

AGRICULTURAL IMPACT STATEMENT



**DATCP
#4463**

**Whitewater Lateral Natural Gas
Pipeline Project
Walworth County**



**WISCONSIN DEPARTMENT OF AGRICULTURE,
TRADE AND CONSUMER PROTECTION**
PUBLISHED NOVEMBER 22, 2022

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Walworth County

**WISCONSIN DEPARTMENT OF AGRICULTURE,
TRADE AND CONSUMER PROTECTION**

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LETTER TO THE READER

Dear Reader,

Through the 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 project begins. Lastly, the AIS program makes suggestions and recommendations to project initiators to promote project alternatives and management practices that would reduce potential impacts to agricultural lands and operations.

The AIS program also serves the needs of the project 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 project development and oversight processes in order to advocate for agricultural operations and support 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,

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TABLE OF CONTENTS

LETTER TO THE READER	v
TABLE OF CONTENTS.....	1
TABLES.....	2
FIGURES	2
ACRONYMS.....	3
TERMS	4
SUMMARY OF AGRICULTURAL IMPACT STATEMENT	5
AGRICULTURAL IMPACT STATEMENT RECOMMENDATIONS	7
Recommendations to the Wisconsin Electric Power Company	7
Recommendations to Agricultural Landowners and Operators.....	8
AGRICULTURAL IMPACT STATEMENT	10
1. INTRODUCTION	10
2. PROJECT DESCRIPTION.....	11
2.1. Project Summary	11
2.2. Project Purpose	11
2.3. Preferred Project Design.....	11
2.4. Project Right-of-Way (ROW)	12
2.5. Project Location	13
2.6. Project Schedule	13
2.7. Alternative Routes	13
2.8. Service Connections	13
2.9. Off-ROW Access Roads.....	13
2.10. Laydown Yards.....	14
3. AGRICULTURAL SETTING	14
3.1. Land In Agriculture	14
3.2. Farmland Preservation	16
3.3. Conservation Programs	18
3.4. Drainage Districts.....	19
4. AGRICULTURAL IMPACTS	19
4.1. Landowner Rights.....	19
4.2. Agricultural Landowner Concerns.....	20
4.3. Severance, Access and Wasteland	21
4.4. Agricultural Buildings and Infrastructure.....	22
4.5. Prime Farmland and Soils	23
4.6. Drainage and Soil Health.....	24
5. AGRICULTURAL IMPACT MITIGATION.....	25
5.1. Agricultural Inspector (AI) & Independent Agricultural Monitor (IAM)	25
5.2. Agricultural Mitigation Plan	26
5.3. Three-Lift Soil Handling	26
5.4. Yield Compensation & Crop Loss.....	28
5.5. Drain Tile Repair & Drainage.....	29
5.6. Recommended BMPs.....	30
6. REFERENCES	38
DISTRIBUTION LIST	41

Federal and State Elected Officials	41
Federal, State and Local Units of Government	41
News Media, Public Libraries and Repositories	41
Interest Groups, Entities and Individuals	42
APPENDICES.....	i
Appendix A: Additional Figures.....	ii
Appendix B: WEPCO Whitewater Lateral Project AMP	vi
Appendix C: Three-lift soil Candidate Key	xxxiii
Appendix D: Appraisal and Compensation Process	xxxiv
Appendix E: Wisconsin Statutes	xxxv
I. Agricultural Impact Statement Statute	xxxv
II. Statutes Governing Eminent Domain.....	xxxvii
III. Statutes Governing Access	xli
IV. Statutes Governing Drainage	xlii
Appendix F: Additional Information Sources	xliv

TABLES

Table 1: Agricultural land in production within Walworth County	14
Table 2: Number of farms within Walworth County.....	15
Table 3: Farm size in Walworth County	15
Table 4: Agricultural landowners and operators contacted by the Department.....	20
Table 5: Agricultural soils impacted by the proposed project.....	23
Table 6: Agricultural soils that are candidates for the three-lift soil handling method	27

FIGURES

Figure 1: Location of the Whitewater Lateral Pipeline Project route.....	6
Figure 2: Examples of agricultural wastelands created by severance.....	22
Figure 3: Location of soils that are candidates for three-lift soil handling	28

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)
FP	Farmland Preservation Program
FSA	Farm Service Agency
HDD	Horizontal Directional Drilling
IAM	Independent Agricultural Monitor
MFL	Managed Forest Law
MSA	Metropolitan Statistical Areas
PSC	Public Service Commission of Wisconsin
ROW	Right-of-Way
USDA	U.S. Department of Agriculture
USH	U.S. Highway
WisDNR	Wisconsin Department of Natural Resources
WisDOA	Wisconsin Department of Administration
WisDOR	Wisconsin Department of Revenue

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.
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.
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”) #4463 for a natural gas pipeline lateral proposed by the Wisconsin Electric Power Company (“WEPCO”). WEPCO is a subsidiary of WEC Energy Group. The proposed pipeline (referred to as “Whitewater Lateral Pipeline Project” or “Project”) is located to the south of the City of Whitewater in Walworth County as shown in Figure 1. WEPCO has indicated the primary reason for the Project is to address the limited supply of natural gas to the area (DATCP, 2022a). WEPCO denotes their concern for the areas limited natural gas supply stems from a lack of sufficient pipeline infrastructure (DATCP, 2022a).

To construct the Whitewater Lateral Pipeline Project, WEPCO proposes to install approximately two miles of 12-inch diameter pipeline. The pipeline originates from the Bluff Creek Station located along US Highway (USH) 12 near the boundary of the Towns of Whitewater and La Grange. From the Bluff Creek Station the proposed pipeline route follows US 12 northwest approximately one mile and then turns onto Reliance Rd heading west for approximately one more mile (Figure 1). WEPCO plans to utilize existing USH 12 roadway corridor where possible to reduce new Right-of-Ways (ROW) acquisitions. Despite these efforts, the proposed Project will impact five agricultural landowners and a total of 8.0 acres of agricultural lands.

In accordance with [Wis. Stat. §32.035\(3\)](#), WEPCO 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 WEPCO 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 WEPCO 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 7. The AIS analysis begins on page 10 with information on the project located in Section 2. Information and conclusions on the agricultural setting of Walworth County 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 #4463 contain the following information: additional project figures and tables from WEPCO (Appendix A), information on the appraisal and compensation process (Appendix D), a copy of Wisconsin’s agricultural impact statement statute (Appendix E), and various additional sources of related information for agricultural landowners and operators (Appendix F).

If WEPCO deviates from the selected alternatives or the selected sites, WEPCO 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.

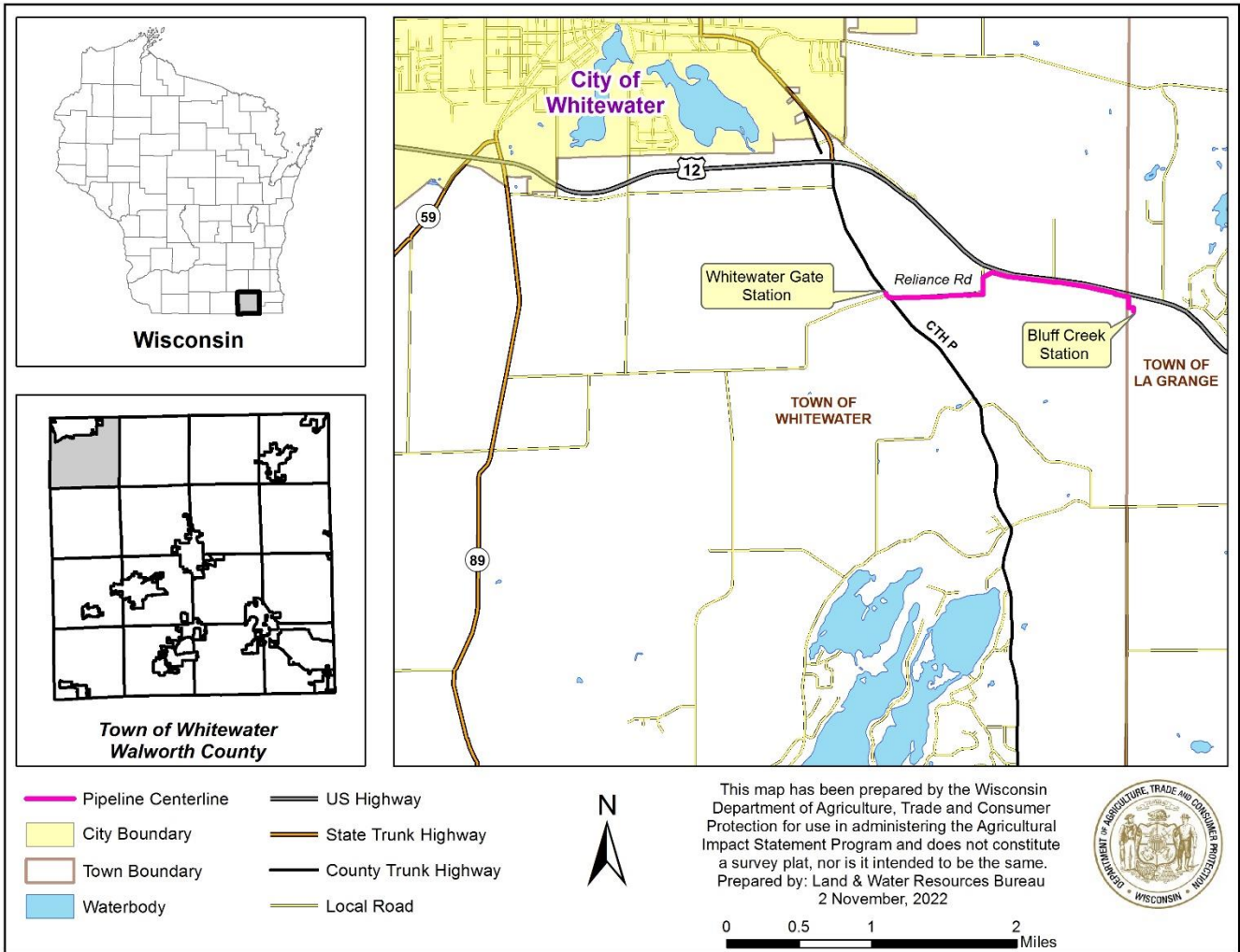


Figure 1: Location of the Whitewater Lateral Pipeline Project route in the Town of Whitewater, Walworth County, WI (DATCP, 2022a).

AGRICULTURAL IMPACT STATEMENT RECOMMENDATIONS

The Department has reviewed and analyzed the materials provided by WEPCO and comments from the affected agricultural property owners and operators regarding the proposed Whitewater Lateral Pipeline Project. The Department provides the following recommendations, in accordance with [Wis. Stat. §32.035\(4\)\(b\)](#) to WEPCO and agricultural landowners and operators to help mitigate impacts on agricultural lands and agricultural operations resulting from the Project.

Recommendations to the Wisconsin Electric Power Company

- 1) The Department recommends WEPCO follow all the recommended mitigation efforts described in Section 5.3 through Section 5.6.11 to mitigate Project impacts to or regarding: topsoil, soil compaction, drainage, de-watering, erosion, fencing, weed control, construction debris, feed supply & dairy operations, and construction noise.
- 2) WEPCO 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.
- 3) WEPCO should inform the affected agricultural property owners, shown in Table 6, who have soils that are candidates for the three-lift soil handling method. At the same time, WEPCO 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.
- 4) WEPCO should monitor for the presence of underground drainage tiles within the construction ROW. Should WEPCO damage or break a functional drain tile line, WEPCO should repair the drain tile line before backfilling the trench. Repairs should consist of installing a new piece of drain tile or rigid PVC to span the width of the trench and reconnect to the undamaged sections of drain tile. The newly installed drain tile or PVC should also be supported by a steel channel or I-beam to ensure the pre-existing slope of the tile is maintained during backfilling.
- 5) Where construction activities have altered existing drainage patterns or the natural stratification of soils resulting in new wet areas or decreased productivity, WEPCO 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.
- 6) WEPCO should consult with the affected agricultural landowners and operators to ensure any relocated, temporary or newly established agricultural land access points are located in areas that provide safe and efficient access to remnant agricultural properties.

- 7) WEPCO should not spread mixed soils or segregated subsoils on undisturbed cropland, pastures or other agricultural fields, unless authorized by the landowner.
- 8) WEPCO should remove any intermixed topsoil, within the top 12 inches, from the ROW and replace with new clean topsoil that is comparable to the pre-existing topsoil.
- 9) In addition to crop compensation within the agricultural mitigation plan (AMP), WEPCO should compensate any impacted dairy operation for increased operational costs associated with the purchase of forage resulting from any reductions to forage from within the ROW.
- 10) WEPCO should use construction matting in wet areas or areas prone to rutting within the ROW to reduce soil compaction.
- 11) WEPCO 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, WEPCO should limit the application rate of sodium chloride to the lowest level required to maintain a safe working environment. WEPCO should prepare a spill response plan in the event sodium chloride or an alternative product is over applied or spilled on agricultural soils.
- 12) WEPCO 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, WEPCO should contact the operation to discuss the appropriate methods required to minimize the risk of accidental exposure.

Recommendations to Agricultural Landowners and Operators

- 1) Landowners should review the recommended mitigation efforts described in Section 5.6.1 through Section 5.6.11 to mitigate project impacts to or regarding: topsoil, soil compaction, drainage, de-watering, erosion, fencing, weed control, construction debris, feed supply & dairy operations, and construction noise.
- 2) Landowners who have soils that are candidates for the three-lift soil handling method, as shown in Table 6, should request that WEPCO use three-lift soil handling for those soils. Landowners should also review the Departments three-lift soil handling publication [ARM-LWR-294](#) for additional information.

- 3) Landowners with conservation easements within the ROW should consult with the conservation program provider to determine if there are any implications resulting from 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, landowners should negotiate with WEPCO to recover any incurred costs.
- 4) 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.
- 5) Landowners should inform WEPCO about the existence and location of drainage systems or planned drainage systems that could be affected by the Project.
- 6) Livestock owners & operators within the Project ROW who are concerned about noise potential for the Project should inform WEPCO or their representatives during the easement negotiation process.
- 7) Prior to the start of construction, landowners should identify for WEPCO 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.
- 8) After construction is complete, landowners should monitor for drainage problems. If problems are observed that can be attributed to construction, the landowner and WEPCO should work together to develop a mutually agreeable solution.
- 9) 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/>.

AGRICULTURAL IMPACT STATEMENT

1. INTRODUCTION

The Wisconsin Department of Agriculture, Trade and Consumer Protection (“Department”) has prepared Agricultural Impact Statement (“AIS”) #4463 in accordance with [Wis. Stat. §32.035](#) for a natural gas pipeline lateral proposed by the Wisconsin Electric Power Company (“WEPCO”). WEPCO is a subsidiary of WEC Energy Group. The proposed pipeline (referred to as “Whitewater Lateral Pipeline Project” or “Project”) is located to the south of the City of Whitewater in Walworth County as shown in (Figure 1). According to the Walworth County Comprehensive Plan, WE Energies – a WEC Energy Group subsidiary – provides natural gas service to all of Walworth County (Walworth County, 2009). Through the Project, WEPCO expects to enhance natural gas service reliability to the Whitewater area (DATCP, 2022a).

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.

WEPCO is exempt from the requirement to obtain a certificate of authority from the Public Service Commission of Wisconsin (PSC) to construct the Project. Specifically, the cost of the Project does not meet the minimum cost threshold set forth by Wis. Stat. § 196.49(5g)(ar) to require WEPCO to obtain approval from the PSC. Absent the involvement of the PSC, permitting authority over the Project is vested with local and county forms of government. WEPCO is still required to obtain any necessary permits from the Wisconsin Department of Natural Resources (WisDNR) and prepare an AIS as required by the Department.

Prior to the release of this AIS, WEPCO notified the Department of its intent to complete voluntary contracts without actualizing WEPCO’s powers of eminent domain to acquire the impacted agricultural parcels. As WEPCO has not actualized its powers of condemnation, at this time, to obtain property or easements for this project, the 30-day waiting period for contract negotiations under Wis. Stat. §32.035(4)(d) is not applicable for this project. If WEPCO does actualize its

powers of condemnation at any point during the project, WEPCO may not negotiate with an owner or make a jurisdictional offer until 30 days after the AIS has been published. If WEPCO deviates from the selected plans or site alternatives, WEPCO shall re-notify the Department in accordance with Wis. Stat. §32.035(3). 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 WEPCO actualize its powers of condemnation for this acquisition, information on the appraisal and compensation process under eminent domain is provided within Appendix D. The full text of [Wis. Stat. §32.035](#) is included in Appendix E. 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

WEPCO has provided the Department with an agricultural impact notification (AIN) and requested spatial materials for analysis for the proposed project (DATCP, 2022a). The AIN and materials from WEPCO serve as the main reference documents for the Project. The proposed project route represented here is WEPCO's preferred route, but the route may still be subject to minor changes by WEPCO. 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. A full list of the impacted acres for each agricultural landowner is provided in Table 4 (Section 4.2: *Agricultural Impact*).

2.2. Project Purpose

WEPCO has indicated the primary reason for the Project is to address the limited supply of natural gas to the area (DATCP, 2022a). WEPCO denotes their concern for the areas' limited natural gas supply stems from a lack of sufficient pipeline distribution infrastructure (DATCP, 2022a).

2.3. Preferred Project Design

To construct the Whitewater Lateral Pipeline Project, WEPCO proposes to install approximately two miles of 12-inch diameter steel pipeline. The pipeline originates from the Bluff Creek Station located along USH 12 near the boundary of the Towns of Whitewater and La Grange. From the Bluff Creek Station the proposed pipeline route follows US 12 northwest approximately one mile and then turns onto Reliance Rd heading west for approximately one more mile until reaching the Whitewater Gate Station (Figure 1). 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.

2.3.1. Pipeline Installation Methods

The pipeline will be installed using a combination of open trench and horizontal directional drilling (HDD). For additional information on open trench and HDD methods, refer to the Department's Natural Gas Pipeline Construction Process publication [ARM-LWR-562](#) available at [agimpact.wi.gov](#). WEPCO will use the excavated trench method across the majority of agricultural lands (Appendix A: Additional Figures). The typical trench dimension will be approximately 6 feet deep and 6 feet wide. In some areas where there are obstacles or shallow bedrock the excavated trench may need to be deeper and wider. In agricultural lands, trench depth will 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. Where the pipeline will cross wetlands or be in close proximity to homes or buildings, WEPCO will use HDD methods to install the pipeline (Appendix A: Additional Figures) (DATCP, 2022a).

2.3.2. Above Ground Facilities

WEPCO has indicated that no above ground facilities will be constructed in the newly acquired ROW as part of the Project. Within the existing boundaries of the Bluff Creek Station, WEPCO will install a new 12-inch diameter pipeline inspection gauge (PIG) launcher, 12-inch diameter remotely-controlled shutoff valve assembly, 12-inch diameter flow meter assembly and various other piping components (valve operators, blowdown stacks, etc.). WEPCO will also abandon certain existing facilities at the Whitewater Gate Station owned by We Energies. The facilities to be abandoned include portions of 8 and 12-inch diameter gas pipelines, associated valves and an odorant tank (DATCP, 2022a).

2.3.3. Project Design Alternatives

WEPCO did not report any project design alternatives (DATCP, 2022a).

2.4. Project Right-of-Way (ROW)

WEPCO proposes to utilize a combination of new and existing ROW to site the proposed project corridor. WEPCO stated the eastern half of the Project would first attempt to acquire new ROW by purchasing either permanent or temporary easements. Typical widths for permanent and temporary easements will be 50 feet and 25 feet respectively. Where new ROW cannot be obtained, WEPCO will place the pipeline within the existing public road ROW. For the western half of the project, WEPCO proposes to place the pipeline within the existing public road ROW. We Energies will also terminate its Right of Use Agreement for Whitewater Gate Station, turning over responsibility for the station to the Northern Natural Gas Company (DATCP, 2022a).

2.5. Project Location

The proposed project occurs within Walworth County, WI approximately 1.0 mile to the southeast of the City of Whitewater (Figure 1). The pipeline will initiate at the Bluff Creek Station in Town of La Grange and terminate at the Whitewater Gate Station in the Town of Whitewater. From the Bluff Creek Station, the pipeline generally follows along USH 12 for one mile before turning onto Reliance Rd for another mile until reaching the Whitewater Gate Station (Figure 1).

Within the Town of La Grange, the Project impacts are limited to lands owned by a public utility. Therefore, the scope of this AIS is limited to the agricultural lands within the Town of Whitewater that are impacted by the Project.

2.6. Project Schedule

Pending issuance of all state agency and local permits, WEPCO plans to begin construction in December 2022 (DATCP, 2022a). WEPCO expects the pipeline to be completed in February 2023 with work at the Bluff Creek Station finishing in April 2023. The pipeline is projected to be in service by May 2023 (Devan Zammuto, personal communication, November 2022).

2.7. Alternative Routes

WEPCO considered one route alternative during the project design phase. Similar to the preferred route, the route alternative would have originated from the Bluff Creek Station located along USH 12 and then travelled west along USH 12. Rather than turning onto Reliance Rd, the route alternative would have continued to travel an estimated 1.3 miles northwest along USH 12 and Cox Road. WEPCO's review of the route alternative found that it was comparatively longer (0.3 miles longer), disturbed more wetlands, increased traffic disruptions and had a higher cost than the preferred project design. For the aforementioned reasons, WEPCO dismissed the route alternative (DATCP, 2022a).

2.8. Service Connections

WEPCO stated the Project does not include natural gas service connections to homes or businesses, as the area already has service from an existing natural gas main (Mike Al-wathiqui, personal communication, October 2022).

2.9. Off-ROW Access Roads

WEPCO will utilize existing roads, road ROW and new ROW to access the Project corridor. Therefore, WEPCO will not create off-ROW access roads for the Project (DATCP, 2022a).

2.10. Laydown Yards

The Bluff Creek Station will serve as the only laydown yard for the Project. This laydown area will store project equipment and materials (Mike Al-wathiqui, personal communication, October 2022).

3. AGRICULTURAL SETTING

3.1. Land In Agriculture

Walworth County, in 2021, was home to an estimated population of 104,759 residents (WisDOA, 2021). In 2020, the Town of Whitewater had an estimated population of 1,474, while the City of Whitewater had an estimated 11,976 residents (WisDOA, 2020). Walworth County is classified as a central Micropolitan Statistical Area and a central county of the broader Milwaukee-Racine-Waukesha Core Statistical area (WisDOA, 2013a). Based on 2010 census data, the Department of Administration (WisDOA) projects that from 2020 to 2040 Walworth County will see a 13% (+14,315 person) population increase (WisDOA, 2013b), the Town of Whitewater to increase by 6% (+85 persons) and the City of Whitewater to increase by 18% (+2,925 persons) (WisDOA, 2013c). The projected population growth for Walworth County and the City of Whitewater reinforces the need for natural gas supply increases to the area as identified in the AIN submitted by WEPCO (DATCP, 2022a).

Urban development pressures on agricultural lands are known to increase the rate of farmland conversion and increase agricultural land sale values (Azadi et al., 2010; Borchers et al., 2014). The following analysis will identify if agricultural lands within Walworth County are exhibiting signs of urban pressure and development. In 2017, Walworth County had 192,422 acres of land in farms or 54.2% of the county by area, which is higher than the statewide average of 41.3% (USDA, 2017a). Between 1997 and 2017, 12.6% of agricultural lands within Walworth County were converted out of agricultural use, which is 3.2 times the statewide average rate of 3.9% (Table 1) (USDA, 2017a). However, during this same time-period (1997 – 2017) the number of farming operations within Walworth County grew by 10.3%, which stands in stark contrast to the -1.2% average loss of farm operations experienced across Wisconsin for the same period (Table 2) (USDA, 2017a).

Table 1: Agricultural land in production within Walworth County and Wisconsin (USDA, 1997; USDA, 2017a).

Location	Acres of Agricultural Land (acres)		Agricultural Land Converted (%)
	1997	2017	
Walworth County	220,089	192,422	12.6%
Wisconsin	14,900,205	14,318,630	3.9%

Table 2: Change in the number of farms between 1997 and 2017 within Walworth County and Wisconsin (USDA, 1997; USDA, 2017a).

Location	Number of Farming Operations		Change in Farming Operations	Percent Change (%)
	<u>1997</u>	<u>2017</u>		
Walworth County	853	941	88	10.3%
Wisconsin	65,602	64,793	-809	-1.2%

Based on the most recent available data from the USDA, between 2012 – 2017 the growth in the number of farming operations in Walworth County appears to favor either very small (1 – 49 acre) or large (500+ acre) agricultural operations, while small (50 – 179 acre) and mid-sized (180 – 499 acre) operations have remained unchanged or decreased (Table 3) (USDA, 2017a). This bimodal growth pattern may be telling of consolidation of agricultural operations and the emergence of smaller specialty agricultural operations across Walworth County.

Table 3: Change in the number of farms by size between 2012 and 2017, Walworth County Wisconsin (USDA, 2017a).

Size of Farm (Acres)	2012	2017	Percent Change (%)
1-49	394	466	18.27
50-179	248	248	0.00
180-499	131	120	-8.40
500+	97	107	10.31

The pressures of urban development and urban population growth on farmland conversion vary across Walworth County. For example, the conversion and loss of almost 28,000 acres of farmland over the past 20 years is a sign of urban developmental pressures across the entire county. Furthermore, the projected 13% (+14,315 person) population increase for Walworth County (WisDOA, 2013b) may also influence these pressures. Additionally, across rural areas populations are expected to decline (WisDOA, 2013c). Such rural population declines may also act to relieve development pressure and allow room for new agricultural producers or for existing producers to expand. The observed growth in small and large agricultural operations across Walworth County also shows further evidence that these operations are somewhat resilient to development pressures.

Regional pressures from the surrounding Milwaukee-Waukesha-West Allis, Racine, and Janesville-Beloit Metropolitan Statistical Areas (MSA) may also influence urban development in Walworth County. These MSA’s represent Wisconsin’s 1st, 5th, and 8th largest MSAs and are home to an estimated combined 1,936,562 residents or 33.2% of the state’s total population in 2020 (WisDOR, 2022). These MSAs possess strong regional urban development pressures and urban population

growth potential and may influence farmland conversion in Walworth County. For example, urban populations from these bordering MSA's may seek to acquire small tracks of farmland to create hobby agricultural operations and/or live a rural lifestyle while still being connected to the MSA via work or other factors. Agricultural lands nearest municipalities within these regional MSAs (Guiling et al., 2009) or lands along transportation corridors such as interstate or state highways (Mothorpe et al., 2013) linking the Walworth County to these regional MSAs are at the highest risk of future farmland conversion. The culmination of these developmental pressures are likely factors behind the high rate of agricultural land conversion in Walworth County.

3.2. 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.

3.2.1. Farmland Preservation Planning

Walworth County's current FP plan was certified by the Department in 2012 and is set to expire in 2022 (DATCP, 2012). At the time of this publication, Walworth County is seeking to re-certify their FP plan with the Department. All towns in Walworth County have lands that are planned for FP as part of Walworth County's FP Plan. The criteria for land planned for FP in Walworth County includes lands with soils designated by the USDA-NRCS Walworth County as Prime Farmlands and Farmlands of Statewide Importance, or lands, not otherwise excluded, with soils classified as Land Capability Class I, II, or III. Except for tax parcel IDs DA 346200002 and DA 346200001, the parcels of agricultural land that are impacted by the Project are included within Walworth County's current FP plan area (DATCP, 2012).

3.2.2. Farmland Preservation Zoning

The Town of Whitewater has adopted Walworth County zoning, which includes a certified FP zoning district. The certified FP zoning district for the Town of Whitewater is the A-1 Prime Agricultural

Land zoning district (Walworth, 2022). 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. Impacted agricultural parcels zoned A-1 by Walworth County 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.

The project initiator should consult with all applicable local zoning authorities to identify if additional restrictions apply and to ensure compliance with local zoning regulations.

3.2.3. 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 fifteen years in exchange for eligibility for the FP tax credit. A review of the Department's AEA program shows that Walworth County does not contain an AEA (DATCP, 2022b).

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 the Town of Whitewater, Walworth County.

3.2.4. 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). A review of the WisDNR MFL program database indicates that the Project will not impact lands enrolled within the MFL program.

3.2.5. 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 organization 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 (DALC, 2022; Groundswell, 2022; Land Trust Alliance, 2022).

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.

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, 2019a). A review of the Department's CREP records indicated that the proposed Whitewater Lateral Project would not directly impact any current CREP fields or easements.

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.

3.4. Drainage Districts

Drainage districts are local governmental entities governed under Wis. Stat. Ch. 88 and organized under a county drainage board and for the primary purpose of draining lands for agricultural use (DATCP, 2019b). Landowners who benefit from drainage pay assessments to cover the cost to construct, maintain, and repairing 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 Walworth County has one active drainage district (District #5) and one inactive district (District #3). An "inactive" designation signifies a lack of maintenance or administrative functions by a drainage district over an extended period. Located approximately 1.5 miles directly west of Project, District #5 is not connected to any known drainage flow pathways that may be impacted by the project. Therefore, District #5 is not expected to be impacted by the proposed project. At the time of this analysis, records relating to the inactive district were unavailable. To date, Walworth County does not have a County Drainage Board to administer the functions of a drainage district according to Wis. Stat. § 88.21. Residents may petition for the creation of a County Drainage Board according to Wis. Stat. § 88.17. For additional information contact the Department's State Drainage Engineer.

4. AGRICULTURAL IMPACTS

In addition to being a key component of [Wis. Stat. §32.035](#), documenting the agricultural impacts of a project provides the project initiator 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 WEPCO for this AIS and information gathered from agricultural landowners to analyze the potential agricultural impacts of the Whitewater Lateral Pipeline Project ("Project") in Walworth County, WI. 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, WEPCO 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 D: 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 Landowner Concerns

To gather additional information about the project’s impact to agricultural lands and farm operations, the Department attempted to contact all five agricultural landowners impacted by the Project as shown in Table 4. Only Katzman Farms Inc. responded, and they did not report any concerns to their agricultural operations resulting from the Project.

WEPCO reported to the Department that they have also engaged with the impacted agricultural landowners and provided a summary of the information to the Department. WEPCO states their communications with the farmers were targeted at 1) minimizing inconveniences to farming operations, fertilizing or planting schedules, 2) pre-locating drain tiles in the ROW, 3) an overview of the project construction and restoration phases and 4) compensation for project related damages. Impacts to non-agricultural lands are beyond the scope of this analysis.

Table 4: Agricultural landowners impacted from the proposed Whitewater Lateral Pipeline Project the Department attempted to contact.

Agricultural Landowner	Acres of Impacted Agricultural Land (acres)		
	<i><u>Permanent Easement</u></i>	<i><u>Temporary Easement</u></i>	<i><u>Total</u></i>
Arthur Anderson	0.46	0.03	0.49
Katzman Farms Inc.	4.38	2.22	6.60
Lance Petrasek	0.36	0.18	0.54
Paul Beran	0.19	0.10	0.29
Roger Kutz	0.08	0.00	0.08
Totals	5.47	2.53	8.00

4.3. Severance, Access and Wasteland

The acquisitions 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 impacted 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.

4.3.1. 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, 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\(6\)](#).

As the proposed ROW for the Project runs parallel to existing roadway corridors, the Department does not believe the pipeline will physically sever any agricultural parcels into two or more remnant agricultural fields. Land use restrictions within the ROW, as imposed by the pipeline easement, will prevent the construction of agricultural related buildings or the growth of some agricultural commodities such as trees or other woody plants. However, the continued operation of current agricultural practices within the impacted area do not appear impacted by land use restrictions within the ROW.

4.3.2. 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 utilized by Katzman Farms Inc. Specifically, access points located along USH 12 to parcel IDs DW 1300003, DW 1300003F, DW 1300005D as well as access points along Reliance Road to parcel IDs DW 1300007 and DW 1400002. WEPCO has also reported that Katzman Farms Inc. may be temporarily prevented from using some existing field access points during project construction (DATCP, 2022a). To mitigate access impacts, the Department

recommends WEPCO inform Katzman Farms Inc. well in advance of when, where, and for how long they will lose access to the impacted farm fields.

4.3.3. 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 2.

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 parallel to existing roadway corridors, 2) the Project does not propose any above ground facilities in agricultural areas and 3) the impacted agricultural lands can be returned to the pre-existing agricultural use. Collectively, these aspects limit the Project’s potential to change the shape of a field or to create agricultural wastelands.

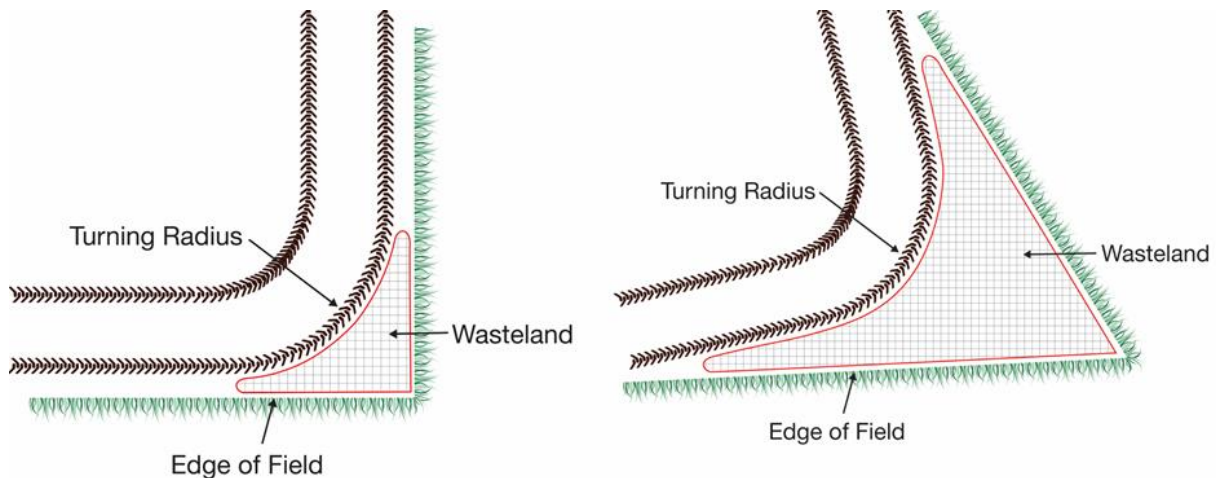


Figure A: Regular Shape

Figure B: Irregular Shape

Figure 2: 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.

4.4. Agricultural Buildings and Infrastructure

WEPCO stated to the Department that the proposed Whitewater Lateral Pipeline Project will not impact any farm residences, buildings or above ground agricultural structures. WEPCO did report that the Project is likely to damage or break below ground drain tiles, which is described in Section 4.6 (DATCP, 2022a).

4.5. Prime Farmland and Soils

As proposed, the Project will impact 8.0 acres of agricultural lands and soils. 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 5). 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 5. The soil texture of agricultural soils impacted by the Project was analyzed, in general terms, across the project ROW.

Almost all (99.6% or 7.97 acres) of the agricultural lands impacted by the Project have received Federal designation as Prime Farmland or Prime Farmland if Drained (Table 5). 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 WEPCO’s proposed Whitewater Lateral Pipeline Project will almost exclusively impact prime farmland and high-quality soils.

Table 5: Agricultural soils, by farmland classification, impacted by the proposed Whitewater Lateral Pipeline in Walworth County, WI.

Soil Texture	Prime Farmland* (acre)	Prime Farmland if Drained ^o (acre)	Farmland of Statewide Importance [‡] (acre)	Not Prime Farmland [¶] (acre)	Total (acre)
Loam	2.76	1.27	0.00	0.02	4.05
Sand	0.00	0.00	0.00	0.01	0.01
Sandy Loam	0.82	0.00	0.00	0.00	0.82
Silt Loam	2.74	0.38	0.00	0.00	3.12
<i>Project Total</i>					8.00
<p>*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.</p> <p>^oPrime farmland if drained, indicates that if farmland is drained it would meet prime farmland criteria.</p> <p>[‡]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.</p> <p>[¶]Not Prime farmland, indicates farmland is neither prime farmland nor of designated importance.</p>					

4.6. Drainage and Soil Health

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.

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 increase 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; Shi et al., 2014).

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. Given the location of the Project, Katzman Farms Inc. is at the greatest risk of experiencing these potential impacts. WEPCO reported that the Project is likely to damage or break below ground drain tiles owned by Katzman Farms Inc. To mitigate these impacts, WEPCO is working with Katzman Farms Inc. to locate drainage tiles prior to construction to ensure all drains are restored post-construction (DATCP, 2022a). To mitigate impacts to drainage and soil health, the Department recommends that WEPCO adopt the recommended best management practices seen in Sections 5.3 - 5.4 to the existing project agricultural mitigation plan.

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.

WEPCO has voluntarily prepared an AMP for the Project, which the Department has reviewed as part of this analysis in Section 5.2. A copy of the AMP can also be found in Appendix B: WEPCO Whitewater Lateral Project AMP. WEPCO stated they believe the Project's AMP will help assure that impacted agricultural operations will be restored to pre-construction conditions. In addition, WEPCO specified that many aspects of the AMP are targeted at mitigating potential adverse project impacts to agricultural productivity. The Department recognizes the value and benefits achieved when any project initiator proactively supports practices and efforts to restore impacted lands to pre-construction conditions and mitigate impacts to agricultural productivity.

5.1. Agricultural Inspector (AI) & Independent Agricultural Monitor (IAM)

When a project affects agricultural land an AI or IAM may need to be hired. Each will 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 project initiator is complying with any agricultural best management practices or conditions established by the project initiator 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 project initiator.

The construction of the Whitewater Lateral Pipeline Project holds the potential for numerous agricultural impacts, which WEPCO plans to mitigate by following an AMP. WEPCO stated in the AMP that an AI will be present during construction and restoration phases to ensure the AMP is implemented properly (DATCP, 2022a). In determining whether an AI is sufficient to ensure compliance with the AMP, the Department evaluated the length of the pipeline, localized potential agricultural impacts, and proposed construction timeline. The Department believes an AI is sufficient to ensure WEPCO adheres to the AMP and any additional BMPs the Department has recommended for WEPCO.

5.2. Agricultural Mitigation Plan

The Department's review of the Project found several potential agricultural impacts where an AMP is vital to mitigating agricultural impacts. WEPCO has voluntarily prepared an AMP for the Project and will utilize an agricultural inspector to ensure the AMP is adhered to during project construction and restoration phases (DATCP, 2022a). The Department reviewed the 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: WEPCO Whitewater Lateral Project AMP.

In the following sections, the Department will review a slate of other BMPs that may provide additional protections for agricultural operations and mitigate agricultural impacts.

5.3. 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: Three-lift soil Candidate Key.

WEPCO has prepared a thorough three-lift soil handling BMP (Appendix B: BMP-09) within the Project AMP that is consistent with the methodology set forth by the Department (Appendix C). To identify those soils that are candidates for three-lift soil handling, WEPCO will utilize criteria set forth by the Department (Appendix C).

To conduct an analysis of three-lift soil handling candidates, the Department collected and compiled relevant soil characteristics (slope, drainage, soil horizon textures, soil horizon thickness etc.) and descriptions from the USDA Natural Resources Conservation Services (NRCS) Web Soil

Survey for the agricultural lands impacted by the Project. The Department excluded project areas outside of the permanent ROW where trenching will not occur and areas where HDD will occur, resulting in a total study area of 4.48 acres. Using the Three-Lift Soil Candidacy Key shown in Appendix C, the Department reviewed the soil characteristics for each unique NRCS soil map unit impacted by permanent easements to identify candidates for three-lift soil handling. From this review, the Department identified six soil map units as candidates, representing 4.32 acres or 96.3% of the study area, for three-lift soil handling procedures (Figure 3). These candidate soils were cross-referenced by agricultural landowner as shown in Table 6, to create the final slate of soils that are candidates for three-lift soil handling.

Table 6: The agricultural soils along the Whitewater Lateral Pipeline Project route, seen in Figure 3, that are candidates for the three-lift soil handling method.

Landowner(s)	Soil Map Unit Symbol*	Soil Map Unit Name	Impacted Land (Acres)
Arthur Anderson	MgA	Martinton silt loam	0.03
Katzman Farms Inc.	AzA	Aztalan loam	0.48
Katzman Farms Inc.	HeB	Hebron loam	1.86
Katzman Farms Inc.	MgA	Martinton silt loam	1.32
Lance Petrasek	FmB	Fox sandy loam	0.36
Paul Beran	FmB	Fox sandy loam	0.19
Roger Kutz	Cw	Colwood silt loam	0.04
Roger Kutz	Na	Navan silt loam	0.04
Total			4.32
*The third letter within the soil map unit symbol (e.g. the A, within symbol MgA) represents the percent slope of the soil as follows: A = 0 - 3%, B = 2 - 6%, C = 6 - 12%, D = 12 - 20%, E = 20 - 30%			

As seen in Table 6 the vast majority (81.6%) of soils that are candidates for three-lift soil handling are found on agricultural lands owned by Katzman Farms Inc. Also included on the Katzman Farms Inc. operation are the 0.16 acres of soils that are not candidates for three-lift soil handling. However, these 0.16 acres represent a minor amount (4.3%) of the impacted agricultural soils in the permanent ROW on the Katzman Farms Inc. operation. Given the minor prevalence of non-candidate soils, the Department recommends that WEPCO offer Katzman Farms Inc. three-lift soil handling for the entire permanent ROW where trenching will occur. The Department also recommends the use of three-lift handling for the other property owners for candidate soils as shown in Table 6. As the Department is unable to ground-truth NRCS soil information for accuracy, the Department defers the final determination of candidate soils for three-lift soil handling to the WEPCO Agricultural Inspector (AI), provided they follow the Department’s protocol as shown in Appendix C.

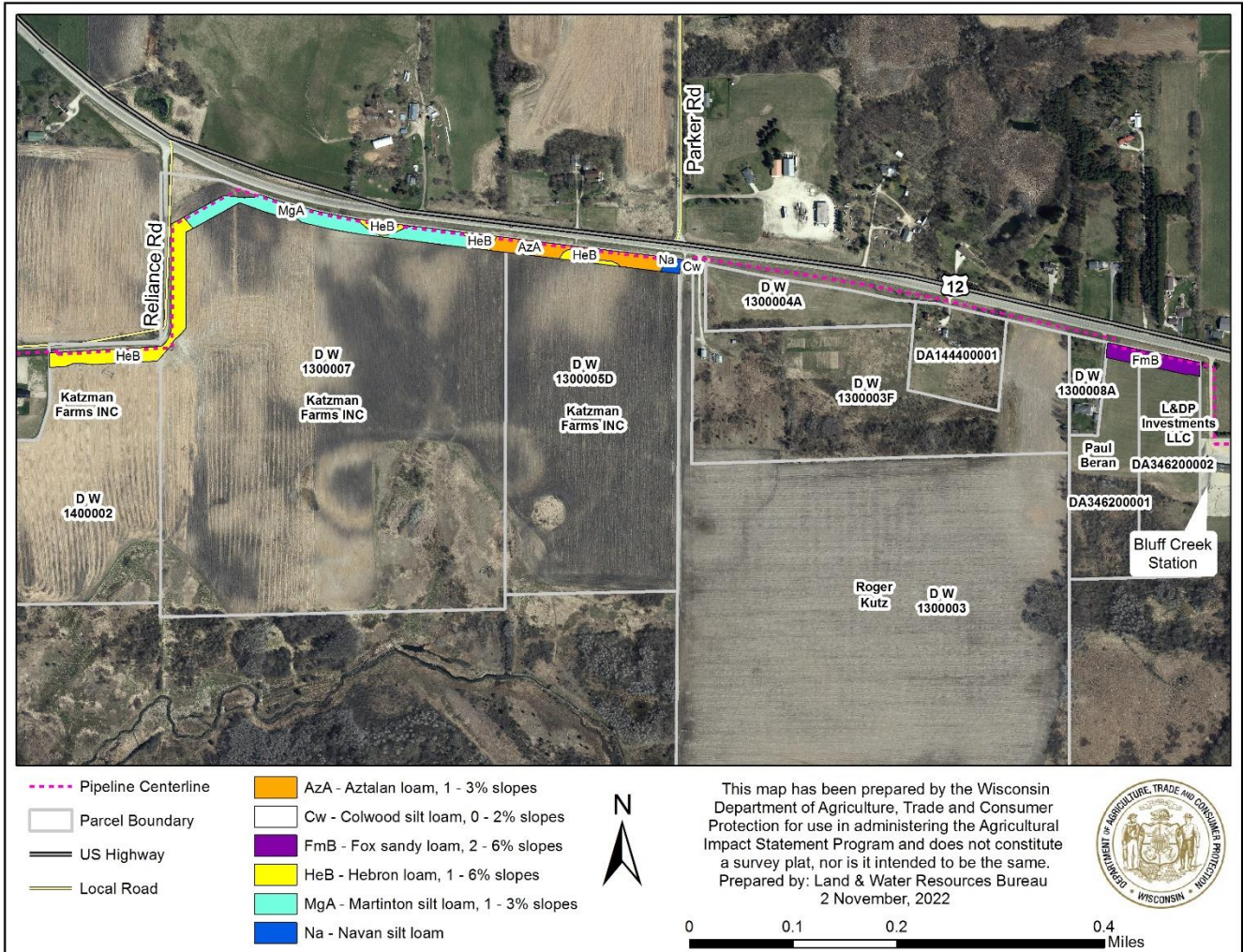


Figure 3: Location of soil candidates for three-lift soil handling along the Whitewater Lateral Pipeline route in the Town of Whitewater, Walworth County, WI. The Department excluded areas outside of the permanent ROW where trenching will not occur, areas where HDD will occur and non-candidate soils (DATCP, 2022a).

5.4. Yield Compensation & Crop Loss

The Department’s soil health analysis, seen in Section 4.6, has indicated the potential for the Whitewater Lateral Pipeline 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, project initiators 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.

The Department recommends that agricultural landowners request at least 200% of crop value within the ROW for reimbursement. Project initiators 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 project initiator 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.

WEPCO has prepared a systematic plan for determining the value of the impacted crop and compensating the impacted farm operation as seen in Appendix B: BMP-08. BMP-08 conforms to the mitigation practices the Department seeks when advocating for crop loss/yield reduction compensation. Specifically, WEPCO states in BMP-08 that, “[t]he landowner/renter will be compensated a total of 200% of the value of the crop based on the calculation in Item 2 above. 100% of the value of the crop during the year of construction, 60% the first year after construction, and 40% the second year after construction.” (Appendix B: BMP-08).

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. Drain Tile Repair & Drainage

The Department’s soil health analysis, seen in Section 4.6, has indicated the potential for the Whitewater Lateral Pipeline Project to damage or break several agricultural drain tile lines. Construction activities – especially those that excavate soil – can disrupt, damage or break agricultural infrastructure including drainage tiles, grassed waterways, and drainage ditches. Project initiators have a duty to restore the agricultural landscape as near to pre-existing conditions as possible.

WEPCO has prepared a stepwise plan for temporary and permanent drain tile repairs as seen in Appendix B: BMP-04. BMP-04 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 to the impacted agricultural landowners, the Department offers a brief overview of recommendations it supports:

- Agricultural landowners should inform WEPCO 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.
- WEPCO should consider using the techniques outlined in Section 5.6.3 “Soil Compaction” when crossing a known drain tile.

- Should WEPCO damage or break a functional drain tile line, WEPCO should repair the drain tile line before backfilling the trench. Repairs should consist of installing a new piece of drain tile or rigid PVC to span the width of the trench and reconnect to the undamaged sections of drain tile. A steel channel or I-beam should also be installed under the drain tile or PVC to assure the pre-existing slope of the tile is maintained during backfilling.
- Where construction activities have created new wet areas WEPCO should work with the landowner to determine the best means to return the agricultural land to pre-construction function.

5.6. Recommended BMPs

The following section will relay the Department's analysis of WEPCO's AMP, beyond the three main project specific areas of agricultural related impacts reviewed in Sections 5.3 – 5.5. The Department will relay any mitigation step(s) to WEPCO that it supports but did not find within the AMP. Agricultural landowners may use the following information to advocate for mitigation practices they want WEPCO to follow on their property.

5.6.1. 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 has 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.

WEPCO has prepared a BMP for the management and segregation of agricultural topsoil as seen in Appendix B: BMP-02. Collectively, BMP-02 in conjunction with BMP-06: *Soil Restoration* conforms 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 in BMP-02 as it aligns with Department priorities to preserve productive agricultural topsoil:

- *All of the topsoil to a depth of 12 inches, or the entire original topsoil depth if it is less than 12 inches, will be removed from the subsoil storage area, the trench area, and the rest of the temporary right-of-way (work and traffic areas); however, topsoil will not be removed from under the topsoil storage piles or areas where construction mats are laid on the surface for material storage or equipment travel. WISCONSIN ELECTRIC GAS OPERATIONS has the option to remove amounts of topsoil in excess of 12" at its discretion. (Appendix B: BMP-02).*

WEPCO may also wish to consider adding the following mitigation practices to either BMP-02 or BMP-06 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.

5.6.2. 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. Project initiators 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.

WEPCO has prepared a BMP for soil restoration as seen in Appendix B: BMP-06. BMP-06 conforms to the mitigation practices the Department seeks to prevent increased rock content in agricultural topsoil.

5.6.3. 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: *Drainage and Soil Health* for additional information on the factors influencing soil health.

WEPCO has prepared a BMP for soil compaction management and soil decompaction as seen in Appendix B: BMP-06. BMP-06: *Soil Restoration* 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 in BMP-06 as it aligns with Department priorities to prevent soil compaction and/or de-compact agricultural topsoil:

- *Deep subsoil ripping shall be carried out on all traffic and work areas of agricultural right-of-way where full corridor stripping of topsoil occurred. This includes the pipeline workspaces, temporary workspaces, and temporary access roads. It does not include the area over the trench. (Appendix B: BMP-06).*
- *Subsoil compaction will normally be alleviated with three passes of the de-compaction equipment. Multiple passes refers to the implement passing over the same soil band. That is, three passes of a 10-foot wide implement will treat a 10-foot wide band of soil, not a 30-foot wide band. (Appendix B: BMP-06).*

- *Passes must be made in multiple directions. This can be achieved in the narrow pipeline right-of-way by weaving the implement back and forth across the area being ripped. (Appendix B: BMP-06).*
- *De-compaction 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. (Appendix B: Best Construction Management Practices - k).*

WEPCO may also wish to consider adding the following mitigation practices to BMP-06 to further mitigate the impacts of soil compaction:

- Use only low-ground pressure and/or wide tracked equipment within ROW to reduce axle weight applied to soils.
- Use construction matting in wet areas or areas prone to rutting within the ROW to spread out pressure.
- Avoid working in areas with recently saturated soils.
- When possible, conduct construction work during winter months when the ground is frozen.

5.6.5. 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 WEPCO 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 AMP. To address impacts related to salt applications on temporary road matting over agricultural soils, WEPCO should consider adding the following BMPs to the Project AMP.

- WPECO 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, WPECO should limit the sodium chloride application rate to the lowest level required to maintain a safe working environment.
- WPECO should prepare a spill response plan in the event sodium chloride or an alternative product is over applied or spilled onto agricultural soils.

5.6.4. 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.

WPECO has prepared a BMP for trench dewatering as seen in Appendix B: BMP-05. BMP-05: *Trench Dewatering* conforms to the mitigation practices sought by the Department. The Department wishes to highlight the following mitigation practice contained in BMP-05 as they align with Department priorities to mitigate agricultural impacts from trench dewatering:

- *Rainwater or groundwater that collects in the trench will be pumped:*
 - *Onto a well-vegetated area that will prevent the water from returning to the right-of-way, or*
 - *Into a filter bag or a settling basin constructed of straw bales when adequate vegetation is absent or when in the vicinity of a wetland or waterbody. (Appendix B: BMP-05).*
- *Preferably, dewatering efforts will not deliver water onto cropland. If it is absolutely necessary to do so, the crops will be inundated (flooded) less than 24 hours. (Appendix B: BMP-05).*
- *Discharge of water from the trench of non-organic farm operations and hydrostatic testing shall not be made in a way that can runoff onto adjacent organic farm operations. (Appendix B: BMP-05).*

5.6.5. 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 have 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.

WEPCO has prepared a BMP to address erosion and repairs to existing agricultural erosion control facilities as seen in Appendix B: BMP-03. BMP-03: *Erosion Control* conforms to the mitigation practices sought by the Department. The Department wishes to highlight the following mitigation practices contained in BMP-03 as they align with Department priorities to control soil erosion and mitigate impacts to agricultural conservation practices & facilities:

- *Existing agricultural facilities, such as diversion terraces, grassed or lined waterways, outlet ditches, water and sediment control basins, vegetated filter strips, etc., damaged due to construction activities will be restored to pre-construction conditions. Photographs and elevation surveys may be taken as necessary prior to construction activities at the site to ensure final restoration is satisfactory. (Appendix B: Best Construction Management Practices - i).*
- *Erosion controls such as silt fence, staked hay bales, and erosion matting will be used to prevent surface runoff from carrying sediment laden water onto adjacent lands. Dewatering may be required to remove standing water from trench or bore pit areas. Erosion control and dewatering technical standards are described on the Wisconsin Department of Natural Resources website <https://dnr.wisconsin.gov/topic/Stormwater/standards>. These standards will be met or exceeded at all times. It is not permissible to allow soil or water runoff to occur from non-organically farmed fields onto organically farmed fields at any time even if both fields are owned by the same landowner. (Appendix B: Best Construction Management Practices - f).*

5.6.6. 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. WEPCO has prepared a BMP to address impacts to fencing as seen in Appendix B: Best Construction Management Practices - d. This BMP generally conforms to the mitigation practices sought by the Department. However, WEPCO may also wish to consider adding the following mitigation practice to further address the impacts to fencing caused by the Project:

- WEPCO should develop a plan for livestock to access pastures adjacent to the Project ROW or otherwise compensate the landowner for the costs related to restricted grazing.

5.6.7. 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. WEPCO has prepared a BMP to address impacts to weed control as seen in Appendix B: Best Construction Management Practices - h. However, the Department believes WEPCO may wish to consider implementing the following additional mitigation steps, specific to weed control, to strengthen its weed control BMP:

- WEPCO should offer agricultural landowners, during easement negotiations, the ability to state whether they do or do not give WEPCO express written consent for herbicide to be applied within the ROW they own.
- WEPCO should use tracking pads at frequently used access points.
- WEPCO 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, WEPCO 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/>.

5.6.8. 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 cans be toxic to livestock. To mitigate the potential impact of construction debris, WEPCO has proposed various BMPs in Appendix B: Best Construction Management Practices – h, k and Appendix B: BMP-06. Collectively, these BMPs contain the mitigation practices the Department advocates for to mitigate the impact of construction debris.

5.6.9. 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.

The Department did not find mention of mitigation or compensation practices related to the disruption of feed supply for dairy operations within the Project AMP. To address impacts resulting in the loss of animal feed, leading to the purchase of replacement feed, WEPCO should consider adding the following BMPs to the Project AMP.

- Compensate any impacted dairy operations for increased operational costs associated with the purchase of forage resulting from the reduction of forage from within the ROW.

5.6.10. 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 noises 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 AMP. To address impacts resulting from construction noise and dust WEPCO 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.
- WEPCO should clean all roadways (private, county, state etc.) of construction debris, dirt and rocks.
- WEPCO should use tracking pads at frequently used access points.
- Apply water over the dust generating areas to reduce dust output.

Nearby agricultural landowners may also wish to consider the following recommendations:

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

5.6.11. Restoration

Restoration is final step in assuring an impacted agricultural area is restored as close as possible to preconstruction conditions. In general, restoration activities include the 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.

WEPCO has proposed various BMPs in Appendix B: Best Construction Management Practices and Appendix B: BMP-07 to restore the impacted agricultural lands as close as reasonably possible to their pre-construction conditions. Collectively, these BMPs contain the majority of mitigation practices the Department supports. Department believes WEPCO may wish to consider implementing the following additional mitigation steps, to strengthen restoration efforts:

- WEPCO 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.

6. REFERENCES

- Azadi, H., P. Ho, and L. Hasfiat. 2010. Agricultural land conversion drivers: A comparison between less developed, developing and developed countries. *Land Degradation & Development*. doi:10.1002/ldr.1037
- Borchers, A., J. Ifft, and T. Kueth. 2014. Linking the Price of Agricultural Land to Use Values and Amenities. *American Journal of Agricultural Economics*. 96(5): 1307–1320. doi:10.1093/ajae/aau041
- Brorsen, B., D. Doye, and K. Neal. 2015. Agricultural Land and the Small Parcel Size Premium Puzzle. *Land Economics*. 91(3): 572-585. doi:10.3368/le.91.3.572
- 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 25 Oct. 2022).
- 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
- Driftless Area Land Conservancy (DALC). 2022. Land We've Protected. <https://www.driftlessconservancy.org/land-protection> (accessed 19 Aug. 2022).
- Groundswell Conservancy (Groundswell). 2022. Project Map. <https://groundswellconservancy.org/map/> (accessed 19 Aug. 2022).
- Guiling, P., B. Brorsen, and D. Doye. 2009. Effect of Urban Proximity on Agricultural Land Values. *Land Economics*. 85(2): 252-264. doi: 10.3368/le.85.2.252
- 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/es071391I
- Land Trust Alliance. 2022. Find a Land Trust. <https://www.findalandtrust.org/> (accessed 19 Aug. 2022).
- Mothorpe, C., A. Hanson, and K. Schnier. 2013. The Impact of Interstate Highways on Land Use Conversion. *Annals of Regional Science*. 51(3). doi: 10.1007/s00168-013-0564-2
- 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). 1997. 1997 Census Volume 1, Chapter 2: County Data: Table 6. Farms, Land in Farms, Value of Land and Buildings, and Land Use: 1997 and 1992. Retrieved from https://agcensus.library.cornell.edu/wp-content/uploads/1997-Wisconsin-CHAPTER_2_County_Data-1600-Table-06.pdf (accessed 16 Aug. 2022).
- U.S. Department of Agriculture (USDA). 2017a. 2017 Census Volume 1, Chapter 2: State Level Data: Table 8. Farms, Land in Farms, Value of Land and Buildings, and Land Use: 2017 and 2012. Retrieved from <https://www.nass.usda.gov/Publications/AqCensus/2017/>

[Full Report/Volume 1, Chapter 2 County Level/Wisconsin/st55_2_0008_0008.pdf](#) (accessed 16 Aug. 2022).

- U.S. Department of Agriculture (USDA). 2017b. Title 430 - National Soil Survey Handbook: Part 622 – Interpretive Groups. Retrieved from <https://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=41985.wba> (accessed 14 Oct. 2022).
- U.S. Department of Agriculture (USDA). 2022. Farm Service Agency: Conservation Reserve Program. Retrieved from https://www.fsa.usda.gov/Assets/USDA-FSA-Public/usdfiles/FactSheets/2019/conservation-reserve_program-fact_sheet.pdf (accessed 26 Oct. 2022).
- 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 26 Oct. 2022).
- Walworth County. 2009. Multi-Jurisdictional Comprehensive Plan Update for Walworth County: 2035. Retrieved from <https://www.sewrpc.org/SEWRPCFiles/Publications/CAPR/capr-288-comprehensive-plan-for-walworth-co-2035.pdf>
<https://www.co.walworth.wi.us/DocumentCenter/View/1941/Walworth-County-Multi-Jurisdictional-Comprehensive-Plan-Update-PDF>(accessed 12 October 2022).
- Walworth County. 2022. Walworth County Code of Ordinances. Section 74-51 *Agricultural Districts*. Retrieved from https://library.municode.com/wi/walworth_county/codes/code_of_ordinances?nodeId=WACOCOOR_CH74ZO_ARTIIZOOR_DIV3ZODI_S74-51AGDI (accessed 18 Aug. 2022).
- Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP). 2012. *Walworth County Farmland Preservation Plan*. Department of Agriculture, Trade and Protection. Madison, WI, USA.
- Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP). 2019a. CREP: Conservation Reserve Enhancement Program. Retrieved from <https://datcp.wi.gov/Documents/CREPBrochure.pdf> (accessed 26 Oct. 2022).
- Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP). 2019b Drainage Districts in Wisconsin. Retrieved from <https://datcp.wi.gov/Documents2/DrainageProgramFactsheet.pdf> (accessed 26 Oct. 2022).
- Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP). 2022a. Agricultural Impact Notice for Pipeline Projects DARM-BLWR-003 rev 5/22: Whitewater Lateral Pipeline Project. Department of Agriculture, Trade and Protection. Madison, WI, USA.
- Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP). 2022b. Designated Agricultural Enterprise Areas (AEAs). https://datcp.wi.gov/Pages/Programs_Services/DesignatedAEAs.aspx (accessed 18 Aug. 2022).
- 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 18 Aug. 2022).
- Wisconsin Department of Administration (WisDOA). 2013a. Wisconsin Geography Maps and Graphics: Core based and combined Metropolitan Statistical Areas. Retrieved from <https://doa.wi.gov/DIR/CoreBasedCombinedStAreas.xlsx> (accessed 16 Aug. 2022).
- Wisconsin Department of Administration (WisDOA). 2013b. Population and Household Projections, produced in 2013, based from 2010 Census: State Population Projections 2010-2040. *County Age-Sex Population Projections, 2010-2040*. Retrieved from https://doa.wi.gov/DIR/Proj_cofinal_2010_2040Web.xlsx (accessed 16 Aug. 2022).

- Wisconsin Department of Administration (WisDOA). 2013c. Population and Household Projections, produced in 2013, based from 2010 Census: State Population Projections 2010-2040. *MCD and Municipal Population Projections, 2010-2040*. Retrieved from https://doa.wi.gov/DIR/Proj_munifinal_2010_2040.xlsx (accessed 16 Aug. 2022).
- Wisconsin Department of Administration (WisDOA). 2020. Wisconsin Geography Maps and Graphics: 2020 Population Density. Retrieved from https://doa.wi.gov/Pages/LocalGovtsGrants/Wisconsin_Geography_Maps_and_Graphics.aspx (accessed 16 Aug. 2022).
- Wisconsin Department of Administration (WisDOA). 2021. County Final Population Estimates. Retrieved from https://doa.wi.gov/DIR/Final_Ests_Co_2021.xlsx (accessed 16 Aug. 2022).
- Wisconsin Department of Revenue (WisDOR). 2022. Wisconsin MSA Outlook – September 2022. Retrieved from <https://www.revenue.wi.gov/dorreports/2022-09-wi-msa-outlook.pdf>
<https://www.revenue.wi.gov/dorreports/wi-msa-outlook-mar-2022.pdf>
https://www.revenue.wi.gov/DORReports/WI-MSA_Outlook_Sept_2021.pdf(accessed 28 Sept. 2022).
- 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 15 Aug. 2022).

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