ATC CONSTRUCTION and MITIGATION PLAN

Cardinal - Hickory Creek 345 kV Transmission Line Project

Segment E3 Cardinal to Mount Horeb

American Transmission Company LLC, by its corporate manager, ATC Management Inc. (ATC), ITC Midwest, LLC (ITC), and Dairyland Power Cooperative (DPC) were granted a Ch. 30.025 utility permit by the Wisconsin Department of Natural Resources (WDNR) for work in and adjacent to wetlands and waterways for the Cardinal - Hickory Creek 345 kV Transmission Line Project (Permit #IP-SC-2019-25-03588). This permit requires the Applicants prepare a Construction and Mitigation Plan (CMP) for work in wetlands and waterways for WDNR approval prior to beginning work in these features (General Conditions #76). The Public Service Commission of Wisconsin granted the applicants a Certificate of Public Convenience and Necessity (CPCN) for the project under docket 5-CE-146; the Final Decision and Order includes a requirement to develop and submit a CMP for each construction segment. As the Project Construction Manager for Segment E3 of the project, ATC has prepared this CMP for this segment, which is located in Dane County and is approximately 18 miles long.

Sections A-M of this CMP follow those items outlined in General Condition #78 of the WDNR utility permit, and N-P address additional items specified in the Public Service Commission of Wisconsin (PSCW) Order. The CMP provides additional detail as required by several permit conditions and order points. It does not list every permit condition or order point, and ATC understands that all permit conditions and order points are required, even if not described within this document. Attachments are labeled according to the CMP Sections and are included as outlined below:

Attachment C1: GIS Shapefiles

Attachment D1: CMP Access Map Attachment D2: Laydown Yard Location Map

Attachment E1: Wetland Summary Table Attachment E2: Wetland Photos Attachment E3: Off-ROW Evaluation Summary Table

Attachment F1: Waterway Summary Table

Attachment K1: Revised WDNR Table 1 – Segment E3

Attachment L1: Fisheries Waiver Package (Includes Waterway Photos and Waterway Cross Sections for TCSB locations)

Attachment N1: Revegetation and Monitoring Plan

Attachment P1: Structure Removal Process

A. Overall Project Sequencing and Scheduling - ATC

The ATC Managed portion of the project consists of Segment E3 (Cardinal to Mount Horeb), Segment E2 (Mount Horeb to Dodgeville), and Segment E1 (Dodgeville to Hill Valley). Work will also be conducted at substations connected to this portion of the Project including Hill Valley, Cardinal, and other remote substations. ATC's work will generally proceed from east (Segment E3) to west (Segment E1) beginning with ROW clearing on Segment E3 in October 2021 and ending with restoration on Segment E1 in late 2023 or early 2024.

The following summarizes the anticipated timing of construction along the ATC Managed portion of the Project:

- ROW Clearing: October 2021 July 2022
- Structure Foundations: March 2022 April 2023
- Install Structures: May 2022 June 2023
- Install Conductor: June 2022 September 2023
- Mat removal, ROW cleanup and restoration are scheduled to occur as portions of the Project are completed. It is anticipated this will occur from the fall of 2022 to the fall of 2023. Additional restoration activities may extend into 2024 depending on weather and soil conditions.

B. Segment E3 Sequencing and Scheduling

Vegetation clearing within Segment E3 (Cardinal to Mount Horeb) is anticipated to begin in October 2021. The following summarizes the anticipated timing of construction within Segment E3:

- ROW Clearing: October 2021 May 2022
- Mat placement, where needed for ROW Clearing: beginning October 2021
- Additional mat placement for construction: March 2022-April 2022
- Structure Foundations: March 2022 July 2022
- Install Structures: May 2022 August 2022
- Install Conductor: June 2022 September 2022
- Mat removal, ROW cleanup and restoration within Segment E3 is scheduled to occur in the fall of 2022 following completion of construction, although actual dates for restoration will be weather dependent.

C. GIS Shapefiles

The Project Shapefiles including structure locations, wetland matting locations, TCSBs, off-ROW access, and laydown yards for Segment E3 are included as Attachment C1.

D. Final Access Plan Map

An Access Map for Segment E3 is provided in Attachment D1. This map shows the location of wetlands and waterways, structure locations, temporary clear span bridge (TCSB) crossings, vehicle access both on and off-ROW, and mat storage/staging areas near the ROW. Orange lines identified as Construction Access are inclusive of all project activities. Green lines identify vehicle access that will be used for limited project activities, specifically vegetation management and wire stringing. Access is depicted in portion of the ROW where vehicle travel is most likely, however actual vehicle travel lanes within the ROW will be determined in the field based on topographic features. Access routes are not drawn to scale, and some work activities will extend the full width of the ROW.

The Access Map provides an approximate visual representation of the construction matting to be placed within wetlands. The placement of wetland matting during construction may be adjusted from what is shown to account for site conditions such as unstable soils, topography, or obstructions. Adjustments will attempt minimize wetland impacts where possible while facilitating safe equipment access.

The off-ROW access routes and laydown yards, including some that were not identified in the Application for PSCW Certificate of Public Convenience and Necessity and WDNR Utility Permit (Joint Application), have been reviewed and evaluated with respect to threatened or endangered species, historic resources, wetlands, waterways or other sensitive resources. Potential impacts to these resources are outlined within this CMP and this CMP serves as notification pursuant to Wis. Admin. Code § PSC 111.71.

The following laydown yards have been identified for use as part of the Project (some laydown yards will service multiple segments) and are identified on the Laydown Yard Map (Attachment D2):

- Cobb Yard: 3725 STH 80, Cobb. Comprised of an active quarry/gravel pit and cropped field located east of STH 80.
- Swiggum Yard: 3290 Survey Road, Dodgeville. Existing quarry southwest of USH 18 and Survey Road.
- Barneveld Yard: Industrial Drive, Barneveld. Existing gravel yard actively used for industrial storage, located between USH 18/151 and Industrial Drive.
- Stagecoach Yard: South of Stagecoach Road just west of the Project ROW. Comprised of a farmed agricultural field.
- Mt. Horeb Yard: 2584 STH 78, Mt. Horeb. Comprised of an active quarry/gravel pit southeast of the intersection of USH 151/18 and STH 78.
- Erb Road Yard: 2400 Erb Road, Verona. Comprised of an active gravel pit south of USH 151/18.
- Thoni Yard: 4230 Reeson Road, Barneveld. Comprised of an active quarry/gravel pit north of CTH ID.

• Monson Yard: 4106 Ihm Harris Rd, Barneveld. Existing concrete pad, former feed storage area north of USH 18.

In the case that additional laydown yards or off-ROW access paths are identified, the Applicants will complete an environmental review of these areas and submit the necessary information to the PSCW prior to establishing any such areas in accordance with Wis. Admin. Code § PSC 111.71 or 112.073.

E. Wetland Impact Minimization

Wetlands were identified in 2017 and 2020 as described in the revised Wetland Delineation Report dated March 1, 2021. Wetland delineation fieldwork completed during the 2020 growing season included confirmation of previously identified wetland boundaries, revised wetland boundaries where applicable, and updated wetland / waterway characteristics. One feature (X-W01-a-n) consists of an excavated depression within a maintained lawn; an artificial wetland exemption was submitted to WDNR for concurrence. A summary of wetlands within Segment E3 including a description of vegetative communities, survey method, and summary of changed conditions (if applicable) are included in the Wetland Summary Table (Attachment E1). Pre-construction photographs of wetlands along the ROW of Segment E3 are provided in Appendix E2.

The off-ROW access routes, staging areas, and laydown yards were evaluated for wetlands and waterways using a combination of onsite determinations where access was available and off-site review. Resources used to assist in the assessment included U.S. Geological Survey (USGS) topographic data, U.S. Department of Agriculture Natural Resources Conservation Service (NRCS) soil survey, WDNR Wisconsin Wetland Inventory (WWI) mapping, WDNR Surface Water Data Viewer, and aerial photography. A summary of the characteristics the off-ROW access routes and the wetland determination methods are included in the Off-ROW Evaluation Table in Attachment E3.

The following subsections describe the construction activities that will occur within wetlands and the minimization measures that will be taken to reduce wetland impacts. The measures described in other sections of this CMP such as the Invasive Species Management Plan (Section H) and Wetland Restoration and Revegetation Plan (Section I) will also minimize wetland impacts.

Structures in Wetland

As shown on the Access Map (Appendix D) and outlined in WDNR Table 1 (Appendix K), three structures will be placed in wetlands within Segment E3 requiring 285 square feet (0.007 acre) of permanent wetland fill. Structure placement in wetlands were reduced to the extent possible during final design, however due to the configuration of the project and extent of wetlands within the landscape, complete avoidance of wetlands was not feasible. A summary of permanent wetland impacts is presented below:

• Two structures (147457 and 147458) are located within X-W01-r, resulting in 190 square feet (.004 acre) of permanent wetland fill. These structures were previously approved in the Joint Application, however the locations have shifted and were approved via the Minor Route Adjustment on Segment X02.

• One structure (147436) is now located within V-W01-r, resulting in 95 square feet (.002 acre) of permanent wetland fill. This wetland is comprised of a wet meadow/farmed wetland complex that was expanded to reflect field conditions observed in 2020.

One structure (147477) was previously considered within wetland Y-W03a within the Joint Application. Field delineations completed in this area determined the structure location will not result in permanent wetland fill.

Temporary Guard Structures

Temporary guard structures are required to be placed within two wetlands adjacent to USH 14 (Y-W04 and Z-W03-r), resulting in up to 141 square feet (.003 acre) of temporary wetland fill within each feature (as shown on Access Map Page 30 and 31). These structures will be installed as a safety measure to protect traffic during wire stringing activities. These guard structures consist of 3-5 individual wood poles 36 inches in diameter. These poles will be directly embedded into the ground surface and will be in place for up to 4 months. These poles will be removed and the area restored to match existing grade when complete. The wetland impact associated with these structures are included within the temporary fill amounts provided in WDNR Table 1 (Appendix K).

Structure Removal

Several existing transmission poles within wetlands will be removed as part of the construction of Segment E3. These structures are associated with existing transmission lines within the CHC ROW or Line Removal Areas as shown on the Access Map. Attachment P1 (Structure Removal Process) describes the structure removal process in wetlands. At this time, it is anticipated that structures may be cut off at above water level within wetland Y-W01-r (Structure 127154) and Y-W09-r (Structures 127196 and 127197). Due to equipment access limitations and inundation, Structures 127154 and 127196 would likely be accessed by a small boat.

Other structures within wetland Y-W02a-n are in close proximity to Black Earth Creek near along the northern bank. These structures (127160 through 127165) will either be removed and backfilled to the match existing grade or flush cut to minimize ground disturbance.

No new permanent wetland fill will be required for structure removal. After removal the area will be restored to match existing grade with topsoil replacement when complete. Revegetation of the disturbed areas will follow the Revegetation and Monitoring Plan (Attachment N).

Wetland Crossings

Locations where vehicle access will cross wetlands within Segment E3 are presented on the Access Map. Access through wetlands has been avoided or minimized where feasible; however, complete avoidance of all wetlands along this segment is not possible due to project alignment and the configuration of these wetlands. Locations where access routes are shown to avoid wetlands may need to be crossed by light duty vehicles for wire stringing activities. Construction matting may be used to facilitate access and minimize impacts in wetlands. WDNR Table 1 (Attachment K) provides the area of temporary construction matting within each wetland.

Most off-ROW access paths occur in upland areas that are comprised of driveways, farm lanes, or cropped agricultural fields. However, the following off-ROW access routes are anticipated to be located in wetlands as described below:

- A wire setup area near Structure 147400 may require matting in wetland U-W02.
- An existing farm lane crosses through potential wetlands (T-W01a) will be used for access between Structures 147403 and 147404. This farm lane also crosses a waterway (T-R01a) at a culverted crossing.
- Wetlands will be crossed outside the ROW near Structure 147415 across wetland T-W02a-n. This route was selected to avoid a wider waterway crossing and reduce wetland matting within the ROW.
- One potential access path is located along a farm lane near Structure 147455 that traverses mapped hydric soils and possible wetlands. This off-ROW route would be used under stable or dry conditions, and no temporary construction matting is anticipated.
- Access along a farm access lane through wetland Z-W02b-r near Structure 147476.
- Access through wetland Z-W03a-r near Structure 147477. This access route will be used if other access to the west side of Z-R01 cannot be obtained.

No other off-ROW access routes in Segment E3 cross wetlands or waterways.

Wetland Impact Summary

Construction of Segment E3 will require a total of 0.007 acre of permanent wetland fill for the placement of transmission line structures, 5.72 acres temporary wetland fill for construction matting and temporary guard structure placement, and permanently clear 1.32 acres shrub and forested wetland.

For Segment E3, the WDNR permit (Permit #IP-SC-2019-25-03588) previously authorized 0.007 acre permanent wetland fill, 4.59 acres temporary wetland fill for construction matting, and permanently clear 1.42 acres shrub and forested wetland.

Erosion Control

A segment-specific Erosion Control Plan (ECP) will be developed to meet the requirements of NR 151 and NR216 and included in ATC's Notice of Intent to be submitted to WDNR under separate cover. This plan will also address erosion control in proximity to wetlands. Disturbance within wetlands will be minimized by implementation of techniques such as the use of low ground pressure tires or tracked vehicles, and/or the use of construction matting to help reduce soil rutting and vegetation disturbance. Use of erosion control devices (ECDs) such as silt fencing, straw logs, or other measures will be installed as necessary to minimize potential wetland impacts.

F. Waterway Crossings and Impact Minimization Discussion

Waterways along Segment E3 will be crossed using a Temporary Clear Span Bridge (TCSB) to avoid instream disturbance by construction equipment. Up to 14 TCSB crossings will be required along Segment E3 (WDNR Table 1, Attachment K1). TCSBs are generally installed and will remain in place for the duration of the project. However, some TCSBs are needed only to allow access for ROW clearing and will be removed upon completion of that activity. Plan and cross-sectional view drawings for each bridge crossing and photos of accessible crossing locations are provided in Attachment L1 (Fisheries Waiver Package).

Waterways Y-R02, Y-R04, Z-R01b, and Z-R01 are all associated with Black Earth Creek. Up to eight TCSBs will be required to cross Black Earth Creek, including five at Y-R02 (Y-R02-1 through Y-R02-5) due to a railroad embankment and steep topography along the northern portion of the Project ROW that limits equipment access along the north side of Black Earth Creek at Y-R02. Access on the north side of Black Earth Creek (Y-R02) is needed for ROW clearing and removal of existing 69kV wood pole structures. ATC will attempt to eliminate the need for some of these TCSBs; however, at this point it is assumed all of the TCSBs will be required.

Waterway Impact Summary

Segment E3 will require the placement of 14 TCSBs to facilitate construction access. The WDNR permit (Permit #IP-SC-2019-25-03588) previously authorized the placement of 19 TCSBs.

Erosion Control

A segment-specific Erosion Control Plan (ECP) will be developed to meet the requirements of NR 151 and NR216 and included in ATC's Notice of Intent to be submitted to WDNR under separate cover. This plan will also address erosion control in proximity to waterways and TCSBs.

Bridge Clearance

Descriptions of the waterways are provided in Attachment F1, and the bridge cross sections and photos provided in Attachment L1 (Fisheries Waiver Package). Based on the waterway characteristics and topography adjacent to the crossings, all of the proposed 14 TCSBs would not likely have 5 feet of clearance between the water surface and bridge.

ATC requests the WDNR allow less than 5 feet of navigation for the TCSBs crossings contained within this plan. The waterways crossed by the project are not known to have navigation or snowmobile use primarily due to constraints such as the width/depth of the waterway, culvert crossings at roadways, and/or thick vegetation that limits access (see Attachment F). Due to these limitations, the waterways are anticipated to have infrequent or no watercraft use.

Water Withdrawal

During construction of concrete foundations, water may be pumped into the borehole to maintain the integrity of the excavation and suitable surface waters adjacent to the ROW may be used as a source of this water. Two locations (Y-R02 and Y-W09) have been identified for water withdrawals. If surface water withdrawals are required, they will meet the following conditions:

- Pump intakes and discharges shall be placed to prevent impacts to fisheries, wildlife, and their habitat; and
- Pump intakes and discharges shall be placed to prevent the disturbance, removal and scour of bed material.

In addition, water withdrawals from public waterways will avoid placement of a structure on the bed of the waterway in accordance with Ch. 30.12 (Wis. Stats.).

G. Endangered Resources Plan

ATC consulted with the WDNR to develop a Certified Endangered Resources (ER) Review (ERR18-130). The Certified ER Review has been amended annually and incorporates species survey results. The amendment identifies which state-listed species have required follow-up actions and the specific areas along Segment E3 where measures are required to avoid and minimize direct or indirect impacts to state-listed species. These follow-up actions and measures will be implemented as described in the ER Review. Furthermore, the amendment identifies voluntary measures recommended to avoid and minimize impacts to other sensitive state-listed species or resources. These measures will be implemented where feasible. The amendment table will continue to be updated, as necessary, and will serve as a communication and coordination tool to be used among ATC, WDNR, and the construction contractor(s).

A Biological Opinion was issued for the project for potential adverse effects to federally listed species. Nondiscretionary measures were included to minimize effects from the project. ATC will implement those measures within the applicable locations.

H. Invasive Species Management Plan

Plant communities and dominant vegetation within the ROW of Segment E3 were documented during field evaluations in 2017 and 2020. The presence (i.e., general location and density) of Restricted and Prohibited species defined in Wis. Admin Code Ch. NR 40 within the ROW were identified during these assessments.

The majority of Segment E3 follows existing transmission line ROW, traversing pastures, agricultural lands, and woodlands. The segment also frequently shares the roadside ROW of town and county roads. The following summarizes invasive species observed in vegetative communities along the Segment E3 project corridor. Numerous Restricted species were identified, however no Prohibited species were observed.

In general, the existing transmission and roadside ROWs along Segment E3 are commonly dominated by a variety of non-native species, including Eurasian cool season grasses such as Kentucky blue grass (*Poa pratensis*) and smooth brome grass (*Bromus inermis*). Invasive species were commonly observed within open pastures, along roadways, and at edges of agricultural fields. Invasive species observed include wild parsnip (*Pastinaca sativa*), Canada thistle (*Cirsium arvense*), and scattered locations of crown vetch (*Coronilla varia*). Many of these species were especially abundant along roadway areas subject to regular mowing.

Along fence lines and field edges and within other areas between agricultural fields, invasive shrubs were common including common buckthorn (*Rhamnus cathartica*), white mulberry (*Morus alba*), invasive honeysuckle shrubs (*Lonicera* spp.) and occasionally multiflora rose (*Rosa multiflora*). These areas also commonly contained populations of wild parsnip, garlic mustard (*Allaria petiolata*), and Dame's rocket (*Hesperis matronalis*).

Woodlands occur along Segment E3 that usually extend well beyond the Project ROW. Black locust (*Robinia pseudoacacia*) trees and saplings were typically observed, along with honeysuckle and common buckthorn shrubs with their abundance ranging from scattered to dominant. Other common invasive species observed within these communities included Japanese hedge parsley (*Torilis japonica*), garlic mustard, and Dame's rocket.

Remnant prairie communities were also present in a few locations on steep sandstone or dolomite bluffs or rock outcrops in wooded areas. However, these communities were commonly degraded by cool season grasses such as Kentucky blue grass and encroaching invasive shrub species such as common buckthorn and honeysuckle.

Wetland communities observed along Segment E3 include mostly wet meadow, degraded wet meadow, hardwood swamp, shrub-carr, shallow marsh, sedge meadow, degraded sedge meadow, and farmed wetlands. Very few of the wetlands along this segment are extensive, higher quality communities as most have been degraded by invasive species. Reed canary grass (*Phalaris arundinacea*) (not included in NR 40) and narrow-leaf cattail (*Typha angustifolia*) were commonly observed within many of these wetlands. In addition, common buckthorn and honeysuckle shrubs are scattered to common within some wetland areas.

General BMPs

Many locations within the Project ROW and along access routes are comprised of vegetative communities that contain invasive species, as described above. The following general BMPs will be used during construction along Segment E3 to comply with *Wis. Admin Code* Ch. NR 40. The intent of these practices is to limit the spread of invasive species.

- Construction equipment and material
 - Minimize soil disturbance and use gravel roads or established equipment access paths to the extent practicable.

- To the extent practicable, avoid localized populations of invasive species through construction timing and alternate access.
- When working in areas infested with invasive species, remove mud and plant material from construction matting and equipment.
- Managing soil and vegetative material
 - Avoid movement of invasive material to non-infested areas. If possible, invasive material should be left within the ROW. For example, when clearing areas dominated by honeysuckle or buckthorn shrubs, cut material should be left in generally the same place and not spread off-site or to uninfested areas.
 - If infested soil or vegetative material must be transported from the ROW, transport to a designated area for appropriate disposal. Prior to transporting material, manage the load to limit potential spread to uninfested areas.
 - Manage stockpiles onsite to prevent the spread to adjacent areas.
 - In areas requiring clearing, a layer of wood chips may be left on the ground to act as a barrier between vehicles and the ground surface. Wood chips will not exceed 2 inches in depth within wetland areas.
- Restoration and landscaping
 - Seed mixes have been developed for the Project and will be installed in accordance with the Revegetation and Monitoring plan (Attachment N1).
 - Revegetate disturbed soils as soon as feasible with an appropriate temporary cover crop to minimize invasive species establishment. As necessary, a perennial seed mix shall be installed during the appropriate seeding window.
- Aquatic invasive species
 - All equipment used for withdrawing water (i.e. pumps, hoses, machinery, etc.) will be adequately decontaminated/disinfected for aquatic invasive species.
 Decontamination/disinfection can be accomplished by allowing equipment to dry thoroughly for at least 5 days or by using another appropriate method identified in NR 329.04, prior to being used in non-infested waters of the state.

Location-Specific BMPs

Location-specific BMPs will be applied to the following locations because of their relative diversity and/or limited population of invasive species. The approximate extent and locations of these areas are identified on the Access Map with a corresponding Location ID. Flagging, fencing and/or signage will be used in the field to mark these locations.

Location ID	Description
	The open area on the south side of the Cardinal Substation near structure 147486 is
INV-1	a planted prairie community. Disturbance to the prairie will be avoided if possible, or
	remove soil/debris from vehicles prior to entry.
	One small population of wormwood (Artemisia absinthium) was observed along the
INV-2	brush line just northwest of structure 147486. This area will be avoided if possible, or
	remove soil/debris from vehicles after access.
	The wetland between structures 147483 and 147484 (Wetland Y-W09) contains a
INV-3	diverse vegetative community within the sedge meadow/wet meadow community
	north of the ROW. Disturbance to the wetland will be avoided if possible, or remove
	soil/debris from vehicles prior to entry and stay on equipment matting.
	The wooded slope between structure 147482 and the area surrounding structure
	147483 is a higher quality woodland community with few invasive species. The
INV-4	wooded slope is primarily located in the southern portion of the ROW. Disturbance
	to the slope will be avoided if possible, or remove soil/debris from vehicles prior to
	access.
INV-5	Leafy spurge (Euphorbia esula) was observed on the south side of Stagecoach Road
	between structure 147466 and North Birch Trail. Access to this location will be
	avoided if possible, or remove soil/debris from vehicles after accessing the area.
INV-6	Leafy spurge (Euphorbia esula) was observed location on the south side of
	Stagecoach Road, east of structure 147465. Access to this location will be avoided if
	possible, or remove soil/debris from vehicles after accessing the area.
INV-7	Rock outcroppings are located between structures 147448 and 147449 primarily
	within the cleared, existing transmission line ROW, but also within the woodland
	east of structure 147448. These rock outcroppings contain native plant communities.
	Disturbance to the rock outcroppings will be avoided if possible, or remove
	soil/debris from vehicles prior to entry.
INV-8	Rock outcroppings with native plant communities are located on the steep rock
	outcroppings between structure 147446 and Observatory Road. Disturbance to the

	rock outcroppings will be avoided if possible, or remove soil/debris from vehicles prior to entry.
INV-9	Rock outcroppings with native plant communities are located in the woodland between structure 147444 and 147446. The woodland community between the area surrounding structure 147444 and 147445 is degraded by invasive species, however the native community present is relatively diverse. Disturbance to the rock outcroppings will be avoided if possible, or remove soil/debris from vehicles prior to entry.
INV-10	A dry prairie community is located on a steep sandstone bluff between structure 147439 and Mineral Point Road. The community is somewhat degraded by cool season grasses and few, scattered white mulberry shrubs. Avoid access to the bluff if possible or remove soil/debris from vehicles prior to entry.
INV-11	One small population of teasel (<i>Dipsacus sylvestris</i>) was observed on the north side of CTH J just east of structure 147429. This area will be avoided if possible, or remove soil/debris from vehicles after accessing the area.
INV-12	The woodland between structures 147423 and 147424 contains a native community along a sandstone outcrop. Remove soil/debris from vehicles before entering the area if access is necessary.
INV-13	The forested area between structures 147419 and 147420 on the south side of waterway T-R02 has a diverse native plant community on the slope above the waterway with few invasive species. Attempts will be made to minimize project activities on the slope in this woodland. If this area cannot be avoided, then remove soil/debris from vehicles before entering the area.

Location-specific BMPs may be implemented elsewhere within Segment E3 if ATC encounters a localized population of an invasive species other than those discussed above during future field visits.

I. Wetland Restoration and Revegetation Plan

A project-specific Revegetation and Monitoring Plan, which addresses both wetland and upland areas is discussed in Section N, below and included as Attachment N1.

J. Post-Construction Monitoring Plan

ATC will conduct post-construction monitoring of portions of the Project, as described in the Revegetation and Monitoring Plan (Attachment N1). The plan provides details on the communities to be monitored, the performance standards for monitoring, and the reporting requirements. A summary of the post-construction monitoring requirements for uplands and wetlands are provided below.

In addition to the post-construction monitoring described above, and in accordance with Conditions #32 and #38 of the WDNR utility permit, ATC will conduct frequent inspections (e.g., weekly and after a significant rainfall event) of erosion and sediment controls during and after construction, which will include areas within and adjacent to wetlands and waterways. These inspections will occur until disturbed areas are stabilized and meet the thresholds outlined in NR216.

K. Revised WDNR Table 1

The WDNR Table 1 for Segment E3 is provided in Attachment K1. This table has been revised to reflect the approved route, updated wetland boundaries, construction access, and construction plan.

L. Fisheries Waiver

ATC is requesting the seasonal restriction for placement and removal of TCSBs be waived for all waterway TCSB crossings along this segment. A fisheries waiver request package is included in Attachment L1. This attachment contains descriptions of waterways, TCSB cross sections, photos, and maps.

M. Waterway Navigability Determination Request

A navigability determination was previously requested at four locations within the project ROW in which the WDNR 24K Hydro layer identified a waterway. The WDNR determined on 2/15/2021 that no Ch. 30 permit is required at T-UNT1, T-UNT2, V-UNT1, and Y-UNT1. These features are identified on the Access Map, but are not included in the WDNR Permitting Table (Attachment K).

One additional waterway (U-R1) may not be considered navigable based on aerial photo review. However, field access to this location beyond the road ROW is limited at this time. Once field access is obtained, additional information may be provided to determine permit needs at this location. At this time U-R01 is included in the Waterway Crossings Section (Section F), listed in the WDNR Permitting Table 1 (Attachment K), and a fisheries waiver has been requested (Attachment L). In addition to the components outlined in General Condition #78 of the WDNR utility permit (Sections A-M), the following information is provided in this CMP as requested by the PSCW Order:

N. Revegetation Plan

A project specific Revegetation and Monitoring Plan has been developed which includes guidance for revegetation following construction, provides protocols for monitoring wetland and upland areas post-construction, and describes reporting for post-construction monitoring. The plan includes seed mixes and recommended areas for their use, in accordance with Order Points 30-33. The Revegetation and Monitoring Plan is provided in Attachment N1.

O. Independent Monitor Roles and Responsibilities

The PSC Final Decision and WDNR Utility Permit authorized the hiring of a combined Independent Environmental Monitor (IEM) and Independent Agricultural Monitor (IAM) for construction of the project. The Independent Monitor will work for and report directly to the PSC. The Independent Monitor will be responsible for monitoring ATC and contractor activities that might affect the environment and agricultural lands, during the construction project. The Independent Monitor will be responsible for monitoring the company's compliance with the requirements and practices identified in the following documents:

- PSC Final Decision and Order, including the agricultural conditions recommended by Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP) and approved by the Commission.
- WDNR Utility Permit IP-SC-2019-25-03588
- WPDES Stormwater Discharge permit
- Certified Endangered Resource Review (#18-130)
- The project Avian Protection Plan, including Bald Eagle Nest Management Plan
- This Construction Mitigation Plan (CMP)

P. Agricultural Conditions

The following agricultural conditions will be employed during construction:

a) Mitigation measures to address potential significant rutting in agricultural areas may include:

- i) Placing construction mats on the access routes and work areas,
- ii) Using approved alternate access,
- iii) Changing type of equipment used, or
- iv) Temporarily suspending work until the area dries out or firms up.

If project construction causes significant ruts in cropland or pasture the Contractor shall repair the ruts as soon as practical.

b) The Contractor shall strip and segregate all topsoil at all excavation sites located within cropped and uncropped areas in agricultural fields, and all areas where grading is required within agricultural fields. Stripped topsoil will be hauled away or stockpiled near the location where it was removed and will be replaced as soon as practicable. If necessary, new topsoil will be spread if topsoil has been lost or substantially mixed with subsoils.

c) All parent material/spoil excavated will be removed from agricultural fields, unless the landowner agrees to have it disposed of on his/her land at an upland location.

d) Every reasonable effort shall be made so as not to damage drainage systems (ie terracing drain tiles, grass waterways, etc). If damage occurs to drainage systems the contractor will work with the agricultural operator and/or landowner to repair the damage.

f) In the event soils sensitive to compaction are encountered in areas of agricultural production, contractor will minimize impacts to these soils by using protective measures such as avoidance, matting and changing type of equipment used. Winter work can be implemented if site conditions warrant.

g) In the case of organic farms, landowners will be consulted to minimize potential impacts to their organic farming status.

h) Several existing transmission line structures will be removed as part of this Project. The Structure Removal Procedure (Attachment P1) provides additional detail regarding structure removals within agricultural lands.

Attachment D

CMP Access Map Laydown Yard Location Map












































































information presented in this map document is advisory and is intended for reference purposes only. Applicant owned d operated facility locations are approximate. Data Sources: ATC, ITC, DPC, WDNR, WisDOT, PSCW, County LIOs.



















































Attachment E

Wetland Summary Table Wetland Photos Off-Row Evaluation Summary Table

Attachment E1. Summary of Wetlands Identified within Segment E3

Construction Segment ¹	Wetland ID ²	Special Designation ³	Resource Classification ⁴	Cowardin Classification	Survey Technique ⁵	Wetland Description
E3	U-W01	Wetland	Shallow Marsh	PEM1F	F	Cattail marsh between interchange dominated by narrow- leaved cattail and RCG.
E3	U-W02	Wetland	Shrub Carr/ Wet Meadow	PEM1B / PSS1B	F/A	Area viewed from roadside ROW. Shrub carr community associated with U-R01 and dominated by RCG and sandbar willow.
E3	T-W01	Wetland	Wet Meadow	PEM1B	F	Depressional wet meadow between interchange dominated by RCG and sandbar willow.
E3	T-W01a	Wetland, adjacent to ASNRI Exceptional Resource Water	Hardwood Swamp/ Farmed Wetland	PFO1B/ PEM1Bf	A	Wetland associated with waterway; forested wetland adjacent to waterway. Northern boundary of wetland extends into active ag field.
E3	T-W02a-n	Wetland	Wet Meadow/ Seasonally Flooded Basin	PEM1B, PUBf	F	New feature identified in 2020: Previously farmed area. Potential drain tile break causing saturated/flooding conditions. Wetland is uncultivated and comprised of a wet meadow and seasonally flooded basin dominated by woolgrass, dark green bulrush, smartweeds and witchgrass. Seasonally flooded basin in central portion is dominated by annual blue grass, marsh yellow cress, and American speedwell.
E3	T-W02-r	Wetland	Sedge Meadow/ Wet Meadow	PEM1B	F	Sedge meadow associated with T-R01 and dominated by brown fox sedge, American manna grass, and dark green bulrush. Wet meadow dominated by rice cut grass, orange jewelweed, and crack willow.
			Hardwood Swamp/ Wet Meadow	PFO1B/ PEM1B		Wetland boundary was extended in 2020 to the south to capture seep on slope above riparian corridor. Wetland is contiguous with T-W02a-n northwest of project ROW. Wetland complex located in grazed/ trampled pasture. Wet meadow community dominated by Kentucky blue grass, smartweed, orange jewelweed and American manna grass. Hardwood swamp community in western portion comprised of crack willow in the canopy, sandbar willow and American gooseberry in the shrub layer, and wet meadow community in the herb layer.
E3	T-W03	Wetland	Wet Meadow	PEM1B	F	Small depressional wet meadow dominated by RCG and common elderberry.
E3	V-W01a	Wetland	Wet Meadow	PEM1B	F	Wetland dominated by RCG with willow and cottonwood saplings. Part of V-W01r based on 2020 field conditions.
E3	V-W01-r	Wetland	Wet Meadow	PEM1B	F	Wetland dominated by purslane speedwell, cursed crowfoot, cinnamon willow-herb, and curly dock. Farmed wetland extends in both directions off ROW.
			Wet Meadow/ Shallow marsh	PEM1B		Field-delineated and characterized in 2020, previously field- identified without access. Area was previously successfully farmed. Wetland boundary was expanded to north and south to include drowned-out and unfarmed areas. Wetland now includes previously mapped wetland V-W01a in south end. Shallow marsh component is largely fallow crop field, not cultivated in 2019 or 2020 and comprised of hybrid cattails, cursed crow's foot, and curly dock. Wet meadow fringe component is dominated by RCG, smartweeds, cursed crow's foot and meadow foxtail.
E3	X-W01a-n	Wetland/Excavated Feature	Shallow Open Water	PUB	F	New feature identified in 2020. Two small, shallow excavated "holes" between private drive and crop field, receives drainage through culvert under private driveway to west. Few cattails present around perimeter. Excavated within upland/non-hydric soils.
E3	X-W01-r	Wetland	Wet Meadow/Farmed wetland/Shallow Marsh	PEM1B / PEM1Bf / PEM1C	F	Farmed wetland. Saturation and wetland signatures visible on aerial photography.
						Previously aerially-identified, field-delineated in 2020. Extensive wetland complex primarily composed of shallow marsh dominated by water plantain, softstem bulrush, spike rush, RCG, river bulrush and false loosestrife. Wet meadow fringe on western side is comprised of RCG, curly dock, Dudley's rush and fox sedge; wetland extends west slightly into adjacent crop field.

Attachment E1. Summary of Wetlands Identified within Segment E3

Construction Segment ¹	Wetland ID ²	Special Designation ³	Resource Classification ⁴	Cowardin Classification	Survey Technique ⁵	Wetland Description
E3	Y-W01-r	Wetland	Open Water/ Wet Meadow	PAB4H / PEM1B	F	Open water feature dominated by watermeal and common duckweed and surrounded by a RCG dominated wet meadow.
						Wetland area extended slightly to the south in 2020. Wet Meadow fringe community of open water feature on edge of ROW. Dominant species include reed canary grass, stinging nettle, orange jewelweed, and a few boxelder trees.
E3	Y-W02	Wetland	Wet Meadow	PEM1B	F	Low grade, degraded, small depressional wet meadow between RR tracks and old bank. Community dominated by RCG.
E3	Y-W02a-n	Wetland, adjacent to ASNRI Outstanding Resource Water (Black Earth Creek)	Wet Meadow	PEM1B	F	New feature collected in 2020: Narrow wet meadow fringe of Black Earth Creek (Y-R02) outside OHWM, along and within banks. Vegetation primarily comprised of reed canary grass, orange jewelweed, stinging nettle and curly dock.
E3	Y-W03-r	Wetland, adjacent to ASNRI Outstanding Resource Water (Black Earth Creek)	Wet Meadow	PEM1C / PEM1B	F	Linear sedge meadow within ditch along S of railroad tracks associated with Y-R02. Sedge meadow community dominated by hummock sedge, tall meadow rue, blue flag iris, RCG, common elderberry, and grayleaf red raspberry. The wet prairie community is dominated by RCG, meadow anemone, northern bedstraw, Indian hemp, stinging nettle, white panicle aster, and saw tooth sunflower.
						Wetland area extended to east in 2020. Degraded wet meadow community within ROW is dominated by reed canary grass, orange jewelweed, tall meadow rue, stinging nettle, tussock sedge and American gooseberry. North side along railroad had been treated with herbicide, either bare or dominated by annuals at time of investigation.
E3	Y-W04	Wetland	Wet Meadow / Shallow Marsh	PEM1C / PEM1B	F	Wet meadow and shallow marsh ditch between STH 14 and railroad corridors. Wet meadow dominated by RCG, broad- leaved wooly sedge, water smartweed, common horsetail, and Indian hemp. Shallow marsh portion dominated by narrow- leaved cattail.
E3	Z-W02a-r	Wetland	Hardwood Swamp	PFO1B	F	Field delineated in 2020. Wetland not located within project ROW. Small depressional area of hardwood swamp between agricultural field and roadway; transitions to wet meadow near road outside project corridor.
E3	Z-W02c-n	Wetland	Seasonally flooded basin		F	New feature field delineated in 2020: Small flooded basin in crop field, impounded by STH 14 embankment. Reed canary grass along perimeter.
E3	Z-W02b-r	Wetland	Hardwood Swamp / Wet Meadow	PFO1B / PEM1B	F	Hardwood swamp and wet meadow associated with Z-R01b.
						Wetland field-delineated in 2020, previously aerially-delineated. Area was overall reduced. Wet meadow primarily along Black Earth Creek, dominated by reed canary grass. Hardwood swamp component in western portion consists of boxelder canopy, common buckthorn and honeysuckle shrubs over orange jewelweed in the ground layer. Shallow open water community lies within hardwood swamp and contains reed canary grass and duckweed.
E3	Z-W03-r	Wetland	Wet Meadow	PEM1B	F	Wet meadow associated dominated by RCG located in road median.
						Wetland area extended to west in 2020. Degraded wet meadow within ditch between USH 14 and railroad tracks, dominated by reed canary grass, orange jewelweed, smartweed and duckweed within ponded area. Directly connected to Z-R01a.
E3	Z-W03a-r	Wetland, adjacent to ASNRI Outstanding Resource Water (Black	Wet Meadow	PEM1B	F	Wet meadow associated with Z-R01 dominated by RCG.

Attachment E1. Summary of Wetlands Identified within Segment E3

Construction Segment ¹	Wetland ID ²	Special Designation ³	Resource Classification ⁴	Cowardin Classification	Survey Technique ⁵	Wetland Description
		Earth Creek)	Wet Meadow/ Sedge Meadow/ Hardwood Swamp	PEM1B/ PFO1B		Feature originally aerially-identified in 2017, field-delineated in 2020 with new access. Eastern portion of wetland reduced: Wetland complex associated with Z-R01. Wet meadow portion dominated by RCG, orange jewelweed and yellow rocket. Sedge meadow component along eastern bank of waterway on south end of corridor is dominated by three-way sedge and reed canary grass. Narrow hardwood swamp community located on fill material/ rubble on eastern border of complex is comprised of boxelder in the tree layer and Tartarian honeysuckle shrubs over wet meadow community.
E3	Z-W03b-r	Wetland	Wet Meadow	PEM1B	F	Wet meadow dominated by RCG.
			Wet Meadow/ Shrub Carr/ Hardwood Swamp	PEM1B/PSS1B/ PFO1B		Feature originally aerially-identified with limited field observation in 2017. Field-delineated in 2020. Area overall significantly reduced. Degraded wet meadow primarily located in southwestern portion of complex, dominated by reed canary grass and purplestem aster. Shrub-carr component comprised of sandbar willow and American gooseberry over wet meadow community. Hardwood swamp portions comprised of boxelder canopy and Tartarian honeysuckle, common buckthorn and American gooseberry shrub layer over orange jewelweed,
E3	Y-W08	Wetland	Shallow Marsh/ Wet Meadow/ Hardwood Swamp	PEM1C / PEM1B / PFO1B	F	Wetland complex located in small depression behind business development. Shallow marsh component dominated by hybrid cattail, RCG, common duckweed, and water plantain. Hardwood swamp component dominated by cottonwood and green ash trees. Wetland boundary confirmed in 2020. Conditions appeared wetter than 2017; shallow marsh was observed to be open water community: Open water component contains duckweed and cattails. Wet meadow component comprised of RCG and stinging nettle. Hardwood swamp is dominated by cottonwood, peachleaf willow, American elm and green ash in the canopy over RCG and clearweed.
E3	Y-W09-r	Wetland	Wet Meadow/ Sedge Meadow/ Shallow Marsh/ Deep Marsh	PEM1C / PEM1F / PAB4H	F	Diverse wetland complex with the margins dominated by RCG, Hairy leaved lake sedge, and giant goldenrod. Duckweed, floating manna grass, dwarf sagittaria, and common bladderwort in the shallow and deep marsh areas. Feature was extended to east and west in 2020 to delineate expanded wetland area due to wetter conditions. Drowned out oak trees border wooded areas. Sedea and wet meadow
						communities located north of the project ROW.
E3	Y-W05	Wetland, adjacent to ASNRI Outstanding Resource Water (Black Earth Creek)	Wet Meadow/ Farmed Wetland/ Seasonally Flooded Basin	PEM1B / PEM1Bf / PEM1C	F	Wet meadow, farmed wet meadow, and seasonally flooded basin complex associated with Black Earth Creek. Wet meadow components dominated by RCG and farmed wet meadow components dominated by curly dock, orange jewelweed, purslane speedwell, spotted lady thumb, cursed crowfoot, and hybrid clover. The seasonally flooded basin was dominated by bald spike rush, soft stem bulrush, rice cutgrass, common plantain, and hummock sedge.

¹ Construction Segment of the ATC Managed portion of the Project.

² Feature ID: W# = wetland. Suffixes indicate changes to the feature in 2020: "-r" = revised wetland boundary, "-n" = new feature identified

³ Designated features refer to wetlands within or immediately adjacent to waterways considered to be Areas of Special Natural Resource Interest (ASNRI) per NR 103.04 WI. Admin. Code.

⁴ Wetland descriptions are based on Eggers and Reed Classification system.

⁵ Survey Technique includes: F = in-field characterization; A = off-site characterization (e.g., aerial photograph interpretation); and V = off-site characterization with limited field verification (e.g., feature viewed from public ROW such as a nearby road)



142_U-W01_Shallow marsh between interchange dominated by cattail and RCG_2020-06-02_view_NE



143_U-W01_Shallow marsh between interchange dominated by cattail and RCG_2020-06-02_view_N



144_T-W01_Depressional wet meadow between interchange_2020-06-02_view_N



145_T-W01_Depressional wet meadow dominated by RCG and sandbar willow_2017-06-16_view_NE



147_T-W02a-n_Previously farmed area_2020-05-19_view_N



148_T-W02a-n_Wet meadow and seasonally flooded basin_2020-05-19_view_NE



150_T-W02a-n_Wet meadow and seasonally flooded basin_2020-05-19_view_NE



150_T-W02a-n_Wet meadow and seasonally flooded basin_2020-05-19_view_SW



152_T-W02a-n_Wet meadow_2020-10-06_view_N



153_T-W02a-n_Wet meadow in previously farmed area_2020-10-06_view_SW



153_T-W02a-n_Wet meadow_2020-10-06_view_NW



154_T-W02-r_Wetland complex contiguous with T-W02a-n and located in grazed pasture_2020-10-06_view_S



154_T-W02-r_Wetland complex contiguous with T-W02a-n and located in grazed pasture_2020-10-06_view_SW



155_T-W02-r_Wetland complex contiguous with T-W02a-n and located in grazed pasture_2020-05-19_view_SW



156_T-W02-r_View of seep to the south of the wetland_2020-05-19_view_S



157_T-W02-r_Wetland complex contiguous with T-W02a-n and located in grazed pasture_2020-05-19_view_NE



160_T-W03_Small depressional wet meadow_2017-06-20_view_E



161_T-W03_Small depressional wet meadow_2020-05-19_view_E



163_T-W03_Small depressional wet meadow_2020-05-19_view_W



164_V-W01-r_Wet meadow and shallow marsh complex_2020-05-20_view_NW



164_V-W01-r_Wet meadow and shallow marsh complex_2020-05-20_view_SE



167_V-W01a_Wetland dominated by RCG with willow and cottonwood saplings_2020-05-20_view_E



166_V-W01a_Wetland dominated by RCG with willow and cottonwood saplings_2020-05-20_view_SW



168_V-W01a_Wetland dominated by RCG with willow and cottonwood saplings_2020-05-20_view_S



168_V-W01-r_Wet meadow and shallow marsh complex_2020-05-20_view_E



168_V-W01-r_Wet meadow and shallow marsh complex_2020-05-20_view_NE



169_V-W01-r_Wet meadow and shallow marsh complex_2020-05-20_view_E



169_V-W01-r_Wet meadow and shallow marsh complex_2020-05-20_view_NE



169_V-W01-r_Wet meadow and shallow marsh complex_2020-05-20_view_SE



170_V-W01-r_Wet meadow and shallow marsh complex_2020-05-20_view_S



171_V-W01-r_Farm access_2020-10-06_view_NE



176_X-W01a-n_Two small excavated holes between private drive and crop field_2020-05-22_view_E



176_X-W01a-n_Two small excavated holes between private drive and crop field_2020-05-22_view_S



177_X-W01-r_Wet meadow fringe_2020-06-19_view_E



176_X-W01a-n_Two small excavated holes between private drive and crop field_2020-05-22_view_SE



178_X-W01-r_Open water in dredged area within wet meadow fringe_2020-05-22_view_S



179_X-W01-r_Wet meadow and shallow marsh complex_2020-06-19_view_E



179_X-W01-r_Wet meadow fringe_2020-06-19_view_N



179_X-W01-r_Wet meadow fringe_2020-06-19_view_S



179_X-W01-r_Wet meadow fringe_2020-06-19_view_W



180_X-W01-r_Wet meadow and shallow marsh complex_2020-05-22_view_S



181_X-W01-r_Wet meadow and shallow marsh complex_2020-05-22_view_NW



181_X-W01-r_Wet meadow and shallow marsh complex; associated with X_R01_2020-05-22_view_E



181_X-W01-r_Wet meadow and shallow marsh complex_2020-05-22_view_S



184_X-W01-r_Wet meadow, shallow marsh, and farmed wetland complex_2020-05-22_view_S



184_X-W01-r_Wet meadow, shallow marsh, and farmed wetland complex_2020-05-22_view_W



185_X-W01-r_Wet meadow, shallow marsh, and farmed wetland complex_2020-09-29_view_E



185_X-W01-r_Wet meadow, shallow marsh, and farmed wetland complex_2020-09-29_view_W



189_Y-W01-r_Wet meadow fringe along open water feature_2020-05-22_view_E



189_Y-W01-r_Wet meadow fringe along open water feature_2020-05-22_view_N



189_Y-W01-r_Wet meadow fringe along open water feature_2020-05-22_view_W



190_Y-W02_Degraded, small depressional wet meadow_2020-05-22_view_SE



191_Y-W02_Degraded, small depressional wet meadow_2020-05-22_view_SE



191_Y-W02_Degraded, small depressional wet meadow_2020-05-22_view_SW



191_Y-W02_Degraded, small depressional wet meadow_2020-05-22_view_W



193_Y-W02a-n_Narrow wet meadow fringe along Y-R02 within OHWM_2020-05-22_view_SE


194_Y-W02a-n_Narrow wet meadow fringe along Y-R02 within OHWM_2020-05-22_view_W



195_Y-W02a-n_Narrow wet meadow fringe along Y-R02 within OHWM_2020-05-22_view_SE



195_Y-W02a-n_Narrow wet meadow fringe along Y-R02 within OHWM_2020-05-22_view_N



195_Y-W02a-n_Narrow wet meadow fringe along Y-R02 within OHWM_2020-05-22_view_W



197_Y-W02a-n_Narrow wet meadow fringe along Y-R02 within OHWM_2020-05-22_view_W



199_Y-W03-r_Degraded wet meadow_2020-05-22_view_E



200_Y-W03-r_Degraded wet meadow; north side along railroad treated with herbicide_2020-05-22_view_W



201_Y-W04_Wet meadow and shallow marsh ditch_2020-05-22_view_W



204_Z-W02a_Wetland in the distance_2020-05-21_view_SE



205_Z-W02a_Not located within the Project ROW; small depressional hardwood swamp_2020-05-21_view_N



206_Z-W02c-n_Small flooded basin in crop field_2020-05-21_view_NE



206_Z-W02c-n_Small flooded basin in crop field_2020-05-21_view_NW



207_Z-W02c-n_Small flooded basin in crop field_2020-07-30_view_W



208_Z-W02b-r_Wet meadow and hardwood swamp complex primarily along Z-R01b_2020-05-21_view_NE



208_Z-W02b-r_Wet meadow and hardwood swamp complex primarily along Z-R01b_2020-05-21_view_E



211_Z-W02b-r_Wet meadow and hardwood swamp complex primarily along Z-R01b_2020-05-21_view_E



211_Z-W02b-r_Wet meadow and hardwood swamp complex primarily along Z-R01b_2020-05-21_view_W



214_Z-W03-r_Wet meadow located in ditch dominated by RCG_2020-05-29_view_E



213_Z-W02b-r_Wet meadow and hardwood swamp complex primarily along Z-R01b_2020-05-21_view_NW



215_Z-W03-r_Wet meadow located in ditch directly connected to Z-R01a _2020-05-29_view_E



215_Z-W03-r_Wet meadow located in ditch dominated by RCG2020-05-29_view_W



219_Z-W03a-r_Wet meadow, sedge meadow, hardwood swamp complex associated with Z-R012020-05-29_view_W



217_Z-W03a-r_Wet meadow, sedge meadow, hardwood swamp complex associated with Z-R01_2020-05-29_view_SE



220_Z-W03a-r_Wet meadow, sedge meadow, hardwood swamp complex associated with Z-R012020-05-29_view_N



221_Z-W03a-r_Wet meadow, sedge meadow, hardwood swamp complex associated with Z-R012020-05-29_view_NW



221_Z-W03a-r_Wet meadow, sedge meadow, hardwood swamp complex associated with Z-R012020-05-29_view_SE



222_Z-W03a-r_Wet meadow, sedge meadow, hardwood swamp complex associated with Z-R012020-05-29_view_NW



222_Z-W03a-r_Wet meadow, sedge meadow, hardwood swamp complex associated with Z-R012020-05-29_view_SE



223_Z-W03b-r_Wet meadow, shrub-carr, hardwood swamp complex_2020-05-29_view_SW



224_Z-W03b-r_Wet meadow, shrub-carr, hardwood swamp complex_2020-05-29_view_W



224_Z-W03b-r_Wet meadow, shrub-carr, hardwood swamp complex_2020-05-29_view_E



227_Z-W03b-r_Wet meadow, shrub-carr, hardwood swamp complex_2020-05-29_view_SW



228_Y-W08_Open water, shallow marsh, wet meadow, and hardwood swamp complex_2020-05-29_view_S



230_Y-W09-r_Diverse wetland complex_2020-05-29_view_N



229_Y-W08_Open water, shallow marsh, wet meadow, and hardwood swamp complex_2020-05-29_view_S



231_Y-W09-r_Diverse wetland complex_2020-05-29_view_NE



232_Y-W09-r_Diverse wetland complex_2020-05-29_view_NW



233_Y-W09-r_Diverse wetland complex_2020-06-17_view_NW



233_Y-W09-r_Diverse wetland complex_2020-06-17_view_W

E3. Segment E3 Off-ROW Evaluation

Segment	Access Route Name/ID	Construction Phase for Use	Access Route Land Use / Land Cover Description	Wetland Present? (Y/N)	Waterway Present? (Y/N)	Wetland / Waterway Survey Technique ¹	Access Route Reviewed in Delineation Report? (Y/N)	Access Map Page
E3	E3-WP05	Wire Pull	Upland cropped field.	N	N	F	N	1
E3	E3-WP06	Wire Pull	Mostly cropped field. Area crosses wetland and waterway located on edge of cropped field (U-W1 and U-R1). No access but viewed from road.	Y - Temporary wetland matting included in WDNR Table 1	Y - TCSB included in WDNR Table 1	F	N	1
E3	E3-147400	Construction	Farm driveway and edge of cropped field.	N	N	F	N	1
E3	E3-147400MS	Mat Storage	Upland grass field adjacent to road/highway off ramp.	Ν	N	V/F	N	1
E3	E3-147401	Construction	DOT embankment and upland grassland adjacent to roadway.	N	N	F	N	1
E3	E3-147403	Construction	Grass swale through woodland and edge of cropped field No access .	N	Ν	А	N	2, 3
E3	E3-147404	Construction	Access change: Cropped field, woodland.	N	N	A/V	N	3
E3	E3-147405	Construction/ VM	Grass swale through woodland and edge of cropped field, crosses wetland (T-W01a) and waterway (T-R01).	Y - Temporary wetland matting included in WDNR Table 1	Y - TCSB not required	A	N	3
E3	E3-147412	Construction/ Permanent	Existing gravel driveway.	Ν	N	F	N	5
E3	E3-147412VM	VM	Edge of cropped field.	N	N	F	N	5
E3	E3-147413	Construction/ Permanent	Slightly deviates from ROW, follows cropped field edge across wetland (T-W02a-n) and mapped waterway (T-UNT1) between structures 147413 and 147414.	Y - Temporary wetland matting included in WDNR Table 1	N	F	N	6
E3	E3-147414	Construction/ Permanent	Slightly deviates from ROW, follows cropped field/ woodland edge across wetland (T-W02a- n) between structures 147414 and 147415.	Y - Temporary wetland matting included in WDNR Table 1	N	F	N	6, 7
E3	E3-147415	Construction/ Permanent	Crosses farmed weltand (T-W02a-n), waterway (T-R01), cropped field and wooded pasture.	Y - Temporary wetland matting included in WDNR Table 1	Y - TCSB included in WDNR Table 1	F	N	7
E3	E3-147417	Construction	Cropped field, existing gravel field access drive.	N	N	F	N	8

E3	E3-147418	Construction/ Permanent	Existing gravel driveway and field access off of Witte Rd, breifly crosses cropped field.	N	Ν	F	N	8
E3	E3-147418MS	Mat Storage	Within cropped field adjacent to farm access drive.	N	Ν	F	Ν	8
E3	E3-147420MS	Mat Storage	Cropped field	Ν	Ν	F	Ν	10
E3	E3-147427MS	Mat Storage	Cropped field	N	Ν	F	Ν	11
E3	E3-147435	Construction	Cropped field and roadside grass area.	N	Ν	A	Ν	14
E3	E3-147435MS	Mat Storage	Cropped field and roadside grass area.	Ν	Ν	A	Ν	14
E3	E3-163	Construction	Existing farm access/driveway and along edge of crop field through grassy farm yard and farmed wetland (V-W01-r).	Y - Temporary wetland matting included in WDNR Table 1	Ν	F	N	14
E3	E3-162	Construction	Existing gravel farm access/driveway.	N	Ν	A/V	Ν	14
E3	E3-147438	Construction/ VM	Mowed road ROW, cropped field	N	Ν	F	Ν	15
E3	E3-147439	Construction	Access off Barlow Rd follows edge of pasture/ crop field, crosses grassy draw/swale.	N	Ν	F/V	Ν	15, 16
E3	E3-147439VM	VM	Access off Mineral Point Rd crosses cropped field.	Ν	Ν	F/V	Ν	15
E3	E3-147442	Construction/ Permanent/ VM	Cropped field. Access splits at easten end, northern segment borders forest community.	N	Ν	F	Ν	17
E3	E3-147442MS	Mat Storage	Cropped field	Ν	Ν	F	Ν	17
E3	E3-147443	Construction/ Permanent	Located along edge of cropped field. Easten end borders forest community.	Ν	Ν	F	Ν	17
E3	E3-147444	Construction/ Permanent	Forest community directly adjacent to ROW.	Ν	Ν	F	Ν	18
E3	E3-147444VM	VM	Forest community directly adjacent to ROW.	N	Ν	F	Ν	18
E3	E3-147445	VM	Access down existing gravel driveway/ mowed grassy field access. Follows edge of cropped field/ forest community at west end, south of ROW.	N	Ν	F	Ν	18
E3	E3-147446	Construction/ Permanent/ VM	Access crosses grassy old field and follows edge of cropped field/ forest community. No access.	N	Ν	A/V	N	18

E3	E3-147446MS	Mat Storage	Grassy old field.	Ν	N	A/V	N	18
E3	E3-147448	Construction/ VM	Cleared ROW of existing T-line ROW with exposed sandstone outcrops, just south of project ROW.	Ν	N	F	N	19
E3	E3-147450	Construction/ Permanent	Existing paved driveway and gravel field access in farm yard. Gravel farm drive leads to edge of ROW.	Ν	N	F	Y	19
E3	E3-147451	Construction	Existing paved driveway, upland pasture adjacent to farm yard.	Ν	N	F	N	20
E3	E3-147455	Construction/ Permanent	Two segments share existing paved driveway off CTH P. North segment: gravel driveway, grassy field access. Pasture at far east end. South segment: paved driveway, forest community, parture. No access to southern off-pavement portion.	Ν	N	F/A	N	22
E3	E3-147455VM	VM	Multiple segments share existing paved or graveled driveways/paths, as well as grassy areas in tree nursery, along woodland edges.	Y - No wetland matting	N	F/V/A	N	22
E3	E3-147456	Construction/ Permanent	Two segments: One within mowed grass and edge of cropped field along existing paved driveway. One located along gravel drive and within grass/pasture area west of ROW.	Ν	N	F	N	22
E3	E3-147457	Construction/ VM	Existing paved driveway and cropped field.	Ν	N	F	N	23
E3	E3-147461	Construction	Paved driveway and cropped field.	Ν	N	F	N	24
E3	E3-147461VM	Construction/ VM	Existing paved driveway, mowed lawn, cropped field. Three short segments off of Stagecoach Rd.	Ν	N	F	N	24
E3	E3-147461MS	Mat Storage	Cropped field.	Ν	N	F	N	24
E3	E3-147461SS	Stringing Set-up	Cropped field.	Ν	N	F	Ν	24
E3	E3-147462	VM	Quarry, existing gravel road.	Ν	N	F	N	24
E3	E3-147466	Construction	Mowed grassy road ROW.	Ν	N	F	N	25
E3	E3-147466VM	VM	Quarry, existing gravel road.	Ν	N	F	N	25
E3	E3-127149	Construction	Mowed lawn, rough-mowed upland old field community.	N	N	F	N	25

E3	E3-127155	Construction	Cleared and uncleared woodland.	Ν	Ν	F	Ν	26
E3	E3-147469	Construction/ VM	Gravel driveway, cropped field.	Ν	Ν	F	Ν	26
E3	E3-147470	Construction	Cropped field. Access from Cleveland Road.	N	Ν	F	Ν	27
E3	E3-147471MS	Mat Storage	Cropped field adjacent to access route.	Ν	Ν	F	Ν	27
E3	E3-147471SS	Stringing Set-up	Cropped field adjacent to paved road.	N	Ν	F	Ν	27
E3	E3-147472	Construction/ VM	Cropped field and upland mowed grass drainage swale.	Ν	Ν	F/V	Ν	27
E3	E3-147472MS	Mat Storage	Cropped field.	N	Ν	F	Ν	27
E3	E3-147473	Construction/ VM	Field access driveway from USH 14	N	Ν	F	Ν	27
E3	E3-147474	Construction/ VM	Access from USH 14 on gravel driveway and mowed lawn.	Ν	Ν	F	Ν	27
E3	E3-147475	Construction/ VM	Mowed DOT ROW, cropped field	N	Ν	F	Ν	27
E3	E3-147476	Construction/ Permanent/ VM	Cropped field, wetland (Z-W02b-r), existing field access driveway from USH 14.	Y - Temporary wetland matting included in WDNR Table 1	Ν	F	Ν	28
E3	E3-147476VM	VM	Access from USH 14 to north and south sides of highway. Access route along roadside embankment and mowed grass.	N	Ν	F	Ν	28
E3	E3-147477	Construction/ VM	Access from USH 14. Gravel driveway/path through disturbed upland grassland to ROW. Southern portion is located within and along the edge of a shrub/wet meadow wetland (Z- W03a-r).	Y - Temporary wetland matting included in WDNR Table 1	N	F	Ν	28
E3	E3-147477VM	VM	Two segments. Access to west side of Black Earth Creek from Low Rd. Access is along existing roadway, cropped field, and wetland (Z-W03a-r). Also access along roadside embankment of USH 14.	Y - Temporary wetland matting included in WDNR Table 1	N	F	Ν	28
E3	E3-147479	Construction	Cropped field. Borders wetland complex to west.	N	Ν	F	N	28
E3	E3-127177	Construction	Cropped field, access existing farm access from USH 14.	N	Ν	F	Ν	28
E3	E3-127181	Construction	Existing gravel road through upland woodland.	N	Ν	F	Y	28

E3	E3-147479VM	VM	Access along roadside embankment of USH 14, between USH 14 and railroad.	Ν	N	F	N	28, 29
E3	E3-147480	Construction	Cropped field.	N	N	F	N	29
E3	E3-147480MS	Mat Storage	Upland cropped field adjacent to access route.	N	N	F	Ν	29
E3	E3-147482	Construction/ VM	Two segments. Existing gravel driveways and access to Line 6927 north of ROW: woodland, cleared T-line ROW.	N	N	F/V	N	29
E3	E3-147482MS	Mat Storage	Upland grassland adjacent to gravel parking lot. Wetland located east of area.	N	N	F	Ν	29
E3	E3-127187	Construction	Existing gravel driveway, parking lot/ cropped field.	Ν	N	F	Ν	29
E3	E3-127189	Construction	Farm access from USH 14 and cropped field. Adjacent to wetland Y-W06.	N	N	F	Ν	29
E3	E3-147483	Construction	Existing clearned road/trail through upland forest.	N	N	F	Ν	29, 30
E3	E3-147484	Construction	Two segments: Northern segment through grassland under existing t-line near substation; southern segment along existing substation gravel drive, through graveled substation, and through grassland.	Ν	N	F	N	30
E3	E3-147485VM	VM	Access through grassland within substation property.	Ν	N	F	Ν	30
E3	E3-147486	Construction	Grassy access through grassland within substation property.	N	N	F	Ν	30
E3	E3-147486MS	Mat Storage	Upland grass area adjacent to gravel driveway on Cardinal SS property.	N	N	F	N	30

1 The off-ROW access routes, staging areas, and laydown yards were evaluated for wetlands and waterways using a combination of onsite determinations where access was available and off-site review. Resources used to assist in the assessment included U.S. Geological Survey (USGS) topographic data, U.S. Department of Agriculture Natural Resources Conservation Service (NRCS) soil survey, WDNR Wisconsin Wetland Inventory (WWI) mapping, WDNR Surface Water Data Viewer, and aerial photography.

Survey Technique includes: F = in-field characterization; A = off-site characterization (e.g., aerial photograph interpretation); and V = off-site characterization with limited field verification (e.g., feature viewed from public ROW such as a nearby road)

Attachment F

Waterway Summary Table

Segment E3 - Cardinal to Mt Horeb F1. Waterways Crossed by the Project

Feature Unique ID	Feature Type, Name and	Resource Description	WBIC	Coordinates of Wate Project C	erway Crossing Near Centerline	County	Waterway Characteristics	Navigability or Snowmobile Use Limitations
	Designation			Latitude	Longitude			
U-R01	Waterway	UNT to Fryes Feeder		43.00396	-89.700416	Dane	Not shown on WDNR 24K hydro layer; OHWM width = 2 ft, OHWM height = 0.5 ft; bank width = 3 ft, bank height 1 ft. Characteristics at culvert outfall, unknown south of road ROW. Approach slope is moderate. Riparian vegetation dominated by smooth brome and Canada thistle.	Waterway is bounded by the USH 151 highway culvert and WisDOT highway fence north of the proposed TCSB location within the DOT ROW. The waterway continues south as a vegetated swale through the agricultural field. The culvert, fence, and size of waterway (2 feet wide) limit the ability to use this feature for navigation or snowmobiles.
T-R01	Waterway	UNT to Sugar River	5036143	43.031208	-89.704479	Dane	Shown on WDNR 24K hydro layer; OHWM width = 1.5 ft, OHWM height = 1 ft; bank width = 4 ft, bank height = 2 ft. Approach slope is moderate. Riparian vegetation in the dense upland shrubs dominated by common buckthorn, multiflora rose, common blackberry, honeysuckle, smooth sumac, black cherry, and white mulberry. Adjacent pasture dominated by Kentucky bluegrass, redtop, timothy grass, bull thistle, and Canada thistle.	TCSB location is at the southern limit of the waterway, and is comprised of a farmed agricultural field further south. The surrounding conditions and size of waterway (1 foot wide) limit the ability to use this feature for navigation or snowmobiles.
V-R03	Waterway	UNT to Sugar River	888400	43.055235	-89.675829	Dane	Shown on WDNR 24K hydro layer. A portion of V- UNT1 is field delineated based on field conditions observed in 2020. OHWM width = 2-5+ ft, OHWM height = 0.5 ft; bank width =10 ft, bank height = 1 ft. Approach slope is gradual. Riparian vegetation dominated by RCG, smartweeds, and buttercups.	Waterway is bounded by the culverts at Red Hawk Lane just west of the proposed TCSB location at the ROW edge. The waterway continues east as a narrow vegetated swale through the agricultural field. The culvert, fence and conditions of the waterway limit the ability to use this feature for navigation or snowmobiles.
V-R01	Waterway	UNT		43.087558	-89.653348	Dane	Not shown on WDNR 24K hydro layer; OHWM width = 1 ft, OHWM height = 0.5 ft; bank width = 1 ft, bank height = 1 ft. Approach slope is steep. Riparian vegetation dominated by giant goldenrod, Canada goldenrod, multiflora rose, timothy grass, honeysuckle, gray dogwood, common buckthorn, black cherry, box elder, and leafy spurge.	TCSB location is at the northern limit of the waterway, and is comprised of an upland meadow further north. The surrounding conditions and size of waterway (1.5 feet wide) limit the ability to use this feature for navigation or snowmobiles.
X-R01 (X-UNT1)	Waterway	UNT	5035462	43.093462	-89.644466	Dane	Shown on WDNR 24K hydro layer. Previously named (X-UNT1), field delineated in 2020: Waterway is comprised of a dredged ditch, impounded along eastern edge. Characteristics not observed due to high water.	Waterway is comprised of an agricultural ditch which is bounded by culverts at Stagecoach Road to the north. Based on aerial photography, the waterway does not appear to have any defined course or channel further south. The culvert and waterway conditions limit the ability to use this feature for navigation or snowmobiles.

Y-R02-1	Waterway, ASNRI Outstanding Resource Water; Class I Trout Stream	Black Earth Creek	1248600	43.094586	-89.609876	Dane	Shown on WDNR 24K hydro layer; Characteristics updated in 2020: Ditched/ channelized portion of Black Earth Creek. OHWM width = 10 ft, OHWM height = 4 ft; bank width = 20 ft, bank height 3-5 ft. Approach slope is gradual. Riparian vegetation dominated by RCG, honeysuckle shrubs, jewelweed and boxelder.
Y-R02-2	Waterway, ASNRI Outstanding Resource Water; Class I Trout Stream	Black Earth Creek	1248600	43.094287	-89.607365	Dane	Shown on WDNR 24K hydro layer; Characteristics updated in 2020: Ditched/ channelized portion of Black Earth Creek. OHWM width = 10 ft, OHWM height = 4 ft; bank width = 20 ft, bank height 3-5 ft. Approach slope is gradual. Riparian vegetation dominated by RCG, honeysuckle shrubs, jewelweed and boxelder.
Y-R02-3	Waterway, ASNRI Outstanding Resource Water; Class I Trout Stream	Black Earth Creek	1248600	43.094112	-89.607444	Dane	Shown on WDNR 24K hydro layer; Characteristics updated in 2020: Ditched/ channelized portion of Black Earth Creek. OHWM width = 10 ft, OHWM height = 4 ft; bank width = 20 ft, bank height 3-5 ft. Approach slope is gradual. Riparian vegetation dominated by RCG, honeysuckle shrubs, jewelweed and boxelder.
Y-R02-4	Waterway, ASNRI Outstanding Resource Water; Class I Trout Stream	Black Earth Creek	1248600	43.094114	-89.607521	Dane	Shown on WDNR 24K hydro layer; Characteristics updated in 2020: Ditched/ channelized portion of Black Earth Creek. OHWM width = 10 ft, OHWM height = 4 ft; bank width = 20 ft, bank height 3-5 ft. Approach slope is gradual. Riparian vegetation dominated by RCG, honeysuckle shrubs, jewelweed and boxelder.
Y-R02-5	Waterway, ASNRI Outstanding Resource Water; Class I Trout Stream	Black Earth Creek	1248600	43.094537	-89.609815	Dane	Shown on WDNR 24K hydro layer; Characteristics updated in 2020: Ditched/ channelized portion of Black Earth Creek. OHWM width = 10 ft, OHWM height = 4 ft; bank width = 20 ft, bank height 3-5 ft. Approach slope is gradual. Riparian vegetation dominated by RCG, honeysuckle shrubs, jewelweed and boxelder.
Y-R04	Waterway, ASNRI Outstanding Resource Water; Class I Trout Stream	Black Earth Creek	1248600	43.094302	-89.602042	Dane	Shown on WDNR 24K hydro layer; OHWM width = 15 ft, OHWM height = 4 ft; bank width = 30 ft, bank height 4 ft. Approach slope is moderate. Riparian vegetation dominated by RCG, scouring-rush horsetail, sandbar willow, cottonwood, white mulberry, common buckthorn, grape vine, common milkweed, and orange jewelweed. Vegetation in channel included leafy pondweed, curly leaf pondweed, sago pondweed, and water-starwort.

Z-R01b	Waterway, ASNRI Outstanding Resource Water; Class I Trout Stream	Black Earth Creek	1248600	43.091746	-89.593912	Dane	Shown on WDNR 25K hydro layer; contiguous with Y- R04, Y-R05, Z-R01a, Z-R01. Characteristics updated in 2020: OHWM width = 14 ft, OHWM height = 3 ft; bank width = 16 ft, bank height 5 ft. Approach slope is gradual. Riparian vegetation comprised wet meadow/ hardwood swamp communities of Z-R02 and grassland community within DOT ROW dominated by cool season grasses, golden rods and beebalm.	Black Earth Creek at this location is bounded by the culvert to the southeast at USH 14. Additionally, the banks of the waterway contain thick vegetation that impede movement within the waterway course. The culverts and thick vegetation limit ability to use this feature for navigation or snowmobiles.
Z-R01	Waterway, ASNRI Outstanding Resource Water; Class I Trout Stream	Black Earth Creek	1248600	43.090645	-89.592226	Dane	Shown on WDNR 24K hydro layer. Characteristics updated in 2020: OHWM width = 20 ft, OHWM height = 3 ft; bank width = 30 ft, bank height 4 ft. Approach slope is gradual. Vegetation in channel includes pondweed species and water-starwort. Riparian vegetation dominated by RCG, cattails, orange jewelweed, and rice cut grass.	Black Earth Creek at this location is bounded by the culverts to the north at the railroad embankment and USH 14. Additionally, the banks of the waterway contain thick vegetation that impede movement within the waterway course. The culverts and thick vegetation limit ability to use this feature for navigation or snowmobiles.
Z-R01c-n	Waterway	UNT		43.091184	-89.586263	Dane	New feature identified in 2020, area previously aerially evaluated: Not shown on WDNR 24K hydro layer; OHWM width = 3 ft, OHWM height = 0.5 ft; bank width = 3 ft, bank height 2 ft. Approach slope is gradual. Riparian vegetation dominated by shrub-carr and wet meadow components of Z-W03b, few maple saplings and wild parsnip.	Waterway is bounded to the north by the culverts at the railroad embankment and USH 14. The waterway continues east as a narrow vegetated swale through the agricultural field. The culverts and conditions of the waterway (thick vegetation, narrow channel) limit the ability to use this feature for navigation or snowmobiles.

¹ Designated features refers to waterways considered to be Areas of Special Natural Resource Interest (ASNRI) per NR 103.04 WI.

Attachment K1

Revised WDNR Table 1 – Segment E3

DNR Table 1: Wetland and Waterway Impact/Crossing Table

Directions: Complete this table for all of the wetlands and waterways that will be impacted or crossed by any construction activity, including those crossed by equipment access, impacted by any ground disturbing activity, and crossed by utility installation/site placement. There should only be one row for each feature unique ID. Use 1 tab/sheet for each site and/or route, and break up linear routes by segment numbers. Submit this table as Excel format. Any modifications or revisions to this table must be agreed upon by all parties before filing.

<u>To be Completed by Applicant:</u> PSC Docket Number: 5-CE-146 Created/Revised On: 7/27/2021 Route/Site Name: Segment E3 ATC Managed Cardinal-Hill Valley

		RESOURCE IN	FORMATION	T		CONSTRUCTION CROSSING METHOD/IMPACT ACTIVITY Watanda					RESOURCE IMPACT LOCATION		CATION	N RESOURCE IMPACT TOTAL		TALS													
Segment	Project Component ¹	Wetland Type ² or Waterway Name ³	Feature Unique ID ⁴	Navigability Determination Requested ⁵	Fish Spawning Timing Restriction Waiver Requested 6	Equipment Crossing Method ⁷	Trench ⁸ (indicate length and width of trench in feet)	Plow (yes/no)	HDD/Bore (yes/no)	Other Activities	Matting ¹⁰ (square feet)	Trench ⁸ (indicate length and width of trench in feet)	Trench (square feet)	ench Location of Spoils 11	Wetland Spoils ¹² (square feet)	Plow (yes/no)	HDD/Bore (yes/no)	Bore Pits (square feet)	Grading ¹³ (square feet)	Other Temporary impact ¹⁴ (square feet)	Comments on Other Temporary Impact 15	Permanent Structure/Fill Placement (square feet) ¹⁶	County	Latitude Coordinates ¹⁷	Longitude Coordinates ¹⁷	Temporary Wetland Fill (square feet)	Permanent Wetland Fill (square feet)	Wetland Conversion ¹⁸ (square feet)	Comments
Wetlands												,				1	1							1			1		
Segment E3	Transmission line ROW	Shrub Carr	U-W02-SC	N/A	N/A	N/A	N/A	N/A	N/A	N/A	550					No	No						Dane	43.0044	-89.701153	550		550	
Segment E3	Transmission line ROW	Wet Meadow	U-W02-WM	N/A	N/A	N/A	N/A	N/A	N/A	N/A	800					No	No						Dane	43.0044	-89.701153	800		0	
Segment E3	Transmission line	Hardwood Swamp	T-W01a-HS	N/A	N/A	N/A	N/A	N/A	N/A	N/A	240					No	No						Dane	43.014155	-89.704382	240		10135	
Segment E3	Transmission line	Farmed Wetland	T-W01a-FW	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5,200					No	No						Dane	43.014155	-89.704382	5,200		0	
Segment E3	Transmission line	Wet Meadow	T-W01a-WM	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2,800					No	No						Dane	43.014155	-89.704382	2,800		0	
Segment E3	Transmission line	Wet Meadow/ Seasonally	T-W02a-n	N/A	N/A	N/A	N/A	N/A	N/A	N/A	36.000					No	No						Dane	43.032026	-89.702795	36.000		0	
Segment E3	Transmission line	Flooded Basin Hardwood Swamp	T-W02-r-HS	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.000					No	No						Dane	43.032026	-89.702795	2.000		6368	
Segment E3	ROW Transmission line	Wet Meadow	T-W02-r-WM	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2 530					No	No						Dane	43 032026	-89 702795	2 530		0	
Segment E3	ROW Transmission line	Wet Meadow	T-W03	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2 500					No	No						Dane	43 04642	-89 692782	2 500		0	
Segment E3	ROW Transmission line	Wet Meadow	V-W01a	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.440					No	No						Dane	43.055817	-89.677071	1.440		0	
Cogmont E2	ROW Transmission line	Wet Meadow	V-W01 c WM	N/A	N/A	N/A	N/A	N/A	N/A	N/A	20,000					No	No					05	Dane	43.0555017	90.67690	20.000	05	0	
Segment ES	ROW Transmission line	Challennersch	V-W01-I-WW	N/A	N/A	N/A	N/A	N/A	N/A	N/A	20,000					No	NU					90	Dane	43.050515	-09.07002	20,000	90	0	
Segment ES	ROW Transmission line	Shallow marsh	V-WUT-F-SHM	N/A	N/A	N/A	N/A	N/A	N/A	N/A	12,000					NO	INO						Dane	43.050515	-09.07002	12,000		0	
Segment E3	ROW Transmission line	Snallow Open Water Wet Meadow/Farmed	x-w01a-n	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0					No	No						Dane	43.093423	-89.650313	0		U	
Segment E3	ROW Transmission line	wetland	X-W01-r-WM	N/A	N/A	N/A	N/A	N/A	N/A	N/A	46,000					No	No					190	Dane	43.093421	-89.644788	46,000	190	0	
Segment E3	ROW Transmission line	Shallow Marsh	X-W01-r-SHM	N/A	N/A	N/A	N/A	N/A	N/A	N/A	10,000			-		No	No		-				Dane	43.093421	-89.644788	10,000		0	
Segment E3	ROW Transmission line	Open Water/ Wet Meadow	Y-W01-r	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0					No	No						Dane	43.096156	-89.618271	0		0	
Segment E3	ROW	Wet Meadow	Y-W02	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3,510					No	No						Dane	43.095841	-89.615206	3,510		0	
Segment E3	ROW	Wet Meadow	Y-W02a-n	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2,000					No	No						Dane	43.094719	-89.610406	2,000		0	
Segment E3	ROW	Wet Meadow	Y-W03-r	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1,000					No	No						Dane	43.093951	-89.606603	1,000		0	
Segment E3	ROW	Marsh	Y-W04	N/A	N/A	N/A	N/A	N/A	N/A	N/A	800			-		No	No						Dane	43.093994	-89.605958	800		0	
Segment E3	Transmission line ROW	Hardwood Swamp	Z-W02a-r	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5,060					No	No						Dane	43.092116	-89.595002	5,060		0	
Segment E3	Transmission line ROW	Seasonally flooded basin	Z-W02c-n	N/A	N/A	N/A	N/A	N/A	N/A	N/A	800					No	No						Dane	43.092848	-89.598765	800		0	
Segment E3	Transmission line ROW	Hardwood Swamp	Z-W02b-r	N/A	N/A	N/A	N/A	N/A	N/A	N/A	13,070					No	No						Dane	43.092116	-89.595002	13,070		20746	
Segment E3	Transmission line ROW	Wet Meadow	Z-W02b-r	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5,000					No	No						Dane	43.092116	-89.595002	5,000		0	
Segment E3	Transmission line ROW	Wet Meadow	Z-W03-r	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5,200					No	No						Dane	43.091085	-89.592786	5,200		0	
Segment E3	Transmission line ROW	Wet Meadow	Z-W03a-r-WM	N/A	N/A	N/A	N/A	N/A	N/A	N/A	23,550					No	No						Dane	43.090548	-89.591988	23,550		0	
Segment E3	Transmission line ROW	Sedge Meadow	Z-W03a-r-SM	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5,000					No	No		-				Dane	43.090548	-89.591988	5,000		0	
Segment E3	Transmission line ROW	Hardwood Swamp	Z-W03a-r-HS	N/A	N/A	N/A	N/A	N/A	N/A	N/A	10,000					No	No		-				Dane	43.090548	-89.591988	10,000		5552	
Segment E3	Transmission line ROW	Wet Meadow	Z-W03b-r-WM	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5,080					No	No						Dane	43.091061	-89.586563	5,080		0	
Segment E3	Transmission line ROW	Shrub Carr	Z-W03b-r-SC	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4,600					No	No						Dane	43.091061	-89.586563	4,600		4638	
Segment E3	Transmission line ROW	Hardwood Swamp	Z-W03b-r-HS	N/A	N/A	N/A	N/A	N/A	N/A	N/A	9,000					No	No						Dane	43.091061	-89.586563	9,000		9366	
Segment E3	Transmission line ROW	Shallow Marsh	Y-W08-SHM	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0					No	No						Dane	43.093669	-89.576161	0		0	
Segment E3	Transmission line ROW	Wet Meadow	Y-W08-WM	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1,710					No	No						Dane	43.093669	-89.576161	1,710		0	
Segment E3	Transmission line ROW	Wet Meadow	Y-W09-r-WM	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3,500					No	No						Dane	43.093804	-89.572175	3,500		0	
Segment E3	Transmission line ROW	Sedge Meadow	Y-W09-r-SM	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2,530					No	No						Dane	43.093804	-89.572175	2,530		0	
Segment E3	Transmission line ROW	Shallow Marsh/ Deep Marsh	Y-W09-r-SHM	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5,200					No	No						Dane	43.093804	-89.572175	5,200		0	
Segment E3	Transmission line ROW	Wet Meadow/Farmed wetland	Y-W05	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0					No	No						Dane	43.092848	-89.598765	0		0	
Waton									Wetland Im	pact Totals:	249,270	N/A	0	N/A	0	N/A	N/A	0	0	0	N/A	285	N/A	N/A	N/A	249,270	285	57,355	N/A
Segment E3	Transmission line	UNT to Fryes Feeder	U-R01	No	Yes	TCSB		No	No		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Dane	43.00396	-89.700416	N/A	N/A	N/A	
Segment F3	ROW Transmission line	Schalpbach Creek	T-R01a	No	No	Existing Culver	t	No	No		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Dane	43.013612	-89,702759	N/A	N/A	N/A	
Segment E3	ROW Transmission line	UNT to Sugar River	T-R01	No	Yee	TCSR		No	No		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Dane	43 031208	-89 704479	N/A	N/A	N/A	
Segment E3	ROW Transmission line	LINT to Sugar Piver	V_P03	No	Yae	TCSB		No	No		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Dane	43 055235	-89 675820	N/A	N/A	N/A	
Segment E2	ROW Transmission line	LINT	V-RU3	No	105 Voc	TCSB	-	No	No		N/A	N/A	IN/A	IN/A	N/A	N/A	N/A	IN/A	IN/A	IN/A	N/A	IN/A	Dane	43.030230	-03.0/0623	IN/A	N/A	N/A	
Sogmont E3	ROW Transmission line		v-rt01 X-R01	NO	res V	TCOD		NU	No	-	IN/A	IN/A	IN/A	IN/A	IN/A	N/A	N/A	IN/A	IN/A	IN/A	N/A	IN/A	Dere	43.00/000	-03.000040	IN/A	IN/A	N/A	
Sogmont E3	ROW Transmission line		(X-UNT1)	NO	res V	TCOD		NU	No	-	IN/A	IN/A	IN/A	IN/A	IN/A	N/A	N/A	IN/A	IN/A	IN/A	N/A	IN/A	Dere	43.033402	-03.044400	IN/A	IN/A	N/A	
Gegment E3	ROW Transmission line	Diack Earth Greek	Y-K02-1	NO NI	Tes	TCSB		iNO	NO		N/A	N/A	IN/A	IN/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	IN/A	Dane	43.094586	-69.009876	IN/A	N/A	IN/A	
Segment E3	ROW Transmission line	Diack Earth Greek	Y-K02-2	No	Yes	TOOT		No	NO		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Dane	43.094287	-89.607365	N/A	N/A	N/A	
Segment E3	ROW Transmission line	Diack Earth Greek	Y-R02-3	No	Yes	TCSB		No	NO		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Dane	43.094112	-89.607444	N/A	N/A	N/A	
Segment E3	ROW Transmission line	Black Earth Creek	Y-R02-4	No	Yes	TCSB		No	No		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Dane	43.094114	-89.607521	N/A	N/A	N/A	
Segment E3	ROW Transmission line	Diack Earth Greek	Y-K02-5	No	Yes	TCSB		No	NO		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Dane	43.094537	-89.609815	N/A	N/A	N/A	
Segment E3	ROW Transmission line	Black Earth Creek	Y-R04	No	Yes	TCSB		No	No		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Dane	43.094302	-89.602042	N/A	N/A	N/A	
Segment E3	ROW	Black Earth Creek	Z-R01b	No	Yes	TCSB		No	No		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Dane	43.091746	-89.593912	N/A	N/A	N/A	

Segment E3 ROW Black Earth Creek	Z-R01	No	Yes	TCSB	 No	No		N/A	Dane	43.090645	-89.592226	N/A	N/A	N/A												
Segment E3 Transmission line ROW UNT	Z-R01c-n	No	Yes	TCSB	 No	No	-	N/A	Dane	43.091184	-89.586263	N/A	N/A	N/A												

¹ Identify what component of the project is associated with the crossing/impact (e.g. transmission line ROW, pipeline ROW, temporary easement, off-ROW access road, laydown yard, substation, solar array, turbine, fence installation, collection line, temporary access road, permanent access road, O&M building, etc.)
² For wetlands, state the wetland type using the Eggars and Reed classification system.
³ For waterways, indicate the name of the waterway (i.e. Silver Creek). If unnamed, indicate where water flows (i.e. UNT to Silver Creek).
⁴ Insert the name or label used in application (e.g. W-3, S-27). For wetland complexes , individual wetland types should have its own row and be named something like: W-3A for shallow marsh, W-3B for wet meadow, and W-3C for shrub carr). For wetland vertices are alreaded by the provide a feature unique ID for each DNR mapped waterway within the project area/route (including all project components), even if the DNR mapped waterway was not identified during field surveys, and for all field surveys, and for all field surveys, and for all field surveys. The waterways in an out of the ROW and <u>meander in and out</u> of the ROW, as separate ID should be provided to account for each time a section of that waterway enters the ROW (e.g. if stream S-1 meanders in and out of the ROW 3 times, there should be 3 separate rows, S-1A, S-1B, and S-1C.
⁵ All waterways mapped in the WDNR 24k hydrolayer (surface waters in surface water dataviewer) and any additional field identified waterways are considered navigable unless determined non-navigable by WDNR. Navigability determinations can only be conducted by DNR staff. Enter "yes" if a navigability determination is requested for any DNR mapped waterway not field identified, or for any field identified waterways that were observed to potentially not meet the definition of navigable. A separate submittal is required.
⁶ To protect fish spawning habitat, any in-water work (such as dredging, placement of structures in waterways, placing equipment in waterways or driving on the bed of waterways, including the use of existing fords, etc.) and placement or removal of structures across waterways (e.g. TCSB, permanent bridges, etc.) is prohibited during certain time frames. If the applicant wishes to perform any of these regulated activities in or across waterways during the applicable timing restriction, enter "yes" indicating a waiver is requested. A separate submittal is required.
⁷ Indicate how each waterway feature unique ID will be traversed by equipment (i.e. placement of TCSB's, driving on the bed, placement of temporary culvert, placement of permanent culvert, placement of ford, placement of permanent bridge, use of existing ford/culvert/bridge, etc.).
⁸ For underground line placement only: Indicate the length and width (e.g. 10' by 5') of wetland or waterway to be open-cut trenched. This is limited to the trench itself and does not include grading or stockpiling of soils.
⁹ Use this column to textually identify any other regulated activities occuring in waterway feature unique ID's, such as placement of power poles in this waterway, placement of temporary bore tracking cables in this waterway, channel relocation of this waterway, placement of riprap in this waterway, placement of construction matting on this waterway bed, construction of a pond within 500 feet of this waterway, fence crossing of this waterway, etc.
¹⁰ If construction matting (e.g. timber, composite, etc.) will be placed in wetland for vehicle/equipment access or under soil stockpiles, indicate the area (length by width) of matting to be placed in wetland (temporary fill)
¹¹ Indicate if spoils for each trenched wetland feature unique ID will be placed in upland, in wetland or on mats. If on mats in wetland account for matting square footage in matting column.
¹² If exacavated soil will be sidecast in wetlands and will not be placed on construction mats, indicate the amount of temporarily stockpiled soil here. If excavated soil will be sidecast in wetlands will be placed on mats, include the stockpile matting area under the matting column.
13 Indicate the amount of grading in wetlands not associated with trenching, such as topsoil stripping outside of trench, non-matted vehicle access that results in disturbance, etc.
¹⁴ Use this column to indicate any other activities occuring in wetlands resulting in temporary wetland fill that do not have their own column, such placement of temporary gravel for staging areas, placement of temporary poles or temporary junction boxes in wetland, etc.
¹⁵ Complete this column to textually identify what construction activities are associated with the "other activities" proposed in wetlands resulting in temporary wetland fill.
¹⁶ If permanent structures or permanent fill will be placed in wetland (e.g. power pole structures, concrete fence footings, substations or other permanent buildings, permanent road fill, permanent land alteration such as grading that permanently converts wetlands to uplands, etc.), indicate the amount of permanent fill.
¹⁷ Provide the lat/long coordinates in decimal degress at the location of the resource impact.
¹⁸ Conversion refers to vegetative clearing of forested and/or shrub type wetlands, resulting in an herbaceous wetland, for the purposes of construction. Mowing of pre-construction herbaceous wetland types should <u>not</u> be included in this column.

Attachment L1

Fisheries Waiver Package

Attachment L1: Fisheries Waiver Package

Request Form - Waiver of Timing Restrictions for Utility Project Waterway Permits

This form shall be used to request a waiver from the time period restrictions in NR 320 through NR 345, Wis. Admin. Code, for utility projects that qualify for a General Permit or Individual Permit under Chapter 30, Wis. Statutes. The completed waiver form shall be submitted to the Department's Office of Energy, where the applicant seeks a waiver from the applicable permit conditions that places time period restrictions on the project, such as temporary clear span bridge (TCSB) placement and/or removal and in-water work. The Department signature on this form only waives the time period restrictions, and does not constitute a permit, approval, or other concurrence with the proposed project.

The following information shall be submitted with this request form:

- A typical figure/drawing of the TCSB, or construction plans for the in-water work
- Photos of each waterway
- A short narrative with information on:
 - o When the in-water work or TCSB placement and/or removal will occur
 - o Erosion controls that will be utilized

o How the TCSB placement and/or removal will occur (i.e. carried in and placed with equipment, assembled on site), or details on how the in-water work will be conducted

o Description of any bed or bank disturbance that will occur, if any

FOR THE APPLICANT TO COMPLETE

Project name: Cardinal - Hickory Creek 345 kV Transmission Line Project

Segment E3 - Cardinal to Mount Horeb

Applicant name: American Transmission Company LLC

Project description:

American Transmission Company LLC, by its corporate manager, ATC Management Inc. (ATC), ITC Midwest, LLC (ITC), and Dairyland Power Cooperative (DPC) were granted a Ch. 30.025 utility permit by the Wisconsin Department of Natural Resources (WDNR) for work in and adjacent to wetlands and waterways for the Cardinal - Hickory Creek 345 kV Transmission Line Project (Permit #IP-SC-2019-25-03588).

As the Project Construction Manager for this segment of the Project, ATC is requesting a waiver of seasonal restrictions for placement and removal of 14 Temporary Clear Span Bridges (TSCBs). A seasonal waiver is being requested to minimize limitations and maximize flexibility so that the contractor can work safely and efficiently across the Project. Depending on the construction activity duration and access needs at a location, TCSBs may be placed and removed more than once during the course of the Project.

Waterways will be crossed using a TCSB to avoid in-stream disturbance by construction equipment. Bridges will be constructed of timber mats or other suitable material to ensure safe and reliable equipment movement. Matting will be placed using appropriate equipment such as pulp trucks or excavators. Matting will be placed above the ordinary high water mark (OHWM) on the banks of the waterway to avoid in-stream disturbance. Erosion/sediment control will be installed to protect the banks of the waterway during use as necessary. Erosion controls may consist of silt fence, straw logs/bales, or other devices to prevent runoff or siltation into the waterway.

Once construction has been completed in the area and access across the waterway is no longer required, the TCSB and associated materials will be removed, and the area restored. Depending upon the level of disturbance, restoration may include minor grading/leveling to restore pre-existing topography, installation of seed, and stabilizing the banks with erosion control such as erosion mat and straw logs.

The following information is provided in the attached table:

Project/TCSB location(s), including coordinates and County(s)

Name of Waterway(s)

Waterway designations, if any

Waterway characteristics (i.e. width, depth, substrate type, etc.) if known

Photos of the proposed crossing locations and TCSB typical cross sections are attached.

FOR DNR FISHERIES BIOLOGIST TO COMPLETE

The applicant listed above has provided information about their proposed project in navigable waters. Based on their project description, plans, and other existing information available to me, I find that (check all applicable boxes):

- □ there may be suitable habitat at or near the proposed project,
- □ there is no suitable habitat at or near the proposed project,
- □ there may be an impact on spawning fish or spawning activities,
- □ there will be no impact on spawning fish or spawning activities.

Consequently, the time period restrictions of the applicable administrative code (check one box):

 are not necessary to protect fish spawning for the proposed project, and I approve this waiver, or are necessary to protect fish spawning for the proposed project, and I deny this waiver

Additional comments:

Signed by: ______

Segment E3 - Cardinal to Mt Horeb Attachment L1. Fisheries Waiver Waterways Crossed by the Project

Feature Unique ID	Feature Type, Name and Designation ¹	Resource Description	WBIC	Coordinates of Wate Project C	erway Crossing Near Centerline	County	Waterway Characteristics	Navigability or Snowmobile Use Limitations
	Designation			Latitude	Longitude			
U-R01	Waterway	UNT to Fryes Feeder		43.00396	-89.700416	Dane	Not shown on WDNR 24K hydro layer; OHWM width = 2 ft, OHWM height = 0.5 ft; bank width = 3 ft, bank height 1 ft. Characteristics at culvert outfall, unknown south of road ROW. Approach slope is moderate. Riparian vegetation dominated by smooth brome and Canada thistle.	Waterway is bounded by the USH 151 highway culvert and WisDOT highway fence north of the proposed TCSB location within the DOT ROW. The waterway continues south as a vegetated swale through the agricultural field. The culvert, fence, and size of waterway (2 feet wide) limit the ability to use this feature for navigation or snowmobiles.
T-R01	Waterway	UNT to Sugar River	5036143	43.031208	-89.704479	Dane	Shown on WDNR 24K hydro layer; OHWM width = 1.5 ft, OHWM height = 1 ft; bank width = 4 ft, bank height = 2 ft. Approach slope is moderate. Riparian vegetation in the dense upland shrubs dominated by common buckthorn, multiflora rose, common blackberry, honeysuckle, smooth sumac, black cherry, and white mulberry. Adjacent pasture dominated by Kentucky bluegrass, redtop, timothy grass, bull thistle, and Canada thistle.	TCSB location is at the southern limit of the waterway, and is comprised of a farmed agricultural field further south. The surrounding conditions and size of waterway (1 foot wide) limit the ability to use this feature for navigation or snowmobiles.
V-R03	Waterway	UNT to Sugar River	888400	43.055235	-89.675829	Dane	Shown on WDNR 24K hydro layer. A portion of V- UNT1 is field delineated based on field conditions observed in 2020. OHWM width = 2-5+ ft, OHWM height = 0.5 ft; bank width =10 ft, bank height = 1 ft. Approach slope is gradual. Riparian vegetation dominated by RCG, smartweeds, and buttercups.	Waterway is bounded by the culverts at Red Hawk Lane just west of the proposed TCSB location at the ROW edge. The waterway continues east as a narrow vegetated swale through the agricultural field. The culvert, fence and conditions of the waterway limit the ability to use this feature for navigation or snowmobiles.
V-R01	Waterway	UNT		43.087558	-89.653348	Dane	Not shown on WDNR 24K hydro layer; OHWM width = 1 ft, OHWM height = 0.5 ft; bank width = 1 ft, bank height = 1 ft. Approach slope is steep. Riparian vegetation dominated by giant goldenrod, Canada goldenrod, multiflora rose, timothy grass, honeysuckle, gray dogwood, common buckthorn, black cherry, box elder, and leafy spurge.	TCSB location is at the northern limit of the waterway, and is comprised of an upland meadow further north. The surrounding conditions and size of waterway (1.5 feet wide) limit the ability to use this feature for navigation or snowmobiles.
X-R01 (X-UNT1)	Waterway	UNT	5035462	43.093462	-89.644466	Dane	Shown on WDNR 24K hydro layer. Previously named (X-UNT1), field delineated in 2020: Waterway is comprised of a dredged ditch, impounded along eastern edge. Characteristics not observed due to high water.	Waterway is comprised of an agricultural ditch which is bounded by culverts at Stagecoach Road to the north. Based on aerial photography, the waterway does not appear to have any defined course or channel further south. The culvert and waterway conditions limit the ability to use this feature for navigation or snowmobiles.

Y-R02-1	Waterway, ASNRI Outstanding Resource Water; Class I Trout Stream	Black Earth Creek	1248600	43.094586	-89.609876	Dane	Shown on WDNR 24K hydro layer; Characteristics updated in 2020: Ditched/ channelized portion of Black Earth Creek. OHWM width = 10 ft, OHWM height = 4 ft; bank width = 20 ft, bank height 3-5 ft. Approach slope is gradual. Riparian vegetation dominated by RCG, honeysuckle shrubs, jewelweed and boxelder.	the าe The ature
Y-R02-2	Waterway, ASNRI Outstanding Resource Water; Class I Trout Stream	Black Earth Creek	1248600	43.094287	-89.607365	Dane	Shown on WDNR 24K hydro layer; Characteristics updated in 2020: Ditched/ channelized portion of Black Earth Creek. OHWM width = 10 ft, OHWM height = 4 ft; bank width = 20 ft, bank height 3-5 ft. Approach slope is gradual. Riparian vegetation dominated by RCG, honeysuckle shrubs, jewelweed and boxelder.	the าe ัhe ature
Y-R02-3	Waterway, ASNRI Outstanding Resource Water; Class I Trout Stream	Black Earth Creek	1248600	43.094112	-89.607444	Dane	Shown on WDNR 24K hydro layer; Characteristics updated in 2020: Ditched/ channelized portion of Black Earth Creek. OHWM width = 10 ft, OHWM height = 4 ft; bank width = 20 ft, bank height 3-5 ft. Approach slope is gradual. Riparian vegetation dominated by RCG, honeysuckle shrubs, jewelweed and boxelder.	the าe `he ⊧ature
Y-R02-4	Waterway, ASNRI Outstanding Resource Water; Class I Trout Stream	Black Earth Creek	1248600	43.094114	-89.607521	Dane	Shown on WDNR 24K hydro layer; Characteristics updated in 2020: Ditched/ channelized portion of Black Earth Creek. OHWM width = 10 ft, OHWM height = 4 ft; bank width = 20 ft, bank height 3-5 ft. Approach slope is gradual. Riparian vegetation dominated by RCG, honeysuckle shrubs, jewelweed and boxelder.	the าe ัhe ature
Y-R02-5	Waterway, ASNRI Outstanding Resource Water; Class I Trout Stream	Black Earth Creek	1248600	43.094537	-89.609815	Dane	Shown on WDNR 24K hydro layer; Characteristics updated in 2020: Ditched/ channelized portion of Black Earth Creek. OHWM width = 10 ft, OHWM height = 4 ft; bank width = 20 ft, bank height 3-5 ft. Approach slope is gradual. Riparian vegetation dominated by RCG, honeysuckle shrubs, jewelweed and boxelder.	the าe ัhe ature
Y-R04	Waterway, ASNRI Outstanding Resource Water; Class I Trout Stream	Black Earth Creek	1248600	43.094302	-89.602042	Dane	Shown on WDNR 24K hydro layer; OHWM width = 15 ft, OHWM height = 4 ft; bank width = 30 ft, bank height 4 ft. Approach slope is moderate. Riparian vegetation dominated by RCG, scouring-rush horsetail, sandbar willow, cottonwood, white mulberry, common buckthorn, grape vine, common milkweed, and orange jewelweed. Vegetation in channel included leafy pondweed, curly leaf pondweed, sago pondweed, and water-starwort.	the <s of<br="">e ∍rts e for</s>

Z-R01b	Waterway, ASNRI Outstanding Resource Water; Class I Trout Stream	Black Earth Creek	1248600	43.091746	-89.593912	Dane	Shown on WDNR 25K hydro layer; contiguous with Y- R04, Y-R05, Z-R01a, Z-R01. Characteristics updated in 2020: OHWM width = 14 ft, OHWM height = 3 ft; bank width = 16 ft, bank height 5 ft. Approach slope is gradual. Riparian vegetation comprised wet meadow/ hardwood swamp communities of Z-R02 and grassland community within DOT ROW dominated by cool season grasses, golden rods and beebalm.	Black Earth Creek at this location is bounded by the culvert to the southeast at USH 14. Additionally, the banks of the waterway contain thick vegetation that impede movement within the waterway course. The culverts and thick vegetation limit ability to use this feature for navigation or snowmobiles.
Z-R01	Waterway, ASNRI Outstanding Resource Water; Class I Trout Stream	Black Earth Creek	1248600	43.090645	-89.592226	Dane	Shown on WDNR 24K hydro layer. Characteristics updated in 2020: OHWM width = 20 ft, OHWM height = 3 ft; bank width = 30 ft, bank height 4 ft. Approach slope is gradual. Vegetation in channel includes pondweed species and water-starwort. Riparian vegetation dominated by RCG, cattails, orange jewelweed, and rice cut grass.	Black Earth Creek at this location is bounded by the culverts to the north at the railroad embankment and USH 14. Additionally, the banks of the waterway contain thick vegetation that impede movement within the waterway course. The culverts and thick vegetation limit ability to use this feature for navigation or snowmobiles.
Z-R01c-n	Waterway	UNT		43.091184	-89.586263	Dane	New feature identified in 2020, area previously aerially evaluated: Not shown on WDNR 24K hydro layer; OHWM width = 3 ft, OHWM height = 0.5 ft; bank width = 3 ft, bank height 2 ft. Approach slope is gradual. Riparian vegetation dominated by shrub-carr and wet meadow components of Z-W03b, few maple saplings and wild parsnip.	Waterway is bounded to the north by the culverts at the railroad embankment and USH 14. The waterway continues east as a narrow vegetated swale through the agricultural field. The culverts and conditions of the waterway (thick vegetation, narrow channel) limit the ability to use this feature for navigation or snowmobiles.

¹ Designated features refers to waterways considered to be Areas of Special Natural Resource Interest (ASNRI) per NR 103.04 WI.

Segment: E3 Waterway: U-R01 Nearest Structure: 147400 **Plan View** 4'x16' Support Mats Stream | Stream Stream 4'x16' Support Mats Bank Channel Bank **Temporary Clear Span Bridge** Timber Mat Supports: 16' x 4' (see note below) Bridge Deck: timber or hybrid mats Channel Width = 1' Perimeter Control Bank Width = 3'Secured to Sides Fabric between **Cross Sectional View Deck Layers** 4'x16' Mat 4'x16' Mat 4'x16' Mat 4'x16' Mat Timber Mats: 16' x 4' (see note below) 4'x16' Mat 4'x16' Mat Depth of Water = 0-6" Height of Bank = 1'

- Drawings are not to scale
- TCSB will be secured to a fixed anchor
- Sediment Controls: Perimeter control (silt fence or sediment logs) along the sides; geotextile filter fabric between the deck layers.
- Note: The dimensions described above are based on the best available information based on the observations made from the adjacent accessible parcel. There is also a planned wire-setup at this location, depending on how the wire-setup lays out the TCSB may need to be wider than 16ft to allow enough room for the wire-setup.

Segment: E3 Waterway: T-R01 Nearest Structure: 147415



Depth of Water = 1' Height of Bank = 2'

- Drawings are not to scale
- TCSB will be secured to a fixed anchor
- Sediment Controls: Perimeter control (silt fence or sediment logs) along the sides; geotextile filter fabric between the deck layers.



- Drawings are not to scale
- TCSB will be secured to a fixed anchor
- Sediment Controls: Perimeter control (silt fence or sediment logs) along the sides; geotextile filter fabric between the deck layers.



- Drawings are not to scale
- TCSB will be secured to a fixed anchor
- Sediment Controls: Perimeter control (silt fence or sediment logs) along the sides; geotextile filter fabric between the deck layers.

Segment: E3 Waterway: X-R01 Nearest Structure: 147459



- Drawings are not to scale
- TCSB will be secured to a fixed anchor
- Sediment Controls: Plywood deck and geotextile fabric installed on top of steel grate. Sediment logs placed along the sides for perimeter control.

Segment: E3 Waterway: Y-R02-1 Nearest Structure: 147470 (6927 line str 127162)



- Drawings are not to scale
- TCSB will be secured to a fixed anchor
- Sediment Controls: Perimeter control (silt fence or sediment logs) along the sides; geotextile filter fabric between the deck layers.

Segment: E3 Waterway: Y-R02-2 Nearest Structure: 147470 (6927 line str 127162)

- Drawings are not to scale
- TCSB will be secured to a fixed anchor
- Sediment Controls: Perimeter control (silt fence or sediment logs) along the sides; geotextile filter fabric between the deck layers.
Segment: E3 Waterway: Y-R02-3 Nearest Structure: 147470 (6927 line str 127163)



- Drawings are not to scale
- TCSB will be secured to a fixed anchor
- Sediment Controls: Perimeter control (silt fence or sediment logs) along the sides; geotextile filter fabric between the deck layers.

Segment: E3 Waterway: Y-R02-4 Nearest Structure: 147470 (6927 line str 127164)



- Drawings are not to scale
- TCSB will be secured to a fixed anchor
- Sediment Controls: Perimeter control (silt fence or sediment logs) along the sides; geotextile filter fabric between the deck layers.

Segment: E3 Waterway: Y-R02-5 Nearest Structure: 147470 (6927 line str 127165)



Cross Sectional View



- Drawings are not to scale
- TCSB will be secured to a fixed anchor
- Sediment Controls: Perimeter control (silt fence or sediment logs) along the sides; geotextile filter fabric between the deck layers.



- Drawings are not to scale
- TCSB will be secured to a fixed anchor
- Sediment Controls: Plywood deck and geotextile fabric installed on top of steel grate. Sediment logs placed along the sides for perimeter control.



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Photo of waterway U-R01, view east, 2017-06-20



Photo of waterway U-R01, view north, 2017-06-20



Photo of waterway U-R01, view south, 2017-06-20



Photo of waterway T-R01, view north, 2020-08-20



Photo of waterway T-R01, view southwest, 2020-05-19



Photo of waterway T-R01, view west, 2020-05-19



Photo of waterway V-R03, view north, 2020-05-20



Photo of waterway V-R03, view east, 2020-05-20



Photo of waterway V-R03, view northeast, 2020-05-20



Photo of waterway V-R01, view north, 2020-05-22



Photo of waterway V-R01, view southeast, 2020-05-22



Photo of waterway V-R01, view northeast, 2020-05-22



Photo of waterway V-R01, view southeast, 2020-05-22



Photo of waterway X-R01, view west, 2020-05-11



Photo of waterway X-R01, view north, 2020-05-11



Photo of waterway X-R01, view south, 2020-05-22



Photo of waterway Y-R02-1, view northeast, 2020-10-01



Photo of waterway Y-R02-3, view northeast, 2020-10-01



Photo of waterway Y-R02-4, view north, 2020-10-01



Photo of waterway Y-R02-5, view north, 2020-10-01



Photo of waterway Y-R02, view northwest, 2020-05-22



Photo of waterway Y-R02, view southwest, 2020-05-22



Photo of waterway Y-R02, view west, 2020-05-22



Photo of waterway Y-R02, view east, 2020-05-22



Photo of waterway Y-R02, view south, 2020-05-22



Photo of waterway Y-R04, view northeast, 2020-07-06



Photo of waterway Y-R04, view northeast, 2020-07-30



Photo of waterway Y-R04, view southwest, 2020-07-30



Photo of waterway Z-R01b, view northwest, 2020-07-06



Photo of waterway Z-R01b, view west, 2020-07-06



Photo of waterway Z-R01b, view south, 2020-05-21



Photo of waterway Z-R01b, view northwest, 2020-05-21



Photo of waterway Z-R01b, view southeast, 2020-05-21



Photo of waterway Z-R01, view east, 2020-05-29



Photo of waterway Z-R01, view north, 2020-05-29



Photo of waterway Z-R01, view south, 2020-05-29



Photo of waterway Z-R01, view northwest, 2020-05-29



Photo of waterway Z-R01, view southeast, 2020-05-29



Photo of waterway Z-R01c-n, view north, 2020-05-29



Photo of waterway Z-R01c-n, view south, 2020-05-29



Photo of waterway Z-R01c-n, view north, 2020-05-29 (2)

Attachment N1

Revegetation and Monitoring Plan



REVEGETATION AND MONITORING PLAN

This Revegetation and Monitoring Plan (the Plan) has been developed in accordance with the Wisconsin Department of Natural Resources (WDNR) Utility Permit (IP-SC-2019-25-03588) and the Public Service Commission (PSC) Order (Docket # 5-CE-146) for the Cardinal-Hickory Creek 345kV Transmission Line Project (the Project). The Plan applies to construction Segments E1, E2, and E3 where ATC is the Construction Manager, and is divided into three sections. The first section of the Plan provides guidance for the revegetation of the Project area following construction. The second section provides recommended protocols for monitoring of higher quality upland areas, wetlands, and waterways post-construction, and provides performance standards for impacted wetlands and waterways that shall be achieved by the end of the monitoring period.

REVEGETATION PLAN

The purpose of this Revegetation Plan is to guide the restoration of plant communities disturbed by project activities to obtain revegetation compliance, support native plant communities where practical, and minimize erosion.

Erosion Control

The Project Erosion Control Plan (ECP) will be developed in accordance with the Wisconsin Pollution Discharge Elimination System (WPDES) General Permit and adhered to throughout the Project to manage erosion and storm water runoff, and to facilitate stabilization efforts upon completion of construction. Throughout the project, Environmental Monitors (EM) will conduct erosion control inspections to oversee compliance with the construction and erosion control plans and permit specifications. The EM will conduct inspections until disturbed areas are stabilized, will document the need for corrective action, and will work with the construction contractor to develop adaptive strategies on a case-by-case basis to minimize impacts to natural areas.

As specified in the ECP, temporary erosion control will be installed on an as-needed basis prior to ground disturbance and will be removed as necessary (e.g. silt fence) following site stabilization. Timber matting may be used for access routes and equipment staging in areas with soils susceptible to rutting at the time of construction.

Management of Woody Debris

In areas requiring clearing of trees and shrubs, woody material may be chipped and left in place such that it does not exceed an approximate depth of two inches. Wood chip depth greater than two inches will be considered restrictive to natural revegetation and unsuitable for establishment of the temporary cover crop or permanent seed mixes and therefore must be removed.

Seed Installation

Post-construction seed installation will be limited to areas where soil disturbance has taken place. For example, areas where access is limited or other protective measures have been implemented will be assessed upon completion of work. These areas may not require supplemental seeding if overall ground/soil disturbance is minimal. Site conditions at the time of Project activities will influence the restoration needs for each area. The decision to install a temporary cover crop and/or permanent seed mixes will be a field decision made by the EM, based on items such as level of disturbance and erosion potential. The Project seed mixes are included in Appendix A.



Seed installation will comply with WDNR Conservation Practice Standard 1059, Seeding for Construction Site Erosion Control. Installation methods may include hand broadcasting, drilling, hydroseeding, or other appropriate methods. Where native seed is specified by the EM, it shall be installed by a contractor experienced in native seed installation with installation overseen by the EM. Native seed shall be obtained from a reputable native plant nursery. All seed shall be free of noxious weeds.

In general, upland areas that are graded or cleared of woody vegetation will be seeded following construction. For wetland areas, open water communities will not be seeded and shallow marsh communities will only be seeded where there is no standing water at the time of seed installation. The remaining upland and wetland areas are anticipated to revegetate naturally. Additionally, permanent seed will not be installed within agricultural areas that may be impacted by the Project, unless requested by the landowner.

Timing for native seed installation shall also be taken into consideration, particularly in areas where the area of disturbance is large or within a higher quality natural plant community. Native seed establishment is most successful when seed is installed during the spring and fall seasons. The spring season begins as soon as the ground is snow free until approximately June 15th. The dormant fall season begins around November 1st until snow cover. If construction is completed outside of the desired native seeding windows and it is determined that permanent native seeding shall wait until the appropriate time, a temporary cover crop shall be installed as soon as feasible.

Provided below are the general guidelines for use of cover crop and/or permanent seed mixes on the Project:

Cover Crop

A temporary cover crop (Appendix A) may be installed over disturbed soils following completion of construction activities. The decision to install a cover crop will be made on a case-by-case basis and will be based on level of disturbance, available seed bank, and landscape features. Soils disturbed by Project construction activities in areas with steep slopes and along waterways will generally warrant the installation of a temporary cover crop, at a minimum.

Species used for temporary cover within uplands during spring and summer months shall generally consist of a combination of weed-free common oats and annual rye at appropriate rates. Weed-free common oats shall be installed for temporary cover within wetland areas during the spring or summer months. If temporary seeding is required in late summer or fall, winter wheat shall be installed within wetlands and uplands at an appropriate rate. Seeding rates will vary depending on whether the temporary cover crop is being installed with a permanent seed mix or is stand-alone. Temporary cover crop rates are included at the bottom of each permanent seed mix provided in Appendix A.

Permanent Seed Mixes

Permanent seed mixes may be installed following completion of construction activities based on the nature of the plant community disturbed, level of disturbance/site conditions post-construction, and the ability for the area to revegetate naturally. The decision to install a particular permanent seed mix will be a field decision by the EM. Project seed mixes have been developed to include species similar to the surrounding landscape, to establish quickly and develop vegetative cover, and to meet regulatory requirements. Four permanent seed mixes identified for use on the ATC managed portion of the Project include a Pasture Mix, Hybrid Stabilization Mix, Prairie Mix, and Wetland Mix.



The Hybrid Stabilization Mix, Prairie Mix, and Wetland Mix have been designed to include a variety of grasses and forbs to meet the use of native seed and pollinator enhanced seed mix requirements of PSC Order numbers 30, 31, and 33, detailed below:

30. The applicants shall implement pollinator-enhanced seed mixes in grassland areas to the greatest extent practicable. The applicants shall work with WDNR and Commission staff when determining where and when to use these seed mixes, and the contents of the mixes

31. In upland areas that are not agricultural crops, or road ROW, the applicants shall use a seed mix comprised of native grasses and forbs to minimize the spread of non-native plants and maintain species diversity. Pollinator-enhanced seed mixes shall be considered in these areas. The applicants shall work with WDNR and Commission staff when determining where and when to use these seed mixes, and the contents of the mixes.

33. The applicants shall revegetate ROW with appropriate seed mixes, include native species to the greatest extent practicable, and select plant species with season-long sources of pollen and/or nectar to ROWs for declining pollinator species.

Additionally, the Prairie Mix and Wetland Mix meet the criteria of the U.S. Department of Agriculture (USDA) Conservation Reserve Program (CRP) Conservation Practice 42 (CP-42) Pollinator Habitat. CP-42 requires nine species of pollinator-friendly wildflowers with at least three species blooming in the following periods: April-June 15, June 15-July, and August-October. Grass is not required, but if it is included, it must be native to the area. The Hybrid Stabilization Mix is a cross between the Pasture and Prairie Mixes. While it does not meet the CP-42 criteria, it does provide flowering species across the three blooming periods noted in CP-42, while also including species that will establish quickly and with good coverage.

The Hybrid Stabilization and Prairie seed mixes are intended to be installed within grassland areas identified as higher quality within the CPCN application for the Project, areas of community conversion (i.e. clearing of forest or shrub communities), or areas falling within the Rusty Patched Bumble Bee (RPBB) High Potential Zone (HPZ) that have been identified as suitable RPBB habitat in consultation with the U.S. Fish and Wildlife Service (UWFWS).

Converted areas (e.g. prior forested or shrub communities requiring permanent woody vegetation removal by the Project) will be seeded with one of the three permanent upland seed mixes to allow for revegetation of the herbaceous layer following clearing and disturbance. Forested communities, including wooded streambanks, with a previously dense tree or shrub cover will require quick native species revegetation where the loss of canopy may increase the potential for erosion or invasive species establishment.

Project seed mixes are discussed in more detail below and can be found in Appendix A. Species substitutions and rate adjustments to the seed mixes may be made on a case-by-case basis.

Pasture Mix

The Pasture Mix consists of non-native grasses that will provide stabilization and forage for livestock in areas that are located along highway rights-of-way (ROW), existing pastures where native species are lacking and non-native cool season grasses are dominant, disturbed farm field edges, and highly degraded forested areas. Areas disturbed during construction along the Project that are not specified in Appendix B will receive this seed mix unless determined otherwise by the EM/ATC.



Hybrid Stabilization Mix

The Hybrid Stabilization Seed Mix contains a combination of native and non-native species that are anticipated to provide stabilization faster than the Prairie Mix but will also provide species diversity and nectar resources to benefit pollinators. This mix is modeled after Minnesota Department of Transportation mixes and contains both native prairie grasses and forbs, as well as a few non-native pasture grasses (smooth brome, perennial rye, and Timothy) and non-native forbs that establish quickly and provide nectar for pollinators (red clover and alsike clover). The short-lived perennials in the mix (slender wheat grass, Canada wild rye, and Timothy) and intended to be replaced by longer-lived perennials such as big bluestem and switchgrass over time.

The Hybrid Stabilization Mix is proposed primarily in grassland areas containing few native flowering forbs, areas of cleared upland forest with low cover of invasive species, and/or communities identified as suitable RPBB habitat. Due to the presence of existing invasive species and lack of native species diversity, none of the RPBB habitat areas have been identified as high quality natural areas and the Hybrid Stabilization Mix is proposed for use in RPBB habitat areas requiring seed.

Prairie Mix

The Prairie Seed Mix is designed for upland areas and contains prairie species that are native to Dane and/or lowa County, Wisconsin. This mix has high rates of native grasses to provide stabilization to disturbed soils while also meeting pollinator-friendly habitat criteria of having at least two native bunch grasses and a minimum of three forbs species that bloom during each of the three blooming periods (spring, summer, and fall). This mix is proposed in areas of existing prairie/prairie remnants and high quality upland forests.

Wetland Seed Mix

Areas of significant disturbance within wetlands not dominated by invasive species prior to construction will be seeded with the Wetland Seed Mix. The Wetland Seed Mix consists of native species and is intended for wetland areas with seasonally inundated to seasonally saturated soils. This mix meets pollinator-friendly habitat criteria of having at least two native bunch grasses (and sedges) and a minimum of three forbs species that bloom during each of the three blooming periods (spring, summer, and fall). Wetland areas where construction matting is used may not warrant permanent seeding if there is no significant soil disturbance and the area is expected to regenerate naturally following removal of matting. Refer to Wetland Restoration and Revegetation Plan section regarding permanent seed installation within wetlands.

Appendix B lists specific areas along the Project that have been identified as areas that may receive pollinator enhanced native seed mixes.

Wetland Restoration and Revegetation Plan

Wetland community characteristics within the Project are presented in the CMP Section E, Attachment E1 for Segments E1, E2, and E3 where ATC is the Construction Manager. The characterizations are based on field observations from 2017 and 2020. Wetland communities present within the Project include wet meadow, hardwood swamp, sedge meadow, shallow marsh, shrub-carr, and farmed wetland. Most wetland communities are degraded to a certain degree with typically one or more invasive species present. There are no large or extensive wetland complexes crossed by the Project. Construction within wetlands shall comply with the segment-specific Erosion Control Plans (ECP). A summary of wetland restoration and revegetation guidelines for the Project is provided below.



Restoration / Revegetation

- Restoration within wetland areas will include removal of all construction-related materials (e.g. timber matting) and the restoration of significant ruts and depressions.
- The ROW will be restored to pre-existing topography as much as practicable.
- Areas with significant rutting in wetlands will be repaired using hand tools, back dragging, or other appropriate means to restore topography while minimizing additional disturbance.
- Wetland areas where disturbance is minimal, as anticipated along matted access routes, will generally be allowed to revegetate naturally. These locations will be monitored to determine if supplemental seeding is necessary.
- A temporary cover crop may be installed over disturbed soils following ground disturbance. As needed, weed-free common oats shall be installed for temporary cover within wetland areas during the spring or summer months. If temporary seeding is required in late summer or fall, winter wheat shall be installed within wetlands and uplands at an appropriate rate.
- Farmed wetlands will not be re-seeded due to current land use.
- The Wetland Mix may be installed within disturbed wetland areas that have a native component but are not high quality wetlands.

The following guidelines will be applied to determine the need for native seed installation within wetlands:

- High quality herbaceous wetland areas (less than 10% cover of invasive species) will not be seeded with a permanent seed mix because regeneration from the seedbank is anticipated to occur and introducing species that are not present within that community is not desired.
- Degraded herbaceous wetlands (i.e. those with greater than 50% cover of invasives), particularly reed canary grass dominated wet meadows, will not be seeded due to the likelihood of recolonization by invasives following site stabilization.
- The decision to seed converted wooded wetland areas will be based on herbaceous vegetative cover prior to clearing. Areas with sparse herbaceous cover or lacking cover by species able to tolerate full sun conditions will be seeded to minimize invasive species establishment.

Other / Miscellaneous

- Cover such as straw mulch or other weed-free methods may be applied after seeding and final restoration has occurred in wetland areas disturbed by the construction activities. All erosion control measures utilized will conform to WDNR Technical Standards.
- Soil erosion and sedimentation control measures installed will be maintained until the disturbed areas are permanently stabilized.



MONITORING PLAN

The purpose of the Monitoring Plan is to guide post-construction monitoring following the completion of the erosion control inspections by the EM.

Upland Monitoring

Monitoring within upland plant communities will be limited to the areas identified to receive either the Hybrid Stabilization Mix or the Prairie Mix (Appendix B) and will begin the first growing season following completion of construction within a given segment. These areas will be monitored for three growing seasons, as required by PSC Order Point #20, for the presence of new or spreading invasive species that may be attributable to project activity and to document revegetation efforts. Upland areas that were significantly disturbed or degraded by invasive species prior to construction (e.g., much of the roadside ROW) will not require monitoring beyond the requirements contained within NR216.

Monitoring will consist of a meander survey to document plant communities. Dominant species within each community, the presence and extent of invasive species, and overall vegetative cover will be documented. General topography and miscellaneous observations will also be noted. Representative photos will be taken at established pre-construction photo points, as well as photos of areas that may require corrective action.

For this Plan, invasive species are defined as NR40 'restricted' or 'prohibited' species. The cover class descriptions for invasive species used during pre-construction environmental surveys will also be used for post-construction monitoring and consist of: *present* (1-5 plants), *scattered* (2-5% cover), *common* (5-20% cover), *abundant* (20-50% cover), and *dominant* (>50% cover). Increases in invasive species presence and abundance will be documented during post-construction monitoring. Comparisons between invasive species abundance in off-ROW areas immediately adjacent to the corridor will also be used to determine if invasive species have increased within the Project area and may be attributable to the project.

Wetland and Waterway Monitoring

Wetland and waterway monitoring will begin the first growing season following completion of construction within a given segment. Wetlands and waterways disturbed by construction will be monitored annually for five years or until compliance (performance standards met) is achieved and documented per the WDNR Utility Permit. It is anticipated that the majority of wetlands within the Project area will not require five years to reach compliance due to the actions taken to minimize soil disturbance during construction.

Only wetlands and waterways impacted by project activities (e.g. vehicle access, pole placement, matting, tree removal, etc.) will be monitored to determine if revegetation efforts have been successful and to identify issues requiring repair. Farmed wetlands or wetland areas with a recent farming history will not be monitored beyond completion of erosion control monitoring. A list of wetlands and waterways that will be impacted by the project are provided in the CMP.

Monitoring will consist of a meander survey of each wetland to document plant communities. Dominant species within each wetland community and the presence and extent of invasive species will be documented. Vegetative cover will be estimated within the wetland and on streambanks. General topography and miscellaneous observations will also be noted. Representative photos will be taken of each wetland and waterway at established pre-construction photo points, as well as photos of areas requiring corrective action.



Wetland and Waterway Performance Standards

The wetland and waterway performance standards listed below have been extracted from the WDNR Utility Permit, Restoration Conditions 86-89.

86. Final site stabilization in wetlands that were non-forested prior to construction and not identified as high quality wetland, and on stream banks, requires re-establishment of vegetation at least 70 percent of the type, density, and distribution of the vegetation that was documented in the area prior to construction. If 70 percent of the type, density, and distribution of the vegetation of the vegetation that was documented in the area prior to construction does not vegetate naturally within 30 days, then an approved comprehensive seed mix and restoration practices must be used to reach the 70 percent cover. All temporary and final stabilization activities shall comply with NR 151.11(8) Wisconsin Administrative Code.

87. Final site stabilization in wetlands that were forested prior to construction shall include an approved comprehensive seed mix and must achieve a revegetation density of at least 70 percent cover.

88. In wetlands identified as high quality, a cover crop and/or native seed mix shall be used to prevent the establishment of invasive species.

89. After the site is 70% stabilized, all temporary erosion control measures must be removed and disposed of properly.

REPORTING

A restoration monitoring report will be provided to WDNR annually through the duration of the performance period in accordance with Post-Construction Monitoring Conditions #93 and 94 of the WDNR Utility Permit, with submittal by December 31st of each year. Per Condition #95, the report shall include:

- Photographs of existing site conditions at wetlands and waterways before construction, taken from established photo points;
- Photographs of site conditions at waterways and wetlands after construction, taken from the same established photo points;
- A wetland and waterway summary table showing the impact that occurred in each wetland and waterway (i.e. TCSB, clearing, matting, structure placement, etc.), wetland type, wetland quality description, and photo number;
- Documentation of post-construction monitoring plan compliance, permit compliance, restoration status, corrective actions taken, and correction actions proposed.

Additionally, the monitoring report will document revegetation status of upland areas requiring restoration seeding, and will detail the results of the invasive species monitoring along the Project. These results will be submitted annually to the PSC for three growing seasons following construction, in accordance with Order Point # 20.c which states:

• The applicants' revegetation plan shall include monitoring of the ROW for the presence of new or spreading invasive species for at least three growing seasons with results submitted to Commission staff annually.
Appendix A

Temporary Cover Seed Mix^{1,2,3}

Scientific Name	Common Name	Installation Timing	Installation Rate w/o Permanent Seed (Ibs/acre)
Avena sativa	Common Oats	Mid-April-August	80.00
Lolium multiflorum	Annual Rye	Year Round ⁴	15.00
Triticum aestivum	Winter Wheat	August-April ⁵	100.00

¹ Seed mix is designed for 1 acre.

² Temporary cover rates are stand-alone rates intended for areas where permanent seed is not being installed at the time of seeding. Select appropriate species from table above based on timing of installation. Annual rye will either be installed with common oats or winter wheat.

³ Seed mix is not suitable for areas with standing water.

⁴ Spring (April - May) and late summer (August-early September) preferred for annual rye, but may be established in summer or a dormant seeding as seed will overwinter.

Cardinal-Hickory Creek 345kV Transmission Line Project Revegetation and Monitoring Plan

Pasture Mix - 40 lbs/acre

Scientific Name	Common Name	lbs/ac
Dactylis glomerata	Orchard Grass	14.00
Festuca sp.	Tall Fescue – Endophyte Free	14.00
Festulolium sp.	x Festulolium	4.00
Lolium sp.	Tetraploid Perennial Ryegrass	4.00
Lolium sp.	Intermediate Ryegrass	4.00
	Total	40.00

Temporary Cover with Timing^{1,2}

			Installation Rate w/ Permanent Seed	
Scientific Name	Common Name	Installation Timing	lbs/ac	
Avena sativa	Common Oats	Mid-April-August	35.00	
Lolium multiflorum	Annual Rye	Year Round ³	5.00	
Triticum aestivum	Winter Wheat	August-April ⁴	45.00	

¹ Seed mix is designed for 1 acre.

² Install temporary cover with permanent seed mix. Select appropriate species from table above based on timing of installation. Annual rye will either be installed with common oats or winter wheat.

³ Spring (April - May) and late summer (August-early September) preferred for annual rye, but may be established in summer or a dormant seeding as seed will overwinter.

Hybrid Stabilization Mix^{1,2,3}

Scientific Name	Common Name	oz/acre	lbs/acre			
Grasses						
Andropogon gerardii	Big Bluestem	24.00	1.50			
Bromus inermis ⁴	Smooth Brome	18.00	1.13			
Elymus canadensis	Canada Wild Rye	36.00	2.25			
Elymus trachycaulus	Slender Wheat Grass	36.00	2.25			
Lolium perenne ⁴	Perennial Rye	160.00	10.00			
Panicum virgatum	Switch Grass	12.00	0.75			
Phleum pratense ⁴	Timothy	16.00	1.00			
Forbs						
Asclepias syriaca	Common Milkweed	2.00	0.13			
Chamaecrista fasciculata	Partridge Pea	4.00	0.25			
Heliopsis helianthoides	False Sunflower	3.00	0.19			
Monarda fistulosa	Wild Bergamot	0.50	0.03			
Rudbeckia hirta	Black-eyed Susan	3.00	0.19			
Solidago nemoralis	Old Field Goldenrod	0.50	0.03			
Tradescantia ohiensis	Ohio Spiderwort	0.50	0.03			
Trifolium hybridum ^₄	Alsike Clover	32.00	2.00			
<i>Trifolium pratense</i> ⁴	Red Clover	80.00	5.00			
	Total	427.50	26.72			

¹Species information regarding blooming period and mature height were obtained from the Prairie Moon Nursery 2020 Cultural Guide and the Illinois Wildflowers webpage (http://www.illinoiswildflowers.info/index.htm).

²Seed mix is designed for 1.0 acre. This seed mix should be installed with an appropriate temporary cover crop / nurse crop based on timing of installation.

³Seed Mix is designed for upland areas and consists of a mix of native and non-native species that provide quick establishment and stabilization. The seed mix contains pollinator-friendly forbs but does not meet the CRP CP42 Pollinator Habitat Criteria due to the presence of non-native species and less than three early blooming forbs.

⁴Indicates a species non-native to Wisconsin.

Spring Bloomers (April-May) Summer Bloomers (June-August) Fall Bloomers (September-October)

Temporary Cover with Timing^{1,2}

Scientific Name	Common Name	Installation Timing	Installation Rate w/ Permanent Seed	
Scientific Name		installation finning	oz/ac	lbs/ac
Avena sativa	Common Oats	Mid-April-August	560.00	35.00
Lolium multiflorum	Annual Rye	Year Round ³	112.00	7.00
Triticum aestivum	Winter Wheat	August-April ⁴	720.00	45.00

¹ Seed mix is designed for 1 acre.

² Install temporary cover with permanent seed mix. Select appropriate species from table above based on timing of installation. Annual rye will either be installed with common oats or winte wheat.

³ Spring (April - May) and late summer (August-early September) preferred for annual rye, but may be established in summer or a dormant seeding as seed will overwinter.

Prairie Mix^{1,2,3}

Scientific Name	Common Name		oz/acre	lbs/acre			
Grasses							
Andropogon gerardii	Big Bluestem		24.00	1.50			
Bouteloua curtipendula	Side oats Grama		18.00	1.13			
Elymus canadensis	Canada Wild Rye		36.00	2.25			
Elymus trachycaulus	Slender Wheat Grass		36.00	2.25			
Panicum virgatum	Switch Grass		12.00	0.75			
Schizachyrium scoparium	Little Bluestem		32.00	2.00			
Sorghastrum nutans	Indian Grass		16.00	1.00			
Sedges & Rushes							
Carex molesta	Field Oval Sedge		2.00	0.13			
Forbs							
Asclepias syriaca	Common Milkweed		2.00	0.13			
Chamaecrista fasciculata	Partridge Pea		4.00	0.25			
Dalea purpurea	Purple Prairie Clover		2.00	0.13			
Heliopsis helianthoides	False Sunflower		3.00	0.19			
Heuchera richardsonii	Prairie Alumroot		0.10	0.01			
Monarda fistulosa	Wild Bergamot		1.00	0.06			
Penstemon digitalis	Foxglove Beardtongue		1.00	0.06			
Ratibida pinnata	Yellow Coneflower		1.00	0.06			
Rudbeckia hirta	Black-eyed Susan		3.00	0.19			
Solidago nemoralis	Old Field Goldenrod		0.60	0.04			
Symphyotrichum laeve	Smooth Blue Aster		0.75	0.05			
Tradescantia ohiensis	Ohio Spiderwort		1.50	0.09			
Zizia aurea	Golden Alexanders		1.00	0.06			
	•	Total	196.95	12.31			

¹ Species information regarding blooming period and mature height were obtained from the Prairie Moon Nursery 2020 Cultural Guide and the Illinois Wildflowers webpage (http://www.illinoiswildflowers.info/index.htm).

² Seed mix is designed for 1.0 acre. This seed mix should be installed with an appropriate temporary cover crop based on timing of installation.

³ Seed Mix is designed for upland areas, consists of species native to Dane and/or Iowa Counties, WI, and meet pollinator criteria of having at least two native bunch grasses and a minimum of three species blooming during each of the three blooming periods (spring, summer, and fall).

Spring Bloomers (April-May)

Summer Bloomers (June-August)

Fall Bloomers (September-October)

Temporary Cover with Timing^{1,2}

Scientific Name	Common Name	Installation Timing	Installation Rate w/ Permanent Seed		
Scientific Name		Instanation mining	oz/ac	lbs/ac	
Avena sativa	Common Oats	Mid-April-August	560.00	35.00	
Lolium multiflorum	Annual Rye	Year Round ³	80.00	5.00	
Triticum aestivum	Winter Wheat	August-April ⁴	720.00	45.00	

¹ Seed mix is designed for 1 acre.

² Install temporary cover with permanent seed mix. Select appropriate species from table above based on timing of installation. Annual rye will either be installed with common oats or winte wheat.

³ Spring (April - May) and late summer (August-early September) preferred for annual rye, but may be established in summer or a dormant seeding as seed will overwinter.

Wetland Mix^{1,2,3}

Scientific Name	Common Name	oz/acre	lbs/acre				
Grasses							
Calamagrostis canadensis	Blue Joint Grass	1.00	0.06				
Elymus virginicus	Virginia Wild Rye	16.00	1.00				
Glyceria striata	Fowl Manna Grass	2.00	0.13				
Panicum virgatum	Switch Grass	6.00	0.38				
Sedges & Rushes							
Carex scoparia	Lance-fruited Oval Sedge	1.50	0.09				
Carex stipata	Common Fox Sedge	2.00	0.13				
Carex vulpinoidea	Brown Fox Sedge	3.00	0.19				
Juncus effusus	Common Rush	0.50	0.03				
Scirpus atrovirens	Dark-green Bulrush	1.00	0.06				
Scirpus cyperinus	Wool Grass	0.50	0.03				
Schoenoplectus tabernaemontani	Softstem Bulrush	1.00	0.06				
Forbs							
Alisma subcordatum	American Water Plantain	2.00	0.13				
Anemone canadensis	Canada Anemone	1.00	0.06				
Asclepias incarnata	Swamp Milkweed	2.00	0.13				
Bidens cernua	Nodding Bur Marigold	1.00	0.06				
Epilobium coloratum	Cinnamon Willow Herb	0.20	0.01				
Eupatorium perfoliatum	Boneset	1.00	0.06				
Euthamia graminifolia	Grass-leaved Goldenrod	0.50	0.03				
Helenium autumnale	Sneezeweed	1.00	0.06				
Lobelia siphilitica	Great Blue Lobelia	0.20	0.01				
Ranunculus sceleratus	Annual Buttercup	0.50	0.03				
Symphyotrichum lanceolatum	Panicled Aster	0.50	0.03				
Symphyotrichum novae-angliae	New England Aster	0.50	0.03				
Verbena hastata	Blue Vervain	3.00	0.19				
Zizia aurea	Golden Alexanders	1.50	0.09				
	Total	49.40	3.09				

¹Species information regarding blooming period and mature height were obtained from the Prairie Moon Nursery 2020 Cultural Guide and the Illinois Wildflowers webpage (http://www.illinoiswildflowers.info/index.htm).

²Seed mix is designed for 1.0 acre. This seed mix should be installed with an appropriate temporary cover crop / nurse crop based on timing of installation.

³Wetland Seed Mix is intended for weltand or wetland perimeter areas with shallow seasonal inundation to seasonal saturation. It should not be applied over standing water.

Spring Bloomers (April-May)

Summer Bloomers (June-August)

Fall Bloomers (September-October)

Temporary Cover with Timing^{1,2}

Scientific Name	Common Name	Installation Timing	Installation Rate w/ Permanent Seed	
Scientific Name		installation mining	oz/ac	lbs/ac
Avena sativa	Common Oats	Mid-April-August	400.00	25.00
Lolium multiflorum	Annual Rye	Year Round ³	80.00	5.00
Triticum aestivum	Winter Wheat	August-April ⁴	400.00	25.00

¹ Seed mix is designed for 1 acre.

² Install temporary cover with permanent seed mix. Select appropriate species from table above based on timing of installation. Annual rye will either be installed with common oats or winte wheat.

³ Spring (April - May) and late summer (August-early September) preferred for annual rye, but may be established in summer or a dormant seeding as seed will overwinter.

CHC Segment E3. Areas of Proposed Pollinator Enhanced or Wetland Seed Mixes, Community Conversion, or that Require Additional Consultation¹

Segment	Structure Span	Habitat Feature ID	Pre-Construction Field Conditions	Project Seed Mix ²	Justification
E3	147403-147404	T-F1	Closed canopy woodland. No access during 2017, 2020 surveys.	Hybrid Stabilization Mix	Clearing forest/community conversion.
E3	147404	T-F2	Closed canopy woodland. No access during 2017, 2020 surveys.	Hybrid Stabilization Mix	Clearing forest/community conversion.
E3	147404-147406	T-F3	Sugar maple, basswood, walnut, red oak forest with spring ephemerals including bloodroot, mayapple, wild geranium with garlic mustard, invasive bush honeysuckle, Japanese hedge parsley, multiflora rose common.	Hybrid Stabilization Mix	Habitat area is bisected by Military Ridge State Trail. Consult with WDNR to determine appropriate action.
E3	147405-147406	T-W01a	Forested wetland associated with waterway. Northern boundary of wetland extends into active ag field. Wetland adjacent to ASNRI Exceptional Resource Water	Wetland Mix	Forested wetland conversion; wetland adjacent to ASNRI waterway.
E3	147410-147411	T-G1	Unmowed grassland with scattered shrubs, mostly comprised of cool season grasses including Kentucky bluegrass and smoth brome. Shrub layer consists of common buckthorn, invasive bush honeysuckle, white mulberry, and grapevine.	Hybrid Stabilization Mix	Suitable RPBB foraging habitat within HPZ
E3	147413-147415	T-F4	Degraded bur oak and black cherry forest with buckthorn, multiflora rose, invasive bush honeysuckle, and garlic mustard common in understory. Variety of natives noted in existing cleared ROW including columbine, shooting star, Pennsylvania sedge, false Solomon's seal, starry false Solomon's seal, prairie buttercup, rockcress, alum root, woodland sunflower.	Prairie Mix	Forest clearing/community conversion with variety of natives present in existing cleared ROW.
E3	147415-147416	T-W02	Sedge meadow associated with waterway and dominated by brown fox sedge, American manna grass, and dark green buirush. Wet meadow dominated by rice cutgrass, orange jewelweed, and crack willow.	Wetland Mix	Higher quality wetland dominated by native species.
E3	147416-147417	T-F5	Pastured forest with a mostly closed canopy dominated by oaks, black cherry, and black walnut, with multifora rose, invasive bush honeysuckle, common buckthorn, and Kentucky bluegrass in the understory.	Pasture Mix	Forest and existing ROW actively grazed/used for pasture.
E3	147419-147420	T-F6	Rich mesic forest present west and east of existing cleared ROW - trilliums, may apple, bellwort, blodoroot, columbine, gerarium, asters common in herb layer. Closed canopy dominated by white oak, box elder, American basswood, cherry, and hickory. Common buckthorn in understory.	Prairie Mix	Forest clearing/community conversion with variety of spring ephemerals and other native species in herb layer.
E3	147422-147424	T-F7	Deciduous forest with white pine, red and white oak. Not accessible during 2017, 2020 surveys.	Hybrid Stabilization Mix	Clearing forest/community conversion.
E3	147426-147428	T-F8	Deciduous forest dominated by bur oak, elm, green ash, and black walnut.	Hybrid Stabilization Mix	Clearing forest/community conversion.
E3	147431-147432	V-F1	Closed canopy deciduous forest dominated by black locust with invasive bush honeysuckle and buckthorn in the understory.	Pasture Mix	Dominated by invasives.
E3	147434	V-F2	A closed canopy deciduous forest dominated by black cherry and box elder with invasive bush honeyackle, plum, and elderberry in the shrub layer. Herb layer consists of garlic mustard, false Solomon's seal, Virginia creper, enchanter's nightshade, baneberry, and blue cohosh.	Hybrid Stabilization Mix	Clearing forest/community conversion.
E3	147438-147439	n/a	Degraded dry prairie remnant on sandstone bluff ID'd and mapped during 2020 field surveys. Prairie species observed included big and little bluestern, sideoats gramma, wild rose, hoary vervain, common milkweed, whorled milkweed, various asters.	Prairie Mix	Sandstone bluff supporting prairie species/prairie remnant.
E3	147439-147441	V-F2a	Oak, aspen and black cherry forest. Understory and where cleared within existing ROW comprised of buckthorn, sumac, with smooth brome and elderberry.	Pasture Mix	Forest understory/cleared ROW not high quality. Proposed ROW mostly in ag field and will not be impacting much, if any, of forest beyond already cleared ROW.
E3	147442-147446	V-F3	Deciduous forest with a mostly closed canopy dominated by oaks, black cherry, and shagbark hickory with dolomite/sandstone outcroppings, a dense buckthorn understory in some places and a degraded dry prairie inclusion. The S portion descends into a mesic ravine with a closed canopy dominated by trembling aspen, American basswood and red oak.	Hybrid Stabilization Mix	Includes areas of degraded dry prairie/exposed rock outcroppings. Clearing forest/community conversion.
E3	147446-147447	V-F4	Pastured deciduous forest with mostly closed canopy dominated by hickory, white oak, basswood, green ash, and white oak saw timber; Kentucky bluegrass and thistles in the herb layer. Black locust and sumac shrubs in W end, exposed sandstone/dolomite and prickly pear cactus in E end under ROW.	Pasture Mix	Area is pastured, but also forest clearing/conversion where rock outcrops containing prairie species are present. Pasture Mix within majority with Hybrid Stabilization Mix in area of conversion/rock outcrops.
E3	147448-147450	V-F5	Deciduous forest of saw timber size oak, hickory, aspen and black cherry. Sandstone outcroppings and degraded dry prairie in the cleared ROW.	Hybrid Stabilization Mix	Contains inclusions of dry prairie on sandstone outcrops; ID'd as containing higher quality grassland in CPCN app. Clearing forest/community conversion. Prairie Mix for existing prairie area; remainder use Hybrid Stabilization Mix.
E3	147454-147455	V-F6	Deciduous forest dominated by saw-timber size oaks. Brushy within existing ROW - black oak, wild plum, black cherry, red cedar, multiflora rose, Canada goldenrod common.	Hybrid Stabilization Mix	Clearing forest/community conversion.

CHC Segment E3. Areas of Proposed Pollinator Enhanced or Wetland Seed Mixes, Community Conversion, or that Require Additional Consultation¹

Segment	Structure Span	Habitat Feature ID	Pre-Construction Field Conditions	Project Seed Mix ²	Justification
E3	147455-147456	V-F7	Deciduous forest within a horse pasture that is dominated by saw-timber size red oak and black cherry. Borders on steep sandstone bluft to the N. Bluff consists of interrupted fern, hazelnut, blackberry, lady fern.	Pasture Mix / Hybrid Stabilization Mix	Pasture Mix where currently pastured; Hybrid Stabilization Mix in area of forest clearing/conversion.
E3	147455-147456	V-F8	Deciduous forest dominated by saw-timber size white oak and pole-size bitternut hickory, buckthorn common in understory. Wild columbine (host plant to rare herp) observed in cleared ROW during 2020 field surveys.	Hybrid Stabilization Mix	Suitable RPBB overwintering habitat within HPZ. Forest clearing/community conversion. WDNR recommends avoiding known plant locations or incorporating wild columbine into restoration seed mix. Wild columbine scattered throughout - Add wild columbine to seed mix in this location.
E3	147456-147457	V-G5	Upland meadow between crop field, woodland and goat pasture that is dominated by timothy grass, Canada thistle, milkweed and blackberry.	Hybrid Stabilization Mix	Suitable RPBB foraging habitat within HPZ
E3	147464	Y-SL1/Y-F1	As of 2020, entired area cleared, graded, and bermed.	Pasture Mix	Area maintained as part of road ROW and existing adjacent mining operations.
E3	147467-147469	Y-F3	Linear, isolated forest between RR tracks and row crop fields. Bur oak, black cherry, box elder, invasive bush honeysuckle, buckthorn.	Hybrid Stabilization Mix	Suitable RPBB foraging habitat within HPZ. East end of feature near Rocky Dell Rd contains prairie species on slope south of RR track.
E3	147469-147471	Y-SL2	Dense shrub thicket dominated by sumac, buckthorn, invsaive bush honeysuckle, reed canary grass, burdock, dame's rocket.	Pasture Mix	Area appears to have been mislabeled as containing higher quality grassland in CPCN app. Low quality community dominated by invasives.
E3	147470-147471	Y-W03	Linear sedge meadow/wet prairie wetland associated with waterway. Sedge meadow community dominated by hummock sedge, tall meadow rue, blue flag iris, RCG, common elderberry, and grayleef red raspberry. Wet prairie community is dominated by RCG, meadow anemone, northern bedstraw, Indian hemp, stinging nettle, white panicle aster, and saw tooth sunflower. Adjacent to ASNRI waterway.	Wetland Mix	Higher quality wetland dominated by native species.
E3	Line Removal Area 4	Y-F4	Brushy/vegetated existing cleared ROW. Pole removal only.	Hybrid Stabilization Mix	Suitable RPBB overwintering habitat within HPZ. Falls within or adjacent to Black Earth Wildlife Area, owned by Dane Co.
E3	Line Removal Area 4	Y-F5	Brushy/vegetated existing cleared ROW. Pole removal only.	Hybrid Stabilization Mix	Suitable RPBB overwintering habitat in HPZ. Falls within or adjacent to Black Earth Wildlife Area, owned by Dane Co.
E3	Line Removal Area 4	Y-F6	Brushy/vegetated existing cleared ROW. Pole removal only.	Hybrid Stabilization Mix	Suitable RPBB overwintering habitat in HPZ. Falls within or adjacent to Black Earth Wildlife Area, owned by Dane Co.
E3	147477	Z-F2	Box elder canopy over willows, buckthorn, and honeysuckle in shrub layer with Canda goldenrod, garlic mustard, dame's rocket.	Hybrid Stabilization Mix	Forest clearing/community conversion of low quality with invasives dominant. Adjacent grassland has been identified as suitable foraging habitat for RPBB. ROW falls within or adjacent to Black Earth Wildlife Area, owned by Dane Co.
E3	147477-147478	Z-G1	Fallow field dominated by agricultural weeds.	Hybrid Stabilization Mix	Suitable RPBB foraging habitat within HPZ. Falls within or adjacent to Black Earth Wildlife Area, owned by Dane Co.
E3	147482-147483	Y-F7	Closed-canopy deciduous forest contiguous with Y-F8 that is dominated by large saw timber size oak species; understory is comprised of invasive bush honeysuckle and Japanese barberry. Sandstone outcrop at eastern end supports mature high quality forest consisting of large saw timber size oaks. Saw timber size while pine plantation with lady fern understory is planted along southern edge of existing cleared ROW.	Hybrid Stabilization Mix	Suitable RPBB overwintering habitat within HPZ. Forest clearing/community conversion.
E3	147483-147484	Y-W09	Diverse wetland complex with the margins dominated by RCG, Hairy leaved lake sedge, and giant goldenrod. Duckweed, floating manna grass, dwarf sagittaria, and common bladderwort in the shallow and deep marsh areas.	Wetland Mix	Higher quality wetland dominated by native species.
E3	147484-147486	Y-F8	Large contiguous deciduous forest surrounding Cardinal Sub Station comprised mostly of saw-timber size black cherry, aspen, red oak, walnut, and box elder. Very dense understory thick with buckthorn and invasive bush honeysuckle. Eastern end of woods is a steep ravine that opens northeast-ward into a stand of regenerating aspen and black cherry saplings, also with a thick invasive bush honeysuckle understory.	Hybrid Stabilization Mix	Suitable RPBB overwintering habitat within HPZ. Forest clearing/community conversion.
E3	147484-147485	Y-F8b	Cleared forest in existing ROW; brush mowed and herbicided in 2020.	Hybrid Stabilization Mix	Suitable RPBB foraging habitat within HPZ.
E3	146485-CDL	Y-G1	Existing seeded prairie around the southern border of the Cardinal Substation. Plant species include penstemon, purple/yellow coneflower, milkweed, field thistle, and wild bergamot.	Prairie Mix	Grassland ID'd as higher quality in CPCN app; planted prairied around Cardinal SS.

¹ Areas not specified in this table that are disturbed by construition activities will be seeded with one of the Project seed mixes at the determination of the Project Environmental Monitor ² Project seed mixes include: Pasture Mix, Hybrid Stabilization Mix, Prairie Mix, Wetland Mix ³ EM responsible for final determination of seed mix used depending on level of disturbance, community present.









Line Removal Area

DNR Confirmed No Ch.30 Required in ROW

Prairie Mix Wetland Mix Waterbody

* Any upland or wetland areas requiring permanent seed where a seed mix has not been specified will be seeded with the Pasture Mix or Wetland Mix, respectively. EM responsible for final determination of seed mix used depending on level of disturbance, community present.

Feet

DAIRYLAND POWER

nt is advisory and is intended for reference purposes only. Applicant owned e. Data Sources: ATC. ITC. DPC. WDNR, WisDOT, PSCW, County LIOs.

REVEGETATION PLAN

FEBRUARY 2021

PAGE 2 OF 14



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Wetland Mix

community present.

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REVEGETATION PLAN





Attachment P

Structure Removal Process

Cardinal-Hickory Creek (ATC) Attachment P1: Existing Structure Removal Procedure

Upland (non-agricultural areas)

- 1. Wood poles will be completely removed to the extent possible.
- 2. If the old poles cannot be accessed by removal equipment the pole may be cut off at or immediately below the ground level.

<u>Wetlands</u>

- 1. Old poles can be cut off at ground level or removed, depending on equipment access and condition.
- 2. If poles must be completely removed:
 - a. Segregate topsoil as best as possible and set on a barrier (mats or tarp/fabric)
 - b. Dig out the sub-soil around the pole base and place on a barrier (mats or tarp/fabric)
 - c. Remove the old structure
 - d. Back-fill the old holes with gravel. Fill gravel to approximately 1' below ground level.
 - e. Cover with saved topsoil
 - f. Remove subsoil from the wetland

<u>Agricultural Areas (non-organic)</u> - Poles must be removed to avoid contact with plows

- 1. Segregate topsoil as best as possible and set aside next to the poles (topsoil placed on topsoil)
- 2. In the event that subsoil is disturbed or removed around the structure, this subsoil should be segregated from topsoil.
 - a. Place disturbed subsoil on a subsoil surface or place it on a barrier (i.e., container, mats or tarp/fabric) to prevent mixing with topsoil.
 - b. Subsoil can be placed in the hole as long as there is 12 inches of topsoil at the top.
- 3. Remove the old structure
- 4. Back-fill the old holes with gravel. Leaving the top 24 inches for sub-soil and topsoil
- 5. Back-fill sub-soil over gravel
- 6. Cover with saved topsoil
- 7. If topsoil was not able to be saved (i.e. frozen conditions or lack of original topsoil), bring in additional topsoil (of equal or better quality) so that depth of topsoil in impact area matches surrounding conditions

Agricultural Areas (Organic)

Follow same procedure for conventional agricultural fields with the following additions:

- 1. When ordering gravel, specify the gravel is for an organic farm.
- 2. Imported topsoil must be from a certified organic location. If possible, source topsoil and other soil materials from the organic farm where it will be used.

Farmed Wetlands

Follow same procedure for conventional agricultural fields with the following exceptions:

- 1. All stockpiled soil should be placed on a barrier since farmed wetlands are jurisdictional wetlands.
- 2. Topsoil should not be imported without approval from the environmental monitor as imported topsoil can be considered wetland fill.