPs and the Department's relevant recommendations.

Kathleen Schneider expressed concerns about the loss of firewood from a mature hardwood forest that Schneider indicated was within the proposed area. The Department recommends that landowners with concern for loss of managed forest posed by the Project review Section 5.5.3 "Managed Forest Law, Trees and Other Woody Vegetation" regarding ANR's associated BMPs and the Department's relevant recommendations.

Daniel Kraemer indicated that there is a gravel base or layer beneath all of his farmland. Kraemer is concerned that construction activities have the potential to bring rocks to the surface, which

would impair the use of agricultural equipment in the area. Additionally, Kraemer expressed concerns that he would not be able to crop the north-west corner of his land during pipeline construction. Kraemer denoted that he would likely need a bridge or other form of access point provided by ANR in order to access the land there to crop during pipeline construction or otherwise require compensation for crop loss beyond the land within proposed easements, as construction activities would affect his ability to tend aspects of his field. The Department recommends that landowners with concerns of increased soil rock content caused by the Project review Section 5.3.2 "Increased Soil Rock Content" regarding the Department's relevant recommendations.

The Department also recommends mitigation efforts to reduce as much potential impact as possible beyond what ANR cites in their Agricultural Mitigation Plan. Please refer to Section 5: *Agricultural Impact Mitigation* for additional agricultural mitigation practices.

4.4. Severance, Access and Wasteland

The acquisition of agricultural property can result in agricultural parcel severance, removal of existing field access points and potentially the creation of wastelands and uneconomic remnant parcels. The circumstances (i.e. loss of access, severance, wasteland etc.) surrounding the impacts to each remnant agricultural parcel are unique, thus some agricultural parcels may remain economically viable, while others may not. The following analysis will document the potential for severance, loss of access and potential creation of wastelands and uneconomic remnant parcels for agricultural lands impacted by the Project.

4.4.1. Severance

Severance may be a physical barrier such as a road or non-physical barrier such as land use restrictions. Regardless of the means, severing an agricultural parcel effectively splits the existing parcel into two or more smaller parcels. Severing an agricultural parcel may also remove existing access points, create agricultural wastelands or uneconomic remnant parcels, or divide the operation of a farm or potential result in farmland conversion. Under Wisconsin's Eminent Domain Statute, compensation for damages resulting from severance is described in Wis. Stat. § 32.09(6).

The Project consists of two elements: 1) of building or reconstructing pipeline 2) new permanent access roads, compressor or meter stations. For the first project element, agricultural land within the project area can create a temporary physical barrier during construction as land is trenched for pipeline installation. After construction of the pipeline, ANR intends to restore land to pre-existing conditions to the degree possible and the land is anticipated to go back into agricultural production (DATCP, 2025a). For the second project element, the permanent use of the land for facilities and access roads would result in a loss of land used for agricultural production and a conversion to developed or open land types. ANR would compensate landowners for crop losses in accordance with the terms of individual landowner agreements (DATCP, 2025a). In the Project's AMP

(Appendix B), the project initiator has adopted management practices to mitigate site access issues that may result from construction (DATCP, 2025a).

In the AIN submitted to the Department, the project initiator did not identify any agricultural parcels projected to be severed by the proposed project. However, the Department performed a visual inspection of 2024 parcel data which suggests that agricultural parcels within the proposed ROW may be severed during construction, but not necessarily divided into two equal parts, by the construction of the proposed project (Table 6). Impacts of severance during construction may include access limitations to an existing access/field road within parcels as discussed in Section 4.4.2 Access.

Aligning the route with field boundaries to the degree possible can reduce the potential to sever an agricultural parcel. Post-restoration, many pre-existing agricultural land uses should be able to return, which further reduces the potential for permanent severance. The impacts of parcel severance may include crop damage, field access issues or loss amongst others. During the pre-construction phase, landowners concerned about the impacts of parcel severance should communicate the location of property improvements such as structures, field access points drain tile or installed conservation practices; existing certifications (organic, etc.); management of livestock including the location of existing fencing within the project ROW; plans to spread manure or other organic material on lands within the proposed project ROW with the project initiator. This information will assure that construction may proceed in accordance with applicable mitigation practices identified in the project Agricultural Mitigation Plan to minimize the effects of parcel severance and impacts to agriculture (Appendix B) which includes practices for: restoration of fencing, repair of severed drain tile, repair of existing erosion control facilities etc..

Post-construction, the Project Initiator will impose certain land use restrictions within the ROW that will prevent the construction of agriculturally related buildings and the growth of some agricultural commodities such as trees or other woody plants. While agricultural landowners can still access these lands, they may be prohibited from continuing a pre-existing land use within the ROW such as MFL, maple syrup production, Christmas tree production, etc. In these situations, land use restrictions create a non-physical barrier to agricultural production. Essentially, land use restrictions have the potential to sever a proportion of an agricultural parcel that may no longer contribute to an agricultural operation. Details of landowner/operator concerns are provided in Section 4.3.

Where the proposed Project impacts forested land, the Department recommends ANR utilize the mitigation efforts described in Section 5.5.3 "Managed Forest Law, Trees and Other Woody Vegetation" to mitigate impacts to managed forests and preserve continuous tracks of managed forests where possible.

Table 6: Agricultural parcels, which may be severed by the proposed pipeline by landowner of record and Parcel ID (2024 Parcel Data).

Agricultural Landowner	Parcel Number
ANTHONY SCHAUBLE	59022310900
CALVIN J SCHWABENLENDER	59022311053
CHRISTOPHER C TRAPP	59022312040
DANIEL KRAEMER	59010124710
DAVID I FORD	59010124920
DAVID SHAVER	59010124615
DIRK E DENZIN	59010124623
DONALD V SCHNEIDER	59022312270
GERALD RENTMEESTER	59010124732
GERLACH TRUST	59012163760, 59012163780
HICKORY LAWN DAIRY FARM INC	59012164740, 59012168520, 59012168900, 59012168960, 59012169000, 59012169080, 59012169100
JACOB D RENTMEESTER	59012168744
JAMES A CURTES	59022312170, 59022312201
JAMES J EFFERTZ	59012163620
KRYSTAL K SCHMIDT	59022311070
KURT R MARQUARDT	59012163600, 59012163640
MICKEY B DOHERTY	59010124722
NEUMANN TRUST	59012168721
NICHOLAS W KLEIBER	59022311012, 59022311052
P&Q EAST OF WINNEBAGO LLC	59022310930, 59022310950
ROBERT K BLAIR	59022312050
ROBERT W SCHULTZ	59010124593
RONALD E BECKER LIVING TRUST OF 1997	59012168800
SCHRAUFNAGEL IRREVOCABLE TRUST 08-29-2023	59022311011, 59022312160
SHAWN THOMAS	59012163560
WAYNE J AND SUSAN L GERLACH LIVING TRUST DTD 3-8-2006	59012164060, 59012164760
WILLIAM G O'REILLY	59012168821, 59022310740, 59022310741

4.4.2. Access

Acquisitions of farmland may remove existing points of access utilized by agricultural operations to enter their remaining farmland. Access to farmland may also be temporarily lost within the project ROW while the project is under construction. When agricultural lands and operations lose access, even temporarily, agricultural productivity may be impacted if crops, livestock or other agricultural products cannot be tended. Lost access may also directly result in lost income if a field cannot be planted or harvested, or if an entire agricultural operation is hindered.

Based on the proposed Project ROW, the location of the pipeline is expected to temporarily affect several existing field access points as shown in Table 7.

Table 7: Agricultural parcels, which may temporarily lose access by the proposed pipeline by landowner of record and Parcel ID (2024 Parcel Data).

Agricultural Landowner	Parcel Number
ANTHONY SCHAUBLE	59022310900
CALVIN J SCHWABENLENDER	59022311053
CHRISTOPHER C TRAPP	59022312040
DANIEL KRAEMER	59010124710
DAVID I FORD	59010124910, 59010124920
DAVID SHAVER	59010124615
GERALD RENTMEESTER	59010124732
GERLACH TRUST	59012163760, 59012163780
HICKORY LAWN DAIRY FARM INC	59012164740, 59012169000, 59012169080
JACOB D RENTMEESTER	59012168744
JAMES J EFFERTZ	59012163620
KRYSTAL K SCHMIDT	59022311070
KURT R MARQUARDT	59012163640
LARDINOIS FARMS I INC	PI-536-2
MICKEY B DOHERTY	59010124722
NEUMANN TRUST	59012168721
NICHOLAS W KLEIBER	59022311012
P&Q EAST OF WINNEBAGO LLC	59022310930, 59022310950
ROBERT W SCHULTZ	59010124593
SCHLADWEILER PROPERTIES LLC	59022312150
SCHRAUFNAGEL IRREVOCABLE TRUST 08-29-2023	59022312160
SHAWN THOMAS	59012163560
WAYNE J AND SUSAN L GERLACH LIVING TRUST DTD 3-8-2006	59012164760
WILLIAM & PATRICIA LARDINOIS, ETAL	PI-540
WILLIAM A & PATRICIA M LARDINOIS, ETAL	PI-539
WILLIAM G O'REILLY	59012168821, 59022310740

4.4.3. Wasteland

Acquisitions and easements that sever farmland frequently create small remnant fields that may be difficult to access or are irregularly shaped. These small irregularly shaped remnant fields may also contain numerous obstacles that can make it difficult for agricultural equipment to navigate and reduce the amount of tillable acres. This in turn reduces agricultural productivity and decreases the economic viability of the land, which increases the potential of creating undeveloped land (Wis. Stat. § 70.32(2)(a)(5)) or what is commonly referred to as wasteland as shown in Figure 6. Compensation for the reduction in the value of parcels that are small and/or irregularly shaped and

the potential creation of uneconomic remnant parcels according to Wis. Stat. 32.05(3m) should be addressed in the appraisal of each affected parcel.

The Department's analysis found that the Project is unlikely to create agricultural wastelands or uneconomic remnant fields. This determination is based on three main findings: 1) the Project ROW runs mostly parallel to existing pipeline easements, 2) the agricultural land impacted by the pipeline construction can be returned to the pre-existing agricultural use and 3) land that is anticipated to be converted out of agricultural land use for aboveground facilities is sited to the edges of fields along parcel boundaries. Collectively, these aspects limit the Project's potential to change the shape of a field or to create agricultural wastelands.

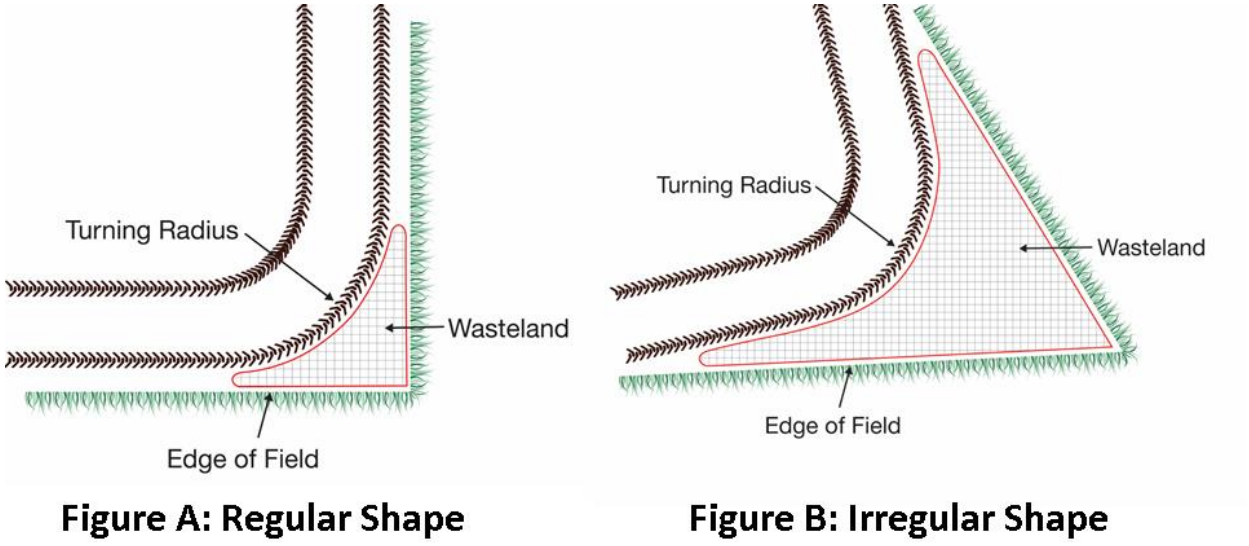

Figure 6: Examples of agricultural wastelands created from regular shaped fields with square corners (Figure A) and irregular shaped fields with sharp or acute angles (Figure B) that may result from parcel severance.

4.5. Agricultural Buildings and Infrastructure

Within AIN materials, ANR stated to the Department that the proposed ANR Heartland Project initially impacted three known agricultural buildings along segment PL-3 and five agricultural buildings along Segment PL-4. Of these, ANR denoted that one agricultural building, a horse stall located on parcel ID 59022311053, will be removed for safety (DATCP, 2025a). Otherwise, adjustments were made to the construction work area to minimize impact to the identified agricultural buildings and ANR will otherwise utilize road boring to reduce impact for several other buildings. ANR did report that the Project is likely to damage or break below ground drain tiles, which is described in Section 4.6 (DATCP, 2025a).

4.6. Prime Farmland and Soils

As proposed, the Project will impact 122 acres of agricultural land within Wisconsin. The soils impacted by the proposed Project were cataloged and analyzed by farmland classification, for each route alternative, using the NRCS prime farmland soils GIS layer. Farmland soil classifications

impacted by the Project include prime farmland and prime farmland if drained (Table 8). Prime farmland is designated by the USDA according to section 622.3 of the National Soil Survey Handbook (USDA, 2017b) and is based on the ability of the land and soil to produce crops. Definitions of prime farmland, prime farmland if drained and farmlands of statewide/local importance are provided under Table 8. The soil texture of agricultural soils impacted by the Project was analyzed, in general terms, across the project ROW.

The majority (70.0% or 85.4 acres) of the agricultural lands impacted by the Project have received Federal designation as Prime Farmland or Prime Farmland if Drained (Table 8). The agricultural soils across the Project ROW, when classified by texture, are primarily loam or silt loam soils of various soil series. In general, loam and silt loam soils are medium-textured soils (Cornell, 2017) with good soil structure, possess an ideal ability to hold onto water without becoming excessively wet and are usually best suited for crop production (UW-Extension, 2005). This soils analysis shows that ANR's proposed ANR Heartland Project will almost exclusively impact prime farmland and high-quality soils.

The Project has the potential to create a range of drainage and soil health impacts for the impacted agricultural operations. The nature of open trench construction methods inevitably brings risks of topsoil mixing, damage or breakage of drain tiles, and soil compaction. Collectively, these risks raise the potential for yield losses for the impacted agricultural landowners in the Project ROW. To mitigate impacts to drainage and soil health, the Department recommends that ANR adopt the recommended best management practices seen in Sections 5.3 – 5.7 to the existing project agricultural mitigation plan.

Table 8: Agricultural soils, by farmland classification, impacted by the proposed ANR Heartland Project in Brown, Racine, Sheboygan, Waukesha and Winnebago Counties, WI.

Soil Texture	Prime Farmland* (acre)	Prime Farmland if Drained◊ (acre)	Farmland of Statewide Importance† (acre)	Not Prime Farmland⌽ (acre)	Total (acre)
Pipeline 3					
Muck	0.0	0.0	2.7	0.0	2.7
Silt Loam	0.0	2.1	0.0	0.0	2.1
Silty Clay Loam	0.0	1.3	0.0	0.0	1.3
				Pipeline 3	6.1
Pipeline 4					
Complex	0.2	0.0	0.0	9.8	10.0
Loam	0.0	0.0	0.0	6.5	6.5
Muck	0.0	0.0	0.5	0.0	0.5
Silt Loam	52.8	2.9	13.2	3.9	72.7
Water	0.0	0.0	0.0	0.1	0.1
				Pipeline 4	89.8
Pulaski Compressor Station					
Complex	0.0	16.8	0.0	0.0	16.8
Fine Sandy Loams	0.0	5.5	0.0	0.0	5.5
Loam	0.0	0.7	0.0	0.0	0.7
			Pulaski Compressor Station		23.0
Rochester Meter Station					
Complex	0.0	0.0	0.1	0.0	0.1
Silt Loam	3.0	0.0	0.0	0.0	3.0
			Rochester Meter Station		3.1
				Total	**122.0**

*__Prime farmland__ is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops, and may be utilized for cropland, pastureland, rangeland, forest land, or other lands excluding urban built-up land or water. It has the soil quality, growing season, and moisture supply needed to produce economically sustained high yields of crops when treated and managed according to acceptable farming methods, including water management.

◊__Prime farmland if drained__, indicates that if farmland is drained it would meet prime farmland criteria.

†__Farmlands of statewide importance__ are set by state agency(s). Generally, these farmlands are nearly prime farmland and economically produce high yields of crops when treated and managed according to acceptable farming methods. Some may produce yields high as prime farmlands under proper conditions.

⌽__Not Prime farmland__, indicates farmland is neither prime farmland nor of designated importance.

5. AGRICULTURAL IMPACT MITIGATION

Whether it be by design or geographic footprint, some projects have the potential for greater agricultural impacts. Common characteristics of projects with the potential for increased agricultural impacts include project ROWs spreading across long linear tracks of land, impacts to numerous landowners or state/federal requirements to prepare an environmental assessment or environmental impact statement. Examples of these projects include natural gas pipelines, high-voltage electric transmission lines or the expansion/creation of a highway corridor. In response to

these types of projects, the Department analyzes the potential for best management practices (BMP) and/or an agricultural mitigation plan (AMP) to reduce or eliminate project related agricultural impacts.

ANR has voluntarily prepared an AMP for the Project, which the Department has reviewed as part of this analysis in Section 5.2: *Agricultural Mitigation Plan*. A copy of the AMP can also be found in Appendix B: *ANR Heartland Project Agricultural Mitigation Plan*. The Department recognizes the value and benefits achieved when any ANR proactively supports practices and efforts to restore impacted lands to pre-construction conditions and mitigate impacts to agricultural productivity.

5.1. Environmental Impact Monitor (IEM), Agricultural Inspector (AI) & Independent Agricultural Monitor (IAM)

When a project affects environmental and agricultural resources, an environmental and/or agricultural monitor or inspector may need to be hired. Environmental Inspectors (EIs) and Independent Environmental Monitors (IEMs) monitor project construction activities and report on a wide range of environmental issues such as construction impacts to wetlands, waterways, protected species, archaeological sites, state and federal properties, and erosion control. When hired, an IEM works on behalf of the regulatory agency as opposed to the utility. The IEM is also responsible for reporting incidents and has the power to stop project work if construction activities violate permits, approvals, FERC order conditions, or agreement with a state regulatory agency.

In comparison, an Agricultural Inspector (AI) or Independent Agricultural monitor (IAM) monitor project construction & restoration activities and report on a wide range of agricultural issues including but not limited to construction impacts to soil health, soil erosion, crop damage, agricultural operations, irrigation and impacts to surface and subsurface drainage. Each will also verify if the ANR is complying with any agricultural best management practices or conditions established by the ANR or required by a regulatory agency. The main difference between an AI and an IAM is that an IAM works on behalf of the regulatory agency, as opposed to the ANR.

The construction of the ANR Heartland Project holds the potential for numerous agricultural impacts, which ANR plans to mitigate by following an AMP (DATCP, 2025a). ANR stated in the AMP that one or more EIs will be present during construction and restoration phases and that they will have expertise in both biological and agricultural resources. The EI will address any issues that arise during construction and ensure that the AMP is implemented properly (DATCP, 2025a). The Department believes either a dedicated EI serving with the responsibilities of an AI, would be sufficient to ensure ANR adheres to the AMP and any additional BMPs the Department has recommended for and adopted by ANR.

5.2. Agricultural Mitigation Plan

The Department recognizes the value and benefits achieved when any project initiator proactively supports practices and plans to restore impacted lands to pre-construction conditions and mitigate impacts to agricultural productivity. AMPs are one example of plans that describe the policies and methods project initiators will follow, during all phases of a project, to achieve these goals. AMPs typically describe, in detail, effective construction *mitigation* measures, restoration methods, best practices for communication with *agricultural operations*, and outlines the duties of the ANR's proposed EI for the project.

ANR developed an AMP specifically for project components in Wisconsin. The Department reviewed the Wisconsin AMP to verify that it aligns with current agriculturally relevant BMPs and mitigation steps the Department seeks for the Project. A copy of the AMP is available in Appendix B: ANR Heartland Project . ANR stated within the AMP their commitment to restoring construction areas to pre-construction conditions and belief that the AMP will ensure this outcome for agricultural areas impacted by the Project (DATCP, 2025a).

In the following sections, the Department will review a slate of other BMPs categorized by impact type that may provide additional protections for agricultural operations and mitigate agricultural impacts. The following section will also relay the Department's analysis of ANR's AMP. The Department will relay any mitigation step(s) to ANR that it supports but did not find within the AMP. Agricultural landowners may use the following information as recommendations for potential mitigation practices they may want ANR to follow on their property. Within the AMP, ANR stated that they will communicate with affected agricultural landowners of project progress, mitigation strategies and work with landowners to identify any additional issues that are a result of the Project (DATCP, 2025a). ANR will provide the landowner with a number to contact ANR for concerns throughout the Project timeline. ANR will schedule construction, to the degree feasible that would minimally impact agricultural activities

5.3. Soil Health

Soil structure, texture, organic matter and microorganisms are all important factors that influence soil health (Wolkowski and Lowery, 2008). Project construction activities with the potential to impact soil health include excavation and the movement of heavy equipment through the Project ROW that may compact soil. UW-Extension report A3367 states that heavy equipment with axle loads that exceed 10 tons increases the risk of soil compaction into subsoil layers that cannot be removed by conventional tillage (Wolkowski and Lowery, 2008). This construction-caused soil compaction may also damage drain tiles leading to ponded water where none existed prior to construction.

Construction activities may also disrupt and/or mix soil profiles within the Project ROW as well as the surrounding area. Research has also shown that construction related impacts (e.g. equipment

axle weight, use of excavation, intermixing of soil layer etc.) have the potential to negatively impact crop yields for up to a decade within the ROW depending on the type and severity of the construction impacts (Culley and DOW 1988; Soon et al., 2000; Shi et al., 2014).

5.3.1. De-icing & Traction Control

Construction crews commonly apply various products to improve vehicle traction across temporary road matting within the construction ROW to control for wet, slippery, or icy conditions. The application of sodium chloride (e.g. rock salt), as a de-icing agent, to temporary road matting within the construction ROW can lead to sodium chloride rich runoff that has potentially detrimental impacts to the health of nearby soils, ecosystems and surface waters (Richburg, 2001; Kelly *et al.*, 2008; Corsi *et al*., 2010). Alternative de-icing products, which are less damaging to the health of soil, vegetation and ecosystems as compared to sodium chloride, do exist. For example, county highway departments commonly apply sand or small lime chips (1/8" to 3/16" diameter), or a combination of the two as an alternative to sodium chloride, especially when surface temperatures are colder than 15°F when sodium chloride is less effective. University of Wisconsin Madison – Extension publication A3877 provides a list of alternative de-icing products ANR may wish to consider when selecting an alternative(s) to sodium chloride based products. However, sodium chloride may still be required to mitigate situations that pose elevated safety risks.

The Department did not find mention of mitigation practices related to de-icing and traction control within the Project's AMP. To address impacts related to salt applications on temporary road matting over agricultural soils, ANR should consider adding the following BMPs to the Project AMP:

- ANR should use alternatives to sodium chloride, when safety conditions allow, for de-icing and traction control on temporary road matting when crossing agricultural soils.
- When the application of sodium chloride is necessary to resolve a matter of safety an alternative method cannot, ANR should limit the sodium chloride application rate to the lowest level required to maintain a safe working environment.
- ANR should prepare a spill response plan in the event sodium chloride or an alternative product is over applied or spilled onto agricultural soils.

5.3.2. Increased Soil Rock Content

Large stones at the surface can damage farm machinery and lead to added costs to landowners for removal. Many subsoil layers have a greater rock content than the topsoil. Trench excavations may bring up lower soil horizons with rocky subsoil, which may mix with upper soil layers. Even where three-lift soil handling is used, additional rocks may be spread through the subsoil layer during backfilling. ANRs may also apply gravel or rock at access points to agricultural fields or access roads which may mix with soil within or adjacent to the ROW.

ANR discusses soil restoration within their AMP in Section 4.3.4 Crowning and in Section 4.3.6 Decompaction. ANR's AMP conforms to many of the mitigation practices the Department seeks to mitigate increase soil rock content issues.

The Department recommends the following additional practice to prevent increased rock content in agricultural *topsoil*:

1) Unearthed rocks or excess rocks for construction activities should not be spread across the ROW, added to the topsoil pile, or added to other farm fields.

5.3.3. Soil Compaction

Equipment used to construct natural gas pipelines has the potential to compact soil and reduce soil productivity on the farmland traversed during construction. Soil compaction is widely known to have a range of potential negative impacts to the productivity of soil, including reduced crop productivity, reduce crop uptake of water and nutrients, restriction of plant rooting depth, decreased water infiltration and increased surface runoff. Review Section 4.6 "Prime Farmland and Soil Impacts" as well as Section 5.6 "Drainage".

ANR has prepared a BMP for soil compaction management and soil decompaction as seen in Appendix B: 4.3.6 Decompaction and 4.3.10 Wet Conditions. ANR's BMPs conforms to many of the mitigation practices the Department seeks to alleviate soil compaction issues. The Department wishes to highlight the following mitigation practices contained within the AMP as it aligns with Department priorities to prevent soil compaction and/or de-compact agricultural topsoil:

- Section 4.3.6 Decompaction: *Equipment that can be used for soil decompaction may include a v-ripper, chisel plow, paraplow, or equivalent. Typical spacing of the shanks varies with equipment but is typically in the 8- to 24-inch range. The normal depth of tillage is approximately 18 inches. The type of equipment used and the depth of rip may be adjusted as appropriate for different soil types or for a deeply and severely compacted area.*

- Section 4.3.6 Decompaction: *Decompaction through the topsoil may be necessary if the subsoil and/or topsoil are compacted during topsoil replacement activities. A penetrometer will be used to determine if additional decompaction is necessary through the topsoil. Replacing the topsoil or de-compacting through the topsoil may free some rocks and bring them to the surface. The size, density, and distribution of rock remaining on the construction area should be the same as adjacent areas not disturbed by construction.*

- Section 4.3.10 Wet Conditions: *Except as provided below or as otherwise expressly permitted by the landowner, construction activities are not allowed on agricultural land when wet conditions exist and normal farming operations, such as plowing, discing, planting, or harvesting, cannot take place due to the increased risks for erosion, rutting, and compaction. Wet conditions are to be determined at the time the planned construction activity is to take place on a field-by-field basis and not for the Project as a whole.*

ANR may also wish to consider adding the following mitigation practice to further mitigate the impacts of soil compaction:

- Use only low-ground pressure and/or wide tracked equipment within ROW to reduce axel weight applied to soils.

5.3.4. Three-Lift Soil Handling

The three-lift soil handling procedure is recommended for cropland and pasture where the mixing of the subsoil layers from construction practices such as pipeline trenching may result in persistent crop yield reductions. For agricultural soils, the typical pipeline construction practice is to remove and stockpile only the topsoil (usually the top 12 inches) from the entire pipeline trench. In contrast, the three-lift soil handling method requires the stockpiling of the 1) topsoil, 2) subsoil and 3) substratum in three separate piles. After the pipeline has been placed within the trench, the excavated soils would be backfilled in the reverse order from which they were removed (i.e. last soil removed is the first soil backfilled). For more information on the three-lift soil handling method, refer to the Departments Three-Lift Soil Management publication ARM-LWR-294 available at agimpact.wi.gov.

The three-lift soil handling method is useful when the proposed trench will intersect both the B and C horizons of a soil profile and the C horizon is of poorer quality (gravel, rock, and/or sand) than the B horizon (silt, clay, and/or loam). Alternatively, this practice may be applicable to soil profiles with a distinct upper and lower B horizon, as opposed to a B and C horizon. Additional factors such as slope, soil drainage, thickness of the soil horizons, and acres of soil units crossed by the project are important in determining soil candidates for which the three-lift method could be beneficial for protection of crop yields. A key for identifying soil candidates for three-lift soil handling is provided in Appendix C: FERC Upland Erosion Control, Revegetation and Maintenance Plan.

ANR discusses the three-lift soil handling method in 4.3.3 Grading and Trenching within their AMP (Appendix B). As described in Section 4.3.3 Grading and Trenching of the AMP, ANR will prepare a list of locations of agricultural soils that are a candidate for the three-lift soil handling method and will implement this practice based on site specific conditions and landowner requests.

Prior to construction, ANR will prepare a list of locations of agricultural soils that are a candidate for the three-lift soil handling method utilizing the Three Lift Soil Handling Decision Key (Appendix C). This list of eligible candidate soil locations will be provided to the EI and contractor prior to construction.

The Department recommends that ANR inform landowners possessing lands within the construction ROW that met the three-lift soil handling criteria to offer it as a possible trenching procedure on their property during construction.

5.3.5. Topsoil Segregation

Agricultural topsoil is an invaluable resource that should be preserved. Excavation activities required to create the open trench needed to install a natural gas pipeline have the potential to mix highly productive topsoil with underlying less productive and potentially rocky subsoils. Deep rutting also has the potential to intermix topsoil. If intermixing of topsoil occurs, the resulting soils are generally known to be less productive, and in-turn reduce the agricultural productivity of the impacted area.

ANR's AMP discusses the management and segregation of agricultural topsoil as seen in Appendix B: Section 2.0 Snow Removal, Section 3.2 Wet Weather Shutdown, Section 4.0 Uplands, Section 4.3.2 Access, Section 4.3.3 Grading and Trenching. ANR will strip topsoil according to FERC Plan and Procedures (Appendix C), permit conditions and other construction plans and agreements. Collectively, these BMPs conform to many of the mitigation practices the Department seeks to preserve the quality of agricultural topsoil.

The Department wishes to highlight the following mitigation practice contained 4.3.3 Grading and Trenching as it aligns with Department priorities to preserve productive agricultural topsoil:

- *During construction, topsoil up to 12 inches in depth will be segregated and stored in such a manner that it shall not become intermixed with subsoil. Appropriate BMPs will be utilized to ensure that soil mixing of the segregated topsoil does not occur. Topsoil that will be or is expected to be stockpiled in areas where earth-disturbing work has temporarily ceased shall be protected from erosion and weed infestation by applying a stabilization measure such as temporary seeding per regulatory requirements.*

ANR may also wish to consider adding the following mitigation practices to promote the preservation of topsoil:

- Prohibit the spreading of mixed soils or segregated subsoils on undisturbed cropland, pastures or other agricultural fields, unless authorized by the landowner.
- Remove any intermixed topsoil, within the top 12 inches, from the right-of-way (ROW) and replace with new clean topsoil that is comparable to the pre-existing topsoil.

5.4. Agricultural Infrastructure

5.4.1. Biosecurity

Farm biosecurity is the implementation of measures designed to protect a farm operation from the entry and spread of diseases and pests. Construction activities can spread weeds, diseases, chemicals and genetically modified organisms (GMO's) that impact an agricultural operation. Certified organic farms and farms with other certifications such as pesticide-free or herbicide-free are susceptible to the widest range of biosecurity impacts and may suffer greater negative impacts if their agricultural operation is exposed to a biosecurity threat. For more information on basic biosecurity protocols, please visit the Department's Basic Biosecurity website at the provided link or at https://datcp.wi.gov/Pages/Programs_Services/BasicBiosecurity.aspx

ANR addresses biosecurity within the AMP Section 4.4.2 Manure Management (Biosecurity). ANR's BMPs described within this section of the AMP conform to many of the mitigation practices the Department seeks for biosecurity precautions on a farm operation.

The Department recommends this additional practice to mitigate biosecurity risks within the Project ROW:

- If a landowner or farm operator has a biosecurity plan or has required biosecurity protocols, this information should be shared with ANR for use during Project construction and restoration

5.4.2. Fencing

Construction may require fences that cross the Project ROW to be severed. Changes to existing fence lines can interfere with grazing activities, particularly for rotational grazing operations that depend on precise, scheduled grazing in particular areas. ANR has prepared a BMP to address impacts to fencing as seen in Appendix B: Section 4.4.1 Livestock, Fencing and Cattle Passes. The BMPs discussed within this section generally conform to the mitigation practices sought by the Department.

5.4.3. Irrigation

Natural gas pipeline construction activities can interfere with the operation of linear or center pivot irrigation systems used to irrigate crops. Soil compaction from construction equipment may also impact or damage underground piping that supplies irrigation systems. Any interruption to irrigation systems caused by the Project can deprive crops from needed water and nutrients resulting in decrease crop yields.

Within Section 4.4.3 Irrigation Systems of the AMP, ANR conforms to many of the mitigation practices the Department seeks for mitigation of impacts to irrigation systems

The Department recommends the following additional practices to further mitigate the impacts to irrigation systems:

- Prior to construction, agricultural operations that use irrigation within or adjacent to the Project ROW should inform ANR of their irrigation system, how the Project may impact the system, irrigation schedules frequency of irrigation and weather conditions that may change the irrigation schedule.
- ANR should consider using the techniques outlined in Section 5.3.3 "Soil Compaction" when crossing a known irrigation pipeline.

5.4.4. Organic Farms & Other Areas with Certifications

Construction and ongoing maintenance activities for the Project may jeopardize a farm's organic certification or other certifications such as *pesticide free* or *herbicide free* (certified areas) if a prohibited chemical is used on their certified land, drifts from a neighboring field or enters their land on construction machinery, construction matting or improper de-watering. ANR and their contractors must use caution and care where the Construction Project ROW borders or crosses an area with certification. Wis. Admin. Code § ATCP 29.50(2) states that no pesticides (includes herbicides) may be used in a manner that results in pesticide overspray or significant pesticide drift. In addition, any oil or fuel spill on these farms could prevent or remove a farm's certification.

Within their AMP, ANR did not identify any organic farms within the construction work area. The Department did not identify any organic farms within the project area during the AIS analysis. However, in the event that an organic farm is identified, ANR prepared Section 3.4 Organic Farms within their AMP (Appendix B). ANR conforms to many of the mitigation practices the Department seeks for mitigation of impacts to organic farms.

To further mitigate impacts to areas with certifications, the Department recommends that *agricultural operations* consider the following recommendations:

- *Agricultural operations* with an area of certification should contact ANR and report the range and type of substances that are and are not permitted according to their certifications.
- *Agricultural operations* and beekeepers should consider using the free online DriftWatch™ and BeeCheck™ registries, operated by FieldWatch™ to communicate areas containing specialty crops or beehives with pesticide applicators, in order to minimize the risk of accidental exposure. For more information on DriftWatch, please visit the WDATCP DriftWatch website at the provided link or at https://wi.driftwatch.org/.

- ANR and its contractors that are applying herbicide or pesticides should utilize the Departments Driftwatch™ online mapping tool to locate agricultural lands and operations that are susceptible to herbicide or pesticides. If the online mapping tool locates an *agricultural operation* on or near areas that will receive herbicide or pesticide applications, ANR should contact the operation to discuss the appropriate methods required to minimize the risk of accidental exposure.

5.4.5. Temporary Access Roads

ANR has proposed to install temporary access roads as part of the Project, when an alternative access road does not exist, to allow personnel and construction equipment to access the Project corridor. When a temporary access road is constructed there is a range of potential negative effects to agricultural lands including the mixing of topsoil with subsoil & rocks, soil compaction, soil erosion, and interference with existing drainage & irrigation. New temporary access roads also have the potential to impact agricultural operations by severing cropland or pastures, limiting field access or limiting access to agricultural infrastructure & buildings. Any of these impacts can result in lost agricultural productivity whether from lost soil productivity, crop losses or the direct loss of agricultural revenue when access to agricultural infrastructure is limited.

Within their AMP in section 4.3.2 Access, ANR denoted that they will work with landowners to reach a mutually acceptable agreement on the location of any temporary access roads if required, to be used for access to or along the construction area throughout construction. ANR will attempt to use existing farm roads to the degree feasible (Appendix B). ANR's AMP describes that temporary access roads constructed over agricultural land will have measures taken to limit compaction through construction matting, temporarily stripping topsoil, geotechnical fabric and rock or others as deemed necessary. ANR describes that any use of stone or gravel would be placed on geotextile fabric for effective removal when construction concludes.

The Department recommends the following practice to mitigate the impacts of access roads when they cross agricultural lands within the Project ROW:

- ANR should consider using the techniques outlined in Section 5.6.1 "Drainage Tile Repair" when siting an access road over drain tiles.

5.5. Compensation

5.5.1. Yield Compensation & Crop Loss

The Department's soil health analysis, seen in Section 4.6, has indicated the potential for the ANR Heartland Project to impact soil health and crop yields for years to come. As livelihoods of agricultural operations are irrevocably linked to the productivity of the soil and crop yields, ANRs have an obligation to compensate impacted agricultural landowners for the future yield reductions

across the project ROW. Compensation for yield loss generally occurs at the time of easement contract negotiations.

ANR has prepared a systematic plan for determining the value of the impacted crop and compensating the impacted farm operation as seen in Appendix B: Section 4.2 Crop Loss and Feed Payments. ANR will coordinate with landowners for a mutually agreeable crop damage payment on account of crop losses during construction. ANR determines the crop compensation based on the market value at the time of the easement, which will increase if crop prices increase during construction, but not decrease if crop prices decline during this period (Appendix B).

The Department recommends that agricultural landowners request reimbursement for 100% of crop value within the construction area for each year of lost production, plus an additional 100% of crop value for lingering post-construction yield reductions that may take two or more years to recover. ANR may structure this reimbursement over a 2 – 4 year timeframe, but the total reimbursement should be no less than 200%. An example agreement may reimburse an agricultural landowner for 100% crop loss the year of construction, followed by a 60% reimbursement the second year and 40% for the third year. Agricultural landowners should also work with the ANR to determine the most appropriate way to determine the value of the crop within the ROW during the year of construction, as well as future crop value.

The Department also recommends that agricultural landowners keep records of the conditions of the ROW before, during, and after construction. Records could include keeping crop yield records, beginning once the ROW is known, and photographs taken every season. These measures can help a landowner negotiate for compensation, should Project damages occur.

5.5.2. Feed Supply and Dairy Operations

The construction of a natural gas pipeline may disrupt a planned crop or crop rotation. Impacts to alfalfa fields and planned alfalfa seeding are especially disruptive to dairy operations, as they need to maintain a proper supply of alfalfa to feed dairy cows. Any delays, yield reductions or damages to an alfalfa crop may require the dairy operation to buy haylage or hay, obtain more corn silage, and/or provide protein supplements such as soybean oil meal to make up for the lost alfalfa.

Within their AMP, ANR denoted that they will work with each landowner and compensate any impacted dairy farm or livestock operation for increased purchases of forage if the Project activities cause reductions to forage from within the ROW. Additionally, if a landowner had to board an animal off-farm due to construction activities, ANR may compensate (Appendix B: ANR Heartland Project AMP).

5.5.3. Managed Forest Law, Trees and other Woody Vegetation

An explanation of the state's MFL program and what that means for the woodlands enrolled within the program is provided in Section 3.3.3 "Managed Forest Law". Additional acres of unmanaged forest lands will also be impacted, but are beyond the scope of this AIS as unmanaged forest lands

are not defined as an agricultural use according to Wis. Stat. § 91.01(2). Both managed and unmanaged woodlands can provide financial benefit to the landowner either directly through the sale of managed forest for timber, the sale of firewood, or the harvest of tree sap for sale. The removal of any trees from a property may also decrease the market value of the property.

Prior to the start of construction, ANR will remove all woody vegetation, trees and brush not already removed by the landowner from the full width of the Construction Project ROW. Vegetation will be cut at or slightly above the ground surface using mechanized equipment or by hand. Tree stumps are generally left in place, except in areas where stump removal is necessary to facilitate the movement of construction vehicles, or required by the landowner. Once removed, trees are not permitted to regrow or be replanted in the Project ROW after construction is complete or while maintained by ANR.

Within the AMP, ANR denoted that they will consult the landowner in regards to the disposition of trees ahead of tree clearing and allow the landowner to retain ownership of any felled timber that is of value to the landowner or otherwise compensate the landowner for timber that is removed from the property (Appendix B). ANR also stated that they will limit impact to and clearing of windbreaks to the degree possible as long as the windbreak doesn't interfere with construction and operation of the pipeline. Additionally, ANR stated that no felled tree stumps, mulch or tree debris will be used to backfill the trench or bury stumps or use mulched stumps within the construction area of the project (Appendix B).

The Department recommends additional practices to mitigate the impacts of tree and woody material removal from the Project ROW:

- ANR should compensate agricultural landowners for the construction of any additional structures that serve in the place of the harvested trees.
- ANR should hire an appraiser who has experience and expertise in valuing trees.
- Landowners who wish to obtain their own appraisal should also hire an appraiser who has experience and expertise in valuing trees.
- Landowners who wish to farm within the deforested area should discuss tree stump removal with ANR during the easement negotiation process.

5.6. Drainage

Maintaining proper field drainage and preserving soil health is vital to the success of an agricultural operation. However, pipeline construction activities have the potential to affect both surface and subsurface (i.e. drain tile) drainage patterns and the overall soil health of agricultural fields. Potential drainage impacts from the construction of a pipeline include broken or damaged drainage

tile lines, alterations to the topography of existing grassed waterways, or changes to known surface water flowlines. When these impacts happen and go unrepaired, drainage may become impaired, leading to the buildup of standing water on fields. Standing water on agricultural fields has a broad range of negative impacts including crop losses, concentrating mineral salts, flood damage to farm buildings, or causing disease in livestock.

Certain elements of construction activities may impact surface and subsurface drainage. Within Section 4.3.4 Crowning of the AMP, ANR denotes that trench crowning up to 12 inches will be employed to allow for trench settling. Increased elevation of the crown compared to the surrounding area may impact surface drainage until the crown has settled. Settling is expected after one freeze/thaw cycle, after which surface drainage should be hindered after. ANR describes that temporary BMPs will be installed to manage any erosion issues caused by crowning (Appendix B: 4.3.4 Crowning).

5.6.1. Drain Tile Repair

Some agricultural soils impacted by the proposed Project are also known to be hydric or contain hydric inclusions. Hydric soils are commonly saturated, flooded or ponded for an extended period during the growing season, causing anaerobic conditions within the upper soil layer and may be associated with wetlands. It is common practice for agricultural operations to install drainage systems to mitigate the impacts of hydric soils, however drainage is most common in eastern and southern areas of the state where soils and topography preclude adequate drainage (Olson, 2020). Construction activities may affect the existing surface and subsurface (i.e. drain tile) drainage patterns of agricultural fields if drainage tile lines are broken or if the topography of grassed waterways, known water flowlines or erosion control structures are altered.

Construction activities – especially those that excavate soil – can disrupt, damage or break agricultural infrastructure including drainage tiles, grassed waterways, and drainage ditches. ANRs have a duty to restore the agricultural landscape as near to pre-existing conditions as possible.

Where construction activities have altered existing drainage patterns or the natural stratification of soils resulting in new wet areas or decreased productivity, ANR should work with landowners to determine a means to return the agricultural land either in the ROW or adjoining lands to pre-construction function. New drainage tiles or ditching, de-compaction, regrading, or additional fill may be required to correct problems that arise after construction is complete.

ANR has prepared a stepwise plan for temporary and permanent drain tile repairs as seen in Appendix B: Section 4.4.4 Drain Tile. This BMP conforms to the mitigation practices the Department recommends when advocating for restoration of damaged or broken agricultural drain tile lines. To facilitate the understanding of drainage system restoration for the impacted agricultural landowners, the Department offers a brief overview of recommendations it supports:

- Appendix B, 4.4.4: *ANR will request details of the location of drain tiles from each landowner. ANR shall record the GPS location of all identified drain tile lines, including those identified by the landowner and those identified or damaged and repaired during construction or other phases of the Project. ANR shall also mark the physical locations of the identified drain tile lines with stakes or flags prior to construction to alert construction crews of their presence. Markers identifying drain tile locations are to remain in place until restoration is complete or the tile lines are repaired.*

- Appendix B, 4.4.4: *All permanent drain-tile line repairs will be made within 30 days of the pipeline being laid in the trench on the landowner's property, weather, soil conditions, and drain tile contractor availability permitting. ANR shall notify the landowner in writing if permanent repairs to drain-tiles are expected to deviate from the 30 days. Alternatively, ANR may compensate the landowner to complete the permanent repair themselves or with their preferred drain-tile contractor.*

- Appendix B, 4.4.4: *Before completing permanent drain-tile repairs, all tile lines shall be probed or examined by other suitable means on both sides of the trench for their entire length within any work areas to check for tile that might have been damaged by vehicular traffic or construction equipment. If tile lines are found to be damaged, they will be repaired so they operate as well after construction as before the construction began.*

The Department offers the following additional recommendations to mitigate Project impacts to drain tiles:

- Agricultural landowners should inform ANR about the existence and location of drainage systems or planned drainage systems that could be affected by the Project.
- Agricultural landowners should document field moisture conditions and the historic presence/absence of ponded water prior to the start of construction for post-construction comparisons.
- ANR should consider using the techniques outlined in Section 5.3.3 "Soil Compaction" when crossing a known drain tile.
- Where construction activities have created new wet areas ANR should work with the landowner to determine the best means to return the agricultural land to pre-construction function.

5.6.2. De-watering

During excavation, trench dewatering may be necessary. Improper dewatering can result in soil erosion, sedimentation and deposition of gravel, sand, or silt onto adjacent agricultural lands, and

the inundation of crops. The discharge of these construction waters must comply with current drainage laws, local ordinances, WisDNR permit conditions, and the provisions of the Clean Water Act.

ANR has prepared a BMP for trench dewatering as seen in Appendix B: Section 4.3.5 Dewatering. ANR's mitigation strategies conform to the mitigation practices sought by the Department.

The Department recommends additional measures to mitigate the impacts of construction water discharge on agricultural lands:

1) ANR should identify prior to construction 1) excavation sites with low areas and/or hydric soils where de-watering is likely and 2) suitable upland areas for discharge.
2) Cropland, pasturelands and other agricultural areas selected for discharge should not be inundated for more than 24 hours, as longer durations could result in crop damage.
3) ANR should not directly discharge or allow construction waters from non-organic farms to enter an organic farming operation.

5.7. Erosion and Conservation Practices

Natural gas pipeline construction activities can destabilize existing erosion control practices such as diversion terraces, grassed or lined waterways, outlet ditches, water and sediment control basins, vegetated filter strips, etc. The destabilization of these erosion control practices has the potential to cause soil erosion within the ROW, but also from upland fields. During wet conditions the risk of soil erosion is increased, as exposed soils, especially areas with increased slope, may more easily erode and move downslope. Wind erosion may also be of concern if existing windbreaks are removed from the ROW, especially when soils are dry. If left unchecked, significant erosion can have an adverse effect on the long-term productivity of agricultural lands.

ANR will implement sediment and erosion control measures in accordance with FERC's Upland Erosion Control, Revegetation, and Maintenance Plan and their Wetland and Waterbody Construction and Mitigation Procedures. ANR should continue to monitor the Project ROW for soil erosion and maintain erosion control practices until there is sufficient vegetative growth in the ROW to mitigate soil erosion.

5.7.1. Construction Debris

After construction is complete, there may be construction debris remaining on the field. If large pieces of debris or rocks are left in the field, agricultural machinery may be damaged when the landowner first works the land. The debris from various woody tress species, such as cherry or walnut trees can be toxic to livestock.

ANR describes BMPs related to construction debris in the following section in their AMP: 4.3.8 Clean Up. ANR denotes that all construction-related debris will be removed from the landowner's property and disposed of appropriately.

5.7.2. Construction Noise and Dust

During each phase of the Project, noise and dust are likely to be generated. Landowners near the Project ROW may experience noise and dust associated with construction techniques and the movement of heavy equipment. This noise and dust may cause dairy, beef cattle and other grazing livestock to stampede, break through fences, and escape from the farm property. Fur animals, poultry and other confined livestock may also be impacted by these sounds.

The Department did not find mention of mitigation practices related to noise and dust within the Project's AMP. To address impacts resulting from construction noise and dust ANR should consider adding the following BMPs to the Project AMP.

- Identify agricultural livestock operations with sensitive animals within and adjacent to the Project ROW and provide them appropriate advance warning of construction activities, so they may take steps to safeguard their animals.
- ANR should clean all roadways (private, county, state etc.) of construction-related debris, dirt and rocks.
- ANR should use tracking pads at frequently used access points.
- Apply water over the dust generating areas to reduce dust output.

Livestock owners & operators within the Project ROW who are concerned about the noise potential for the Project should inform ANR or their representatives during the easement negotiation process. Additionally, they may wish to remind ANR of their concerns just prior to the start of construction.

5.7.3. Restoration

Restoration is the final step in assuring an impacted agricultural area is restored as close as possible to preconstruction conditions. In general, restoration activities include soil restoration, soil grading and seeding. Stockpiled topsoils and subsoils removed during construction are returned, in the proper order, and graded to match the existing topography and slopes. All ruts and depressions are restored, and new topsoil may be brought in where topsoil has been lost or seriously mixed with subsoils. Agricultural soils are also monitored for compaction and when required undergo decompaction efforts to return the soil structure to its original condition. In areas where crops are not present, such as roadsides, pastures, old fields or upland woods, native seed mixes (or other appropriate seed mixes approved by the landowner) may be sown.

ANR has proposed various strategies within their AMP (Appendix B) to restore the impacted agricultural lands as close as reasonably possible to their pre-construction conditions in the following sections: 4.3.7 Final Grade and 6.0 Monitoring. Collectively, these BMPs contain the majority of mitigation practices the Department supports. The Department believes ANR may wish to consider implementing the following additional mitigation steps, to strengthen restoration efforts:

- ANR should monitor the ROW for soil erosion and maintain erosion control practices until there is sufficient vegetative growth in the ROW to mitigate soil erosion. Only after restoration activities are complete and vegetation has re-established within the ROW should temporary restoration erosion control devices be removed.

5.7.4. Weed Control

The Project may introduce noxious weeds or other invasive plants species into the Project ROW that compete with agricultural crops. Noxious weeds may also spread from parcel to parcel by construction equipment and project activities. Once weeds establish, they can interfere with agricultural harvesting equipment, attract unwanted insects, and require physical removal or chemical applications to remove.

In Section 4.3.3 Grading and Trenching of the AMP, ANR denotes that ANR may be used on stockpiled topsoil if weed growth is apparent. ANR will obtain permission from landowners prior to the use of herbicides and consult the landowner in regard to the choice of herbicide (Appendix B: ANR Heartland Project AMP).

However, the Department believes ANR may wish to consider implementing the following additional mitigation steps, specific to weed control, to strengthen its weed control BMP:

- ANR should offer agricultural landowners, during easement negotiations, the ability to state whether they do or do not give ANR express written consent for herbicide to be applied within the ROW they own.

- ANR should use tracking pads at frequently used access points.

- ANR and its contractors that are applying herbicide or pesticides should utilize the Department's Driftwatch™ online mapping tool to locate agricultural lands and operations that are susceptible to herbicide or pesticides. If the online mapping tool locates an agricultural operation on or near areas that will receive herbicide or pesticide applications, ANR should contact the operation to discuss the appropriate methods required to minimize the risk of accidental exposure.

- Agricultural landowners and beekeepers should consider using the free online DriftWatch™ and BeeCheck™ registries, operated by FieldWatch™ to communicate areas containing specialty crops or beehives with pesticide applicators, in order to minimize the risk of accidental exposure. For more information on DriftWatch, please visit the WDATCP DriftWatch website at the provided link or at https://wi.driftwatch.org/.

5.7.5. Stormwater & Erosion Control Permitting

The Project's land disturbance activities may be subject to municipal stormwater management and erosion control ordinances, in addition to all state and federal level permitting requirements. Project activities may also be subject to shoreland zoning ordinances. ANR should consult with all impacted zoning authorities for applicable construction site erosion control and stormwater management requirements, shoreland zoning requirements, and other permits to ensure construction proceeds in a manner minimizing drainage issues and soil erosion for the project site. As stormwater and erosion control activities are regulated by other levels of governance – federal, state, county, and local – analysis of the Projects potential for stormwater and erosion impacts are beyond the scope of this AIS.

6. REFERENCES

Cornell University (Cornell). 2017. Soil Health Manual Series Fact Sheet Number 16-04: Soil Texture. Retrieved from https://cpb-us-e1.wpmucdn.com/blogs.cornell.edu/dist/f/5772/files/2016/12/04_CASH_SH_Series_Texture_Fact_Sheet_072717-286kw9f.pdf (accessed 2 Jul 2025).

Corsi S. R., D. Graczyk, S. Geis, N. Booth and K. Richards. 2010. A fresh look at road salt: Aquatic toxicity and water-quality impacts on local, regional, and national scales. *Environ Sci Technol.* 44:7376–7382. doi.org/10.1021/es101333u

Culley, J. L. B., and B. K. DOW. 1988. Long-term effects of an oil pipeline installation on soil productivity. Canadian Journal of Soil Science, 68:177-181. doi.org/10.4141/cjss88-018

Kelly, V., G. Lovett, K. Weathers, S. Findlay, D. Strayer, D. Burns and G. Likens. 2008. *Environmental Science & Technology*. 42 (2), 410-415 doi: 10.1021/es071391l

National Conservation Easement Database (NCED). NCED Planning Application. Retrieved from https://site.tplgis.org/NCED/planningapp/ (accessed 2 Jul 2025).

Olson, Erica. 2020. *Guide for tile drainage regulation compliance in Wisconsin.* Discovery Farms: University of Wisconsin-Madison. Retrieved from: https://uwdiscoveryfarms.org/wp-content/uploads/sites/1255/2021/02/FINAL-Guide-for-tile-regulations.pdf (accessed 2 Jul 2025).

Richburg, J. A., W. A. Patterson III and F. Lowenstein. 2001. Effects of road salt and *Phragmites australis* invasion on the vegetation of a western MA calcareous lake-basin fen. *Wetlands*. 21, 247–255. doi.org/10.1672/0277-5212(2001)021[0247:EORSAP]2.0.CO;2

Shi, P., Xiao, J., Wang, Y. et al. 2014. The effects of pipeline construction disturbance on soil properties and restoration cycle. Environ Monit Assess. 186, 1825–1835. doi.org/10.1007/s10661-013-3496-5

U.S. Department of Agriculture (USDA). 2017. Title 430 - National Soil Survey Handbook: Part 622 – Interpretive Groups. Retrieved from directives.nrcs.usda.gov//sites/default/files2/1725389663/National Soil Survey Handbook %28entire handbook%29.pdf (accessed 2 Jul 2025).

U.S. Department of Agriculture (USDA). 2022. Farm Service Agency: Conservation Reserve Program. Retrieved from https://www.fsa.usda.gov/tools/informational/fact-sheets/conservation-reserve-enhancement-program-crep (accessed 2 Jul 2025).

University of Wisconsin-Extension (UW-Extension). 2005. A3588: Management of Wisconsin Soils. Madison, WI. Retrieved from https://soilsextension.webhosting.cals.wisc.edu/wp-content/uploads/sites/68/2014/02/A3588.pdf (accessed 2 Jul 2025).

Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP). 2017. *Brown County Farmland Preservation Plan*. Department of Agriculture, Trade and Protection. Madison, WI, USA.

Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP). 2019. CREP: Conservation Reserve Enhancement Program. Retrieved from https://datcp.wi.gov/Documents/ CREPBrochure.pdf (accessed 2 Jul 2025).

Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP). 2021 Drainage Districts in Wisconsin. Retrieved from https://datcp.wi.gov/Documents2/DrainageProgram Factsheet.pdf (accessed 2 Jul 2025).

Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP). 2023a. *Sheboygan County Farmland Preservation Plan*. Department of Agriculture, Trade and Protection. Madison, WI, USA.

Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP). 2023b. *Waukesha County Farmland Preservation Plan*. Department of Agriculture, Trade and Protection. Madison, WI, USA.

Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP). 2024. *Racine County Farmland Preservation Plan*. Department of Agriculture, Trade and Protection. Madison, WI, USA.

Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP). 2025a. Agricultural Impact Notice for Pipeline Projects DARM-BLWR-003 rev 5/22: ANR Heartland Project. Department of Agriculture, Trade and Protection. Madison, WI, USA.

Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP). 2025b. Designated Agricultural Enterprise Areas (AEAs). https://datcp.wi.gov/Pages /Programs_Services/ DesignatedAEAs.aspx (accessed 2 Jul 2025).

Wisconsin Department of Natural Resources (WisDNR). 2017. Wisconsin's Managed Forest Law: A Program Summary PUB_FR-295. Rev Nov. 2017. http://www.co.forest.wi.gov/ docview.asp?docid=24817&locid=145 (accessed 2 Jul 2025).

Wolkowski, R., and B. Lowery. 2008. A3367: Soil Compaction: Causes, concerns, and cures. University of Wisconsin-Extension. Retrieved from https://cdn.shopify.com/s/files/1/ 0145/8808/4272/files/A3367.pdf (accessed 2 Jul 2025).

DISTRIBUTION LIST

Federal and State Elected Officials

Governor

Governor Tony Evers

State Senators

Honorable Patrick Testin (Chair - Committee on Agriculture & Revenue; District 24)

Honorable Julian Bradley (District 28)

Honorable Devin LeMahieu (District 9)

Honorable Dan Feyen (District 20)

Honorable Eric Wimberger (District 2)

Honorable Steve L. Nass (District 11)

Honorable Kristin Dassler-Alfheim (District 18)

State Assembly

Honorable Travis Tranel (Chair - Committee on Agriculture; District 49)

Honorable Dave Maxey (District 83)

Honorable Lindee Rae Brill (District 27)

Honorable Robert Brooks (District 59)

Honorable Elijah R Behnke (District 6)

Honorable Robin Vos (District 33)

Honorable Dean Kaufert (District 53)

Federal, State and Local Units of Government

Wisconsin Department of Agricultural, Trade and Consumer Protection (DATCP)

DATCP Public Information Officer – Dan Richter

DATCP Legislative Liaison – Patrick Walsh

DATCP Director, Bureau of Land and Water – Chris Clayton

Brown, Racine, Sheboygan, Waukesha and Winnebago Counties

Brown County Planning and Zoning Director – Daniel Teaters

Brown County Clerk – Patrick Moynihan

Brown County Executive – Troy Streckenbach

Racine County Land Resource Manager – Chad Sampson

Racine County Clerk – Wendy Christensen

Racine County Executive – Ralph Malicki

Sheboygan County Planning and Conservation – Director – Aaron Brault

Sheboygan County Clerk – Jon Dolson

Sheboygan County Chairperson – Keith Abler

Waukesha County Director of Parks and Land Use – Dale Shaver
Waukesha County Clerk – Meg Wartman
Waukesha County Executive – Paul Farrow

Winnebago County Planning and Zoning Department
Winnebago County Clerk – Julie Barthels
Winnebago County Executive – Gordon Hintz

City of New Berlin
City Mayor – Dave Ament
Clerk – Rubina Medina
Town of Neenah
Chairperson – Bob Schmeichel
Clerk – Ellen Skerke
Town of Pittsfield
Chairperson – Scott Mielke
Clerk – Debbie Diederich
Town of Scott
Clerk – Luanne Rady
Town of Mitchell
Chairperson – Jackie Veldman
Town of Lyndon
Chairperson – JoAnne Friedman
Clerk – Rhonda Klatt
Town of Sheboygan Falls
Clerk –
Village of Rochester
Administrator – Chris Bennet
Clerk – Daniel Colwell

News Media, Public Libraries and Repositories

Public Libraries
Brown County Library – Pulaski Branch
Brown County Library – Weyers-Hilliard Branch
Oneida Community Library
Sheboygan Falls Memorial Library
Lakeview Community Library
Muskego Public Library

Hales Corner Library
Rochester Public Library
Neenah Public Library

Newspapers

Southern Lakes Newspapers
Sheboygan Press
Green Bay Press Gazette
Agri-View Newspaper
Country Today Newspaper

Wisconsin Document Depository Program

The Library of Congress

Interest Groups, Entities and Individuals

TC Energy (d.b.a ANR Pipeline Company)

Melissa Dettling

Merjent

Emily Nelson
Lindsay Tekler
Graham Book
Jon Calderon

Agricultural Landowners

Wayne Gerlach
Heidi Meier
Neumann Trust
Jacob and Kristy Rentmeester
Anthony and Diane Schauble
Donald Schneider
Kathleen Schneider

WISCONSIN DEPARTMENT OF AGRICULTURE, TRADE AND CONSUMER PROTECTION

DIVISION OF

AGRICULTURAL RESOURCE MANAGEMENT

Agricultural Impact Program
P.O. Box 8911
Madison, WI 53708-8911
608-224-4650

agimpact.wi.gov