ATC CONSTRUCTION and MITIGATION PLAN

Cardinal - Hickory Creek 345 kV Transmission Line Project

Segment E1 Dodgeville to Hill Valley

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 E1 of the project, ATC has prepared this CMP for this segment, which is located in Iowa and Grant Counties 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 E1

Attachment K2: Revised WDNR Table 1 – ATC Managed: Segments E1, E2, and E3

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

Attachment N1: Revegetation and Monitoring Plan

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 E1 Sequencing and Scheduling

Vegetation clearing within Segment E1 (Dodgeville to Hill Valley) is anticipated to begin in March 2022. The following summarizes the anticipated timing of construction within Segment E1:

- ROW Clearing: March 2022 August 2022
- Mat placement: beginning March 2022
- Structure Foundations: summer 2022 spring 2023
- Install Structures: summer 2023 summer 2023
- Install Conductor: October 2022 October 2023
- Mat removal, ROW cleanup and restoration within Segment E1 is scheduled to occur in the fall of 2023 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, and off-ROW access for Segment E1 are included as Attachment C1.

D. Final Access Plan Map

An Access Map for Segment E1 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, 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 laydown yards that have been identified for use as part of the Project were included in the Segment E3 CMP. 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.

As part of the Segment E1 work, a transmission structure will be replaced and line work completed at one location on the existing X-16 transmission line near Cassville, WI. The access route to this structure is shown on the X-16 Access Map included in Attachment D.

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. A summary of wetlands within Segment E1 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 E1 are provided in Appendix E2.

The off-ROW access routes and staging areas 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), two structures will be placed in wetlands within Segment E1 requiring 190 square feet (0.004 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:

- One structure (147189) is located within Q-W01, resulting in 95 square feet (.002 acre) of permanent wetland fill. This structure was previously approved in the Joint Application.
- One structure (147261) is on the edge of Q-W09, resulting in 95 square feet (.002 acre) of permanent wetland fill. This structure was previously approved in the Joint Application.

Temporary Guard Structures

Temporary guard structures are required to be placed within wetland Q-W10, resulting in up to 141 square feet (.003 acre) of temporary wetland fill within the wetland (as shown on Access Map Page 29). 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 E1. 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.

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 E1 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:

- Wetlands will be crossed directly outside the ROW along the road shoulder near Structure 147189 within wetland Q-W01. This route will be used to gain access to east side of waterway Q-R01.
- An existing farm lane crosses through wetland Q-W09-r and will be used for access near Structure 147259.
- Wetlands will be crossed outside the ROW near Structure 147261 within wetland Q-W10. This route will be used to gain access to the ROW south of waterway Q-R07.

No other off-ROW access routes in Segment E1 cross wetlands or waterways.

Wetland Impact Summary

Construction of Segment E1 will require a total of 0.004 acre of permanent wetland fill for the placement of transmission line structures, 2.36 acres temporary wetland fill for construction matting and temporary guard structure placement, and permanently clear 0.46 acre shrub and forested wetland.

For Segment E1, the WDNR permit (Permit #IP-SC-2019-25-03588) previously authorized 0.004 acre permanent wetland fill, 2.32 acres temporary wetland fill for construction matting, and permanently clear 0.44 acre shrub and forested wetland.

Construction of the ATC Managed Portion of the project (Segments E1, E2, and E3) will require a total of 0.011 acre of permanent wetland fill for the placement of transmission line structures, 9.36 acres temporary wetland fill for construction matting and temporary guard structure placement, and permanently clear 2.75 acres shrub and forested wetland.

For the ATC Managed Portion of the project, the WDNR permit (Permit #IP-SC-2019-25-03588) previously authorized 0.011 acre permanent wetland fill, 7.94 acres temporary wetland fill for construction matting, and permanently clear 2.91 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 E1 will be crossed using a Temporary Clear Span Bridge (TCSB) to avoid instream disturbance by construction equipment. Up to 5 TCSB crossings will be required along Segment E1 (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).

Waterway Impact Summary

Segment E1 will require the placement of 5 TCSBs to facilitate construction access. The WDNR permit (Permit #IP-SC-2019-25-03588) previously authorized the placement of 18 TCSBs.

Construction of the ATC Managed portion of the project will require the placement of 40 TCSBs to facilitate construction access. The WDNR permit (Permit #IP-SC-2019-25-03588) previously authorized the placement of 70 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 5 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. 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 E1 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).

Additionally, a separate Certified ER Review (ERR21-757) was completed for the work on the X-16 transmission line and includes measures that are required to avoid and minimize impacts to state-listed species. These follow-up actions and measures will be implemented as described in the ER Review.

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 E1 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.

Segment E1 follows the ROW and associated infrastructure of STH 151 and STH 18, frequently crossing town and county roadways and primarily extending into adjacent agricultural land. Segment E1 also extends into pastures, commercial and residential areas that border the road ROW. The following summarizes invasive species observed in vegetative communities along the Segment E1 project corridor. Numerous Restricted species were identified; and one Prohibited species (Tall Manna Grass, *Glyceria maxima*) was observed at four locations.

In general, Segment E1 is 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 observed throughout the majority of the segment. Wild parsnip (*Pastinaca sativa*) and crown vetch (*Coronilla varia*) were particularly common throughout the road ROW and other open disturbed areas. Populations of Canada thistle (*Cirsium arvense*) were scattered and more isolated, but also common.

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 Siberian elm (*Ulmus pumila*). These areas also commonly contained populations of wild parsnip, garlic mustard (*Allaria petiolata*), and Dame's rocket (*Hesperis matronalis*).

Wetland communities observed along Segment E1 include mostly degraded wet meadow, shrub-carr, shallow marsh, sedge meadow, degraded sedge meadow, farmed wetlands and one hardwood swamp community. None of the wetlands along this segment are extensive, higher quality communities as they 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. Tall manna grass, a Prohibited species in Iowa County, was also observed at three isolated populations within three wetland areas at INV-37, INV-41, INV-46 as described in the Location-Specific BMP table below.

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 E1 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; or due to the presence of a specific 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
INV-35	One small population of oriental bittersweet (<i>Celastrus orbiculatus</i>) was observed between structures 147256 and 147257. This area should be avoided if possible,

	however if access is necessary then vehicles should be cleaned prior to leaving the area.
INV-36	A small population of yellow iris (<i>Iris pseudacorus</i>) was identified on the bank of waterway Q-R05 between structures 147248 and 147249. This area should be avoided if possible, however if access is necessary then vehicles or construction mats should be cleaned prior to leaving the area.
INV-37	A small population of tall manna grass, a Prohibited species in Iowa County, is located within wetland Q-W06 between structures 147245 and 147246. This area should be avoided if possible, however if access is necessary then vehicles should be cleaned prior to leaving the area.
INV-38	A small prairie planting is located just east of structure 147243. Disturbance to the prairie community should avoided, however if access is necessary, then vehicles should be cleaned prior to entry.
INV-39	A small population of tall manna grass, a Prohibited species in Iowa County, is located within wetland Q-W05-r, just west of structure 147230. This area should be avoided if possible, however if access is necessary then vehicles should be cleaned prior to leaving the area.
INV-40	One small population of teasel (<i>Dipsacus fullonum</i>) is present east of 147225 and should be avoided if possible. If access is necessary, then vehicles should be cleaned before leaving the area.
INV-41	A small population of tall manna grass, a Prohibited species in Iowa County, is located between structures 147224 and 147225. This area should be avoided if possible, however if access is necessary then vehicles should be cleaned prior to leaving the area.
INV-42	A small, planted prairie community containing a host plant for a rare invertebrate is located just east of structure 147209. Disturbance to this area should be avoided or vehicles cleaned prior to entry.
INV-43	A small population of nodding thistle (<i>Carduus acanthoides</i>) is located between structures 147191 and 147192. This area should be avoided if possible, however if access is necessary then vehicles should be cleaned prior to leaving the area.
INV-44	A small population of spotted knapweed (<i>Centaurea stoebe</i>) is located on the east side of structure 147183. This area should be avoided if possible, however if access is necessary then vehicles should be cleaned prior to leaving the area.

INV-45	One population of creeping bellflower (Campanula rapunculoide) was observed just
	west of structure 147175. This area should be avoided if possible, however if access
	is necessary then vehicles should be cleaned prior to leaving the area.
INV-46	A small population of spotted knapweed (Centaurea stoebe) is located on the north
	side of STH 18 near structure 147163. This area should be avoided if possible,
	however if access is necessary then vehicles should be cleaned prior to leaving the
	area.
INV-47	A small population of tall manna grass, a Prohibited species in Iowa County, is
	located within wetland Q-W01a-n, just west of structure 147163. This area should be
	avoided if possible, however if access is necessary then vehicles should be cleaned
	prior to leaving the area.

Location-specific BMPs may be implemented elsewhere within Segment E1 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 E1 is provided in Attachment K1. This table has been revised to reflect the approved route, updated wetland boundaries, construction access, and construction plan.

A revised WDNR Table 1 for the ATC Managed Portion of the Project (Segments E1, E2, and E3) has been provided in Attachment K2.

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 ten locations within the project ROW in which the WDNR 24K Hydro layer identified a waterway. The WDNR determined on 3/11/2021 that no Ch. 30 permit is required at N-UNT1, Q-UNT1, Q-UNT2, Q-UNT3, Q-UNT4, Q-UNT5, Q-UNT6, Q-UNT7, Q-UNT8, and Q-UNT9. These features are identified on the Access Map, but are not included in the WDNR Permitting Table (Attachment K1).

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:

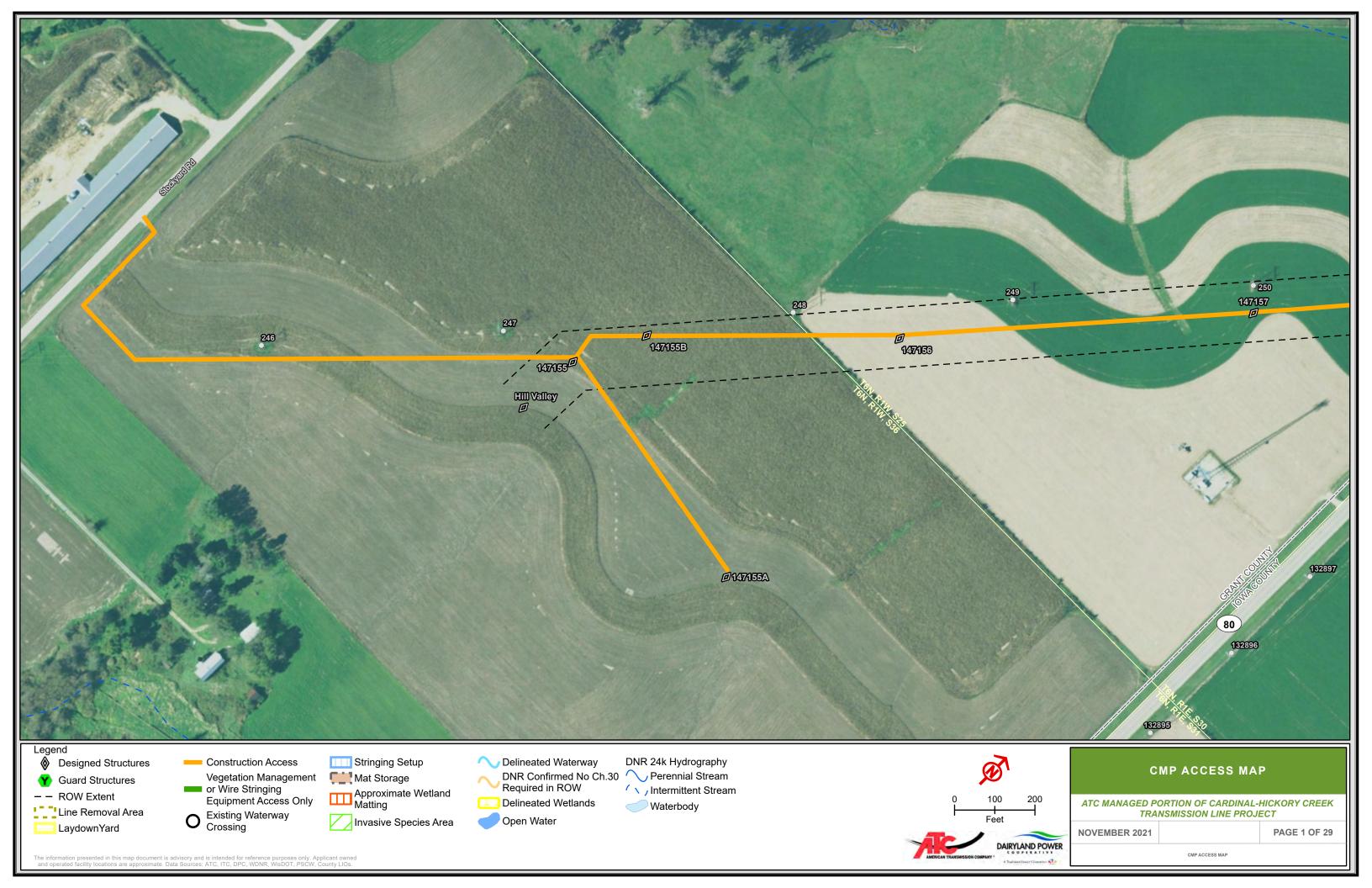
- a) Mitigation measures to address potential significant rutting in agricultural areas may include:
 - i) Placing construction mats on the access routes and work areas,
 - ii) Using approved alternate access,
 - iii) Changing type of equipment used, or
 - iv) Temporarily suspending work until the area dries out or firms up.

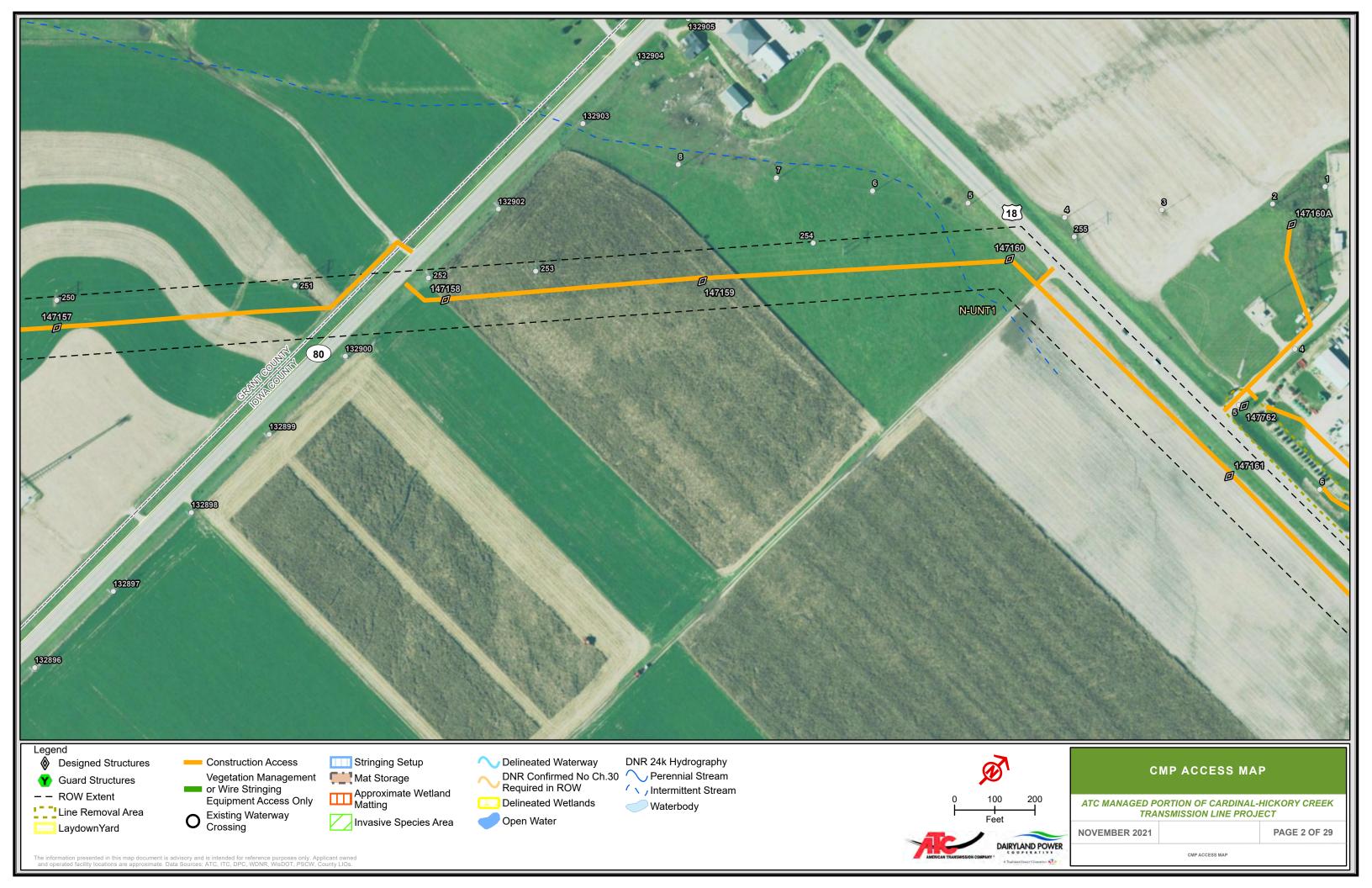
If project construction causes significant ruts in cropland or pasture the Contractor shall repair the ruts as soon as practical.

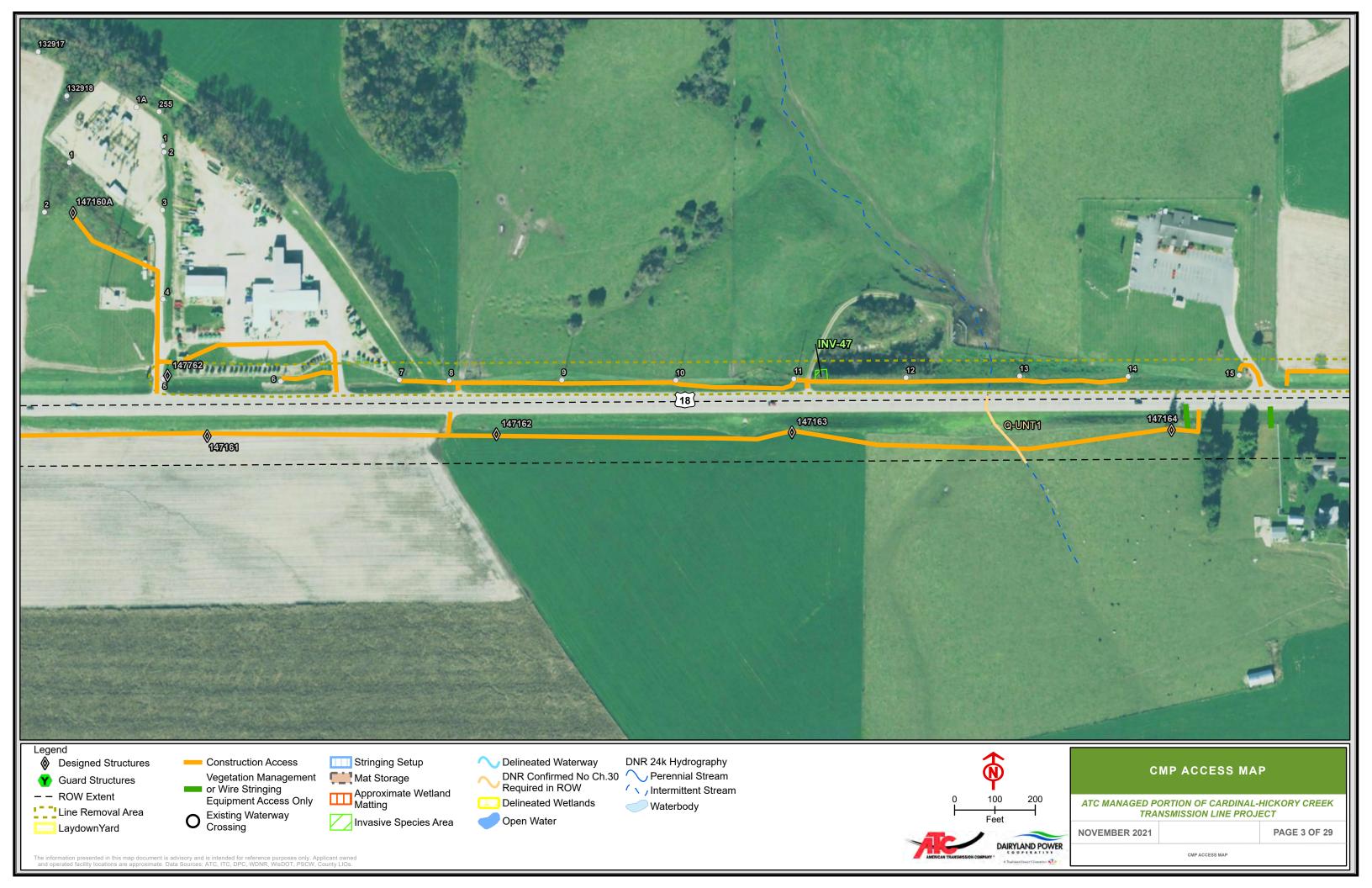
- b) The Contractor shall strip and segregate all topsoil at all excavation sites located within cropped and uncropped areas in agricultural fields, and all areas where grading is required within agricultural fields. Stripped topsoil will be hauled away or stockpiled near the location where it was removed 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.

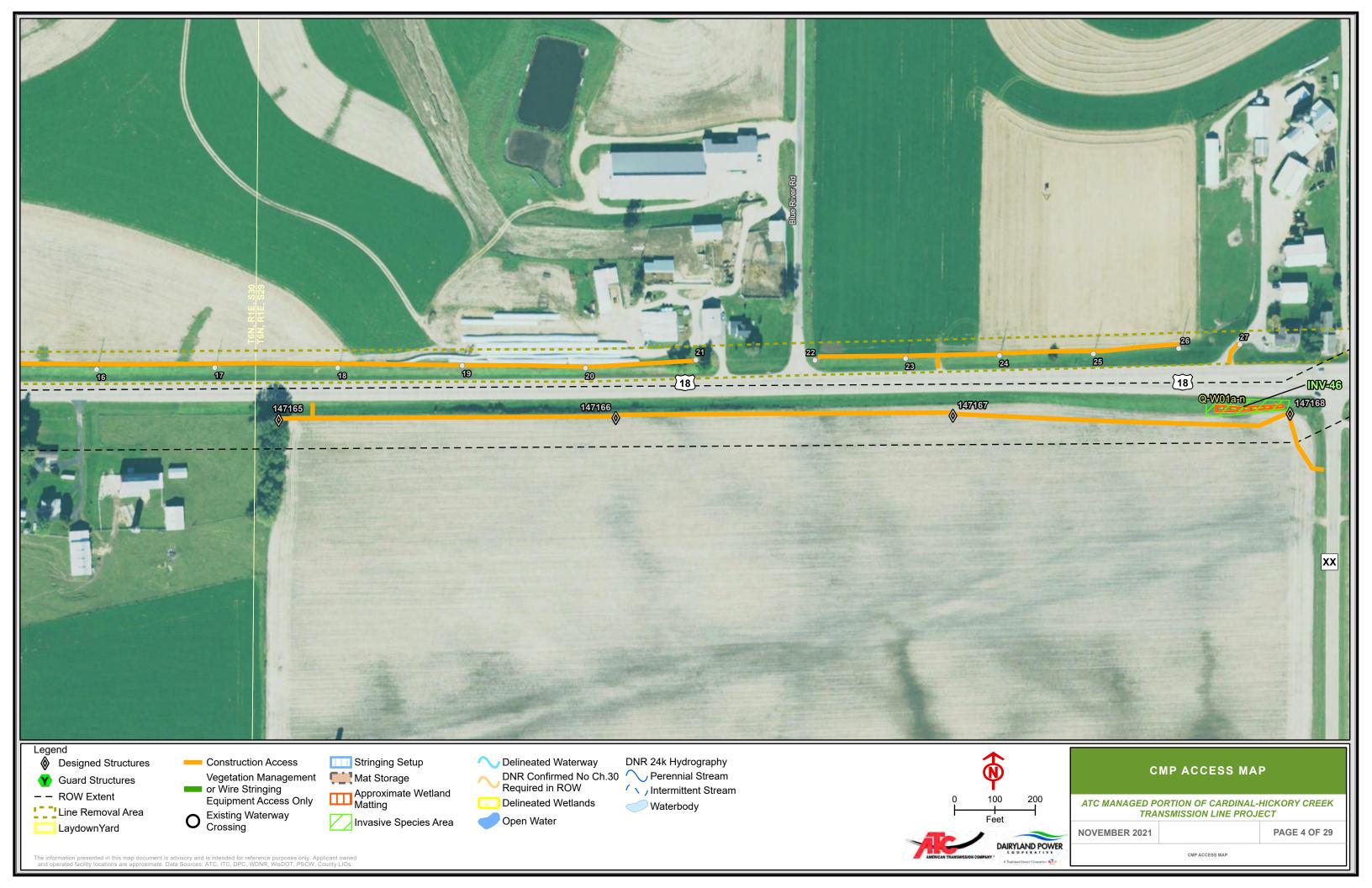
Attachment D

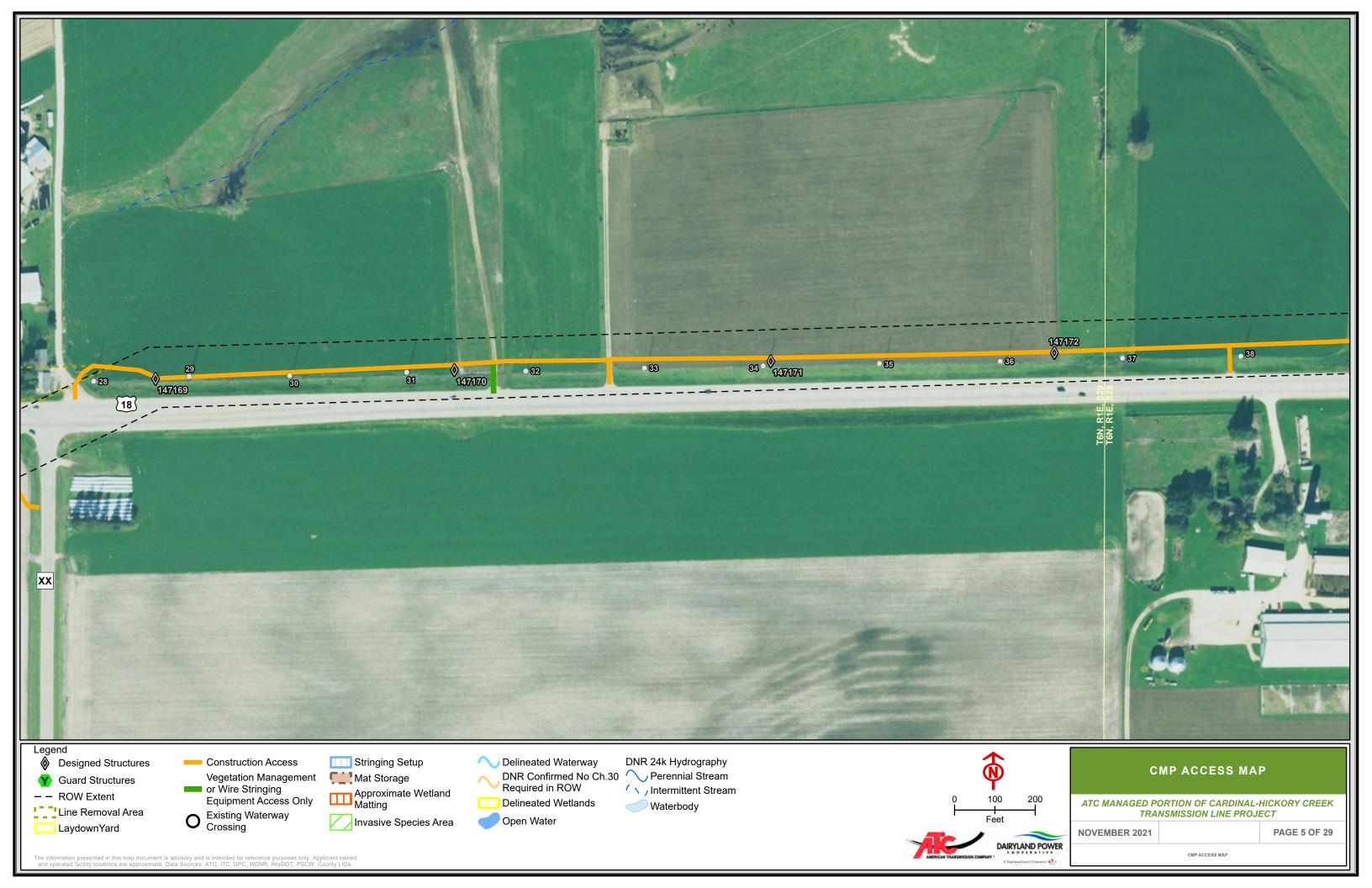
CMP Access Map
X-16 Location Map

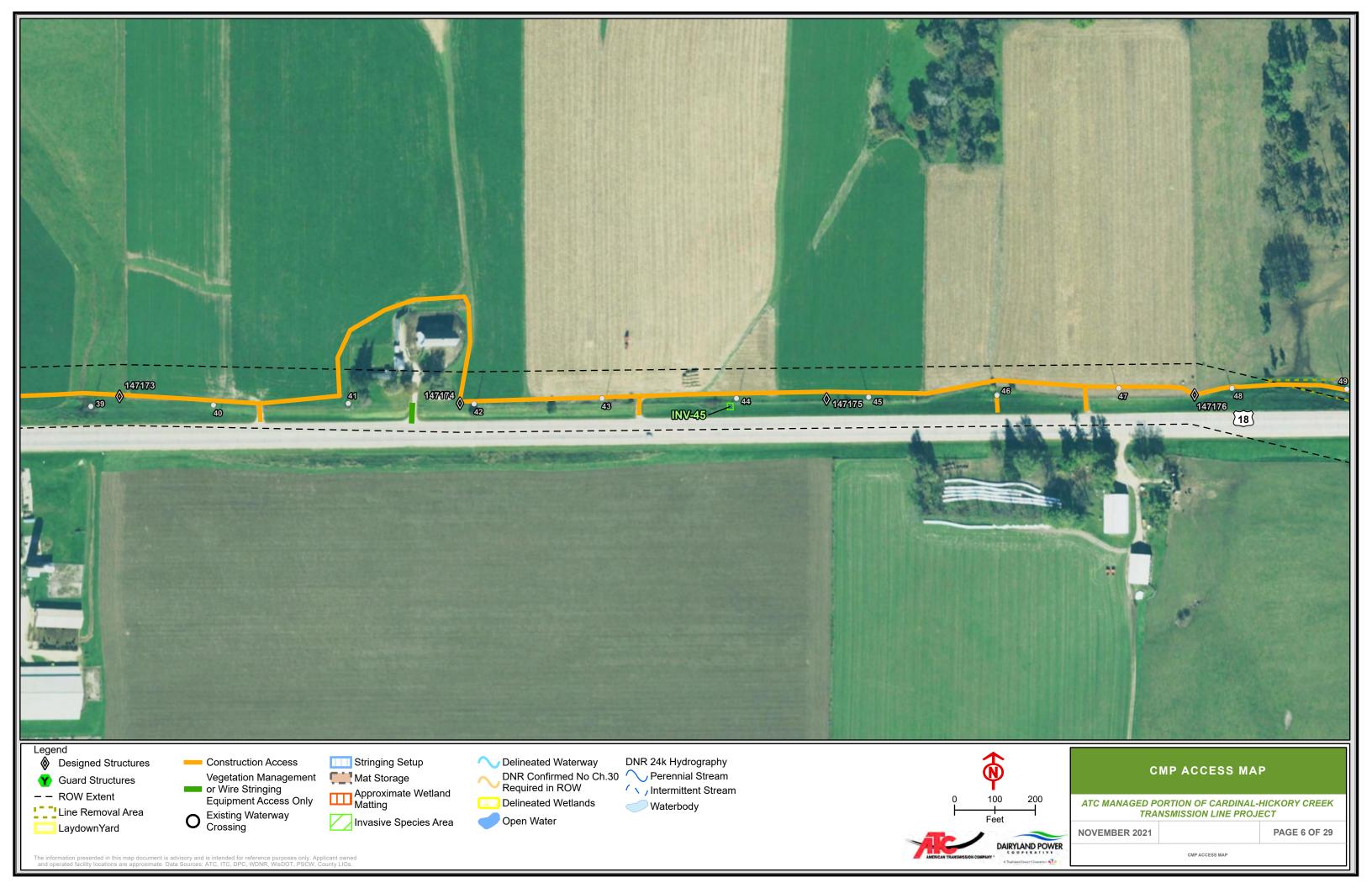


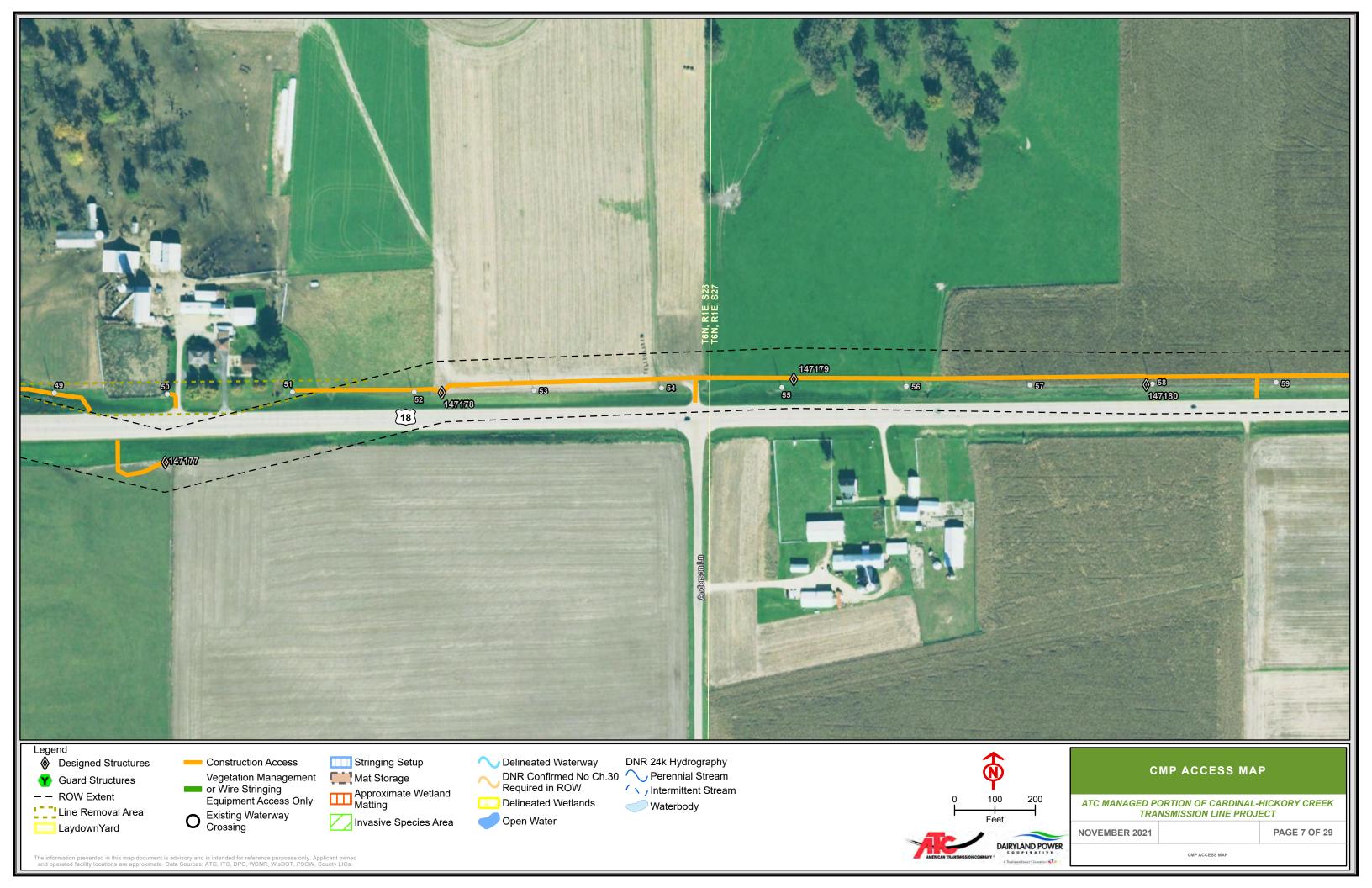


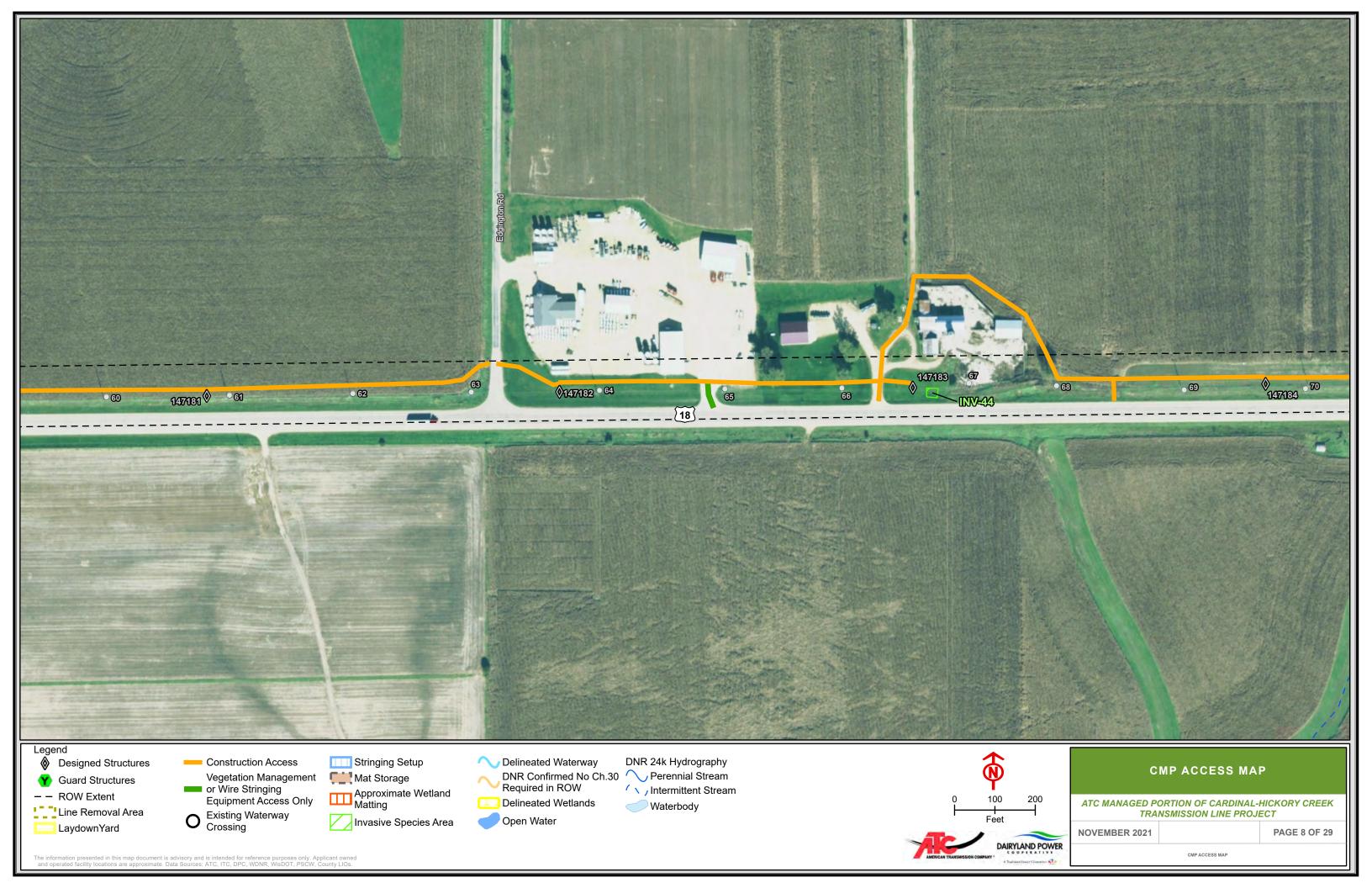


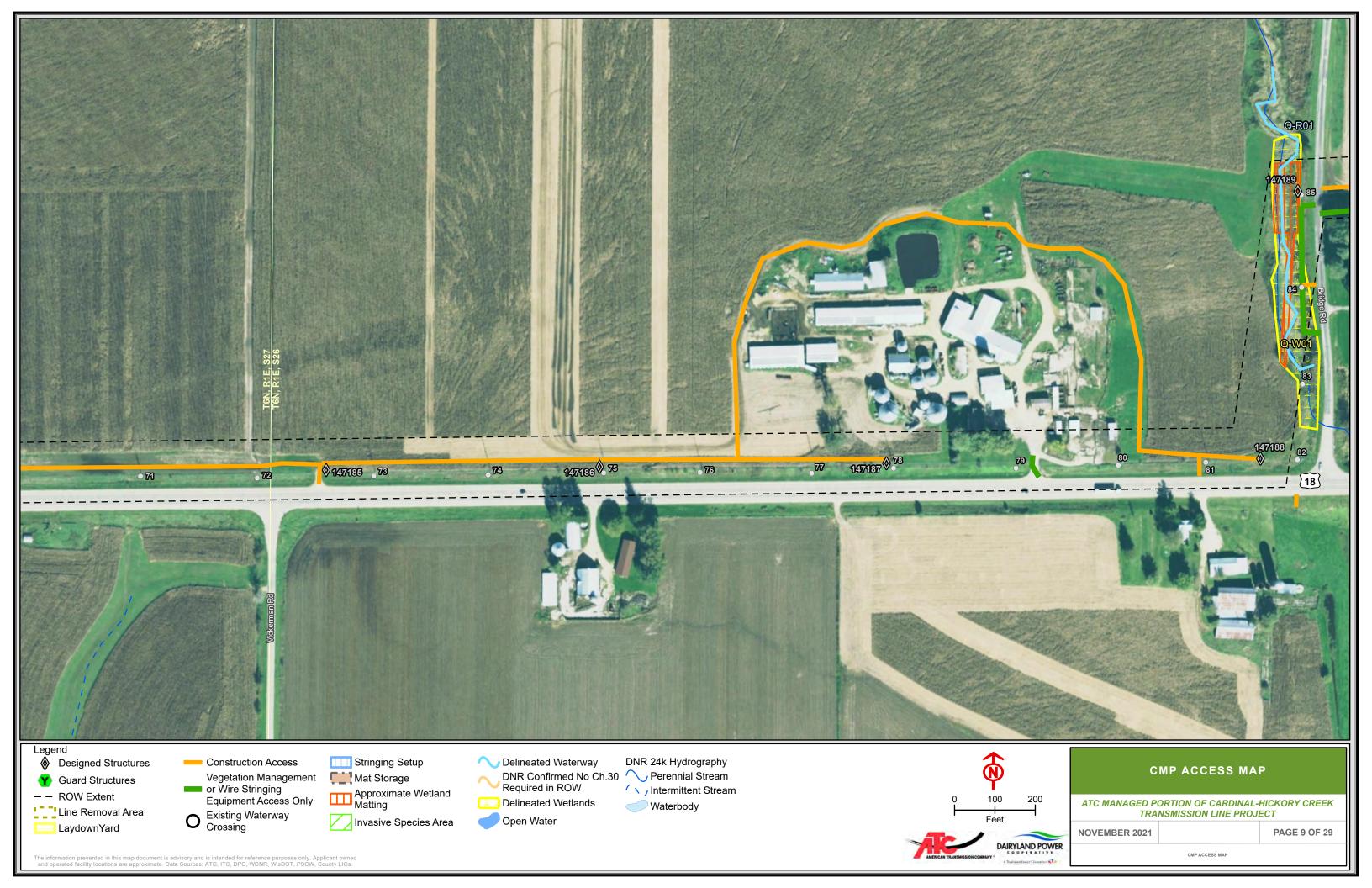


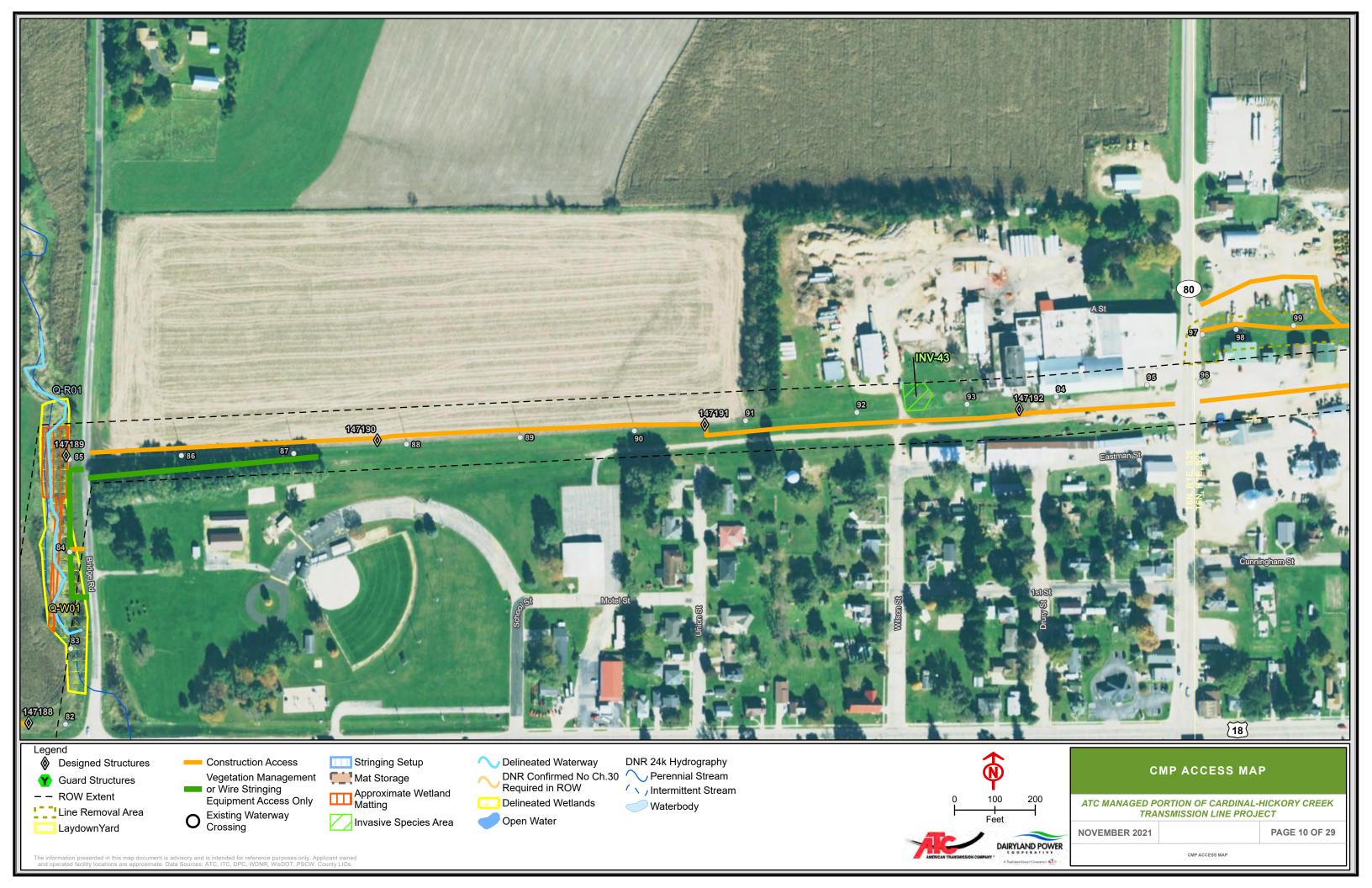


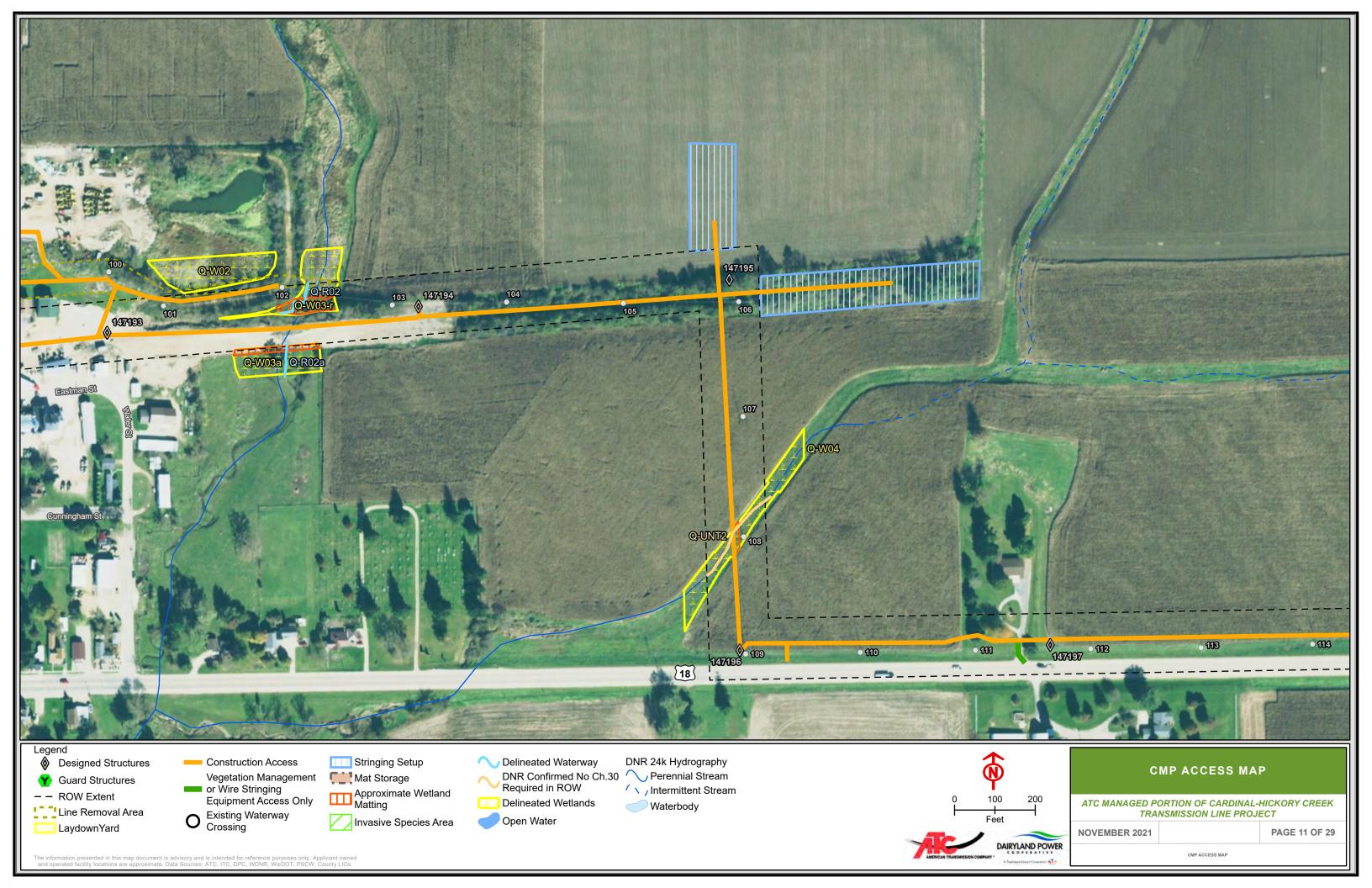


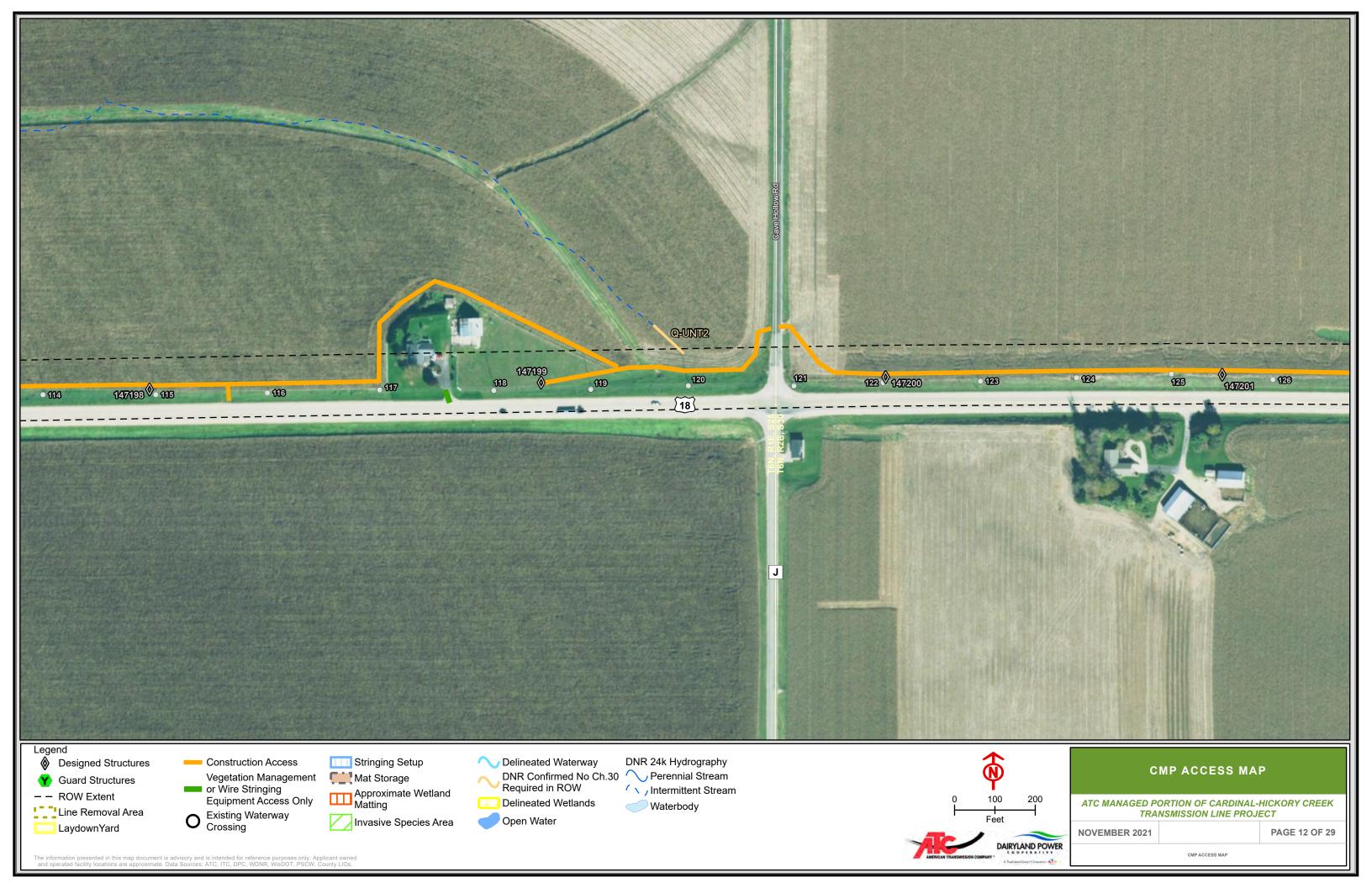


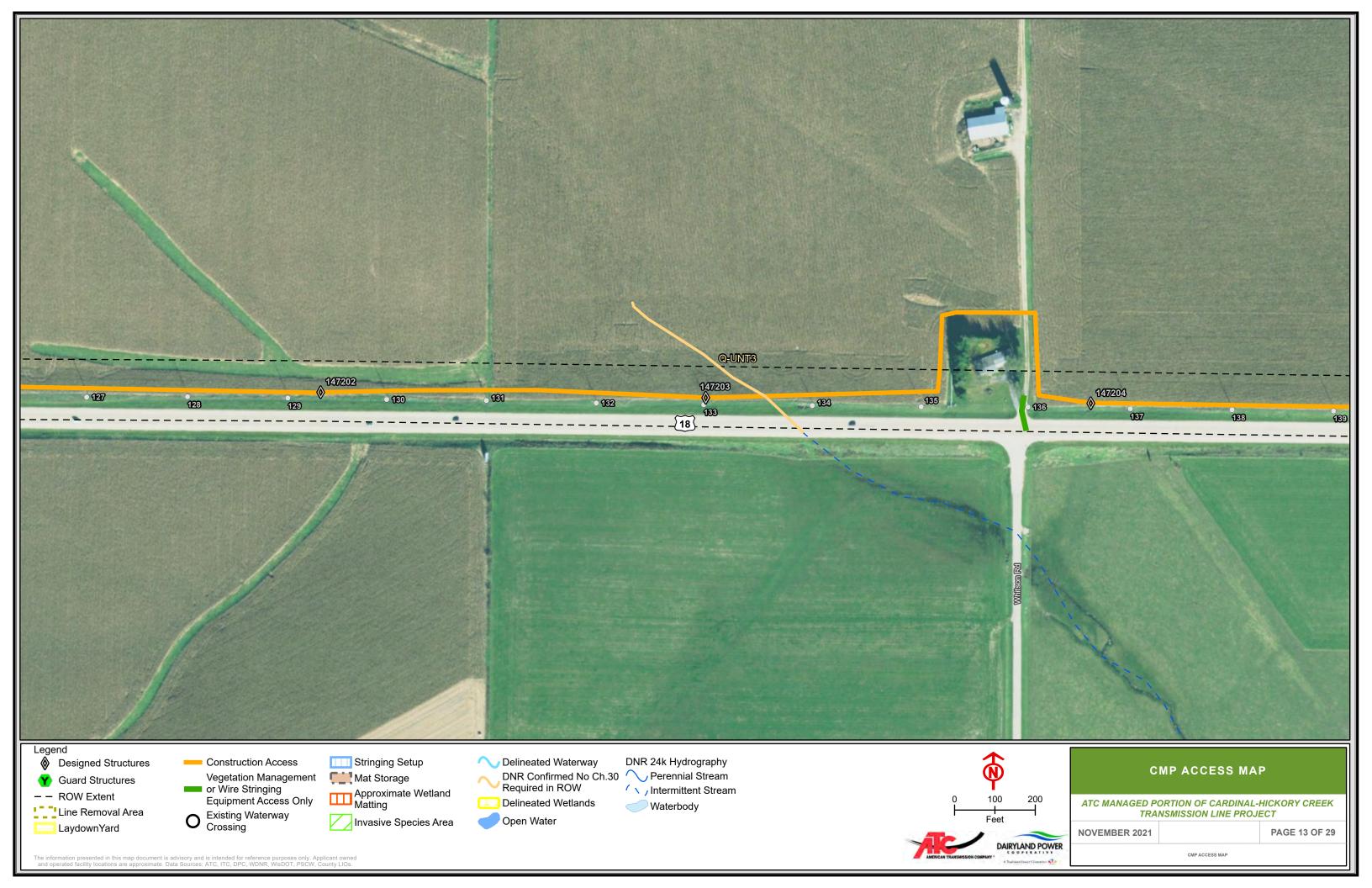


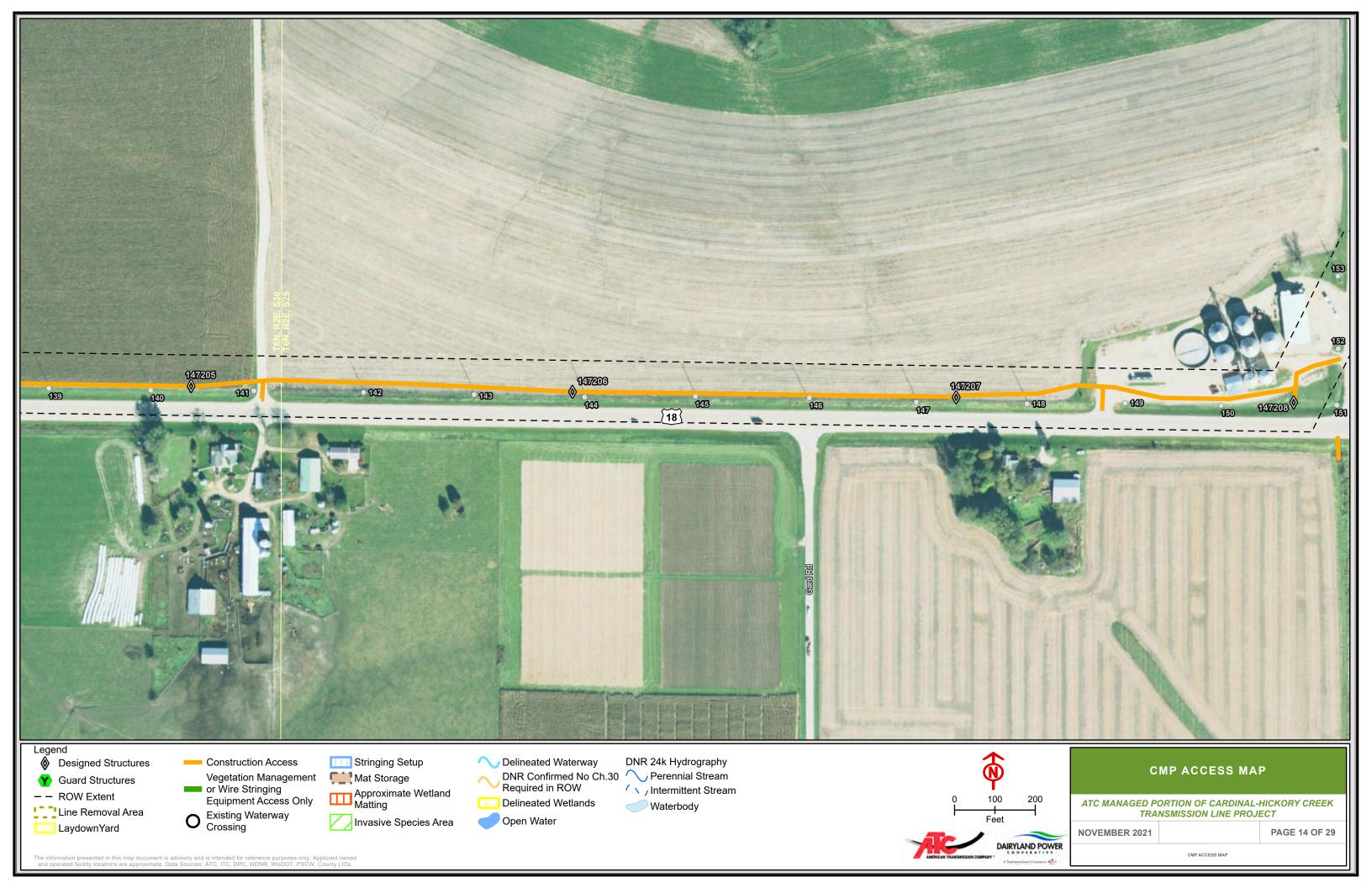


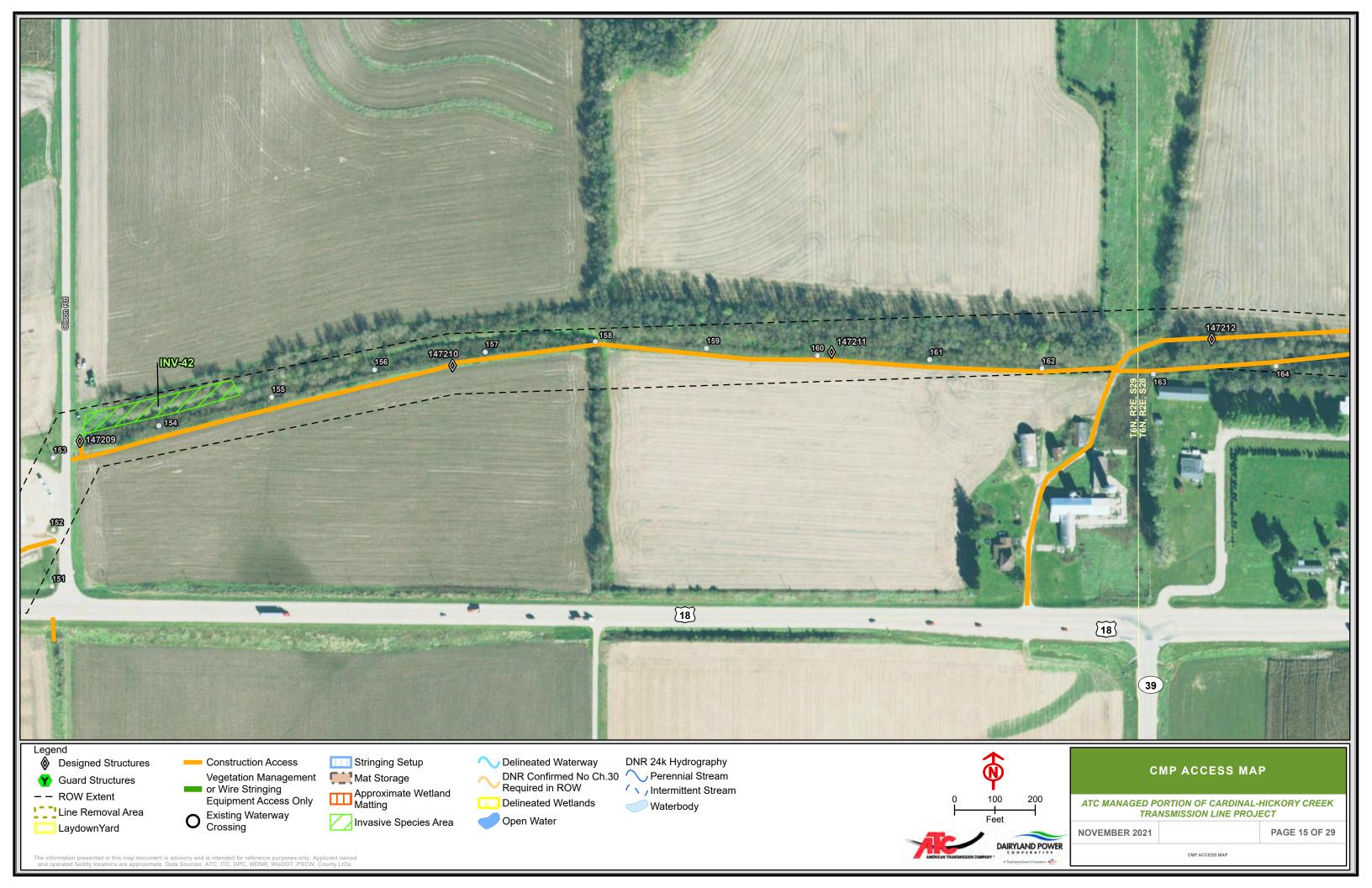


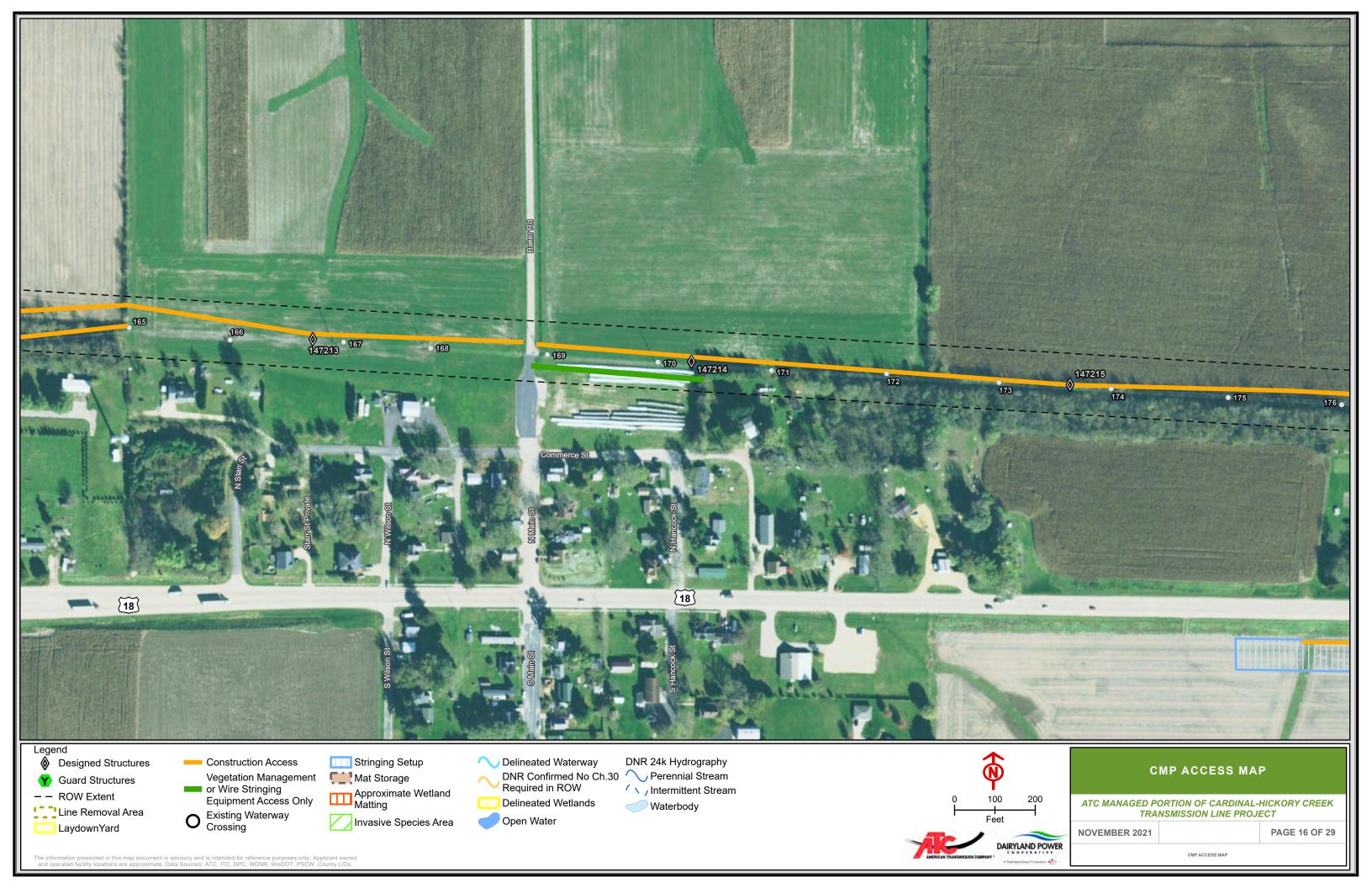


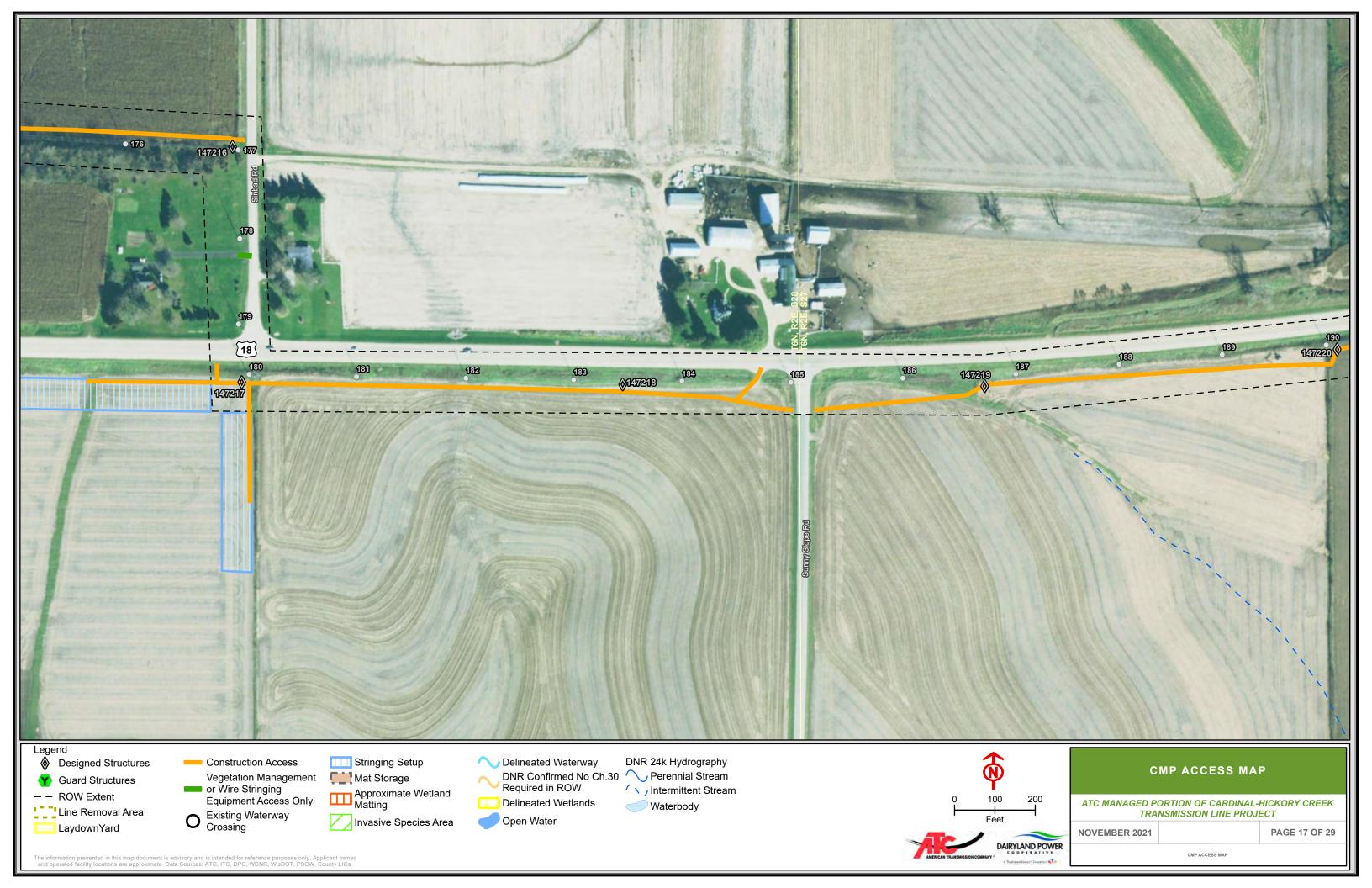


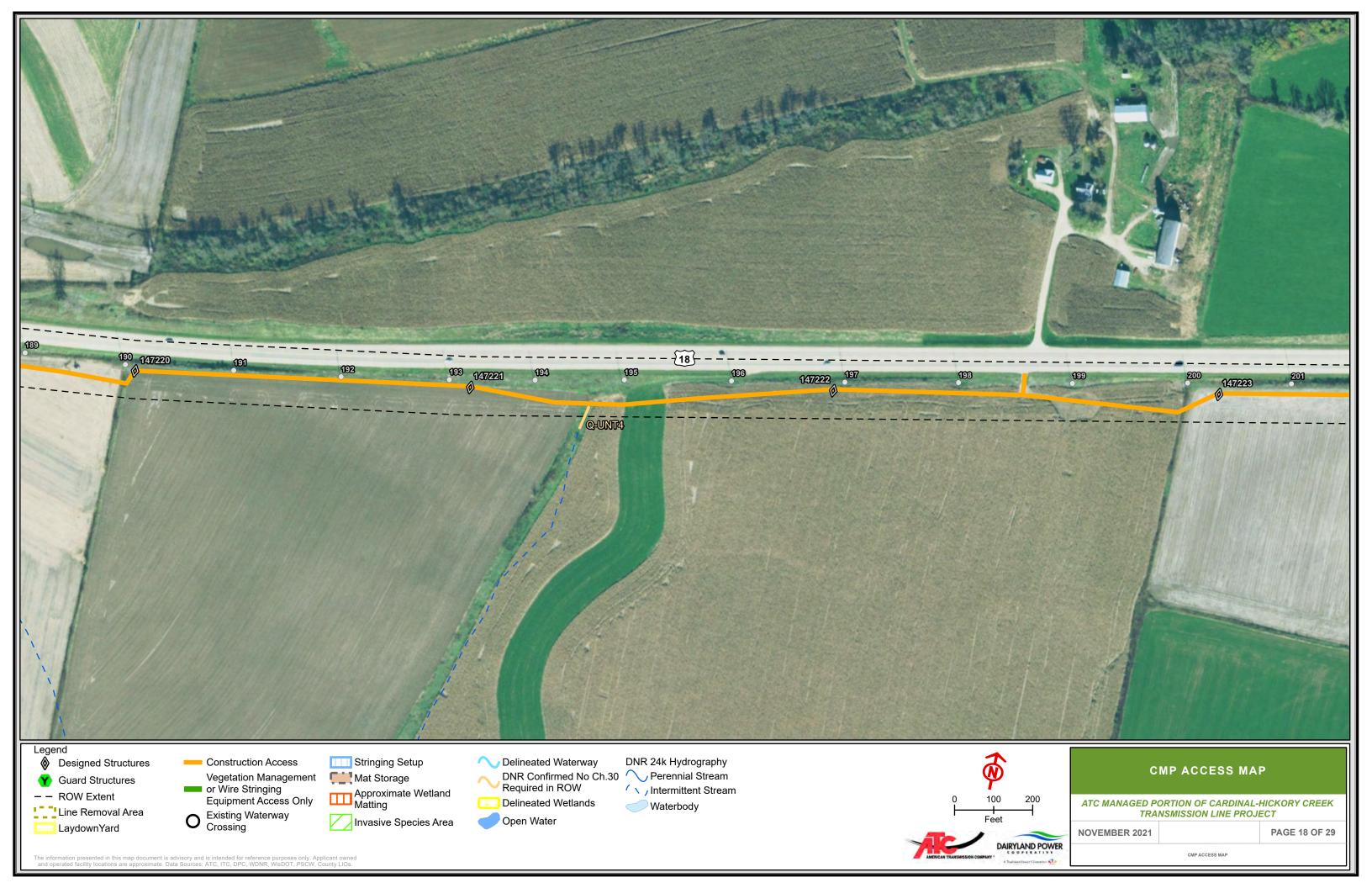


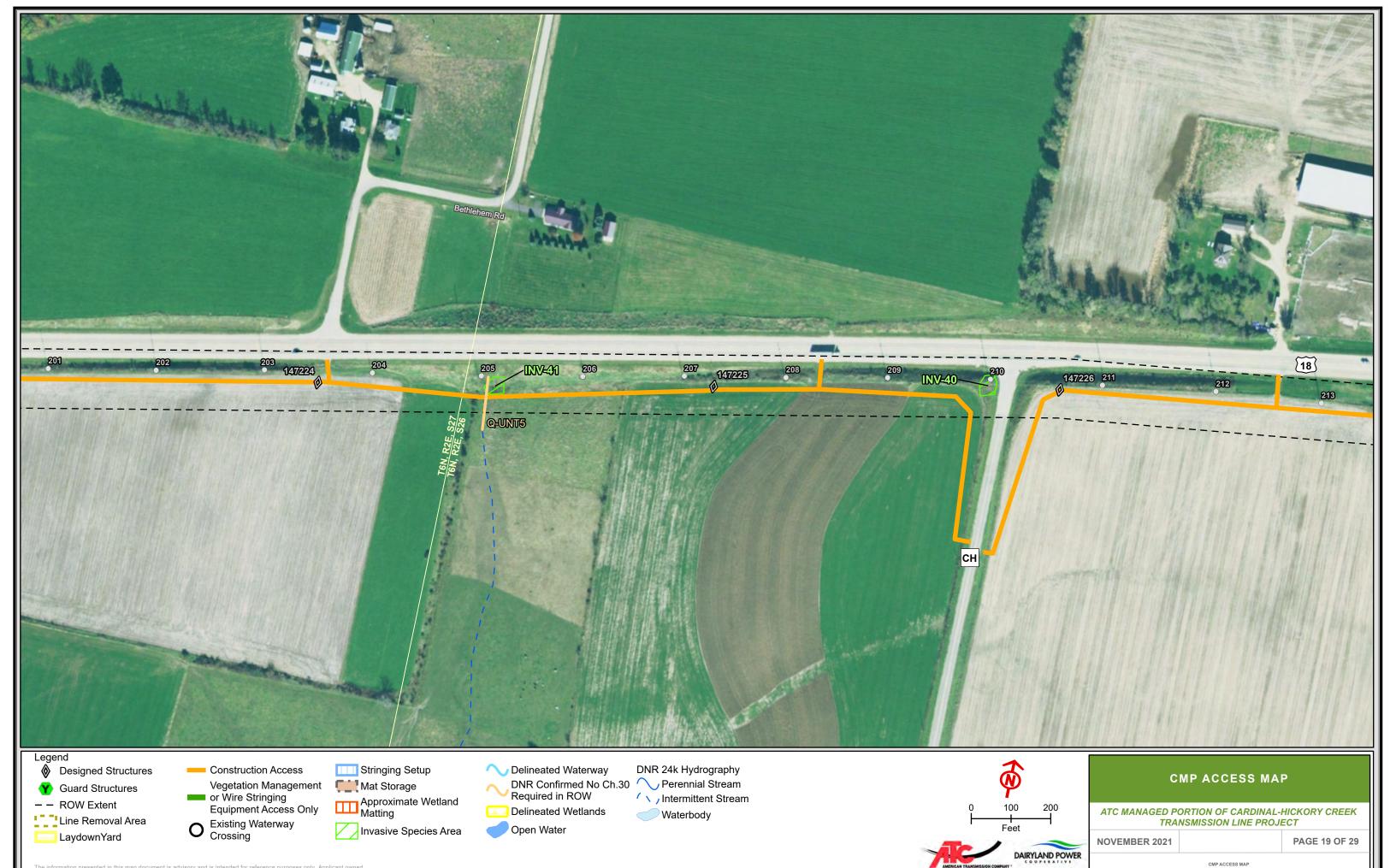




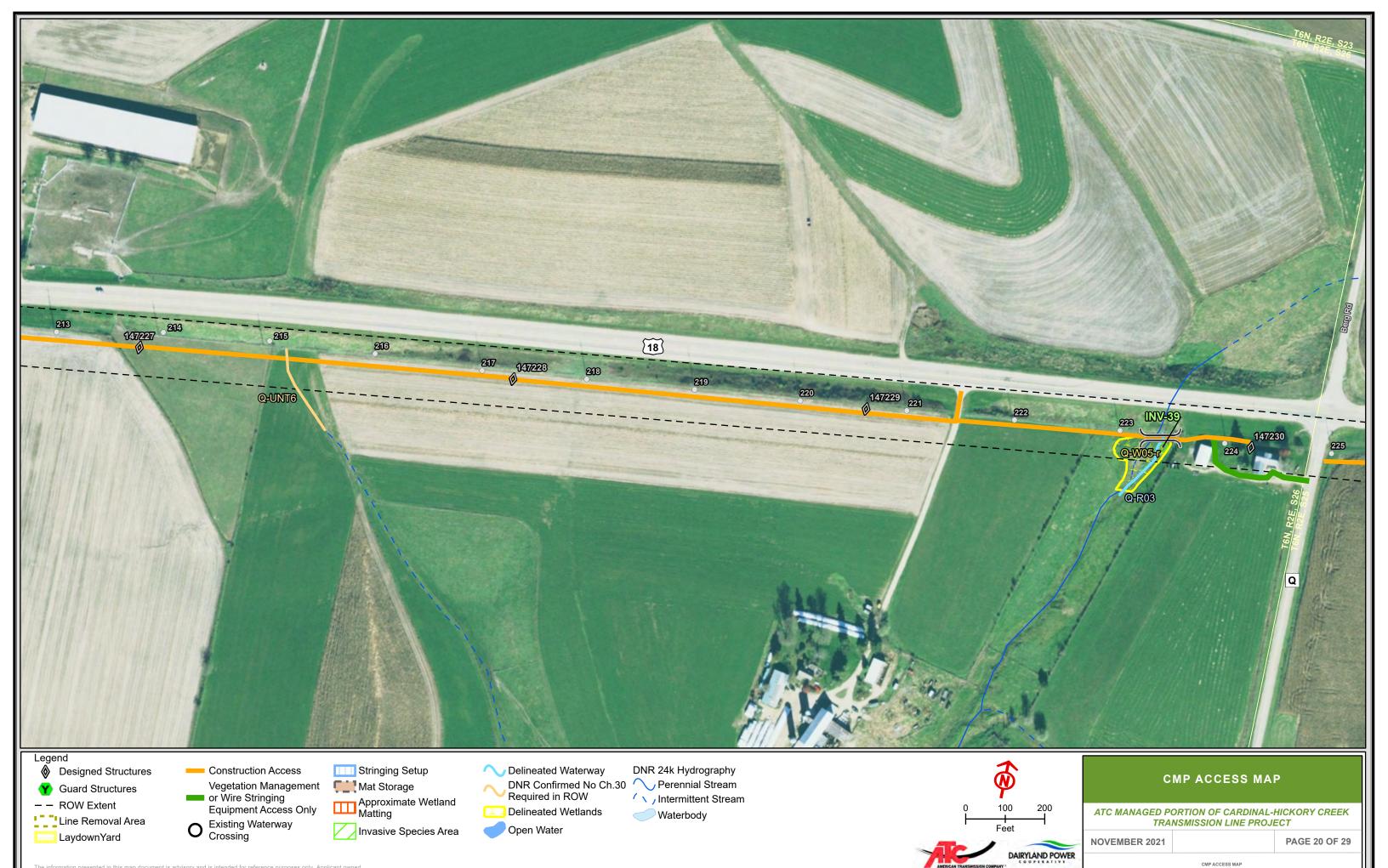




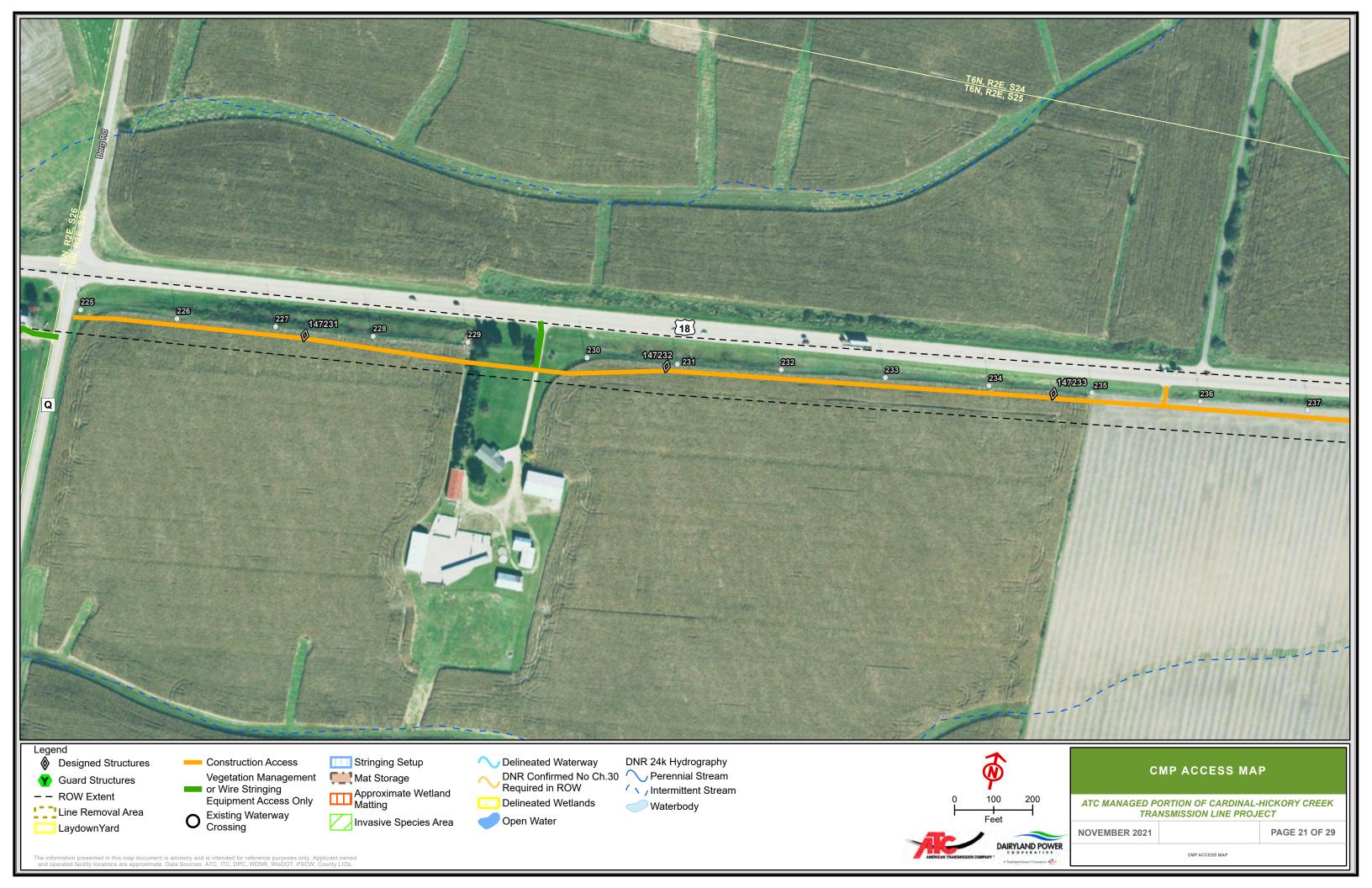


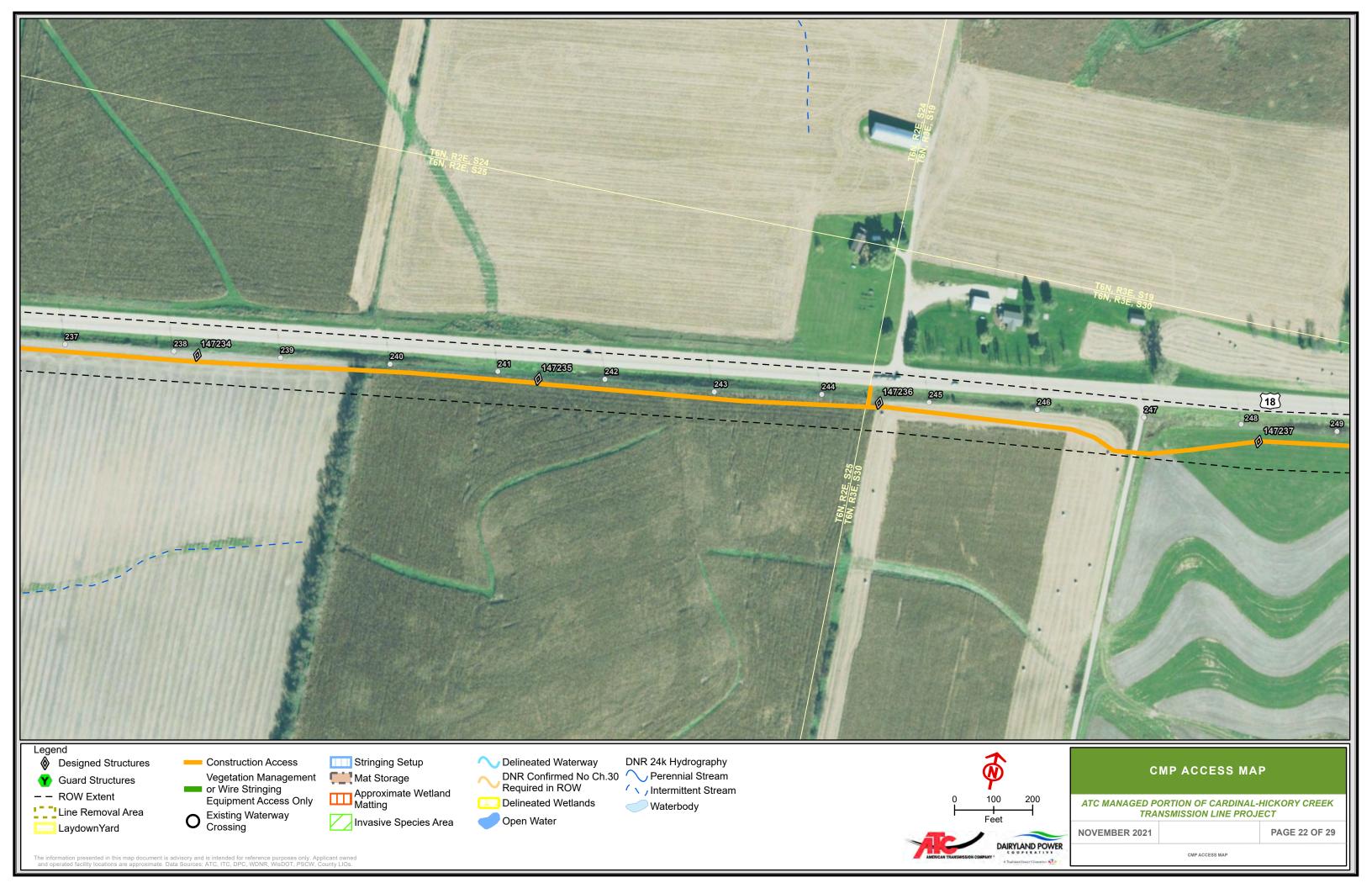


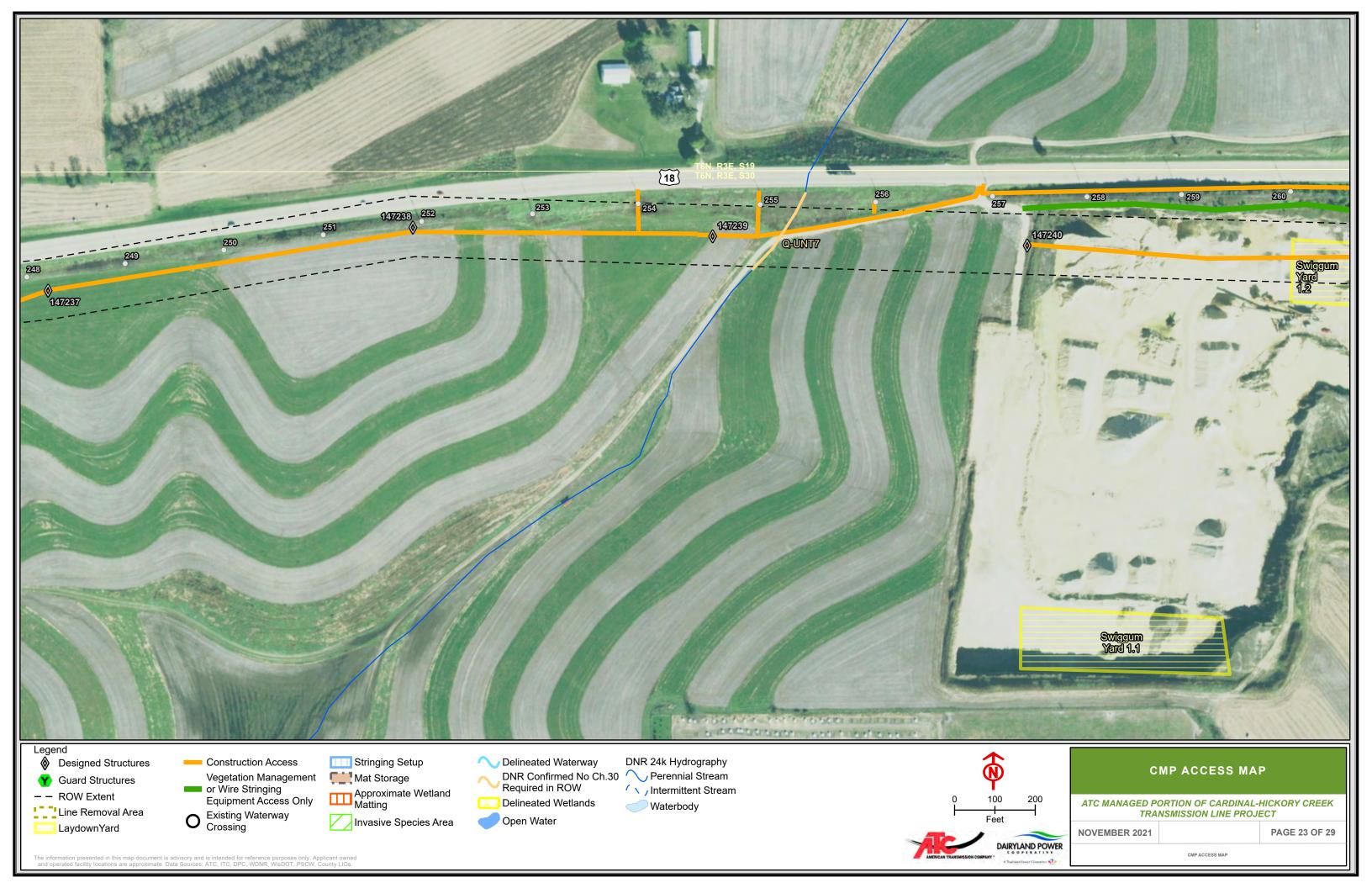
The information presented in this map document is advisory and is intended for reference purposes only. Applicant owner and operated facility locations are approximate. Data Sources: ATC, ITC, DPC, WDNR, WisDOT, PSCW, County LIOs.

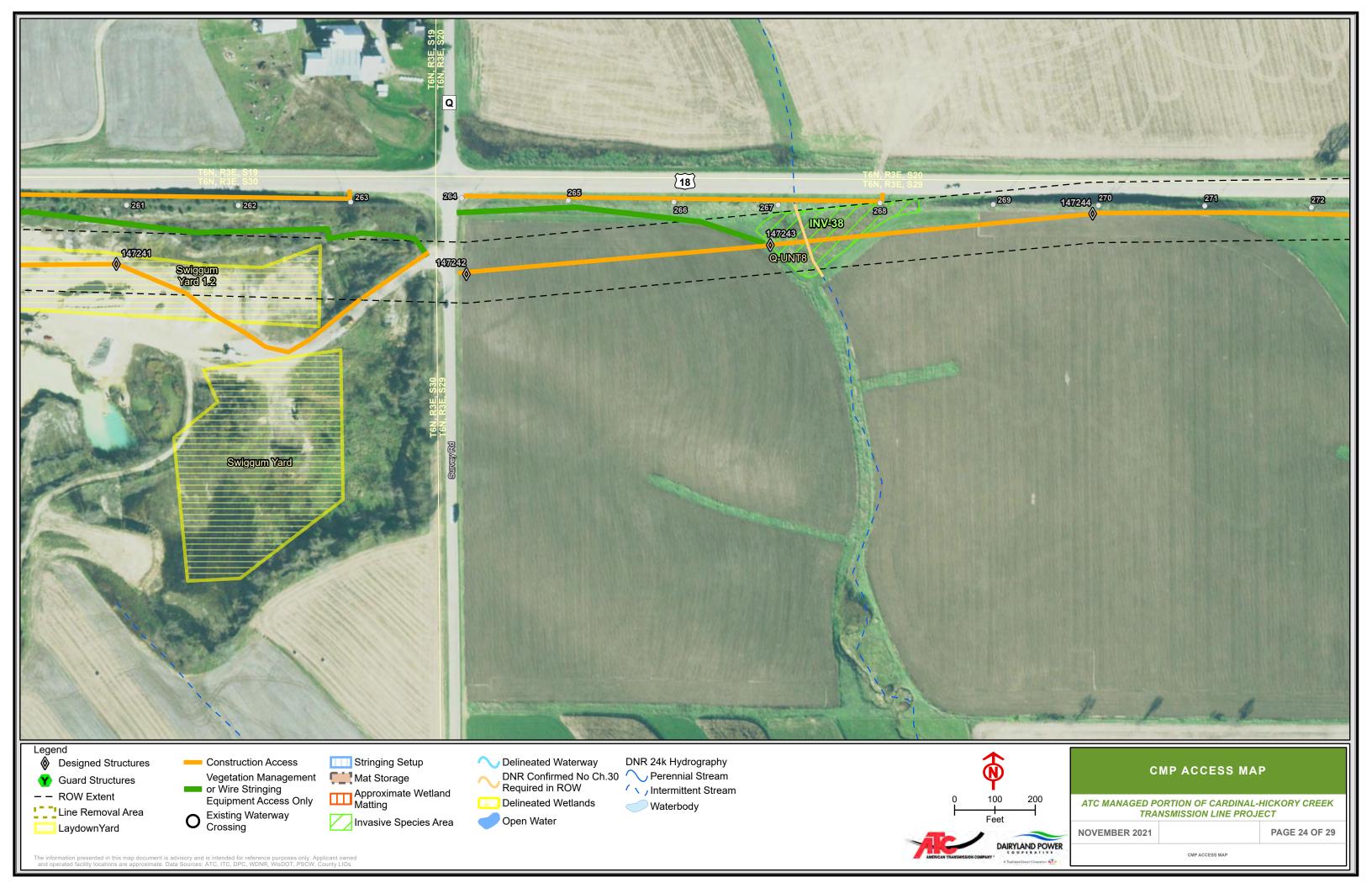


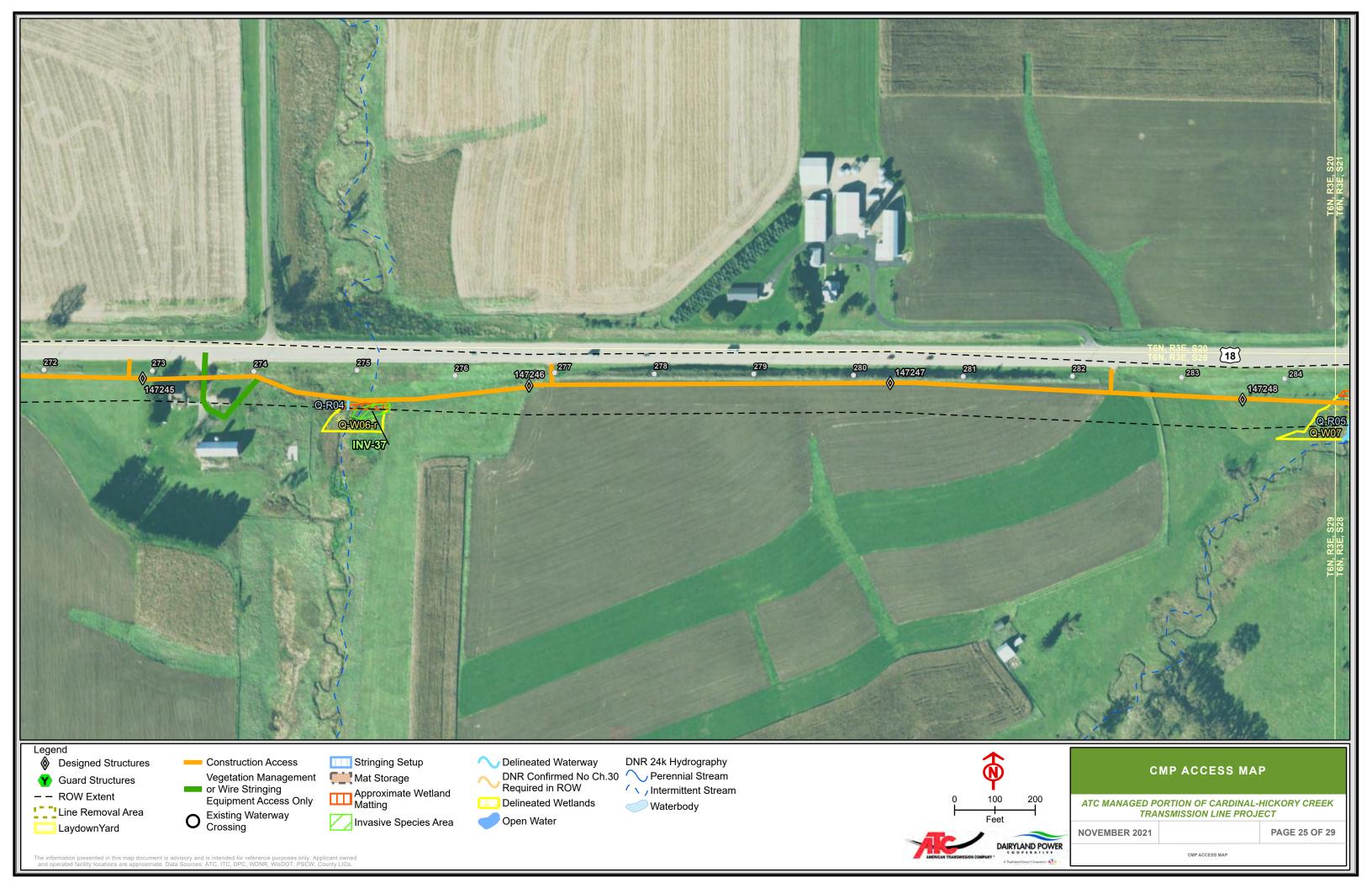
The information presented in this map document is advisory and is intended for reference purposes only. Applicant owner and operated facility locations are approximate. Data Sources: ATC, ITC, DPC, WDNR, WisDOT, PSCW, County LIOs.

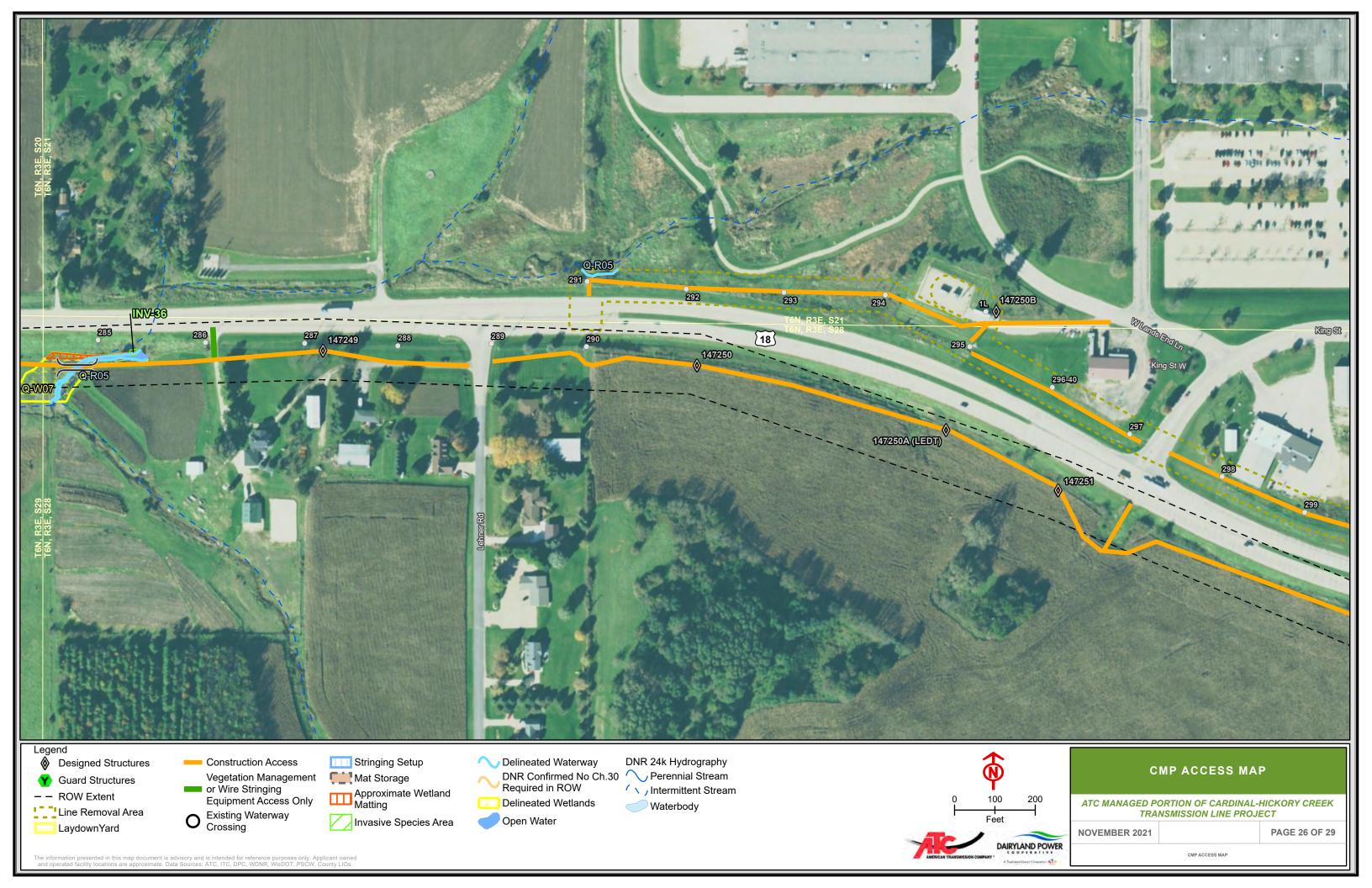


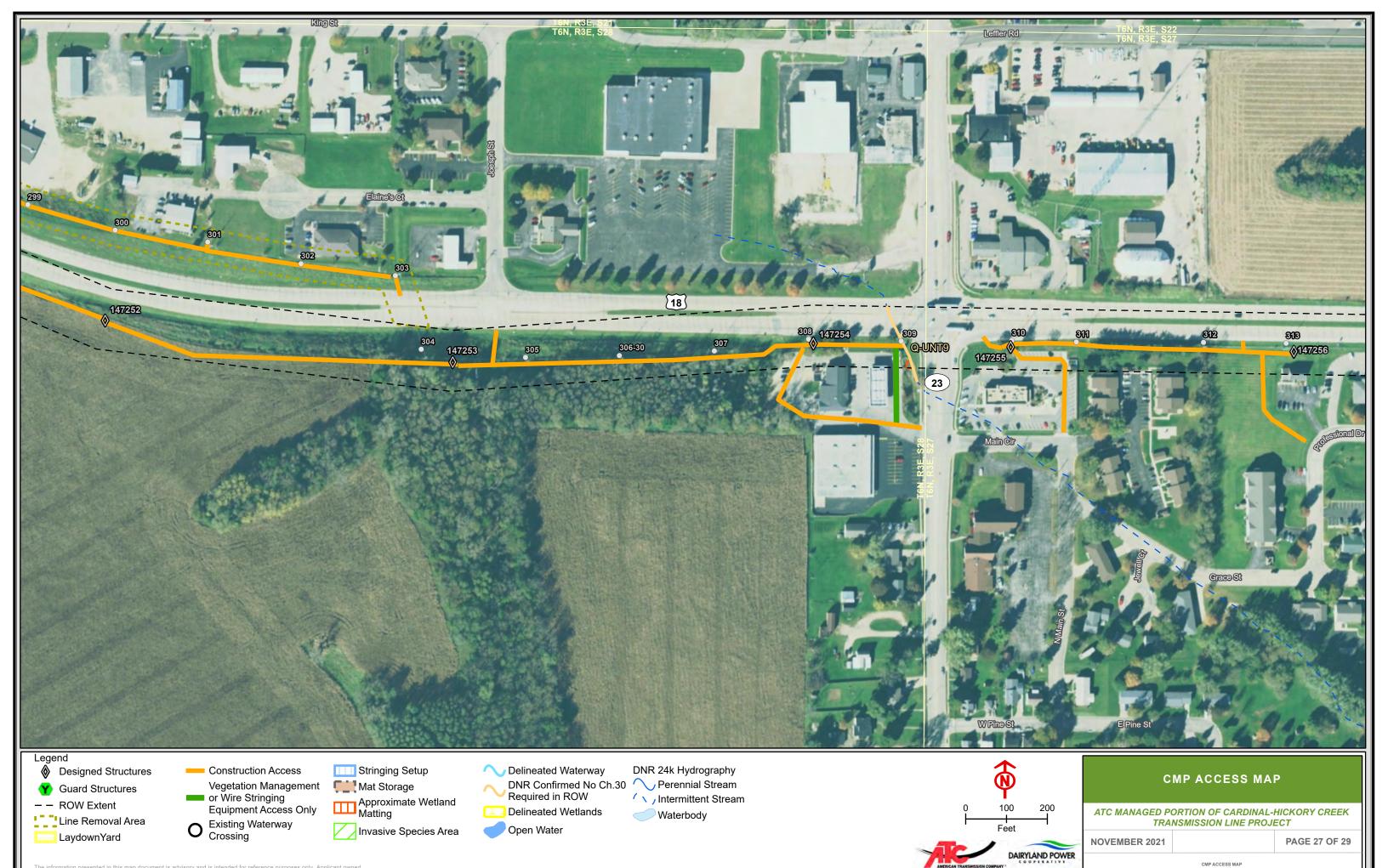




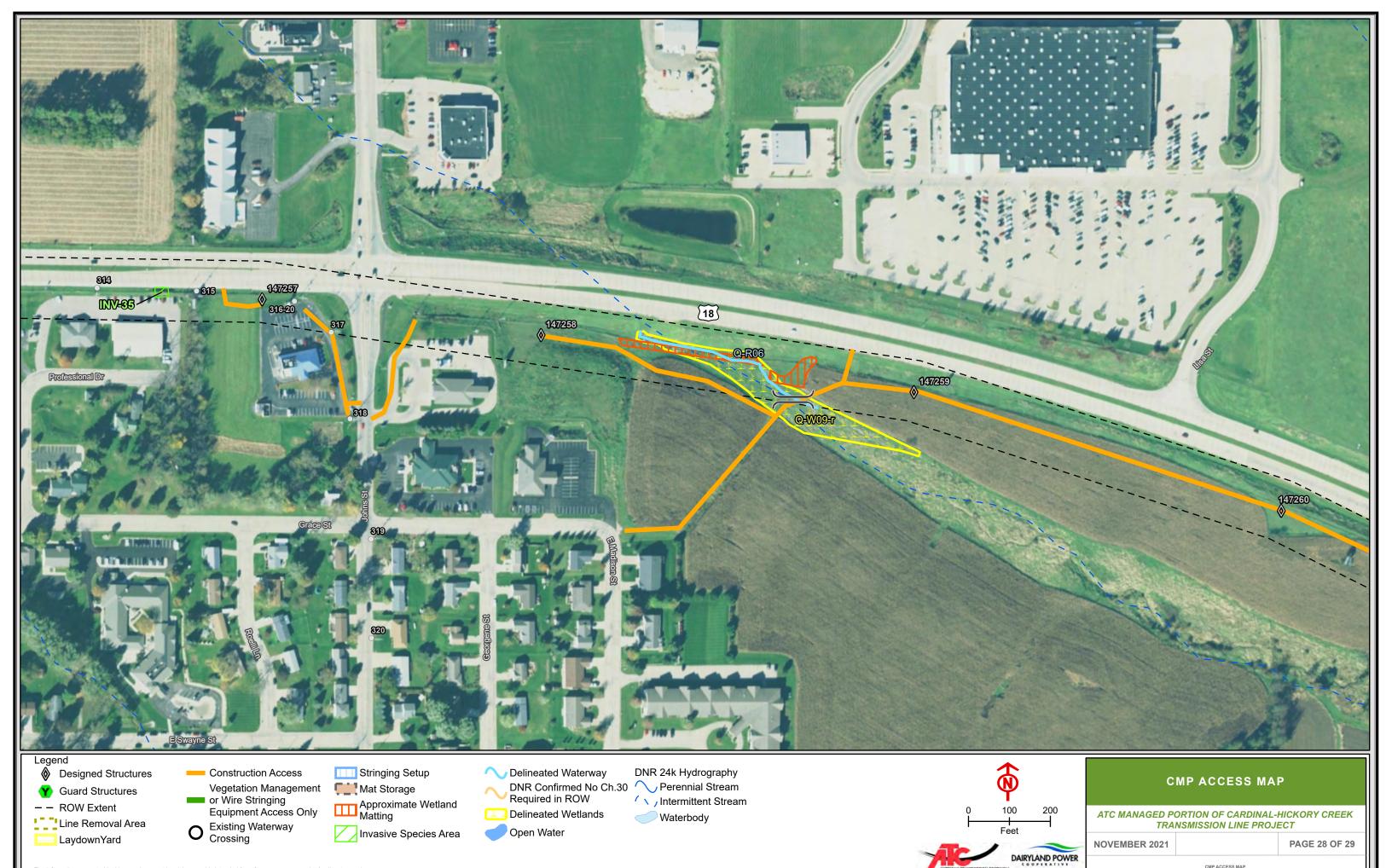




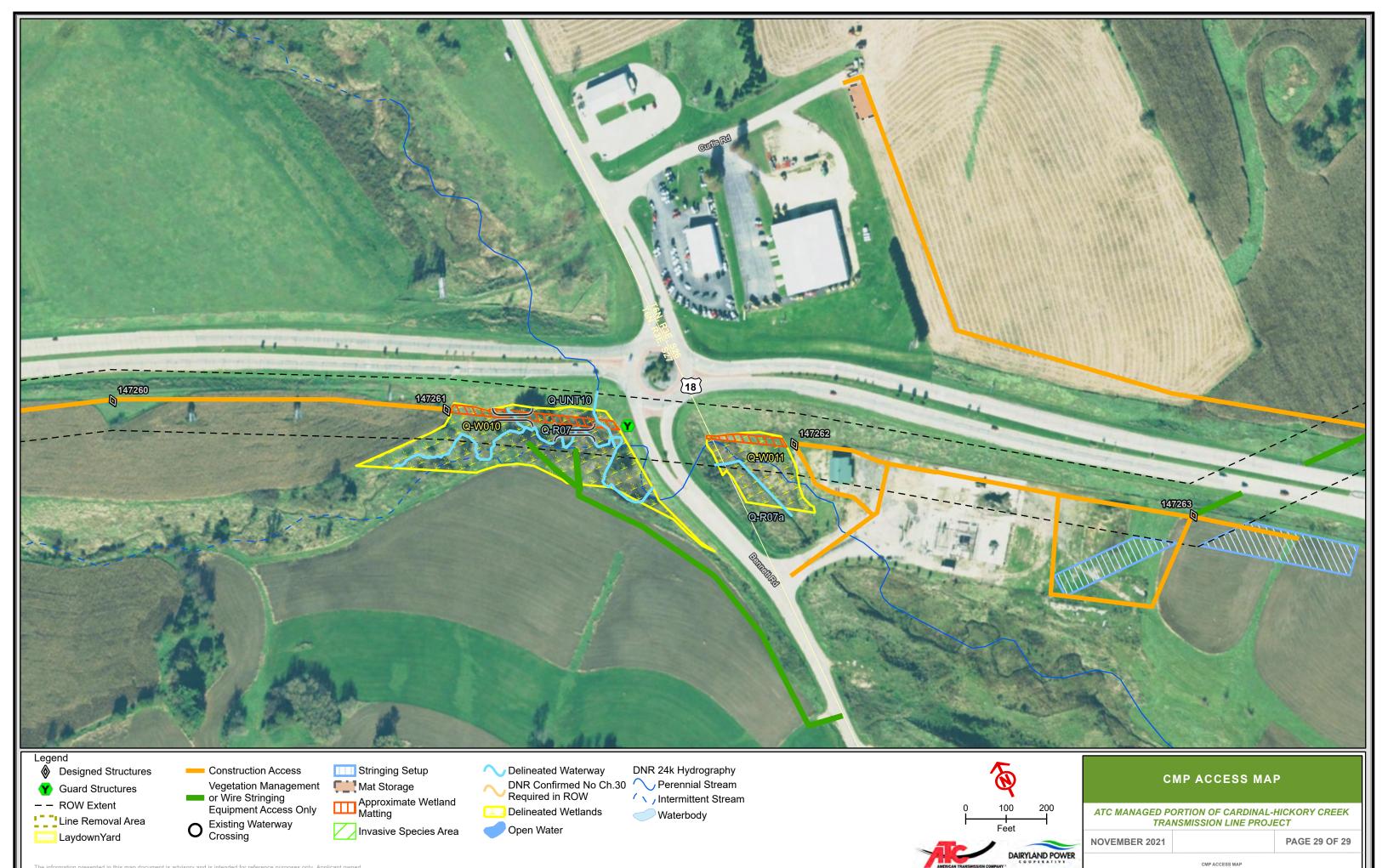




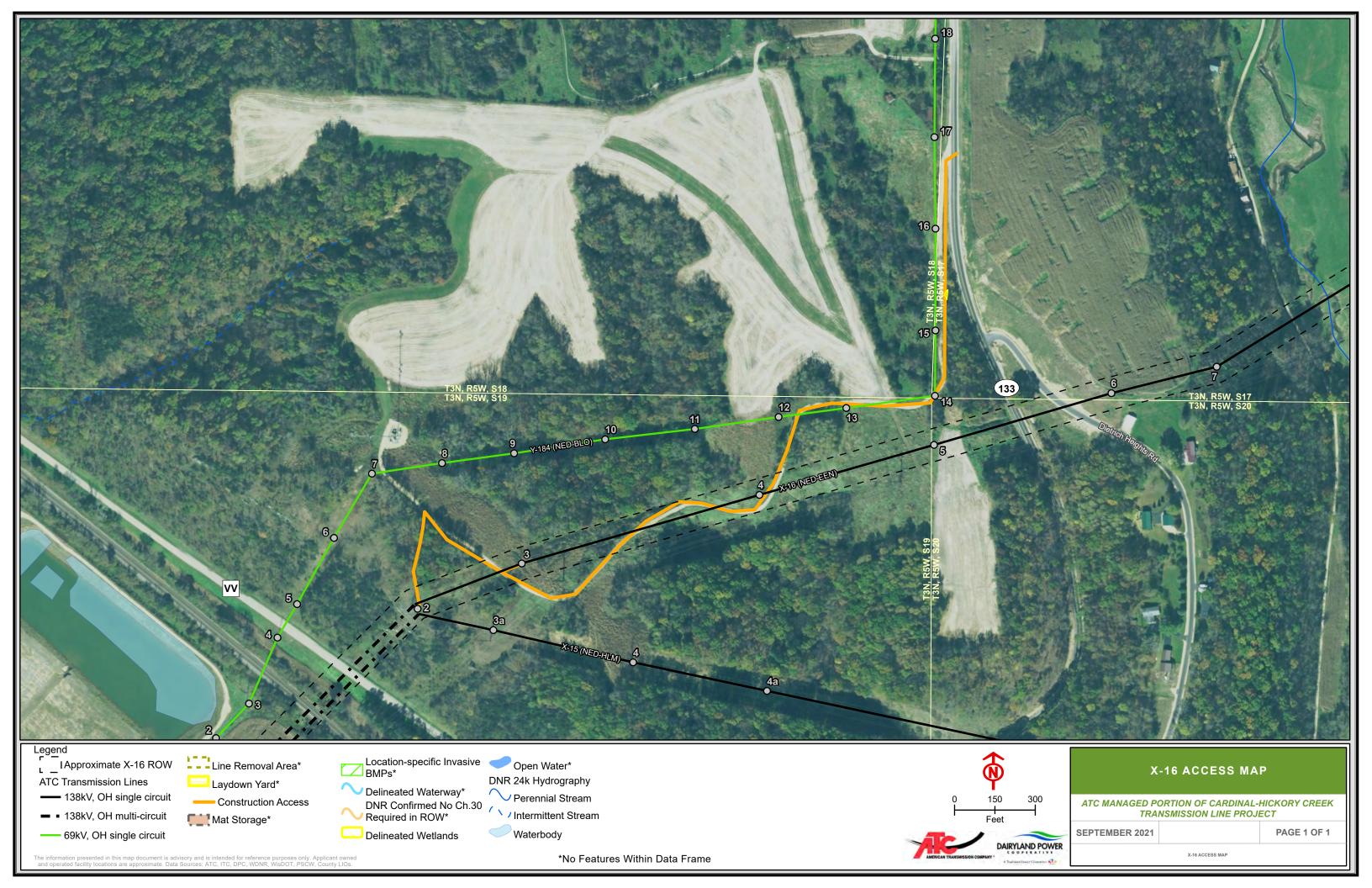
The information presented in this map document is advisory and is intended for reference purposes only. Applicant owned and operated facility locations are approximate. Data Sources: ATC, ITC, DPC, WDNR, WisDOT, PSCW, County LIOs.



CMP ACCESS MAP



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



Attachment E

Wetland Summary Table Wetland Photos Off-Row Evaluation Summary Table

Attachment E1. Summary of Wetlands Identified within Segment E1

Construction Segment ¹	Wetland ID ²	Special Designation ³	Resource Classification ⁴	Cowardin Classification	Survey Technique ⁵	Wetland Description
E1	Q-W01a-n	Wetland	Wet Meadow	PEM1B	F	New feature identified in 2020. Degraded wet meadow in roadside ditch dominated by RCG and reed manna grass.
E1	Q-W01	Wetland	Wet Meadow	РЕМ1В	F	Open riparian wetland along Q-R01. Dominated by RCG with white panicle aster, stinging nettle, and broad-leaved cattail. Small component of hardwood swamp with black willow trees and elderberry shrubs over similar herbaceous species. Wetland boundary and wet meadow community type confirmed in 2020. Area with scattered trees and shrubs comprises less than 10% of the wetland in the project ROW and hardwood swamp is no longer considered an impacted community type.
E1	Q-W03-r	Wetland	Shrub carr/ Shallow Marsh	PSS1B / PEM1F	F	Seep wet meadow/shallow marsh wetland associated with Q-R02. Shrub carr dominated by RCG, American black currant, and elderberry; shallow marsh with fowl bluegrass, RCG and American mannagrass.
			Wet Meadow/ Shrub carr/ Shallow Marsh			Wetland boundary expanded to east and west in 2020 based on wetland conditions. Area of extension includes a wet meadow community at the east end dominated by American manna grass, boneset, dark green bulrush, RCG, and white panicle aster; and shrub carr at the west end with box elder, honeysuckle, black currant, and elderberry with garlic mustard in the herb layer.
E1	Q-W03a	Wetland	Wet Meadow	PEM1B	F	Similar to Q-W3, separated by old railroad corridor. Wetland boundary confirmed in 2020. Wet meadow community comprised of American manna grass, dark green bulrush, and wild cucumber under scattered elderberry shrubs and peachleaf willow trees.
E1	Q-W04	Wetland	Wet Meadow	PEM1B	F	Wetland consists of a grass waterway with no stream definition. Wet meadow dominated by RCG.
E1	Q-W5-r	Wetland	Wet Meadow	PEM1B	F	Wet meadow dominated by RCG, Eurasian manna grass, and watercress near waterway. Wetland area field-delineated in 2020 with new access; wetland boundary extended to east and west.
E1	Q-W06-r	Wetland	Wet Meadow	PEM1B	F	Degraded wet meadow and shrub-carr associated with Q-R04. Wet meadow dominated by Eurasian manna grass, RCG, and orange jewelweed. Shrub-carr with sandbar willow over similar herbaceous species.
			Wet Meadow/ Shrub Carr	PEM1B/ PSS1B		Field confirmed and extended slightly to west in 2020. Shrub- carr comprises western half within corridor, degraded wet meadow comprises eastern half.
E1	Q-W07	Wetland	Wet Meadow/ Sedge Meadow	РЕМ1В	F/V	Degraded wet meadow associated with Q-R05. RCG, purple stem aster, and American manna grass with scattered redosier dogwood. Field-confirmed in 2020, not completely field-delineated due to no access outside DOT ROW. Degraded wet meadow community dominated by RCG, narrow-leaved cattail, and white panicle aster underneath scattered sandbar willow and gray dogwood shrubs and while willow trees. Few yellow iris observed. Grazed sedge meadow community in western edge of feature added in 2020; comprised of American manna grass, dark green bulrush, and hairy-fruit lake sedge.
E1	Q-W08-r	Wetland	Wet Meadow/ Shallow Marsh	PEM1C / PEM1F	F	Field delineated in 2020. Area within project ROW determined to be non-wetland based on field data. Degraded shallow marsh and wet meadow in between road and commercial property. Shallow marsh dominated by narrow-leaf cattail and RCG; wet meadow with RCG and Kentucky bluegrass.
E1	Q-W09-r	Wetland	Wet Meadow	PEM1B	F	Degraded wet meadow dominated by RCG and associated with waterway Q-R06.
						Field-delineated in 2020. Wetland area was reduced on northeast and west sides.

Attachment E1. Summary of Wetlands Identified within Segment E1

Construction Segment ¹	Wetland ID ²	Special Designation ³	Resource Classification ⁴	Cowardin Classification	Survey Technique ⁵	Wetland Description
E1	Q-W10		Sedge Meadow/ Wet Meadow/ Shrub Carr / Hardwood Swamp	PEM1B/ PEM1C/ PFO1B	F	Wetland complex of degraded wet meadow, sedge meadow, and hardwood swamp. Degraded wet meadow dominated by RCG; sedge meadow dominated by running marsh sedge, common great angelica, and broad-leaved woolly sedge; hardwood swamp with box elder, burr oak, and RCG and associated with waterway Q-R07. Plant communities refined within this wetland complex in 2020. Wet meadow in northeastern portion of wetland with RCG, orange jewelweed, and a variety of hydrophytic forbs. Sedge meadow in western portion of wetland dominated by tussock sedge, dogbane, sneezeweed, and white panicle aster. Shrub carr community located in southern portion of wetland. Shrub carr comprised of great Angelica, tussock sedge, orange jewelweed, and cup plant in the herb layer; silky dogwood, nannyberry, black currant, and willow in the shrub layer; and box elder and burr oak trees in the canopy. Hardwood swamp located in central portion of wetland dominated by box elder, quaking aspen, and American elm in the canopy with similar shrubs and herbs as the shrub carr community.
E1	Q-W11	Wetland	Shallow Marsh/ Wet Meadow/ Sedge Meadow	PEM1F/ PEM1C/ PEM1B	F	Degraded shallow marsh dominated by narrow-leaved cattail and RCG and associated with waterway Q-R07. Confirmed wetland boundary and communities in 2020 with new access. Wetland complex primarily comprised of shallow marsh community dominated by cattails, RCG, and deadly nightshade. Medium quality sedge meadow component south of Q-R07 dominated by tussock sedge, green-headed coneflower, and great Angelica. Degraded wet meadow community in eastern third of wetland comprised of RCG, Canada goldenrod, asters, and a few scattered sandbar willow and planted swamp white oak saplings.

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)



003_Q-W01a-n_Degraded wet meadow in roadside ditch_2020-07-29_view_E



005_Q-W01a-n_Degraded wet meadow in roadside ditch_2020-07-29_view_W



004_Q-W01a-n_Degraded wet meadow in roadside ditch_2020-07-29_view_S



006_Q-W01_Riparian wetland along Q-R01; dominated by RCG_2020-07-28_view_N



007_Q-W01_Riparian wetland along Q-R01; dominated by RCG_2017-05-31_view_N



011_Q-W03-r_Wet meadow, shrub carr, and shallow marsh complex_2020-07-28_view_E



009_Q-W01_Riparian wetland along Q-R01; dominated by RCG_2020-07-28_view_E



012_Q-W03-r_Wet meadow, shrub carr, and shallow marsh complex_2020-07-28_view_W



013_Q-W03-r_Wet meadow, shrub carr, and shallow marsh complex_2017-05-31_view_W



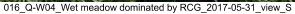
014_Q-W03a_Wet meadow similar to Q-W03-r_2020-07-28_view_S





015_Q-W03a_Wet meadow simlilar to Q-W03-r_2020-07-28_view_W







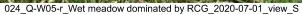
017_Q-W04_Wet meadow dominated by RCG_2020-07-07_view_SW





023_Q-W05-r_Wet meadow dominated by RCG_2020-07-01_view_E







031_Q-W06-r_Wet meadow and shrub carr complex_2020-06-25_view_S

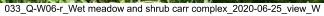


026_Q-W05-r_Wet meadow dominated by RCG_2020-07-01_view_W



032_Q-W06-r_Wet meadow and shrub carr complex_2017-06-07_view_W







034_Q-W07_Degraded wet meadow associated with Q-R05_2020-06-25_view_S



034_Q-W07_Degraded wet meadow associated with Q-R05_2020-06-25_view_E



034_Q-W07_Degraded wet meadow associated with Q-R05_2020-06-25_view_SW



035_Q-W07_Degraded wet meadow associated with Q-R05_2020-06-25_view_SW



038_Q-W08_Degraded shallow marsh and wet meadow_2020-06-18_view_S



037_Q-W07_Degraded wet meadow associated with Q-R05_2020-06-25_view_S



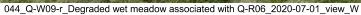
039_Q-W08_Degraded shallow marsh and wet meadow_2020-06-18_view_W





042_Q-W09-r_Degraded wet meadow associated with Q-R06_2020-06-18_view_W







045_Q-W10_Sedge meadow, wet meadow, shrub carr, and hardwood swamp wetland complex_2020-07-01_view_E



049_Q-W10_Sedge meadow, wet meadow, shrub carr, and hardwood swamp wetland complex_2020-07-01_view_E



050_Q-W10_Sedge meadow, wet meadow, shrub carr, and hardwood swamp wetland complex_2020-07-01_view_SE



049_Q-W10_Sedge meadow, wet meadow, shrub carr, and hardwood swamp wetland complex_2020-07-01_view_W



053_Q-W11_Degarded shallow marsh, wet meadow, and sedge meadow complex_2020-06-18_view_SE



055_Q-W11_Degarded shallow marsh, wet meadow, and sedge meadow complex_2020-06-18_view_NE



056_Q-W11_Degarded shallow marsh, wet meadow, and sedge meadow complex_2020-06-18_view_SW



E3. Segment E1 Off-ROW Evaluation

L3. Segine	nt E1 Off-ROW Eva					1 11/41 1/		
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
E1	E1-147157	Construction	Cropland	N	N	F	N	2
E1	E1-147160A	Construction	Maintained turf around radio tower, guy wires present.	N	N	A	N	2, 3
E1	E1-147762	Construction	Gravel driveway and maintained lawn.	N	N	F/ V	N	3
E1	E1-147168	Construction	Cropland	N	N	V	N	4
E1	E1-147169	Construction	Cropland	N	N	F	N	5
E1	E1-147174	Construction	Cropland	N	N	Α	N	6
E1	E1-147184	Construction	Existing gravel driveway/ farm access, cropped field	N	N	F	N	8
E1	E1-147187	Construction	Access route located along perimeter of large farm operation. Path located along mowed grass and cropped fields.	N	N	F	N	9
E1	E1-82	Construction	Grassy WisDOT ROW, steep embankment	N	N	А	N	9
E1	E1-84VM	VM	Access from Bridge Road - Grassy road ROW, wetland (Q-W01).	Y - Temporary wetland matting included in WDNR Table 1	N	F	N	10
E1	E1-100	Construction	Gravel driveway/parking area.	N	N	V	N	10, 11
E1	E1-147193	Construction	Mowed lawn between Y-138 and CHC ROWs	N	N	F	N	11
E1	E1-147195	Construction	Two paths to wire pull areas - one in ag field, one wooded area	N	N	F	N	11
E1	E1-WP16	Wire Pull	Cropland	N	N	F	N	11
E1	E1-WP17	Wire Pull	Disturbed shrub/tree area along abandoned RR embankment.	N	N	F	N	11
E1	E1-147198	Construction	Cropland	N	N	V	N	12
E1	E1-147199	Construction	Cropland	N	N	F	N	12
E1	E1-147200	Construction	Cropland, field access driveway.	N	N	F	N	12
E1	E1-147203	Construction	Cropland, existing gravel driveway	N	N	F	N	13
E1	E1-151	Construction	Grassy/brushy WisDOT ROW, steep embankment.	N	N	A	N	14
E1	E1-147212	Construction	Gravel driveway/ farm access	N	N	F	N	15
E1	E1-147217	Construction	Two paths to wire pull areas - both on cropfield	N	N	F	N	17
E1	E1-WP14	Wire Pull	Cropland and upland grass swale	N	N	F	N	17
E1	E1-WP15	Wire Pull	Cropland	N	N	F	N	17
E1	E1-147225	Construction	Cropland	N	N	F	Y	19
E1	E1-147226	Construction	Cropland	N	N	F	Y	19
		•	•			•	•	

E3. Segment E1 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
E1	E1-147230VM	VM	Gravel driveway	N	N		N	20
E1	E1-147239	Construction/ Permanent	Gravel driveway	N	N	F	N	23
E1	E1-147240VM	VM	Edge of gravel quarry	N	N	F	N	23, 24
E1	E1-147241	Construction/ Permanent	Gravel driveway, quarry	N	N	F	N	24
E1	E1-147243VM	VM	WisDOT ROW, cropfield	N	N	F	N	24
E1	E1-147245VM	VM	Gravel driveway, farm yard	N	N	V	N	24
E1	E1-294	Construction	Mowed lawn adjacent to substation.	N	N	Α	N	26
E1	E1-295	Construction	Gravel driveway	N	N	V	N	26
E1	E1-147251	Construction/ Permanent	Cropland	N	N	F	N	26
E1	E1-147254	Construction	Two paths through paved gas station parking lot	N	N	F	N	27
E1	E1-147255	Construction	Paved restaurant parking lot	N	N	F	N	27
E1	E1-147256	Construction	Mowed lawn	N	N	F	N	27
E1	E1-147258	Construction	Paved post office parking lot	N	N	F	N	28
E1	E1-147259		Upland grass swale in cropped field and cropped field. Crosses wetland Q-09-r at the edge of the project ROW.	Y - Temporary wetland matting included in WDNR Table 1	N	F	N	28
E1	E1-147261VM	VM	Cropped field and wetland (Q-W10)	Y - Temporary wetland matting included in WDNR Table 1	N	F/A	N	29
E1	E1-147262	Construction/ Permanent	Paved driveway, parking lot	N	N	F	Y	29
E1	E1-147263		Formly developed area in western portion. Gravel and grassy farm access in southern portion. Farm field on east side.	N	N	F	N	29
E1	E1-WP12	Wire Pull	Grassland and disturbed/graded area	N	N	F	N	29
E1	E1-WP13	Wire Pull	Cropped field and upland grass swale	N	N	F	N	29
E1	E1-X16	Construction	Gravel driveway, upland meadow and access path within X-16 ROW	N	N	F	N	X-16 Page 1

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 E1 - Dodgeville - Hill Valley F1. Waterways Crossed by the Project

Feature Unique ID	Feature Type, Name and Designation ¹	Resource Description	WBIC	Coordinates of Wate Project C		County	Waterway Characteristics	Navigability or Snowmobile Use Limitations
	Designation			Latitude	Longitude			
Q-R03	Waterway	Laxey Creek	3000077	42.971344	-90.213034	lowa	Shown on WDNR 24K hydro layer; OHWM width = 6 ft, OHWM height = 1 ft; bank width = 8 ft, bank height = 1.5 ft. Approach slope is moderate with riparian vegetation dominated by RCG and Eurasian manna grass.	Waterway is bounded by the USH 18 highway culvert north of the proposed TCSB location within the project ROW. The culvert limits the ability to use this feature for navigation or snowmobiles.
Q-R05	Waterway	Mineral Point Branch	927900	42.974376	-90.152264	lowa	Shown on WDNR 24K hydro layer; OHWM width = 20 ft, OHWM height = 3 ft; bank width = 25 ft, bank height 5 ft. Approach slope is moderate. Riparian vegetation dominated by weeping willow, Eurasian manna grass, and RCG.	Waterway is bounded by the USH 18 highway culvert north of the proposed TCSB location within the project ROW. The culvert limits the ability to use this feature for navigation or snowmobiles.
Q-R06	Waterway	UNT to Dodge Branch	5036785	42.972041	-90.12303	Iowa		north of the proposed TCSB location within the project ROW. The culvert and narrow channel limit the ability to
Q-R07A	Waterway	UNT to Dodge Branch	5036785	42.96962	-90.11483	lowa		Waterway is bounded by the USH 18 highway culvert and Bennett Road culvert north and east of the proposed TCSB location within the project ROW. The culverts and road embankments limit the ability to use this feature for navigation or snowmobiles.
Q-R07B	Waterway	UNT to Dodge Branch	5036785	42.96944	-90.11409	lowa	Shown on WDNR 24K hydro layer; OHWM width = 6 ft, OHWM height = 2 ft; bank width = 10 ft, bank height = 3 ft. Approach slope is moderate. Riparian vegetation dominated by RCG and narrow-leaved cattail.	Waterway is bounded by the USH 18 highway culvert and Bennett Road culvert north and east of the proposed TCSB location within the project ROW. The culverts and road embankments 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

Segment E1 - Waterway Photos



025_Q-R03_Laxey Creek; approach slope is moderate; associated with Q-W05-r_2020-07-01_view_N



025_Q-R03_Laxey Creek; approach slope is moderate; associated with Q-W05-r_2020-07-01_view_W



025_Q-R03_Laxey Creek; approach slope is moderate; associated with Q-W05-r_2020-07-01_view_S



035_Q-R05_Mineral Point Branch; approach slope is moderate; associated with Q-W07_2020-06-25_view_SW



036_Q-R05_Mineral Point Branch; approach slope is moderate; associated with Q-W07_2020-06-25_view_S



041_Q-R06_Approach slope is moderate; riparian wetland associated with Q-W09-r_2020-06-18_view_NE



037_Q-R05_Mineral Point Branch; approach slope is moderate; associated with Q-W07_2020-06-25_view_S





043_Q-R06_Approach slope is moderate; riparian wetland associated with Q-W09-r_2020-07-01_view_NW



046_Q-R07_Approach slope is moderate; riparian wetland associated with Q-W10_2020-07-01_view_N







048_Q-R07B_Approach slope is moderate; riparian wetland associated with Q-W10_2020-07-01_view_S



052_Q-R07B_Approach slope is moderate; riparian wetland associated with Q-W10_2020-07-01_view_W



052_Q-R07B_Approach slope is moderate; riparian wetland associated with Q-W10_2020-07-01_view_SW

Attachment K1

Revised WDNR Table 1 – Segment E1
Revised WDNR Table 1 – Segments E1, E2, and 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 segmen this table as Excel format. Any modifications or revisions to this table must be agreed upon by all parties before filling.

To be Completed by Applicant:
PSC Docket Number: 5-CE-146
Created/Revised On: 8/26/2021

Route/Site Name: Segment E1 ATC Managed Cardinal-Hill Valley

		RESOURCE I	NFORMATION									CONS	TRUCTION CF	ROSSING MET	HOD/IMPACT A	ACTIVITY										RESO	URCE IMPACT TO	OTALS	
								Waterways								٧	/etlands						RESO	URCE IMPACT LO	CATION				
Segment	Project	Wetland Type ² or	Feature	Navigability Determination	Fish Spawning Timing Restriction	Equipment	Trench 8	Plow	HDD/Bore	Other	Mania - 10		Trench	1		Plow	HDD/Bore	Bore Pits	O = 1 13	Other Temporary	Comments on Other	Permanent Structure/Fill		Latitude	Longitude	Temporary Wetland Fill	Permanent Wetland Fill	Wetland Conversion 18	Comments
Cogmon	Component ¹	Waterway Name ³	Unique ID ⁴	Requested ⁵	Waiver Requested	Crossing Method ⁷	(indicate length and width of trench in feet)	Plow (yes/no)	(yes/no)	Activities 9	Matting 16 (square feet)	Trench 8 (indicate length and width of trench in feet)	Trench (square feet)	Location of Spoils ¹¹	Wetland Spoils ¹² (square feet)	(yes/no)	(yes/no)	(square feet)	Grading 13 (square feet)	impact ¹⁴ (square feet)	Temporary Impact ¹⁵	Placement (square feet) 16	County	Coordinates 17	Coordinates 17	(square feet)	(square feet)	(square feet)	
Wetlands								-	-	-		,			-					1	1		l					■	
Segment E1	Transmission line ROW	Wet Meadow	Q-W01a-n	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1,625					No	No					-	lowa	42.966187	-90.400283	1,625	-	0	
Segment E1	Transmission line ROW	Wet Meadow	Q-W01	N/A	N/A	N/A	N/A	N/A	N/A	N/A	32,030					No	No					95	lowa	42.968562	-90.340210	32,030	95	0	
Segment E1	Transmission line ROW	Wet Meadow	Q-W03-r	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3,110					No	No						lowa	42.969997	-90.326084	3,110		0	
Segment E1	Transmission line ROW	Wet Meadow	Q-W03a	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4,310					No	No						lowa	42.969668	-90.326396	4,310		0	
Segment E1	Transmission line ROW	Wet Meadow	Q-W04	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5,100					No	No						lowa	42.968389	-90.322136	5,100		0	
Segment E1	Transmission line ROW	Wet Meadow	Q-W05-r	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2,000					No	No						lowa	42.971465	-90.213031	2,000		0	
Segment E1	Transmission line ROW	Wet Meadow	Q-W06-r-WM	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1,155					No	No						lowa	42.974334	-90.161770	1,155		0	
Segment E1	Transmission line ROW	Shrub carr	Q-W06-r-SC	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1,155					No	No						lowa	42.974334	-90.161770	1,155		740	
Segment E1	Transmission line ROW	Wet Meadow / Sedge Meadow	Q-W07	N/A	N/A	N/A	N/A	N/A	N/A	N/A	6,180					No	No						lowa	42.974362	-90.152547	6,180		0	
Segment E1	Transmission line ROW	Wet Meadow	Q-W09-r	N/A	N/A	N/A	N/A	N/A	N/A	N/A	30,880					No	No					95	lowa	42.971952	-90.122939	30,880	95	0	
Segment E1	Transmission line ROW	Wet Meadow / Sedge Meadow	Q-W10-WM	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4,000					No	No						lowa	42.969585	-90.114384	4,000			
Segment E1	Transmission line ROW	Hardwood Swamp	Q-W10-HS	N/A	N/A	N/A	N/A	N/A	N/A	N/A	6,450					No	No						lowa	42.969585	-90.114384	6,450		19,250	
Segment E1	Transmission line ROW	Wet Meadow / Sedge Meadow	Q-W11	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4,650					No	No						lowa	42.968825	-90.112679	4,650		0	
									Wetland I	npact Totals:	102,645	N/A	0	N/A	0	N/A	N/A	0	0	0	N/A	190	N/A	N/A	N/A	102,645	190	19,990	N/A
Waterways	Transmission line		1				T					1	1					1	1	1	1	1	1		1				
Segment E1	ROW Transmission line	Laxey Creek	Q-R03	No	Yes	TCSB	N/A	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	N/A	lowa	42.971344	-90.213034	N/A	N/A	N/A	
Segment E1	ROW	Mineral Point Branch	Q-R05	No	Yes	TCSB	N/A	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	N/A	lowa	42.974376	-90.152264	N/A	N/A	N/A	
Segment E1	RUW	UNT to Dodge Branch	Q-R06	No	Yes	TCSB	N/A	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	N/A	lowa	42.972041	-90.123030	N/A	N/A	N/A	
Segment E1	NOW	UNT to Dodge Branch	Q-R07-1	No	Yes	TCSB	N/A	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	N/A	lowa	42.969620	-90.114830	N/A	N/A	N/A	
Segment E1	Transmission line ROW	UNT to Dodge Branch	Q-R07-2	No	Yes	TCSB	N/A	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	N/A	lowa	42.969440	-90.114090	N/A	N/A	N/A	

Footnotes (the applicant can add additional footnotes for additional explanation, but an applicant cannot modify existing footnotes 1-18):

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).

Insert the name or label used in application (e.g. W-3, S-27). For wetland complexes, individual wetland types should each be listed in a separate row to indicate each wetland type, but be named to clearly show they are part of a larger complex (e.g. if complex W-3 is composed of 3 wetland types, each type 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 carry). For waterways, 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 identified waterways. For waterways that parallel the ROW and meander in and out of the ROW, a 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 trayersed by equipment (i.e. placement of TCSB's, driving on the bed, placement of temporary culvert, placement of permanent culvert, placement of ford. lacement of permanent bridge, use of existing ford/culvert/bridge, etc.).

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

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

1 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 nats, include the stockpile matting area under the matting column.

³ 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.

4Use 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

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.

16 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 not be included in this column.

DNR Table 1: Wetland and Waterway Impact/Crossing Table

<u>Directions</u>: 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.

To be Completed by Applicant:
PSC Docket Number: 5-CE-146
Created/Revised On: 8/26/2021
Route/Site Name: ATC Managed Cardinal-Hill Valley Segments E1, E2, and E3

		RESOURCE INF		,		CONSTRUCTION CROSSING METHOD/IMPACT ACTIVITY												VITY								LIDCE IMPACT TO	SIATO		
		RESOURCE INF	ORMATION	1				Waterways					CONSTRUC	TION CROSSING WI	ETHOD/IMPACT ACTIV	Wetlands	3						RESOUR	CE IMPACT L	OCATION	RESU	URCE IMPACT TO	TALS	
					Fish Spawning									Trench															
Segment	Project	Wetland Type ² or	Feature 10.4	Navigability Determination	Timing Restriction Waiver Requested		Trench 8 (indicate length	Plow H	HDD/Bore O	ther Activities	Matting 10				T.	Plow	HDD/Bore	Bore Pits	Grading 13	Other Temporary	Comments on Other			Latitude	Longitude	Temporary Wetland Fill	Permanent Wetland Fill	Wetland Conversion ¹⁸	Comments
-	Component 1	Waterway Name ³	Unique ID ⁴	Requested ⁵	6 6	Crossing Method ⁷	and width of trench in feet)		(yes/no)	9	(square feet)	Trench 8 (indicate length and	Trench	Location of Spoils	Wetland Spoils 12	(yes/no)	(yes/no)	(square feet)	(square feet)	impact 14 (square feet)	Temporary Impact	Placement (square feet) 16	County	Coordinates 13	Coordinates 17	(square feet)	(square feet)	(square feet)	
							trencir in reet)					width of trench in feet)	(square feet)	11	(square feet)					(square reet)		(Square reet)							
Wetlands											l .	1001)										I							
Segment E1	Transmission line ROW	Wet Meadow	Q-W01a-n	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1,625					No	No					-	Iowa	42.966187	-90.400283	1,625	-	0	
Segment E1	ROW	Wet Meadow	Q-W01	N/A	N/A	N/A	N/A	N/A	N/A	N/A	32,030					No	No					95	Iowa	42.968562	-90.340210	32,030	95	0	
Segment E1	ROW	Wet Meadow	Q-W03-r	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3,110					No	No						Iowa	42.969997	-90.326084	3,110		0	
Segment E1	ROW Transmission line	Wet Meadow	Q-W03a	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4,310					No	No						Iowa	42.969668	-90.326396	4,310		0	
	ROW Transmission line	Wet Meadow	Q-W04	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5,100					No	No						Iowa	42.968389	-90.322136	5,100		0	
Segment E1	ROW	Wet Meadow Wet Meadow	Q-W05-r	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2,000					No	No						Iowa	42.971465	-90.213031	2,000		0	
Segment E1	ROW Transmission line	Wet Meadow Shrub carr	Q-W06-r-WM Q-W06-r-SC	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	1,155 1,155	***				No No	No No						Iowa	42.974334 42.974334	-90.161770 -90.161770	1,155		740	
Segment E1	ROW	Wet Meadow / Sedge	Q-W06-r-SC	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	6,180				***	No No	No No						Iowa	42.974334	-90.152547	6,180		0	
Segment E1	Transmission line	Meadow Wet Meadow	Q-W07	N/A	N/A	N/A	N/A	N/A	N/A	N/A	30.880					No	No					95	lowa	42.974362	-90.152547	30,880	95	0	
Segment E1	Transmission line	Wet Meadow / Sedge	Q-W10-WM	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4,000					No	No						lowa	42.969585	-90.122939	4,000		0	
Segment E1	Transmission line	Meadow Hardwood Swamp	Q-W10-HS	N/A	N/A	N/A	N/A	N/A	N/A	N/A	6,450					No	No						Iowa	42.969585	-90.114384	6,450		19,250	
Segment E1	Transmission line	Wet Meadow / Sedge	Q-W11	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4,650					No	No						Iowa	42.968825	-90.112679	4,650		0	
Segment E2	Transmission line	Meadow Shrub-Carr	S-W02	N/A	N/A	N/A	N/A	N/A	N/A	N/A	430					No	No						Iowa	42.996829	-89.984049	430		520	
Segment E2	Access Route		S-W02b-n	N/A	N/A	N/A	N/A	N/A	N/A	N/A	6,000	***				No	No						Iowa	42.999891	-89.980134	6,000		0	
Segment E2	ROW	Wet Meadow	S-W02a-n	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4,750					No	No						Iowa	43.009956	-89.926067	4,750		0	
Segment E2	Transmission line	Wet Meadow	S-W03-r	N/A	N/A	N/A	N/A	N/A	N/A	N/A	540					No	No						Iowa	43.008618	-89.904555	540		0	
	Transmission line	Shrub-Carr	S-W04	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2,010					No	No						Iowa	43.008536	-89.899448	2,010		2,010	
Segment E2	ROW	Wet Meadow	S-W05-r	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1,360					No	No						Iowa	43.009177	-89.897613	1,360		0	
Segment E2	ROW	Wet Meadow	S-W06	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3,000					No	No						Iowa	43.00995	-89.888976	3,000		0	
	ROW Transmission line	Wet Meadow	S-W07-r	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2,170					No	No						Iowa	43.009183	-89.867764	2,170		0	
Segment E2	ROW Transmission line	Wet Meadow	S-W08-r	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1,390					No	No						lowa .	43.009256	-89.850253	1,390		0	
Segment E2	ROW Transmission line	Wet Meadow	S-W09	N/A N/A	N/A N/A	N/A N/A	N/A	N/A	N/A	N/A N/A	1,250	***				No	No No						Iowa	43.009673	-89.843619	1,250		0	
Segment E2 Segment E2	ROW	Shrub-Carr Hardwood Swamp	S-W10-r-SC S-W10-r-HS	N/A N/A	N/A	N/A	N/A N/A	N/A N/A	N/A N/A	N/A	7,380 1,400					No No	No No						Dane Dane	43.009732 43.009732	-89.837111 -89.837111	7,380 1,400		2,100	
Segment E2	Transmission line	Wet Meadow	S-W10-1-FIS	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1,780					No	No						Dane	43.009732	-89.830160	1,780		0	
Segment E2	ROW Transmission line	Wet Meadow	S-W12-r	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2,280					No	No						Dane	43.009882	-89.820170	2,280		0	
Segment E2	ROW Transmission line	Hardwood Swamp	S-W13-r-HS	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2,980					No	No						Dane	43.009917	-89.801877	2,980		7,730	
Segment E2	Transmission line	Wet Meadow	S-W14	N/A	N/A	N/A	N/A	N/A	N/A	N/A	410					No	No						Dane	43.009844	-89.796629	410		0	
Segment E2	ROW Transmission line	Wet Meadow	S-W15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	660					No	No						Dane	43.006386	-89.782712	660		0	
Segment E2	Transmission line	Shrub-Carr	S-W16	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2,700					No	No						Dane	42.996922	-89.752511	2,700		4,690	
Segment E2	Transmission line	Shrub-Carr	S-W17-SC	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5,420					No	No						Dane	42.994652	-89.747912	5,420		11,570	
Segment E2	Transmission line	Hardwood Swamp	S-W17-HS	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4,200					No	No						Dane	42.994652	-89.747912	4,200		7,000	
Segment E2	Tranemieeion line	Shrub-Carr	S-W18	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2,080					No	No						Dane	42.992082	-89.736995	2,080		3,260	
Segment E2	Transmission line	Shrub-Carr	S-W19	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1,770					No	No						Dane	42.997097	-89.719123	1,770		1,380	
Seamont E3	Transmission line	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 ROW	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 ROW	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 ROW		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 Flooded Basin	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 ROW	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	Transmission line ROW	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	Transmission line ROW	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	
	Transmission line ROW		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	
Segment E3	Transmission line ROW	Wet Meadow	V-W01-r-WM	N/A	N/A	N/A	N/A	N/A	N/A	N/A	20,000					No	No					95	Dane	43.056515	-89.67682	20,000	95	0	
Segment E3	Transmission line ROW	Shallow marsh	V-W01-r-SHM	N/A	N/A	N/A	N/A	N/A	N/A	N/A	12,600					No	No						Dane	43.056515	-89.67682	12,600		0	
		Shallow 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		0	
	ROW Transmission line	wotland	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	
	Transmission line ROW Transmission line		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 ROW	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	

Math	I IT.	anamianian lina	į.	1	1			1	1	1		1	i	1 1	ı	1	1	1	1	ĺ	1	1	l I	1	1	1	1		i
Fig. Property of the content of	Ter	anemiceion lina																											
March Marc	Segment E3 RC	OW		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			
Column C	RO	OW	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	
Column	RO	OW	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	
Column	Segment E3 RC	OW	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	
No. Column Colu			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	
Part			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	
Part	Segment E3	ansmission line	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	
March Marc			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	
Part			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	
Mart	Segment E3	ansmission line	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	
March Marc	Segment F3	ansmission line	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	
Second Part Part	Segment F3	ansmission line	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	
Property Property	Segment E3	ansmission line				N/A					N/A																	9366	
Column C	Segment F3	ansmission line	Shallow Marsh	Y-W08-SHM		N/A																		43.093669	89.576161				
Part	Segment F3	ansmission line																											
Part	T	anemiceion line																											
Part	RO	OW																											
Part	T-	JVV	-																										
Part	RO	OW																											
Part				Y-VV05	N/A	N/A	N/A	N/A	N/A			-						1									475		NI/Δ
Part	Waterways		Ţ	Ţ.						vvetianu ii	iipact Totais.	407,073	IVA	Ü	IWA	0	IN/A	IN/A	U	0	0 IVA	4/3	IN/A	N/A	IN/A	407,075	473	119,003	IN/A
Marie Mari	Segment E 1 RC	OW	Laxey Creek	Q-R03	No	Yes	TCSB	N/A	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	N/A	Iowa	42.971344	90.213034	N/A	N/A	N/A	
Marie			Mineral Point Branch	Q-R05	No	Yes	TCSB	N/A	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	N/A	Iowa	42.974376	90.152264	N/A	N/A	N/A	1
Martin	Segment E1 Tra	ansmission line DW	UNT to Dodge Branch	Q-R06	No	Yes	TCSB	N/A	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	N/A	Iowa	42.972041	90.123030	N/A	N/A	N/A	
Part	Segment E1	ansmission line	UNT to Dodge Branch	Q-R07-1	No	Yes	TCSB	N/A	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	N/A	Iowa	42.969620	90.114830	N/A	N/A	N/A	
Column C	Segment F1	ansmission line	UNT to Dodge Branch	Q-R07-2	No	Yes	TCSB	N/A	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	N/A	Iowa	42.969440	90.114090	N/A	N/A	N/A	
Part			UNT to Dodge Branch	S-R02	No	Yes	TCSB	N/A	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	N/A	Iowa	42.986680	90.069860	N/A	N/A	N/A	
Page 12 Page 12 Page 13 Page 14 Page	Segment F2 Tra	ansmission line	UNT to Smith Conley Creek	S-R03A	No	Yes		N/A	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	N/A	Iowa	42.993940	89.986800	N/A	N/A	N/A	
Second	Segment E2 Tra	ansmission line	UNT to Smith Conley Creek	S-R06	No	Yes		N/A	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	N/A	Iowa	42.996840	89.984100	N/A	N/A	N/A	
Part	Segment E2 Tra	ansmission line DW	UNT to Smith Conley Creek	S-R07	No	Yes	TCSB	N/A	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	N/A	Iowa	43.000620	89.980130	N/A	N/A	N/A	
			UNT to Smith Conley Creek	S-R07A	No	Yes	TCSB	N/A	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	N/A	Iowa	42.997900	89.980270	N/A	N/A	N/A	
Second Column	Segment E2 RO	OW		S-R07B	No	Yes	TCSB	N/A	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	N/A	Iowa	42.996500	89.980250	N/A	N/A	N/A	
Part	Segment E2 Tra	ansmission line	UNT to Smith Conley Creek	S-R07C	No	Yes	TCSB	N/A	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	N/A	Iowa	42.995640	89.980540	N/A	N/A	N/A	
Page				S-R11	No	Yes	TCSB	N/A	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	N/A	Iowa	43.009220	89.897656	N/A	N/A	N/A	
	Segment E2 Tra	ansmission line		S-R14	No	No	Avoid / Existing	N/A	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	N/A	lowa	43.010024	89 879159	N/Δ	N/A	N/A	
Column C	KC			01114	110		Culvert	1471	110	110		1071		10/1	1071	1071	10/1	1071			10/1	10/1	101114	40.010024	00.070100	1071	1471		
Second Column Second Colum	Segment E2 RO	WC	Pecatonica River	S-R15	No	Yes	TCSB	N/A	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	N/A	Iowa	43.009522	89.872913	N/A	N/A	N/A	
Column C	RO	OW	Pecatonica River	S-R16	No	Yes	TCSB	N/A	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	N/A	Iowa	43.009150	89.867769	N/A	N/A	N/A	
Part	RO	OW	Creek	S-R17	No	Yes	TCSB	N/A	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	N/A	Iowa	43.008808	89.858788	N/A	N/A	N/A	
Part			UNT to Williams-Barneveld Creek	S-R18	No	Yes	TCSB	N/A	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	N/A	Iowa	43.009620	89.842850	N/A	N/A	N/A	
Part				S-R19	No	Yes	TCSB	N/A	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	N/A	Iowa	43.009644	89.841213	N/A	N/A	N/A	
Page	Segment E2 Tra	ansmission line DW	Williams-Barneveld Creek	S-R20	No	Yes	TCSB	N/A	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	N/A	Dane	43.009790	89.836953	N/A	N/A	N/A	
Part Continue Co	Segment E2 Tra	ansmission line DW	UNT to Gordon Creek	S-R22	No	Yes	TCSB	N/A	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	N/A	Dane	43.009886	89.820175	N/A	N/A	N/A	
Page-148 Page-148				S-R23	No	Yes	TCSB	N/A	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	N/A	Dane	43.009835	89.812342	N/A	N/A	N/A	
Segrett Transference Transfere	Segment E2	ansmission line	UNT to Gordon Creek	S-R24	No	Yes	TCSB	N/A	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	N/A	Dane	43.009924	89.801878	N/A	N/A	N/A	
Segret 12 Segret 13 Segret 14 Segret 15 Segr	Segment E2	ansmission line	Gordon Creek	S-R25	No	Yes	TCSB	N/A	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	N/A	Dane	43.009832	89.799927	N/A	N/A	N/A	
Segent 2 Segent 3 Segent 3 Segent 3 Segent 4 Segent 5 Segent 5	Segment E2 Tra	ansmission line DW	UNT to Gordon Creek	S-R26	No	Yes	TCSB	N/A	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	N/A	Dane	43.009829	89.796639	N/A	N/A	N/A	
	Segment E2	ansmission line	West Branch Sugar River	S-R28	No	Yes	TCSB	N/A	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	N/A	Dane	42.995090	89.748727	N/A	N/A	N/A	
Segence 1 Segence 2 Segence 3 Segence 3 Segence 4 Sege	Segment E2 Tra	ansmission line	UNT to West Branch Sugar River	S-R29	No	Yes	TCSB	N/A	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	N/A	Dane	42.993895	89.746447	N/A	N/A	N/A	
Segment Same Total Processes Total Process	Segment E2	ansmission line DW	Fryes Feeder	S-R33	No	No	TCSB	N/A	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	N/A	Dane	43.002390	89.707230	N/A	N/A	N/A	
Segret S Transmission File Segret S Transmission File Segret S Transmission File Segret S Transmission File Segret S Segret S	Segment E3 Tra	ansmission line	UNT to Fryes Feeder	U-R01	No	Yes	TCSB	N/A	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	N/A	Dane	43.00396	89.700416	N/A	N/A	N/A	
Segment E Functions from the Composition of the	Commont E2 Tra	ansmission line	Schalpbach Creek	T-R01a	No	No	Existing Culvert	N/A	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	N/A	Dane	43.013612	89.702759	N/A	N/A	N/A	
Former F	Segment E3	ansmission line	UNT to Sugar River																										
Former Segment Each Former Eac	Segment E3	ansmission line	UNT to Sugar River					N/A							N/A		N/A												
Segment 23 Transmission Income 15 Former 15 Fo	Segment E3	ansmission line	UNT		-																								
Segment E Segm	Sogmont E2 Tra	ansmission line		X-R01																									
Segment E3 Transision in Row Segment E3 Transision in Row	Segment F3	ansmission line	Black Farth Creek																										
Segment E3 Tansmission line RoW Segment E3 Tansmission line	Segment E3	ansmission line	Black Farth Creek																										
Segment E3 Tarsmission line ROW Segment E3 Tarsmission line	Segment E2 Tra	OW ansmission line	Black Earth Creek																										
Segment E3 Tansmission line ROW Segment E3 Tansmission line	Commont E2 Tra	ansmission line																											
Segment E3 Transmission line Black Earth Creek Y-RO4 No Yes TCSB N/A No No N/A	Segment E3 RC	DW ansmission line	Diack Earth Creek																										
Segment E3 Transmission line Black Earth Creek Z-R01b No Yes TCSB N/A No No N/A N/A	Segment E3 RC	OW ansmission line	Black Earth Creek																										
Segment E3 Transmission line Black Earth Creek Z-R01 No Yes TCSB N/A No No N/A	Segment E3	OW ansmission line	Black Earth Creek																										
Segment E3 ROW Black Earth Creek Z-R01 No Yes TCSB N/A No No N/A N	Segment E3	OW ansmission line	Black Earth Creek																										
Segment E3 Total	Segment E3	OW anemiesias = -	Black Earth Creek																										
	Segment E3 RC	ansmission line DW	UNT	Z-R01c-n	No	Yes	TCSB	N/A	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	N/A	Dane	43.091184	89.586263	N/A	N/A	N/A	

Footnotes (the applicant can add additional footnotes for additional explanation, but an applicant cannot modify existing footnotes 1-18):

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).

Insert the name or label used in application (e.g. W-3, S-27). For wetland complexes, individual wetland types should each be listed in a separate row to indicate each wetland type, but be named to clearly show they are part of a larger complex (e.g. if complex W-3 is composed of 3 wetland types, each type 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 waterways, 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 identified waterways. For waterways that parallel the ROW and meander in and out of the ROW, a 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.

S 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 ff construction matting (e.g. timber, composite, etc.) will be placed in wetland for vehicle/equipment access or under soil stockpiles-rindicate the area (length by width) of matting to be placed in wetland (temporary

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 not 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

<u>Project name:</u> Cardinal - Hickory Creek 345 kV Transmission Line Project

Segment E1 – Dodgeville to Hill Valley

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 5 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
Additio	onal comments:
Signed	by:

Segment E1 - Dodgeville - Hill Valley F1. Waterways Crossed by the Project

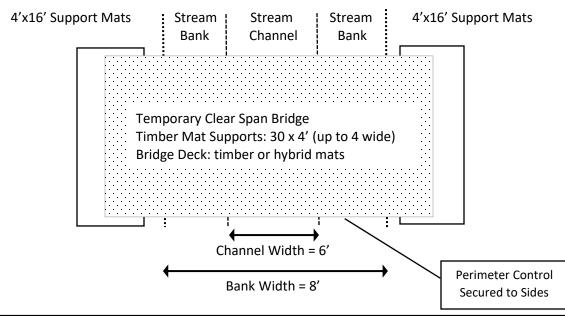
Feature Unique ID	Feature Type, Name and Designation ¹	Resource Description	WBIC	Coordinates of Wate Project C		County	Waterway Characteristics	Navigability or Snowmobile Use Limitations
	Designation			Latitude	Longitude			
Q-R03	Waterway	Laxey Creek	3000077	42.971344	-90.213034	lowa	Shown on WDNR 24K hydro layer; OHWM width = 6 ft, OHWM height = 1 ft; bank width = 8 ft, bank height = 1.5 ft. Approach slope is moderate with riparian vegetation dominated by RCG and Eurasian manna grass.	Waterway is bounded by the USH 18 highway culvert north of the proposed TCSB location within the project ROW. The culvert limits the ability to use this feature for navigation or snowmobiles.
Q-R05	Waterway	Mineral Point Branch	927900	42.974376	-90.152264	lowa	Shown on WDNR 24K hydro layer; OHWM width = 20 ft, OHWM height = 3 ft; bank width = 25 ft, bank height 5 ft. Approach slope is moderate. Riparian vegetation dominated by weeping willow, Eurasian manna grass, and RCG.	Waterway is bounded by the USH 18 highway culvert north of the proposed TCSB location within the project ROW. The culvert limits the ability to use this feature for navigation or snowmobiles.
Q-R06	Waterway	UNT to Dodge Branch	5036785	42.972041	-90.12303	Iowa		north of the proposed TCSB location within the project ROW. The culvert and narrow channel limit the ability to
Q-R07A	Waterway	UNT to Dodge Branch	5036785	42.96962	-90.11483	lowa		Waterway is bounded by the USH 18 highway culvert and Bennett Road culvert north and east of the proposed TCSB location within the project ROW. The culverts and road embankments limit the ability to use this feature for navigation or snowmobiles.
Q-R07B	Waterway	UNT to Dodge Branch	5036785	42.96944	-90.11409	lowa	Shown on WDNR 24K hydro layer; OHWM width = 6 ft, OHWM height = 2 ft; bank width = 10 ft, bank height = 3 ft. Approach slope is moderate. Riparian vegetation dominated by RCG and narrow-leaved cattail.	Waterway is bounded by the USH 18 highway culvert and Bennett Road culvert north and east of the proposed TCSB location within the project ROW. The culverts and road embankments limit the ability to use this feature for navigation or snowmobiles.

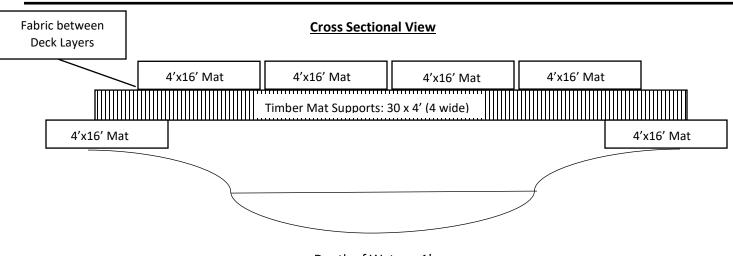
¹ Designated features refers to waterways considered to be Areas of Special Natural Resource Interest (ASNRI) per NR 103.04

Segment: E1 Waterway: Q-R03

Nearest Structure: 147230

Plan View





Depth of Water = 1' Height of Bank = 1.5'

- 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: E1 Waterway: Q-R05

Nearest Structure: 147248

Plan View 4'x16' Support Mats 4'x16' Support Mats Stream : Stream Stream Bank Channel Bank Temporary Clear Span Bridge Engineered Steel Deck: 36' long x 16' wide Bridge Deck: Steel grate covered with plywood Channel Width = 20' **Perimeter Control** Bank Width = 25' Secured to Sides Plywood deck with **Cross Sectional View** containment fabric Engineered Steel Deck 36' long 4'x16' Mat 4'x16' Mat

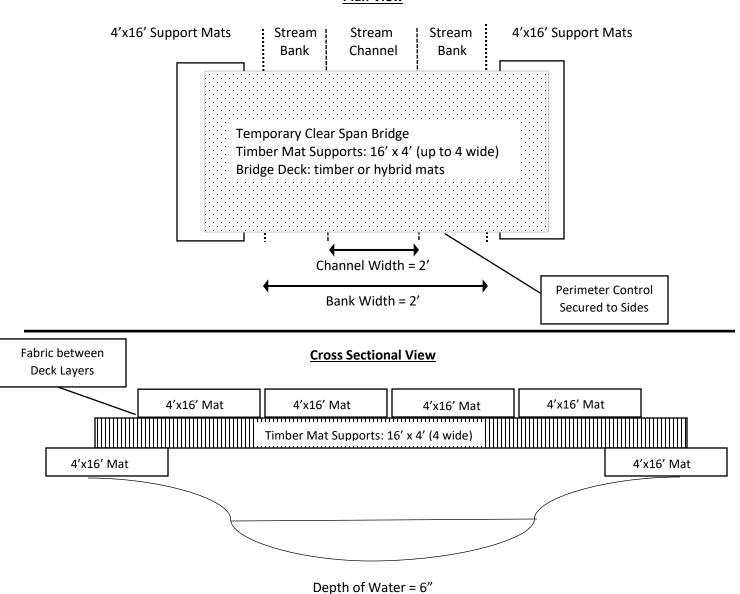
- Drawings are not to scale
- TCSB will be secured to a fixed anchor
- Sediment Controls: Plywood deck and geotextile fabric installed on top of steel grate. Sediment logs placed along the sides for perimeter control.

Depth of Water = 3' Height of Bank = 5'

Segment: E1 Waterway: Q-R06

Nearest Structure: 147259

Plan View

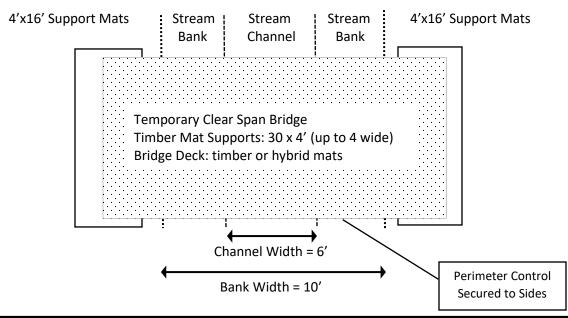


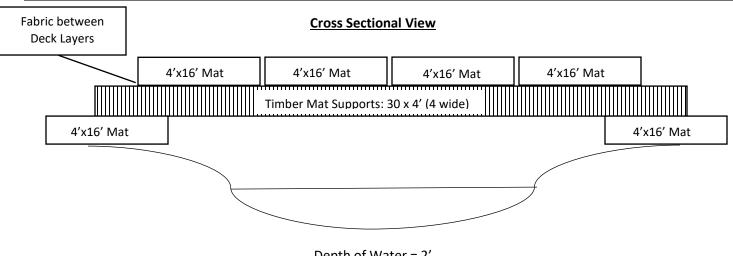
- Drawings are not to scale
- TCSB will be secured to a fixed anchor
- Sediment Controls: Perimeter control (silt fence or sediment logs) along the sides; geotextile filter fabric between the deck layers.

Height of Bank = 1'

Segment: E1 Waterway: Q-R07A Nearest Structure: 147261

Plan View



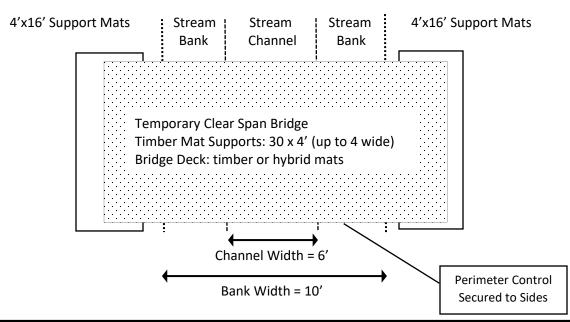


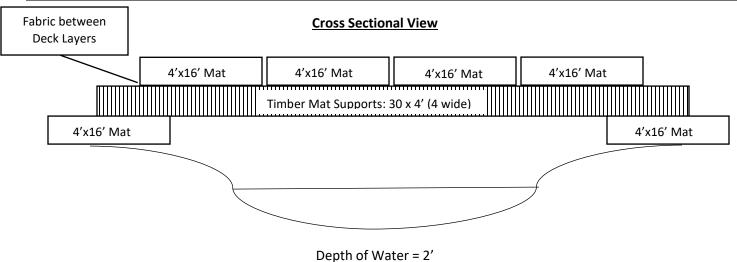
Depth of Water = 2' Height of Bank = 3'

- 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: E1 Waterway: Q-R07B Nearest Structure: 147261

Plan 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.

Height of Bank = 3'

Segment E1 - Waterway Photos



025_Q-R03_Laxey Creek; approach slope is moderate; associated with Q-W05-r_2020-07-01_view_N



025_Q-R03_Laxey Creek; approach slope is moderate; associated with Q-W05-r_2020-07-01_view_W



025_Q-R03_Laxey Creek; approach slope is moderate; associated with Q-W05-r_2020-07-01_view_S



035_Q-R05_Mineral Point Branch; approach slope is moderate; associated with Q-W07_2020-06-25_view_SW



036_Q-R05_Mineral Point Branch; approach slope is moderate; associated with Q-W07_2020-06-25_view_S



041_Q-R06_Approach slope is moderate; riparian wetland associated with Q-W09-r_2020-06-18_view_NE



037_Q-R05_Mineral Point Branch; approach slope is moderate; associated with Q-W07_2020-06-25_view_S





043_Q-R06_Approach slope is moderate; riparian wetland associated with Q-W09-r_2020-07-01_view_NW



046_Q-R07_Approach slope is moderate; riparian wetland associated with Q-W10_2020-07-01_view_N







048_Q-R07B_Approach slope is moderate; riparian wetland associated with Q-W10_2020-07-01_view_S



052_Q-R07B_Approach slope is moderate; riparian wetland associated with Q-W10_2020-07-01_view_W



052_Q-R07B_Approach slope is moderate; riparian wetland associated with Q-W10_2020-07-01_view_SW

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. The final section provides a description of the reporting for the post-construction 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 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.

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

Scientific Name	Common Name	Installation Timing	Installation Rate w/o Permanent Seed (lbs/acre)
Avena sativa	Common Oats	Mid-April-August	80.00
Lolium multiflorum	Annual Rye	Year Round⁴	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.

 $^{^{\}rm 3}$ 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.

⁵ August-September preferred for winter wheat but may be used as dormant seeding as seed will overwinter and germinate in the spring.

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.

⁴ August-September preferred for winter wheat but may be used as dormant seeding as seed will overwinter and germinate in the spring.

Hybrid Stabilization Mix^{1,2,3}

Scientific Name	Common Name		oz/acre	lbs/acre			
Grasses	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			
Trifolium pratense 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).

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	Common Name	mstanation rinning	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.

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.

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.

⁴ August-September preferred for winter wheat but may be used as dormant seeding as seed will overwinter and germinate in the spring.

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
	Т	otal	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).

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	Common Name	installation filling	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 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 lowa 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).

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.

⁴ August-September preferred for winter wheat but may be used as dormant seeding as seed will overwinter and germinate in the spring.

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).

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	Common Name	installation filling	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.

 $^{^2}$ Seed 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.

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.

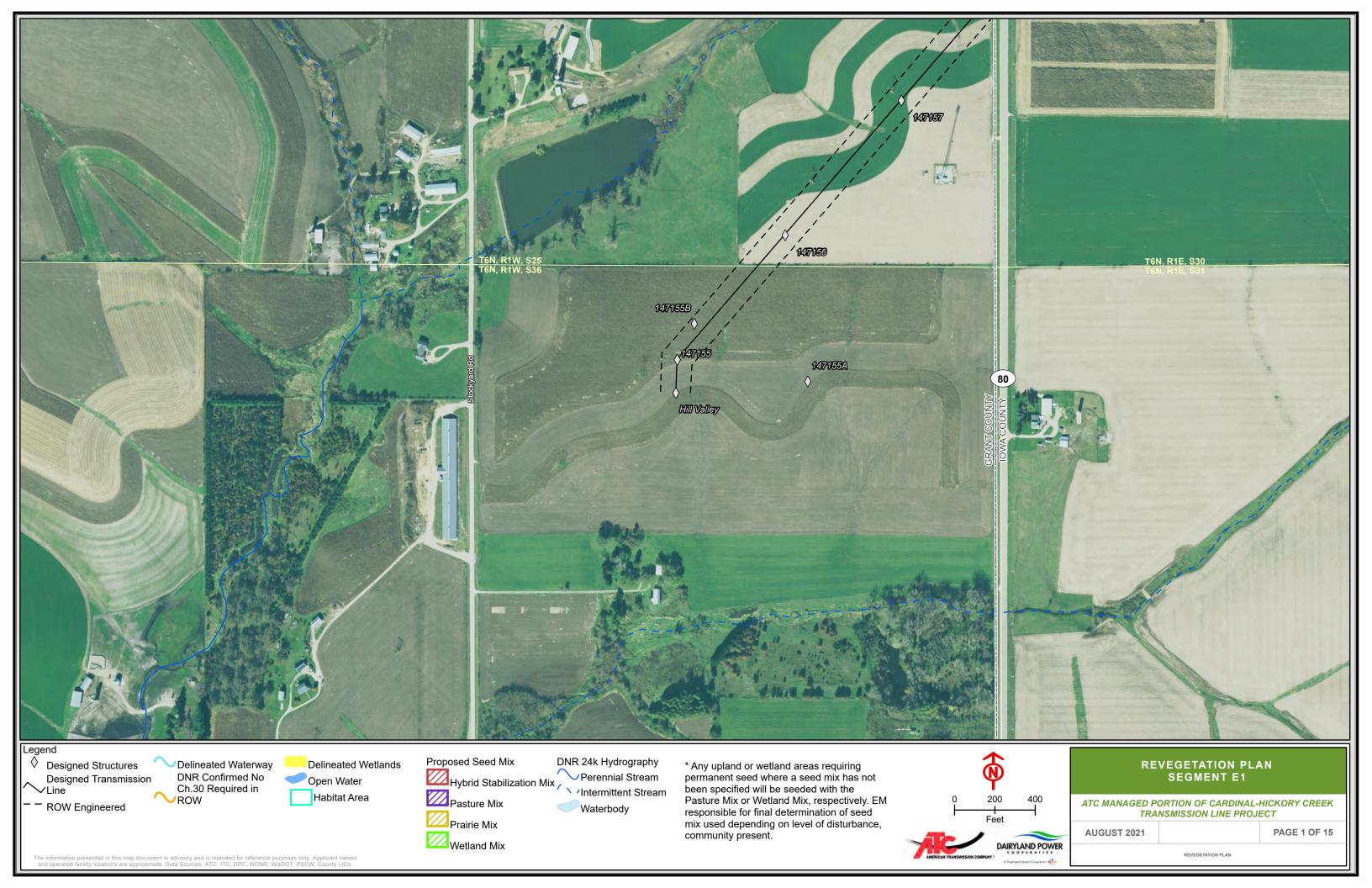
⁴ August-September preferred for winter wheat but may be used as dormant seeding as seed will overwinter and germinate in the spring.

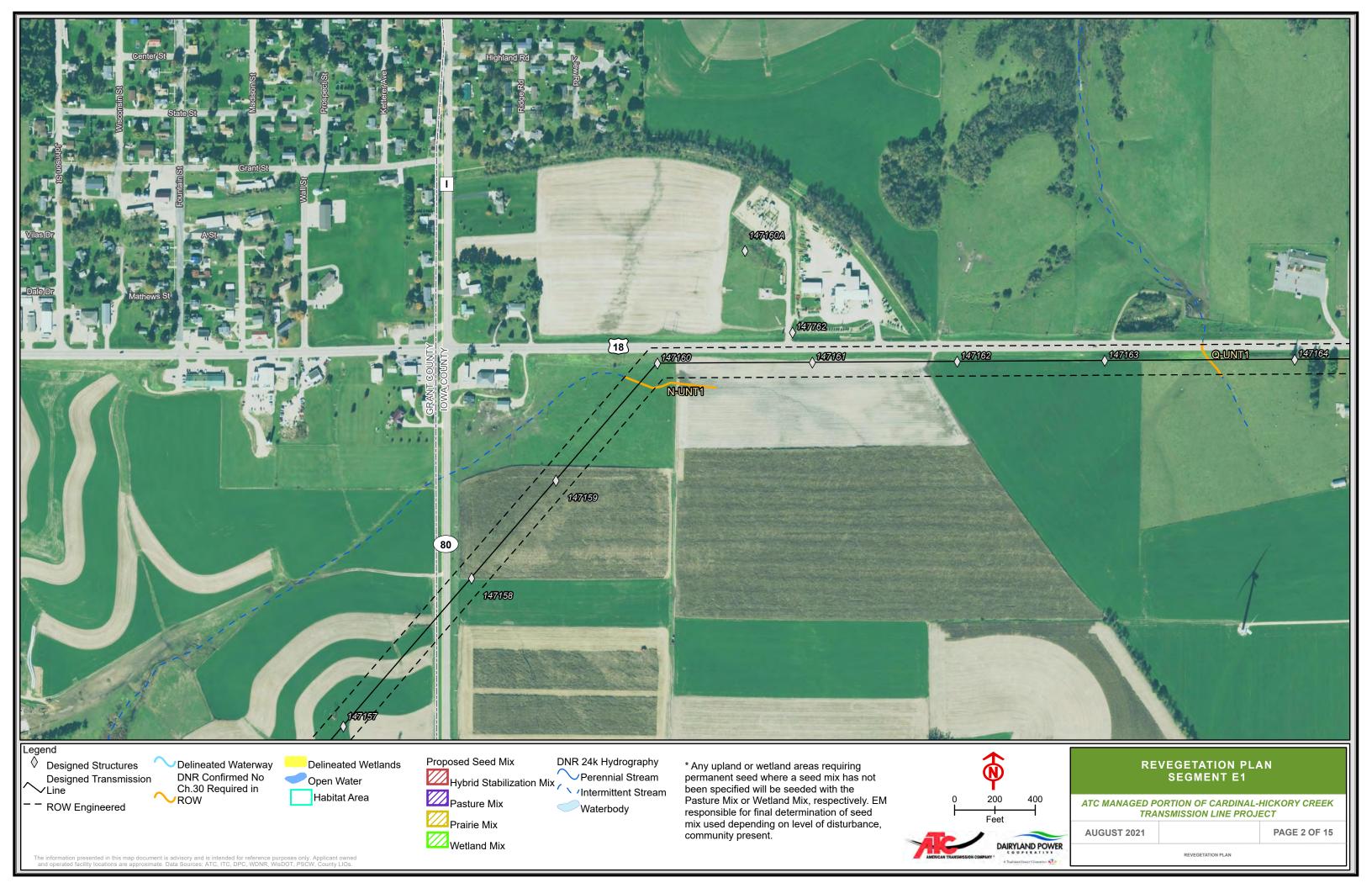
Cardinal-Hickory Creek 345kV Transmission Line Project Revegetation and Monitoring Plan

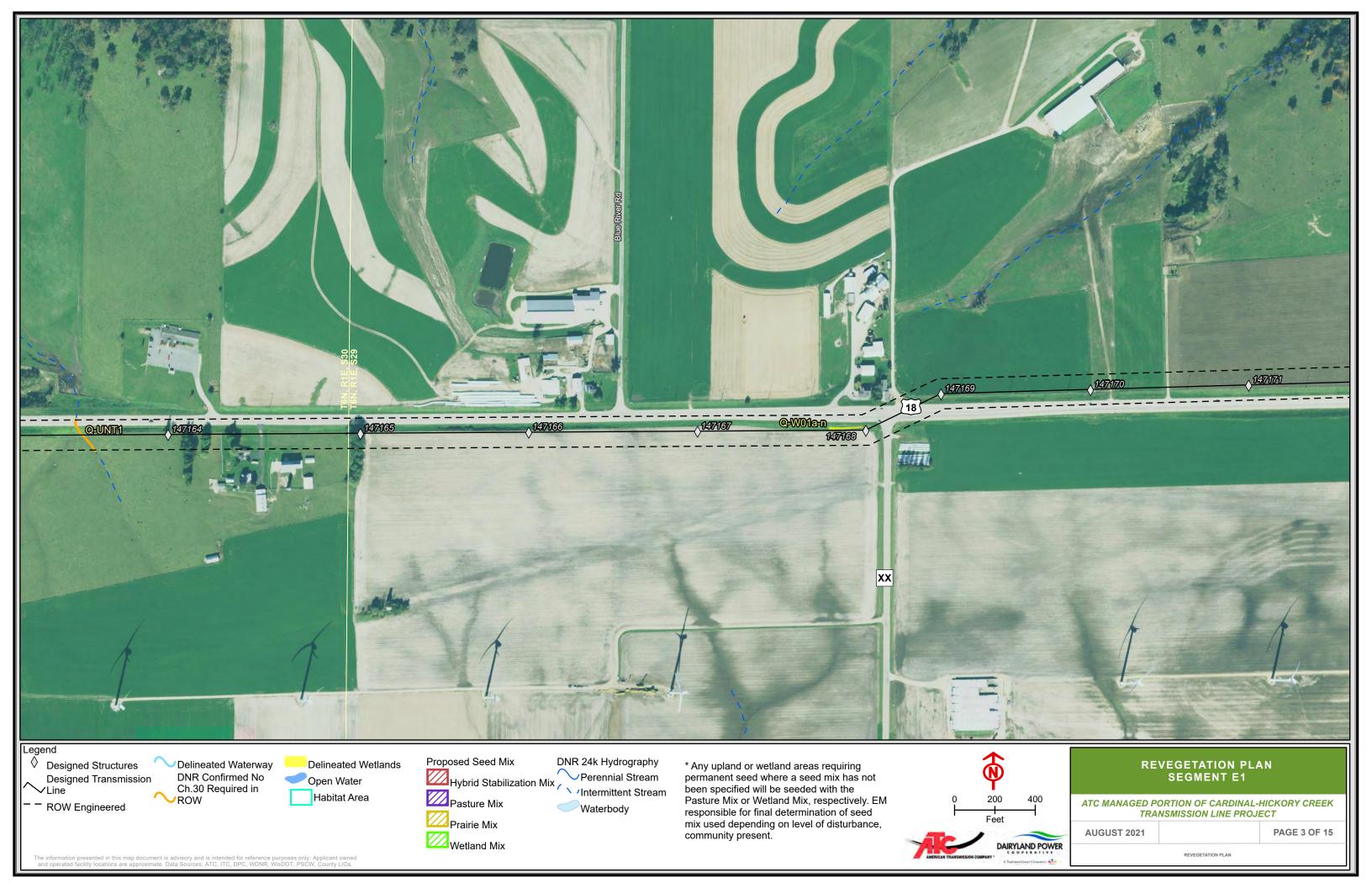
CHC Segment E1. Areas of Proposed Pollinator Enhanced or Wetland Seed Mixes, Community Conversion, or that Require Additional Consultation¹

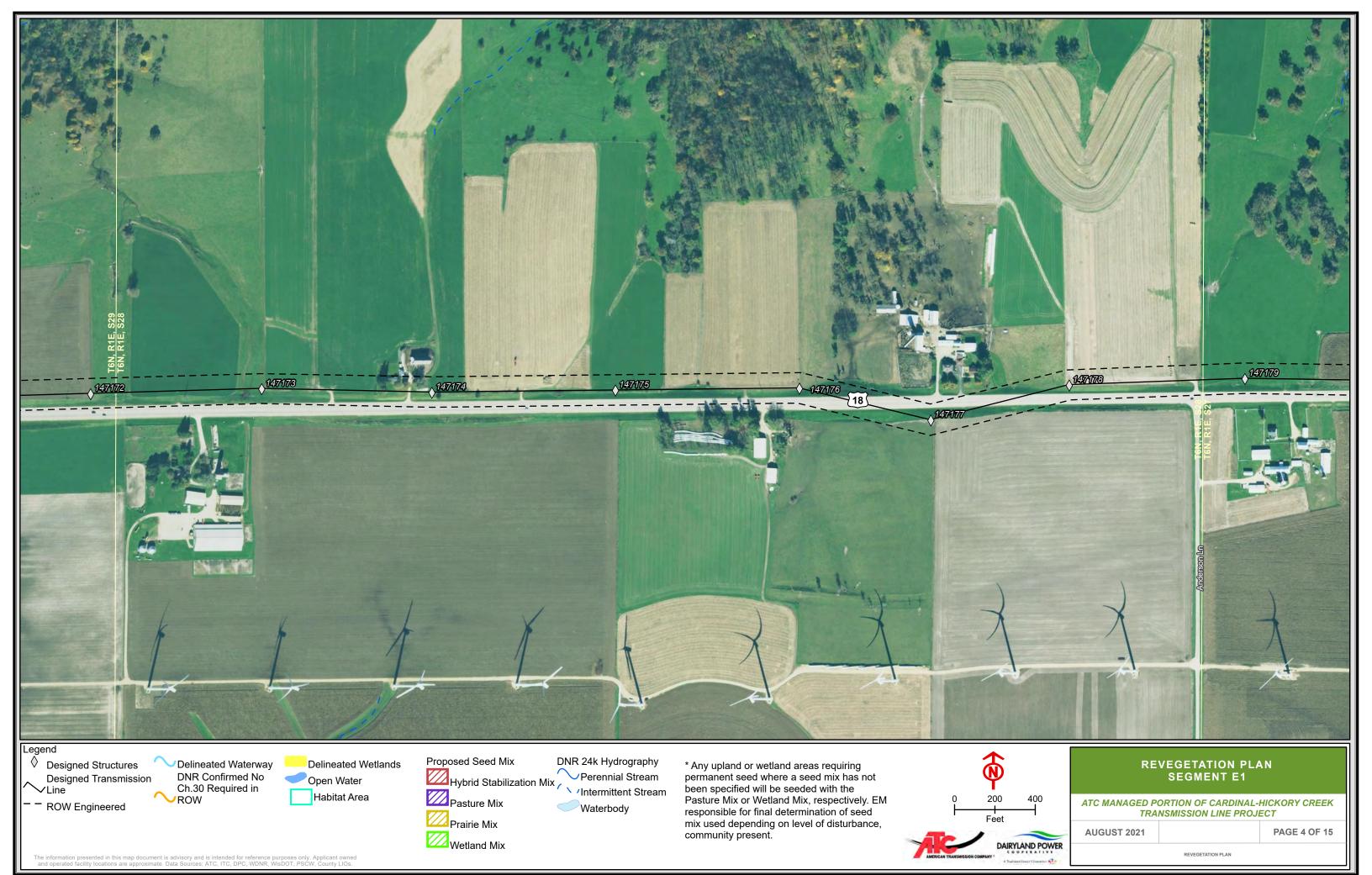
Segment	Structure Span	Habitat Feature ID	Pre-Construction Field Conditions	Project Seed Mix ²	Justification	Field Instruction ³
E1	147193-147195	Q-SL1	Brushy thicket on old fill berm (abandoned RR) dominated by invasive shrubs (bush honeysuckle, common buckthorn) and garlic mustard.	Pasture Mix	Community conversion, but low quality dominated by invasives.	
E1	147209-147210	Q-G9	Prairie on abandoned railroad grade, signage indicates it is the Sturdevant-Drysen Memorial Prairie. May consist of remnant and/or restoration.	Prairie Mix	Sturdevant-Dryson Memorial Prairie; grassland identified as higher quality.	
E1	147210-147212	Q-SL2	Brushy abandoned railroad grade dominated by box elder, burdock.	Pasture Mix	Community conversion, but low quality dominated by invasives.	
E1	147215-147216	Q-SL3	Brushy abandoned railroad grade, with sapling to small pole-size trees and brush.	Pasture Mix	Community conversion, but low quality dominated by invasives.	
E1	147243-147245	Q-G12	Grass drainageway/weedy prairie planting, consisting of cool season grasses, indian grass, planted forbs including wild bergamot and yellow coneflower, and weeds including dandelion and wild parsnip.	Pasture Mix / Hybrid Stabilization Mix	Grassland identified as higher quality. Planted prairie species only at west end of feature; remainder dominated by cool season grasses.	Use Pasture Mix in majority of feature; use Hybrid Stabilization Mix where indicated.
E1	147253-147254		Closed canopy consisting of sapling to small pole-size box elder, silver maple, black walnut; shrub layer of invasive bush honeysuckle, and herbaceous layer of garlic mustard, dame's rocket, burdock and cleavers.	Pasture Mix	Forest clearing/community conversion, but low quality dominated by invasives. Adjacent to road ROW dominated by cool season grasses.	

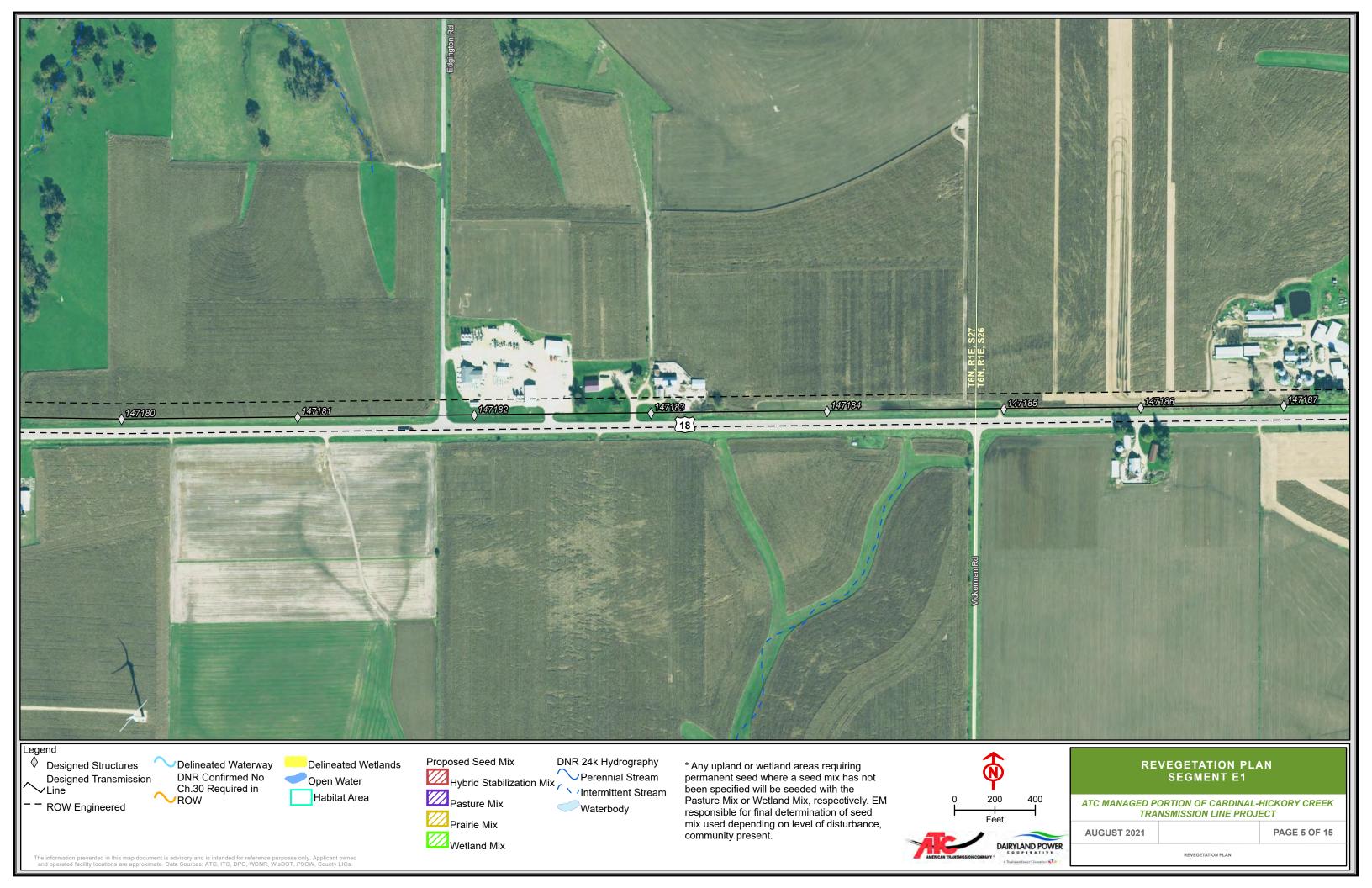
Areas not specified in this table that are disturbed by construction activities will be seeded with one of the Project seed mixes at the determination of the Project Environmental Monitor
 Proposed seed mixes include: Pasture Mix, Hybrid Stabilization Mix, Prairie Mix, Wetland Mix
 Bit responsible for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

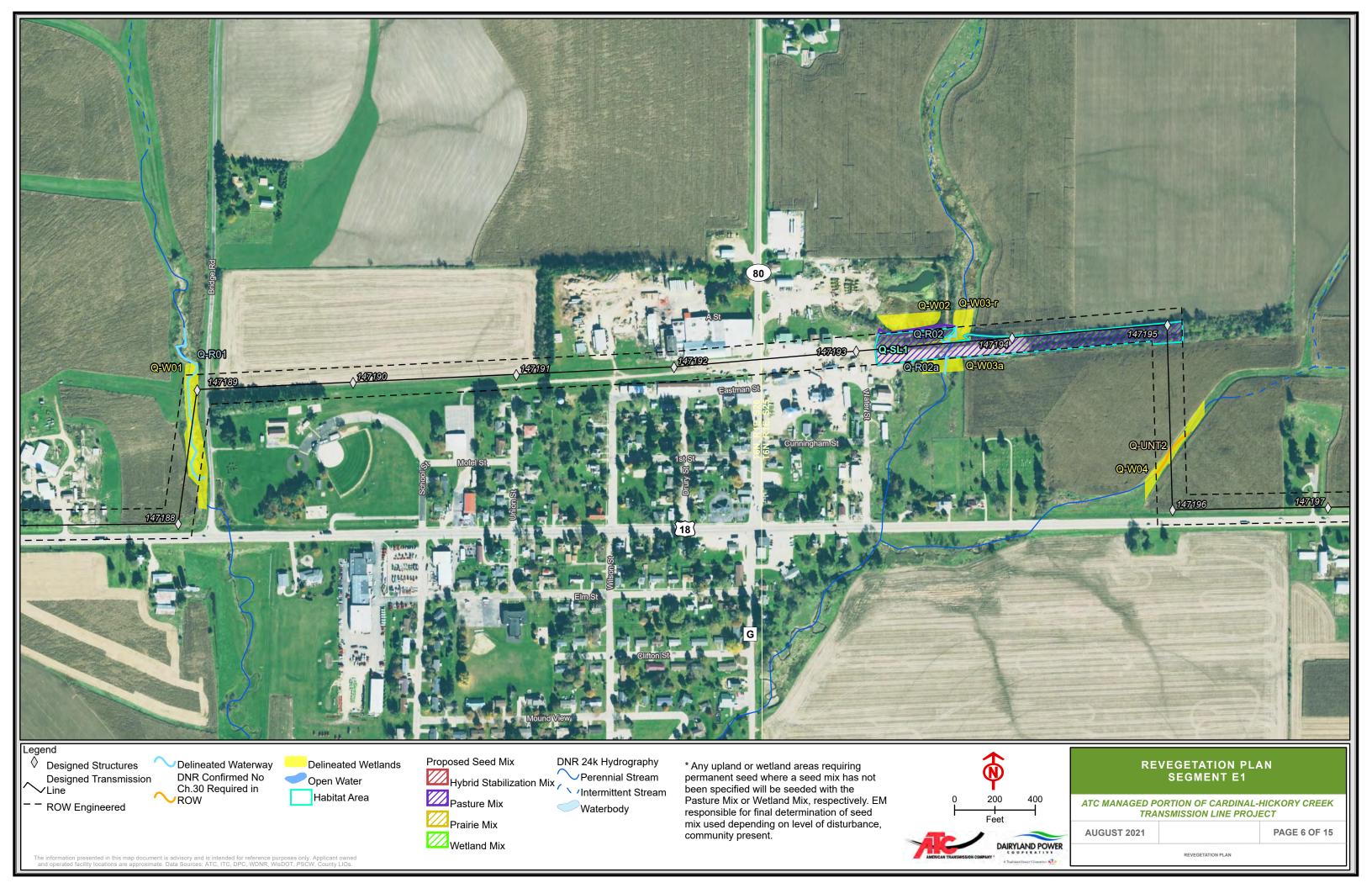


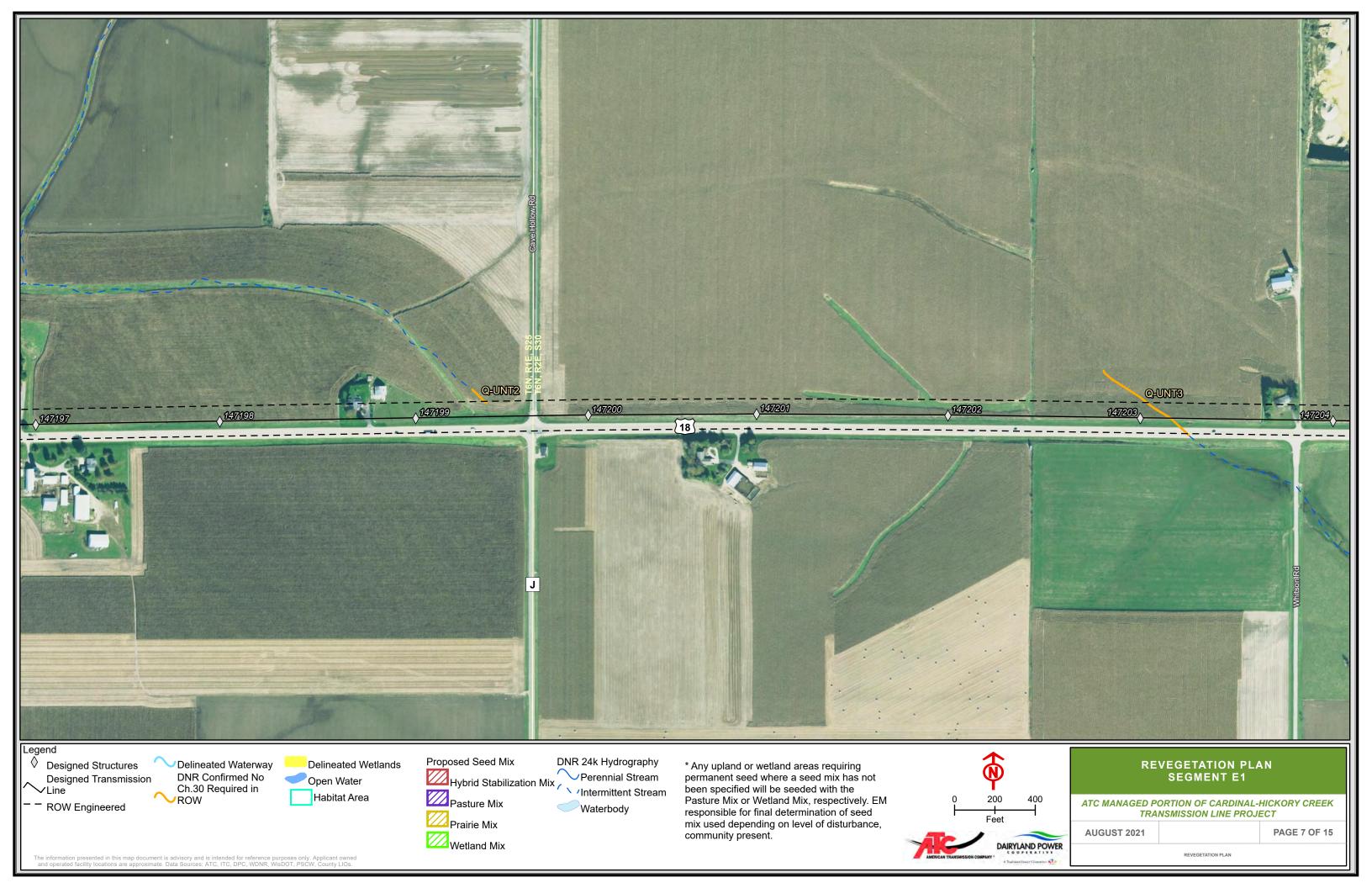


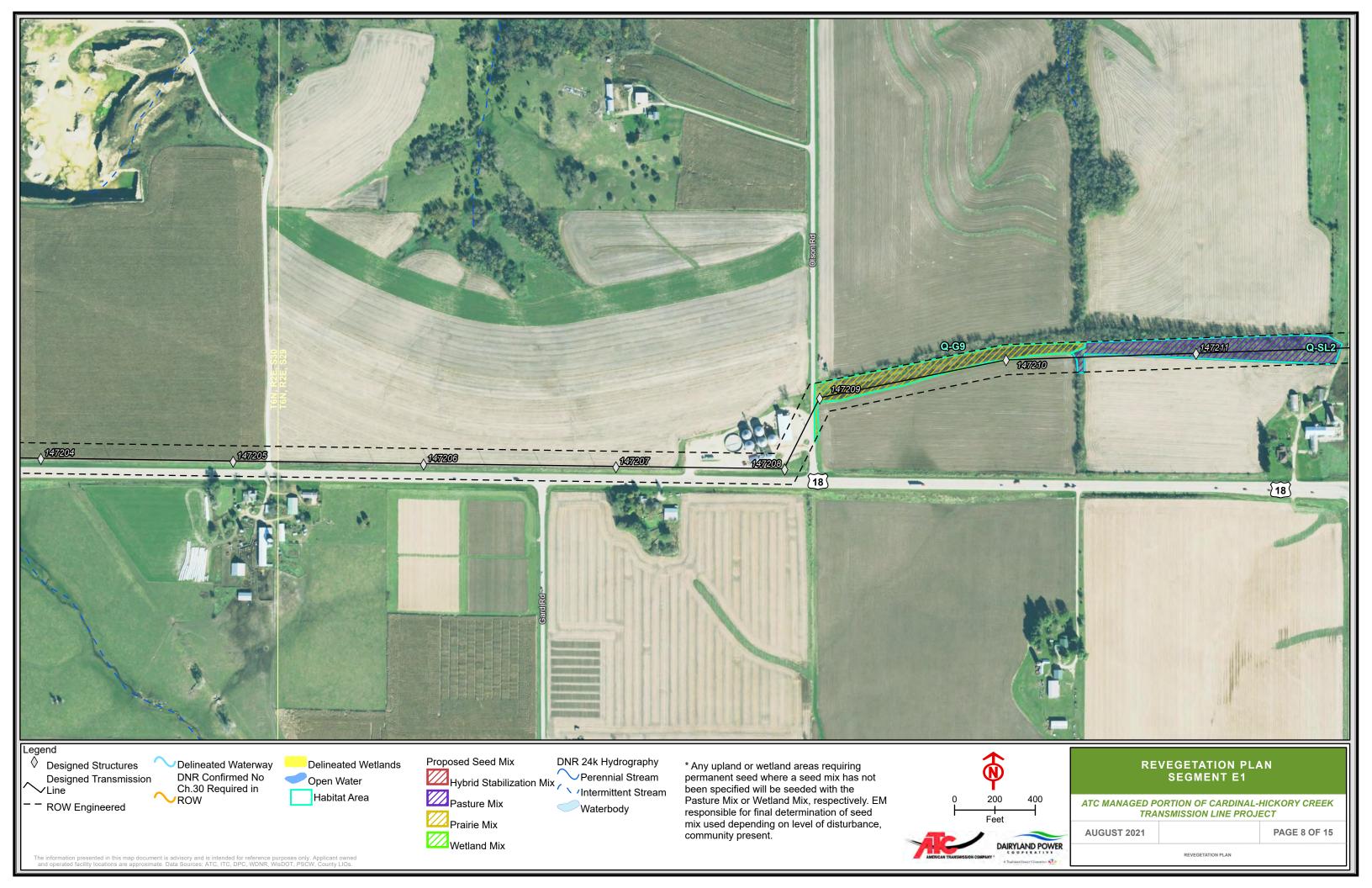


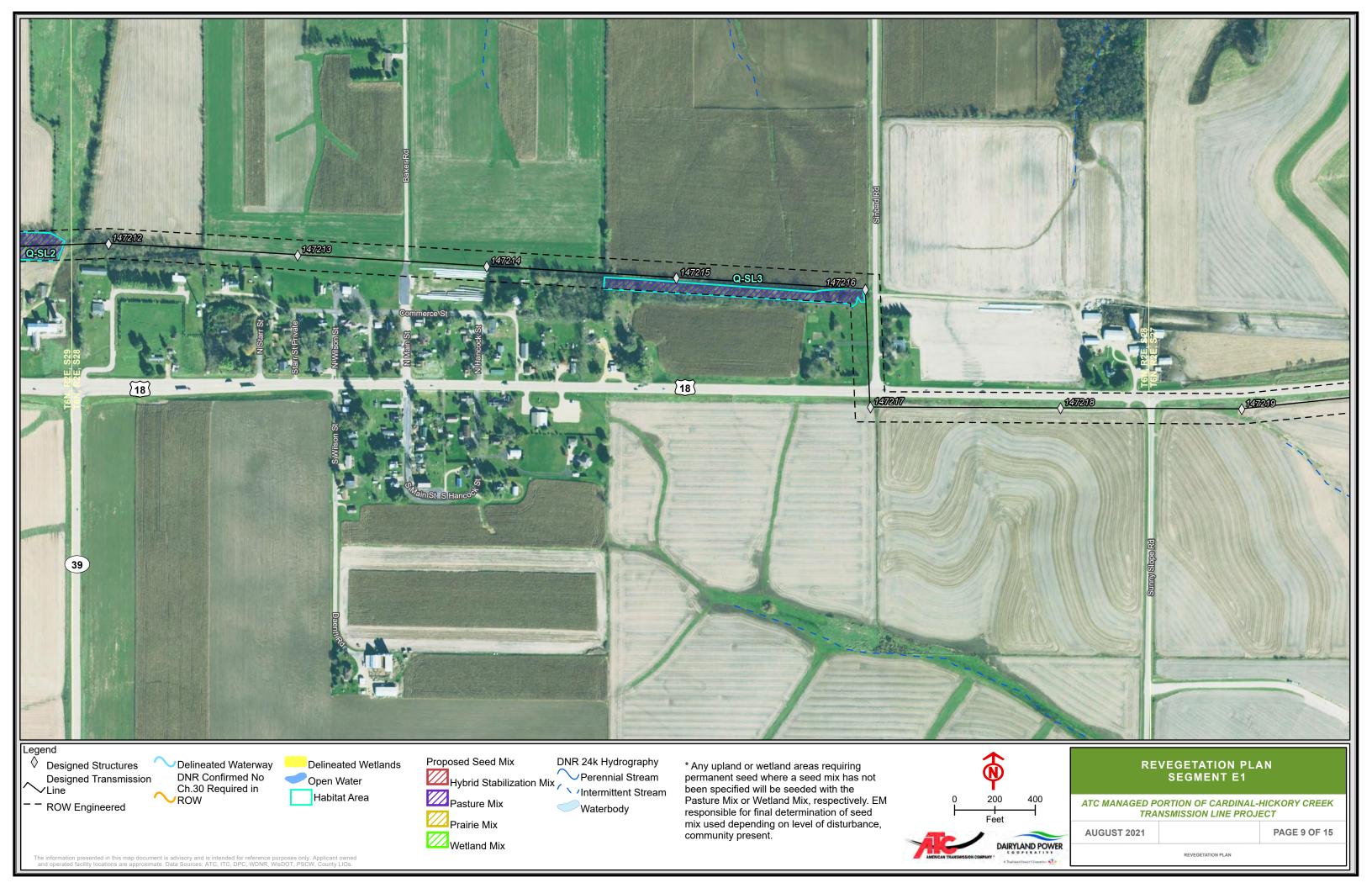


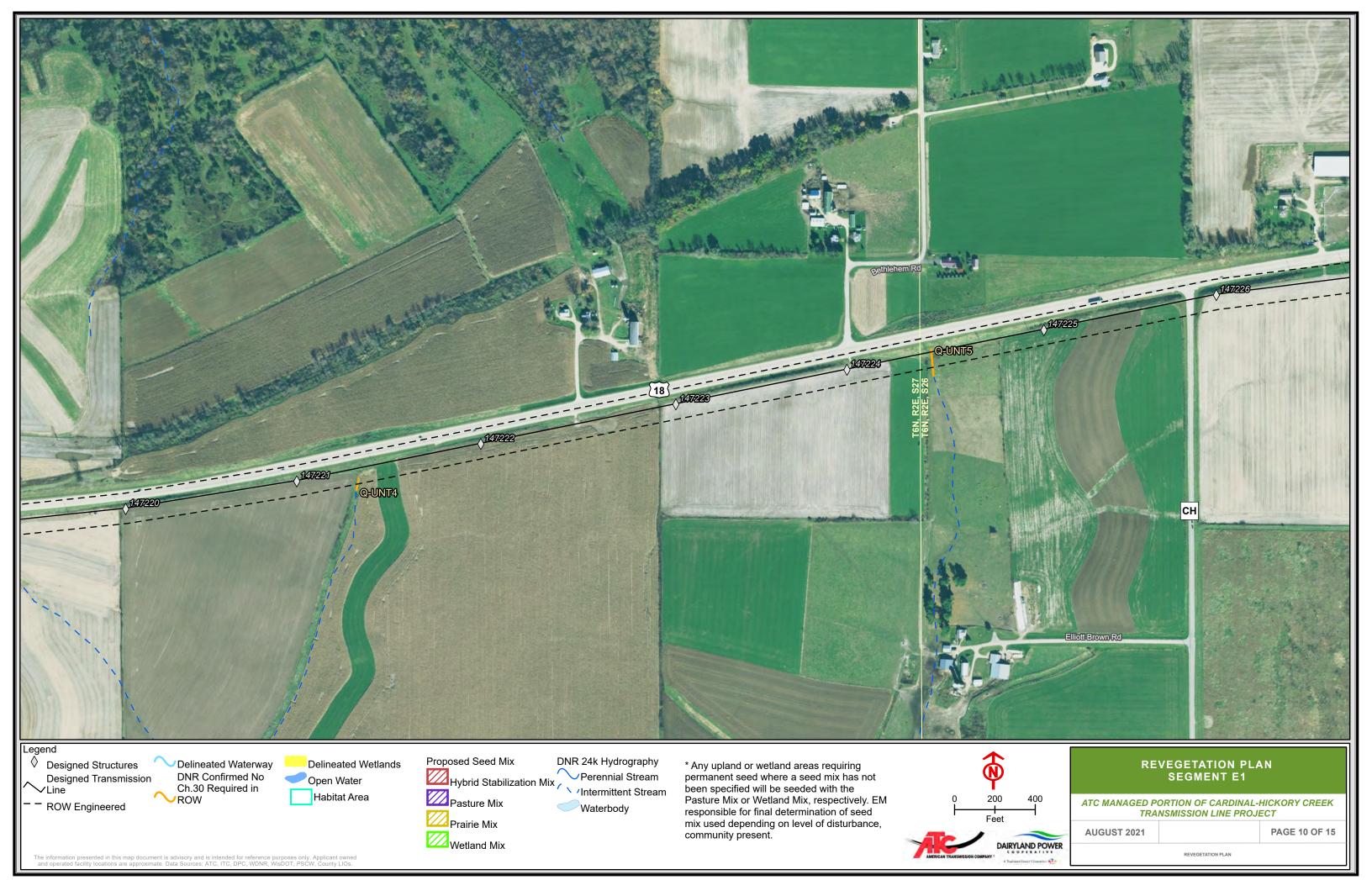


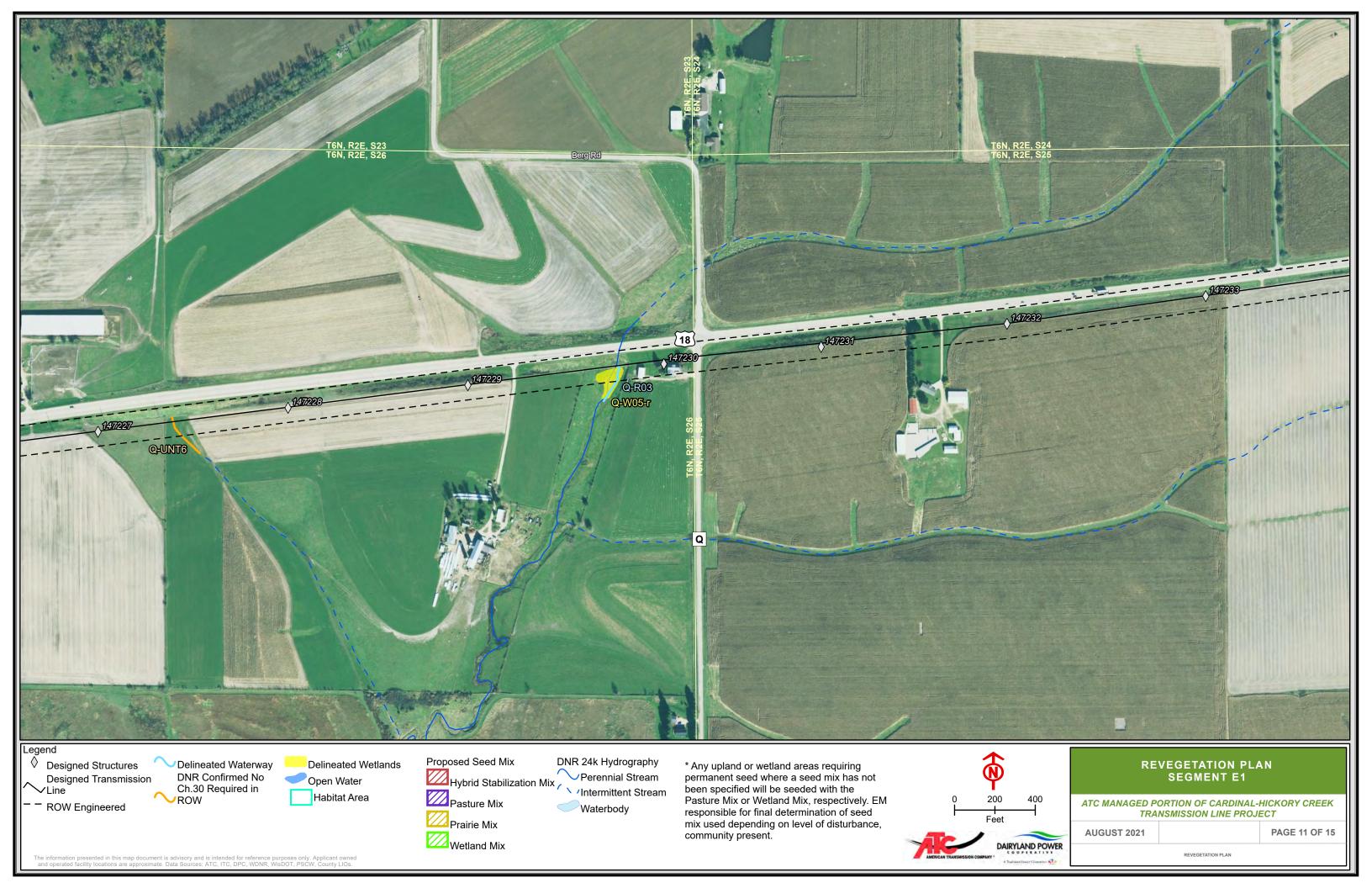


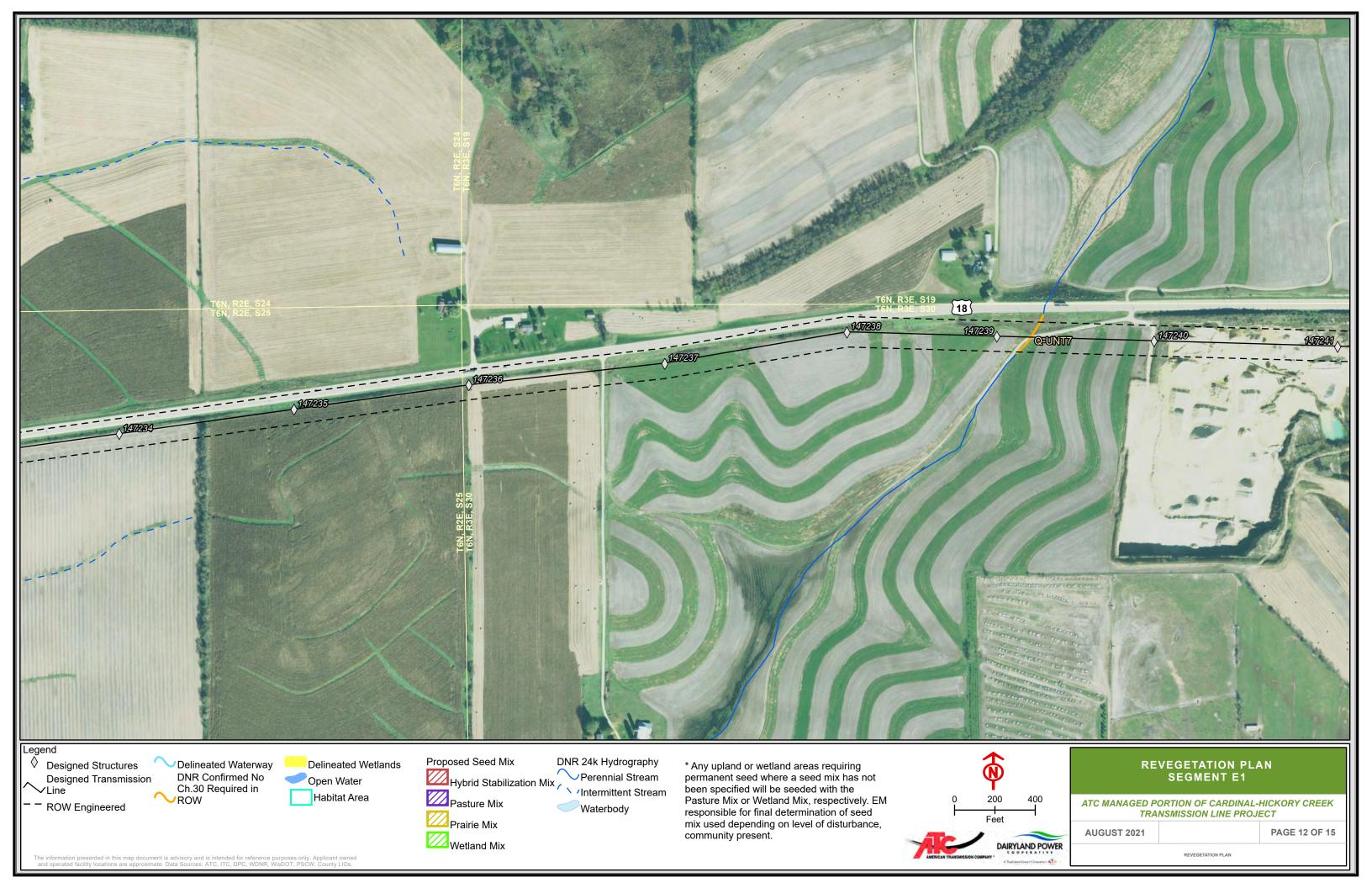


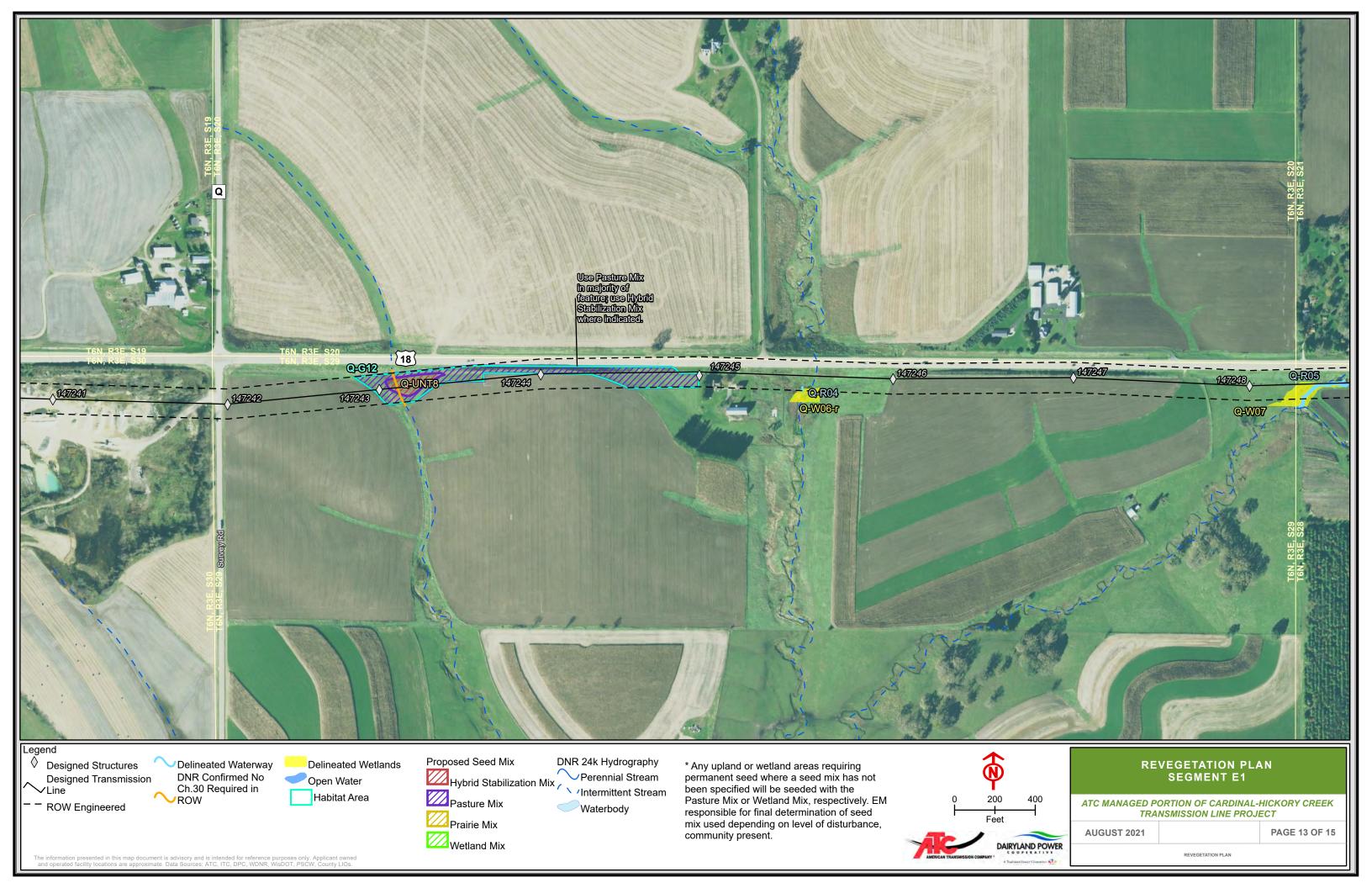


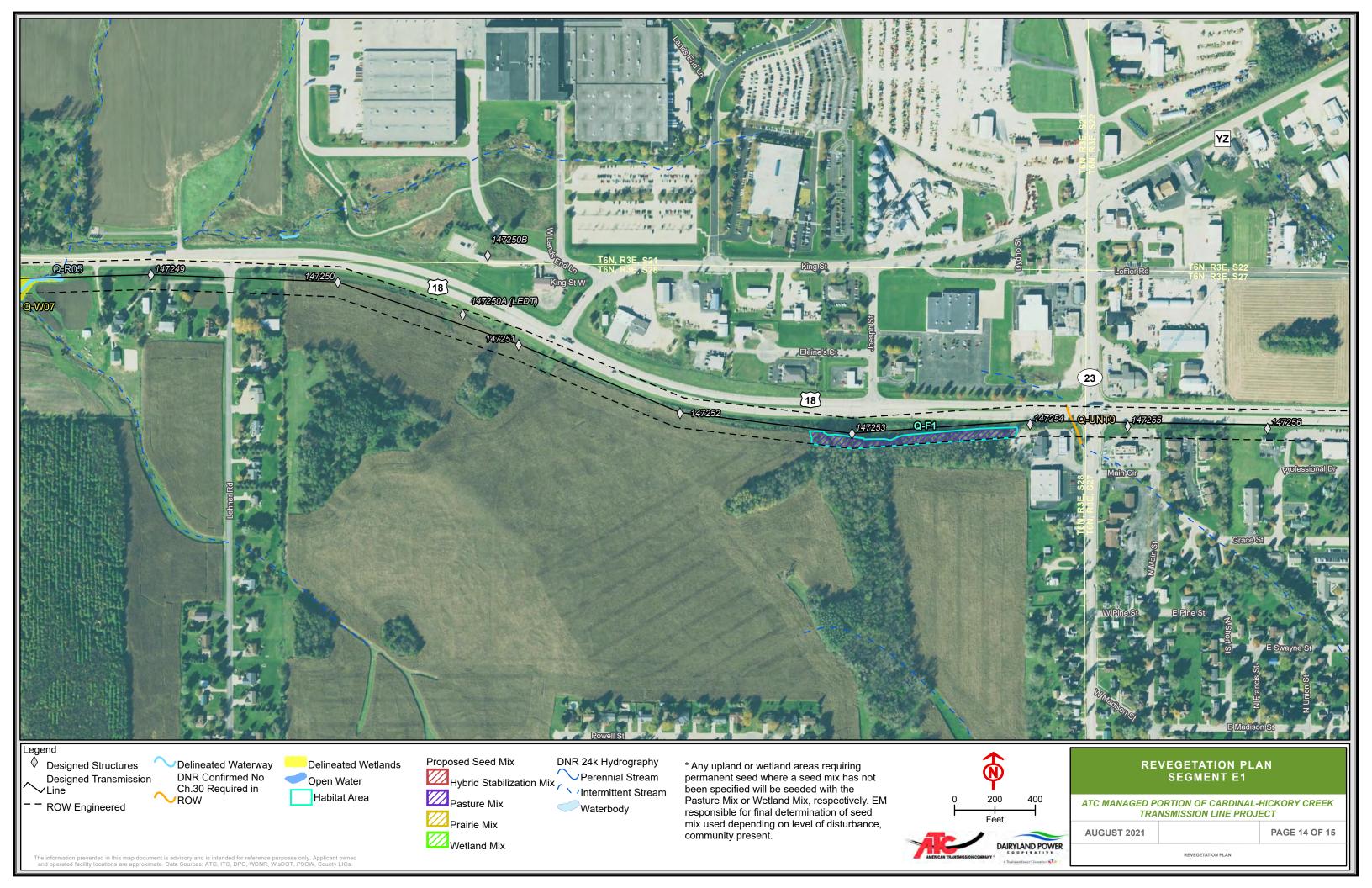


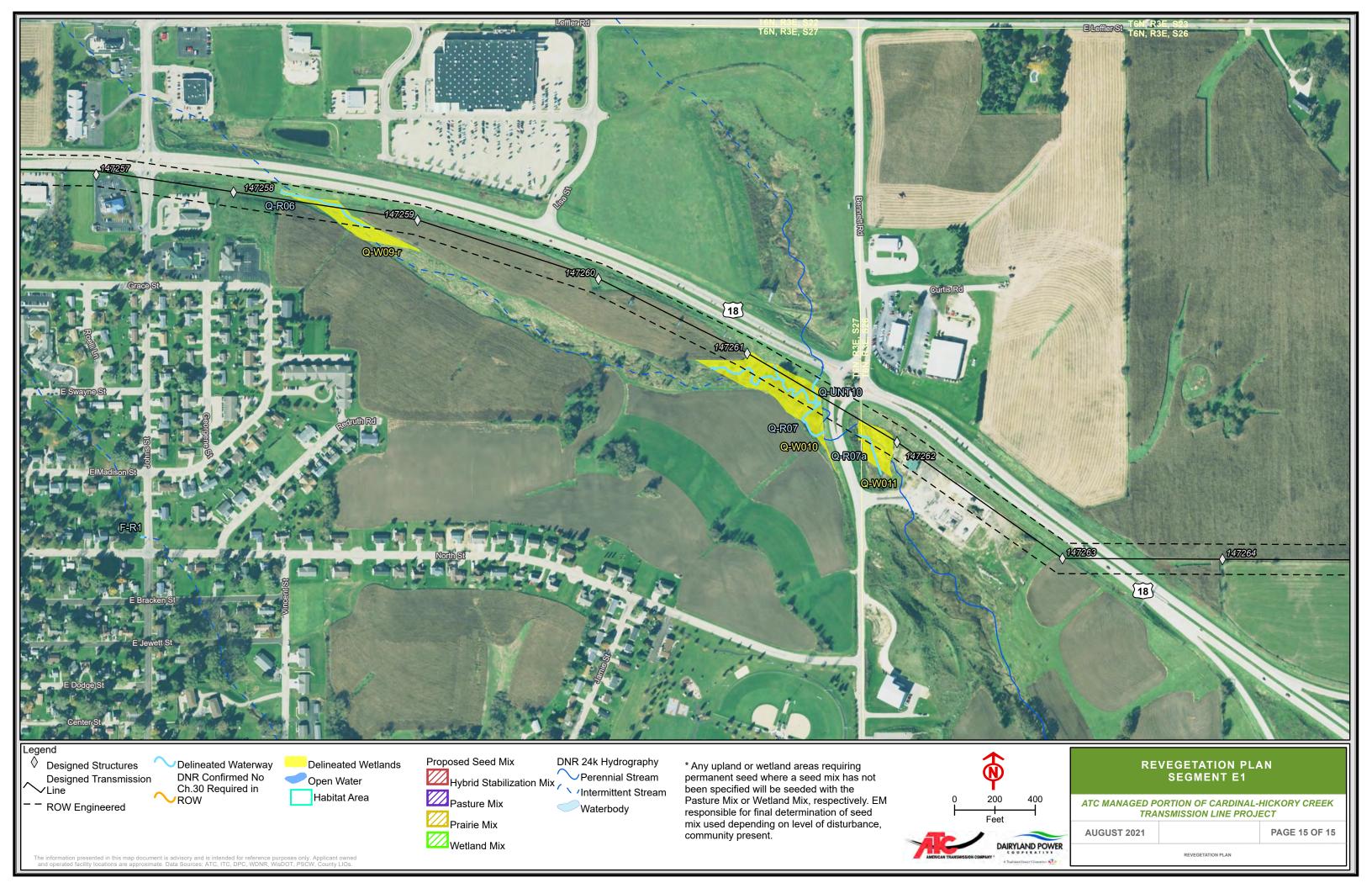












Cardinal-Hickory Creek (ATC) Attachment P1: Existing Structure Removal Procedure

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.

Wetlands

- 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

Agricultural Areas (non-organic) - 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.