MRT Ameresco Landfill Interconnect Project Enable Mississippi River Transmission, LLC

Illinois Chorus Frog Conservation Plan

Prepared by:



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LIST OF ACRONYMS AND ABBREVIATIONS

HDD	Horizontal Directional Drill
ICF	Illinois Chorus Frog
IDNR	Illinois Department of Natural Resources
INHS	Illinois Natural History Survey
INAI	Illinois Natural Areas Inventory
ITA	Incidental Take Authorization
MRT	Enable Mississippi River Transmission, LLC
RNG	Renewable Natural Gas

1.0 INTRODUCTION

Enable Mississippi River Transmission, LLC (MRT) is proposing to install approximately 8 miles of new 4.5-inch outer diameter steel pipe from the proposed Ameresco Renewable Natural Gas (RNG) facility at Republic Services landfill in Roxana, Illinois to the existing MRT 18-inch East Line in Madison County, Illinois (Project). Merjent, Inc. developed this Conservation Plan on behalf of MRT to estimate the potential impacts of the Project to Illinois chorus frog (*Pseudacris illinoensis*; ICF) and detail the avoidance and minimization measures developed for the Project to reduce impacts to ICF.

MRT is applying for an Incidental Take Authorization (ITA) from the Illinois Department of Natural Resources (IDNR) to address potential impacts to ICF from preconstruction testing and construction of the Project. MRT requests coverage from the start of preconstruction testing in Quarter 1 of 2024 for the duration of 1 year to complete construction. If MRT delays construction, they would request ITA coverage for one year from the start of construction.

2.0 APPLICANT/PROJECT INFORMATION

PROJECT APPLICANT: Enable Mississippi River Transmission, LLC

PROJECT NAME: MRT Ameresco Landfill Interconnect Project

COUNTY: Madison County

AREA OF IMPACT (acreage): Total Project workspaces: 90.7 acres

Project workspace within ICF Habitat: 26.3 acres

2.1 AREA TO BE AFFECTED (IDNR CONSERVATION PLAN SECTION (1.A.)

A description of Public Land Survey Sections crossed by the Project is provided in Table 2.1-1 and a site plan of the Project is included in Appendix A. Photos of the Project area are provided in Appendix B. A shapefile of the Project has been provided to the IDNR with the submission of this conservation plan. MRT is in the process of obtaining easements for a permanent right-of-way and temporary workspace for the Project route shown in Appendix A.

The total Project length from the Ameresco RNG facility in Roxana, IL to the MRT East Line is approximately 8.0 miles with a total workspace (including access roads, temporary, and extra temporary workspace) of 90.7 acres. The Project will cross approximately 2.8 miles (14, 678 linear feet) of the Poag Terrace Illinois Natural Areas Inventory (INAI) Site, which supports a known population of ICF. The Poag Terrace INAI Site includes breeding and nonbreeding habitat for ICF. Project workspaces within the Poag Terrace INAI Site total 26.3 acres. The extent of the Poag Terrace INAI Site in relation to the Project is shown in Appendix A.

Prior to construction, MRT will complete excavations as part of required preconstruction testing, resulting in a maximum of 1.3 acres of temporary ICF habitat disturbance. Project construction impacts within the Poag Terrace INAI Site will be temporary in nature with no permanent aboveground facilities or new access roads proposed. The Project will install the majority of pipe in this area (12,830 feet) using the open-cut method; the trench will be approximately 12 to 24-inches wide. For the purposes of impact calculations, a 24-inch-wide trench was assumed throughout the Project. Approximately 1,848 feet of pipe will be installed via conventional bore or

horizontal directional drill (HDD; see Section 2.3 for further description of construction methods). As use of conventional bores and HDDs will avoid disturbance of ICF habitat (see Section 2.3), MRT assumes the total area of disturbance to ICF habitat will only include preconstruction testing areas and open-trench installation areas where portions of the right-of-way will be graded. Disturbance in these areas will be temporary. Therefore, for the purposes of this Conservation Plan, MRT assumes that the total area of habitat disturbance from construction within the Poag Terrace INAI Site will be 6 acres.

TABLE 2.1-1						
Project Site Public Land Survey System Locations						
Township	Range	Sections				
3 North	8 West	1				
	9 West	6				
4 North	8 West	5, 6, 7, 8,18, 19, 30, 31				
	9 West	13				
5 North	8 West	32				

2.2 BIOLOGICAL DATA (1. B.)

The ICF is a small frog listed as "threatened" in the State of Illinois. The species reaches an average of 1.5 inches in length and develops dark spots along its body and mask-like marking across its eyes. The overall body color is tan to olive green (IDNR, n.d.).

ICF are found within west central and southwestern Illinois in areas of sand plains and sandy prairies. Habitat loss due to human development, especially agriculture, has restricted the frog's range over time, and they are now found only in Missouri, Arkansas, and Illinois. ICF have been documented within agricultural fields, though the full extent of their use is currently unknown (INHS, 2017).

2.2.1 Life History

Adult ICF spend the majority of their life buried underground within sandy soils. Using their stout forelimbs, ICF burrow head-first down to documented depths of 1 inch to 9 inches below the surface, depending on soil conditions (Brown et al.,1972). Due to their fossorial nature, little is known about the behavior of ICF within their burrows, though it is believed that they are able to feed underground. Prey (small invertebrates) are likely eaten as encountered or hunted by detecting vibrations or chemical signals (Brown, 1972; Narins, 1990).

ICF emerge in the late winter (February) to spring of each year to breed on the surface. Male frogs congregate in ponds, wetlands, and flooded fields to attract females with nightly "choruses" of calls (Owen & Tucker, 2006). After selecting a mate, females lay egg clusters on submerged vegetation which are then covered in silt and debris, likely helping protect the vulnerable eggs (Tucker, 1997). No parental care is given to eggs or eventual tadpoles (INHS, 2017).

After a few days, ICF eggs hatch into tadpoles, the aquatic phase for juvenile frogs. ICF tadpoles feed on what is available within their breeding pools: vegetation, suspended matter, and even other ICF tadpoles if necessary (McCallum & Trauth, 2001). Approximately 60 days after hatching, ICF tadpoles begin metamorphosis, developing legs, losing their tails, and moving onto land.

Metamorphosis typically occurs in late May to early June (Tucker, 1995). Most ICF juveniles disperse to new areas at least 0.5 mile away from their pond of origin to begin the fossorial stage of their adult lives (Tucker & Phillip, 1995). ICF are capable of breeding after one year of growth (Tucker, 1995).

2.2.2 Habitat Characteristics

Within Illinois, ICF populations are found in three separate sandy floodplain regions: northern, central, and southern. The Project is located within the central region associated with the Mississippi River. The sandy soils in this area are essential to the fossorial stage of ICF life; loose soils such as sand, sandy loams, or loamy sands allow for easy burrowing (Brown & Rose, 1978). Suitable areas include sparsely vegetated blow outs, sand prairies, and old fields where plant roots do not prevent burrowing (INHS, 2017). Burrowing habitat must provide subterranean invertebrate populations for feeding (Brown, 1972).

Also essential to ICF habitat is the proximity of suitable breeding ponds. Such "ponds" may also include wetlands, ditches, large puddles, or flooded fields. These areas are typically ephemeral, which prevents the establishment of fish populations which may feed on ICF eggs and tadpoles (Tucker & Phillip, 1994). Ponds must also retain water long enough to allow for tadpole growth and metamorphosis. Suitable breeding habitat must also contain vegetation for male frogs to call from, for female frogs to attach egg clusters to, and tadpoles to shelter amongst and feed on (Tucker, 1997; McCallum et al., 2006).

Variable climate and weather conditions can affect availability of breeding habitat each year. Unfavorable conditions may result in zero productivity in an ICF population for the entire year. A study of a Madison County ICF population found that tadpoles successfully grew into frogs and returned to breed the next year in only 8 out of 16 years studied (Tucker et al., 2008). Availability of breeding habitat across a landscape is important for long term population stability to combat breeding failures within individual breeding ponds (Betz, 1993).

2.3 DESCRIPTION OF PROJECT ACTIVITIES (1. C.)

The Project will entail installation of approximately 8 miles of new 4.5-inch outer diameter steel pipe, associated meter station, and temporary contractor yard (Appendix A). For the purposes of this Conservation Plan, a total, 26.3 acres of potential ICF habitat within the Poag Terrace INAI Site is estimated be used as Project workspace, with an additional approximately 1.3 total acres of habitat impacted by preconstruction testing, trenching, drilling, or boring. Actual workspace and impact acreage may be further reduced based on agency feedback, additional landowner requests, or conditions during construction; however, it is not anticipated that the workspace, or impacts, would be larger. Specific construction methods are described further in Sections 2.3.1-4.

MRT assumes that ICF is present within the Poag Terrace INAI Site year-round. Soils within the INAI Site are suitable fossorial habitat for ICF and the species has been observed during the breeding season as recently as 2022 per data provided by the IDNR. Since the Project will involve ground disturbance and vehicle traffic within known ICF breeding habitat and assumed fossorial habitat, incidental take of ICF may occur.

During the ICF breeding season (February to April), adult frogs emerge from fossorial habitat and migrate to breeding ponds. ICF individuals are at risk of direct take from vehicle strikes while migrating between habitats. As ICF congregate within breeding ponds they are susceptible to

siltation from construction activities occurring nearby that could impact breeding pond hydrology. This may result in the take of adult frogs during the breeding season, and eggs and juvenile ICF during their growth period within breeding ponds (February to July).

From April to February, adult ICF are buried underground. Project activities involving ground disturbance including trenching and excavations of bore pits may result in direct take of ICF while in fossorial habitat.

2.3.1 Trenching

Approximately 12,830 feet of the pipe within the Poag Terrace INAI site will be constructed using the open-cut method. This method involves using a backhoe or ditching machine to excavate a trench to sufficient depths to provide a minimum of 3 feet of cover over the pipeline, pursuant to 49 CFR Part 192 of the U.S. Department of Transportation regulations. Should it become necessary to remove water from the trench, it will be pumped to an off-right-of-way, stable, well-vegetated upland area (where practical) and/or filtered through a filter bag or siltation barrier in accordance with the Federal Energy Regulatory Commission's Plan and Procedures. Once the trench is prepared for installation, a prefabricated segment of pipeline will then be placed into the trench using an excavator or sideboom tractor. As noted in Section 3.2, during backfilling, subsoil material removed from trenches during construction will be placed back into the trench. Segregated topsoil will be returned to its original horizon over the backfilled trench.

Within the Poag Terrace INAI Site, the Project will cross Cahokia Creek using the open-cut method at one location. As Cahokia Creek is a perennial waterbody, the hydrological conditions are not suitable for ICF breeding habitat, and so disturbance of ICF breeding habitat and take of ICF is not anticipated within the creek. MRT will implement sediment and erosion control measures at these crossings to ensure the water quality of Cahokia Creek is protected.

2.3.2 Horizontal Directional Drills

To reduce impacts to ICF habitat, MRT has revised the construction methods to incorporate four HDDs within the Poag Terrace INAI Site. MRT added three HDDs to cross three wetlands and one pond that are within documented ICF breeding areas within the Poag Terrace INAI Site. An additional wetland that may contain suitable breeding habitat (but currently has no documented ICF observations) has also been avoided by HDD (for HDD locations, see Appendix A). HDDs install pipe without disturbing surface features such as wetlands and waterbodies or shallow subsurface features such as ICF fossorial habitat by traversing beneath these features. This method involves setting up drilling equipment on either side of the HDD segment and drilling a pilot hole under features to be crossed. The pilot hole is subsequently enlarged by successive reaming until the hole is large enough to accommodate the pipe. Throughout the process of drilling and enlarging the hole, a slurry (drilling mud) made of naturally occurring non-toxic materials, such as bentonite clay and water, will be circulated through the drilling tools to lubricate the drill bit, remove drill cuttings, and hold the hole open. Pipe sections long enough to span the entire crossing will be staged and welded along the construction work area and then pulled through the drilled hole.

This HDD method requires construction workspace for the HDD entry and exit points, but avoids impacts on the feature being crossed, with the exception of limited hand clearing of vegetation, as needed, to lay the HDD guide wire. To tie-in to the existing pipeline, the two ends of the pipeline will be installed by the open-cut method, between the origin of the pipeline segment and the HDD entry pit and between the HDD exit pit and the terminus of the pipeline segment. In the event of

an inadvertent release, or release of drilling mud, during HDD activity, the Project will implement measures detailed in its HDD Contingency Plan.

2.3.3 Conventional Bores

To further reduce impacts to ICF habitat, MRT is proposing two conventional bores within the Poag Terrace INAI Site at two separate road crossings (see Appendix A). The conventional bore construction method involves excavating a bore pit on both sides of the feature to be crossed. A boring machine is lowered to the bottom of the bore pit to tunnel using a cutting head mounted on an auger. The auger rotates through a bore tube, both of which are pushed forward as the hole is cut. The pipeline is then installed through the bored hole and welded to the adjacent pipeline. Similar to an HDD, a bore avoids impacts to the surface feature being crossed.

2.3.4 Additional Workspace

MRT is in the process of obtaining a 30-foot-wide easement for the entire length of the Project with 75-foot-wide temporary workspace for construction (inclusive of permanent easement). At two locations where potential breeding habitat is present along the Project route, temporary workspace has been necked down to avoid potential breeding habitat. Additional temporary workspace has been added at these locations, outside of breeding habitat, and at bore and HDD entry and exit points (see Appendix A). All workspaces may be used for travel along the Project right-of-way, staging of materials and equipment, and storage of excavated soils. Within the 30-foot-easement, 16 feet of right-of-way will be graded during construction to allow for a safe, stable surface for equipment travel, soil storage, and pipe installation. Grading will not occur where pipe will be installed via HDD or conventional bore.

2.4 IMPACTS TO SPECIES (1.D.)

As detailed in Section 2.2, the life cycle of ICF can be divided into 3 life stages: breeding (February through April), larval and metamorphosis (March to July), and fossorial (April to February). Project work may occur throughout the year and so each life stage of ICF may be impacted depending on construction schedule either through impacts to habitat or direct take of ICF.

2.4.1 Habitat Impacts

All suitable wetlands and waterbodies within the Poag Terrace INAI site will be crossed using an HDD to avoid impacts to breeding habitat. Impacts to potential fossorial habitat within uplands will be unavoidable as part of the permanent easement will be graded and pipe will be installed via the open-cut method, which may temporarily disturb fossorial ICF habitat for work taking place between April and February. Grading of the Project right-of-way may also disturb fossorial habitat during construction.

2.4.2 Direct Take

Ground disturbing activities during the fossorial stage of ICF may result in direct take of ICF while ICF are in upland habitats. Direct take due to vehicular strikes may also result during the breeding season while ICF migrate from burrows to breeding ponds. The presence and density of ICF is difficult to predict due to their fossorial nature for most of the year. Presence and density within breeding habitat is also variable year to year based on availability of suitable wetlands and waterbodies for breeding. Due to these uncertainties, MRT conservatively estimates that Project

activities will result in take 0 to 40 individual ICF. MRT is committed to implementing the measures laid out in Section 3.0 to minimize impacts and potential for direct take of ICF.

3.0 MINIMIZATION AND MITIGATION MEASURES (2)

3.1 MINIMZATION (2.A.)

The Project has minimized, to the extent possible, the acreage of disturbance within ICF suitable habitat to reduce risk to ICF. The Project was routed in previously disturbed agricultural areas to the extent possible as determined by landowner permissions. Additionally, where allowed by site conditions and landowner permission, MRT has routed the Project to avoid potential breeding ponds and wetlands. No facilities or new roads have been sited within the Poag Terrace INAI Site in order to avoid permanent impacts to ICF habitat.

MRT has re-designed the Project to cross all wetlands and waterbodies suitable for ICF breeding habitat within the Poag Terrace INAI site via HDD. Workspaces near ICF breeding habitat have been necked down to further avoid impacts to ICF and silt fencing will be installed to prevent sedimentation of wetlands and waterbodies and exclude ICF from Project workspaces. Additionally, MRT will HDD or conventional bore eight locations crossing waterbodies and wetlands as allowed by site conditions and landowner permissions outside of the Poag Terrace INAI Site where ICF populations have not been recorded by the IDNR but could contain potential breeding habitat (Appendix A). As it is possible that ICF are present outside of the Poag Terrace INAI Site, MRT has committed to installing silt fence at wetland crossings in these areas where drills are not feasible (due to landowner or site conditions) to reduce the potential for ICF to enter the construction workspace.

3.2 AVOIDANCE AND MINIMZATION MEASURES

Full mitigation measures will be coordinated with the IDNR; however, MRT has committed to the following minimization and avoidance measures:

- 1. Where feasible, the Project has been re-designed to directionally drill breeding ponds, wetlands, and waterbodies to prevent impacts to ICF breeding habitat and minimize impacts to water quality.
- 2. The laydown/staging yard has been located outside of the Poag Terrace INAI Site and will be sited to avoid areas of sandy soil and drainage ditches to the extent practicable.
- 3. The Project will adhere to the soil erosion and sediment control measures laid out in the Federal Energy Regulatory Commission's Plan and Procedures.
- 4. Silt fencing will be placed and maintained around wetlands and waterbodies within the Project right-of-way during construction. Silt fencing will be trenched 6 inches into the ground to prevent burrowing herptiles from reaching the workspace.
- 5. Where the Project is adjacent to wetlands or waterbodies outside of the Project workspace silt fencing and other erosion control methods will be installed along the extent of the Project workspace adjacent to those wetlands and waterbodies. Erosion control measures will be maintained in proper working order to prevent sediment from flowing into wetlands and waterbodies. Silt fencing will also help redirect and prevent entry of ICF into Project workspaces.
- During construction occurring between February 1 and April 30, boards will be placed as ramps within any trenches left unfilled overnight to avoid trapping ICF and other wildlife. A biological monitor will inspect trenches each morning prior to resuming construction work for the presence of ICF and other wildlife.

- 7. The biological monitor will apply for a Herptile Permit from the IDNR in order to handle any non-listed amphibians and reptiles that may be observed during construction monitoring.
- 8. During backfilling, subsoil material removed from trenches during construction will be placed back into the trench. Segregated topsoil will be returned to its original horizon over the backfilled trench.
- 9. To minimize risk to ICF, construction work hours from February 1 to April 30 will stop prior to sunset each day to avoid the main activity hours of ICF.
- 10. All Project personnel will attend an environmental and ICF-awareness training led by a qualified biologist prior to engaging in construction work. The awareness training will cover avoidance and minimization measures for the Project regarding ICF and identification of the species.
- 11. A biological monitor will be present on the Project within the Poag Terrace INAI Site throughout preconstruction testing, the ICF breeding season (February 1 through April 30) and weekly for the remainder of construction. The biological monitor will notify the IDNR and MRT if more than two adult ICF are discovered within Project activity limits within 24 hours of each other and provide weekly email progress summaries to the IDNR during the breeding season.
- 12. If more than two adult ICF are discovered within Project activity limits within 24 hours of each other, MRT will consult with the IDNR about implementing additional monitoring or avoidance measures for the Project.
- 13. Observations of state or federally protected species, including ICF, made at the Project site will be reported to the IDNR within 48 hours.
- 14. A final construction monitoring report with methods, photographs of sediment and erosion controls and avoidance and minimization measures, summary of monitoring logs, and documentation of ICF observations, will be provided to the IDNR within 90 days of construction completion.
- 15. Following construction, call surveys targeting ICF will be completed targeting breeding ponds within 0.3-mile of the Project right-of-way, where landowner permission is granted, for two of five years. If rainfall levels are significantly lower than average, MRT will confer with the IDNR about postponing surveys to more typical precipitation conditions.
- 16. For mowing activities completed by MRT, mower blades will be set no lower than 6 inches. Mowing completed during above-ground seasons for ICF (February through July) will occur after sunrise and prior to sunset.
- 17. For any pesticide or herbicide applications completed by MRT, application will not occur within 48 hours of a rain event.
- 18. The Project area will be restored to the same habitat types as were present prior to construction. Disturbed areas will be reseeded, and turf/sod grass will not be installed in new areas post-construction to avoid entombing ICF.

3.3 MANAGEMENT OF AREA (2.B.)

Impacts to ICF breeding ponds and wetlands will be avoided and minimized during construction. Construction and operation of the Project will avoid impacts to breeding habitat within the Project right-of-way. MRT will restore existing habitat to the same vegetation as was present preconstruction, so no permanent loss of existing ICF habitat will occur.

3.4 MITIGATION (2.C.)

MRT will mitigate for potential take of ICF during Project construction by providing mitigation funds for the conservation of the species to the Illinois Wildlife Preservation Fund or The Conservation Fund as determined by the IDNR. As noted in Section 2.1, a known population of ICF occurs

within the Poag Terrace INAI Site with the entirety of the site containing a mixture of suitable breeding and fossorial habitat for ICF. As described in Section 2.1, the Project will temporarily impact 6 acres within the Poag Terrace INAI Site (1.3 acres due to preconstruction testing and 4.7 acres for pipeline construction). With the implementation of avoidance and mitigation measures detailed in Section 3.2, all impacts will be temporary in nature and permanent impacts to ICF habitat will be avoided.

As determined by the IDNR, mitigation is expected to provide conservation benefit 5.5 times larger than the original adverse impact. With the conservation benefit ratio applied to the anticipated disturbance of 6 acres, the acreage total is 33 acres.

Based on sales data provided by the Realty Division of the IDNR from the last three years for land within Madison County within the same township (Edwardsville) or adjacent townships (Nameoki, Fort Russell, Wood River, Collinsville, Chouteau, and Granite City), the average land value is \$8,099 per acre. Given this, MRT will furnish \$267,267, earmarked for ICF conservation, to the Illinois Wildlife Preservation Fund or The Conservation Fund as determined by the IDNR.

3.5 MONITORING (2.D.)

3.5.1 Construction Monitoring

A biological monitor will be present on the Project within the Poag Terrace INAI Site for the preconstruction testing, throughout the ICF breeding season (February 1 through April 30), and weekly during construction outside of the breeding season. The biological monitor will respond to ICF sightings that occur within the Project site during the breeding season and on-call for the remainder of construction. The biological monitor will perform environmental awareness training, inspect trenches and silt fences, and document compliance with avoidance and minimization measures. The biological monitor will submit weekly reports as outlined in Section 6.2.1.

3.5.2 Post-construction Monitoring

Following completion of construction, call surveys for ICF will be conducted targeting breeding ponds within 0.3 mile of the Project right-of-way, where landowner permission is granted, for two of five years. If rainfall levels are significantly lower than average, MRT will confer with the IDNR about postponing surveys to more typical precipitation conditions. As the ICF population within Poag Terrace has been previously documented, presence is assumed, and no pre-construction surveys are proposed. Post-construction monitoring is intended to collect data and document current ICF presence and will not be used to require additional mitigation or restoration activities.

With 90 days of completion of construction, MRT will submit a final construction monitoring report with methods, photographs of sediment and erosion controls and avoidance and minimization measures, summary of monitoring logs, and documentation of ICF observations.

3.6 ADAPTIVE MANAGEMENT (2.E.)

The goal of adaptive management is to enable Project response to unanticipated issues or events documented during monitoring over the term of the ITA, which may occur throughout construction of the Project.

In the event that Project impacts are greater than the anticipated acreages presented in this Conservation Plan, MRT will consult with the IDNR to determine appropriate avoidance or

minimization measures that should be implemented for the Project. Additional impacts may result from work necessary to meet goals of landowner Agriculture Impact Mitigation Agreements; however, soil types within the project area are not prone to compaction, so deep ripping in agricultural land is not anticipated.

If more than two adult ICF are discovered within 24 hours of each other within Project activity limits, MRT will consult with the IDNR about implementing additional monitoring or avoidance measures in that area.

The adaptive management plan detailed here will be implemented throughout Project construction to continue to provide avoidance, minimization, and mitigation measures that effectively reduce potential impacts to ICF.

3.7 FUNDING (2.F.)

The Project is being funded by MRT, which has adequate funds to construct and operate all aspects of the Project. Prior to the start of construction monitoring and postconstruction monitoring, MRT will provide the IDNR will a letter certifying that a qualified monitoring firm has been contracted to complete Project monitoring. Within one year of receipt of the ITA, MRT will provide the mitigation funding described in Section 3.4 to the Illinois Wildlife Preservation Fund or The Conservation Fund as determined by the IDNR.

4.0 ALTERNATIVE ACTIONS (3)

4.1 NO-ACTION ALTERNATIVE (3)

A no-action alternative would result in no pipeline being constructed between the Ameresco RNG facility at Republic Services' Roxana landfill and the MRT 18-inch East Line in Madison County, Illinois. The Project provides an efficient use for biogas (majority of which is methane) produced at the Roxana landfill that would otherwise go directly into the atmosphere, contributing to greenhouse gas emissions and local smog. The Ameresco RNG Facility, currently under construction, will capture and clean this gas for beneficial use as a natural gas energy source and benefit the local population by reducing local emissions (Ameresco, 2023). If the Project is not constructed, the Ameresco RNG Facility will not have a distribution option for its renewable natural gas, reducing the beneficial impacts such as construction jobs, reduced landfill emissions, and new resources for renewable natural gas. Ameresco would look for another pipeline company to build a pipeline to their RNG facility to receive the natural gas it produces. Due to the delays of that process, Ameresco would likely utilize a virtual pipeline in the meantime, which involves trucking the gas to a pipeline that can accept gas in that method. This would result in additional air emissions due to trucking activity which would adversely affect local air quality.

4.2 CONSTRUCTION ALTERNATIVES

The initial Project design proposed installation of the pipe via the open-cut method except at road crossings. Based on additional information provided by the IDNR and to reduce impacts to the ICF, MRT re-designed the construction footprint and methods to include conventional bores and HDDs to prevent or reduce impacts to ICF habitat within the Poag Terrace INAI Site. Workspaces have been necked down and silt fencing will be implemented where workspaces will cross or are adjacent to wetlands and waterbodies to prevent sedimentation of ICF habitat and prevent ICF from entering Project workspaces. Additionally, eight crossings via conventional bore or HDD will be implemented outside of the Poag Terrace INAI Site to avoid wetlands and waterbodies that

could provide suitable, though currently unknown, habitat for ICF (Appendix A), along with silt fencing installed at wetlands crossings outside of the Poag Terrace INAI sites where drills are not feasible due to landowner or site conditions. As the Project was routed to comply with landowner agreements and conservation easements, alternative routes are not available, but MRT has instituted avoidance to the greatest extent possible for ICF.

5.0 SURVIVAL AND RECOVERY OF SPECIES (4)

The Project will not reduce the likelihood of the survival of ICF within the state of Illinois. Impacts to suitable ICF habitat are temporary and have been minimized to the extent possible, including avoidance of impacts to potential breeding ponds. The Project area will be restored to its previous conditions, resulting in no net loss of habitat for ICF. As the Project will only impact a small portion of the Poag Terrace INAI Site, the majority of the site will not be impacted and continue to provide suitable breeding and fossorial habitat for the species.

Further, due to ICF's dependence on specific, suitable habitat conditions, individual populations of the species do not successfully breed each year. At a study site within Madison County that underwent restoration activities, ICF bred approximately 62% of 16 years, with successful recruitment of new frogs at only 50% across the 16 years (Tucker et al., 2008). Impacts based on climate conditions, precipitation levels, and nearby farming activity vary each year for the ICF population within the Project area, and as stated above, the Project will impact a relatively small portion of the Poag Terrace INAI Site. Given this, it is expected that ICF will continue its variable breeding rates each year following the Project and continue to persist.

Additionally, MRT will furnish a total of \$267,267 to the Illinois Wildlife Preservation Fund or The Conservation Fund as determined by the IDNR, earmarked for uses related to the conservation of ICF. This funding will further aid recovery of the species.

6.0 IMPLEMENTING AGREEMENT (5)

MRT will be responsible for implementing this Conservation Plan. The parties noted in Section 6.1 certify their legal authority to carry out their respective responsibilities under this Conservation Plan and comply with all other applicable federal, state, and local regulations.

6.1 NAMES AND SIGNATURES (5.A.)

The names and signatures of participants for this Conservation Plan are included here.

The undersigned certify their legal authority to carry out their respective responsibilities under this Conservation Plan and comply with all other applicable federal, state, and local regulations.

Travis Wingo

12023 4

Date

Project Director

4/24/2023 Date

Bryan Greer Staff Engineer

6.2 OBLIGATONS AND RESPONSIBILITIES (5.B.)

MRT will be responsible for implementing the Conservation Plan. The obligations and responsibilities of the above parties include:

- Implementing the avoidance and minimization measures described in Section 3.0;
- Providing weekly construction progress reports to the IDNR;
- Consulting with the IDNR if more than two adult ICF are discovered within Project activity limits within 24 hours of each other to implement additional monitoring or avoidance measures for the Project;
- Reporting all sightings of state and federally protected species within the Project area to the IDNR within 48 hours;
- Provide a final construction monitoring report within 90 days of completion of construction;
- Conducting post-construction monitoring; and
- Providing mitigation funding to the Illinois Wildlife Preservation Fund or The Conservation Fund as determined by the IDNR as described in Section 3.4.

6.2.1 Schedule of Progress Reports

Throughout construction, the biological monitor will document Project progress and compliance with avoidance and minimization measures. MRT will email progress summaries to the IDNR on a weekly basis during the breeding season. Within 90 days of completion of construction, MRT will submit a final construction monitoring report with methods, photographs of sediment and erosion controls and avoidance and minimization measures, summary of monitoring logs, and documentation of ICF observations.

6.3 FEDERAL AUTHORIZATIONS (5.E.)

The U.S. Fish and Wildlife Service provided concurrence for the Project on March 8, 2023 (Appendix C; no federal authorization for take was required for the Project). If additional species are listed under the federal Endangered Species Act or the Project scope changes, MRT will reinitiate consultation with the U.S. Fish and Wildlife Service.

7.0 SOURCES

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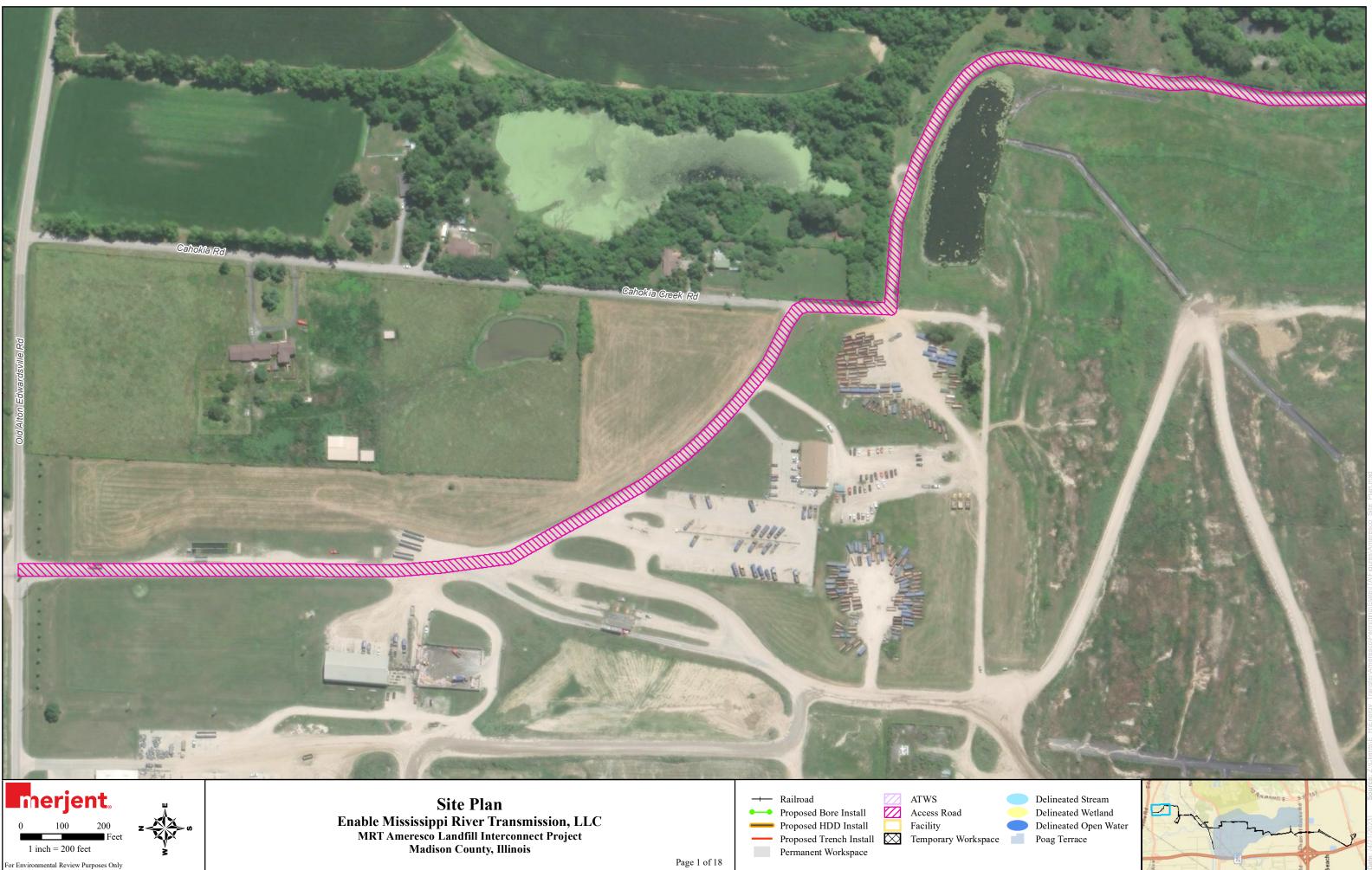
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Appendix A Site Plan





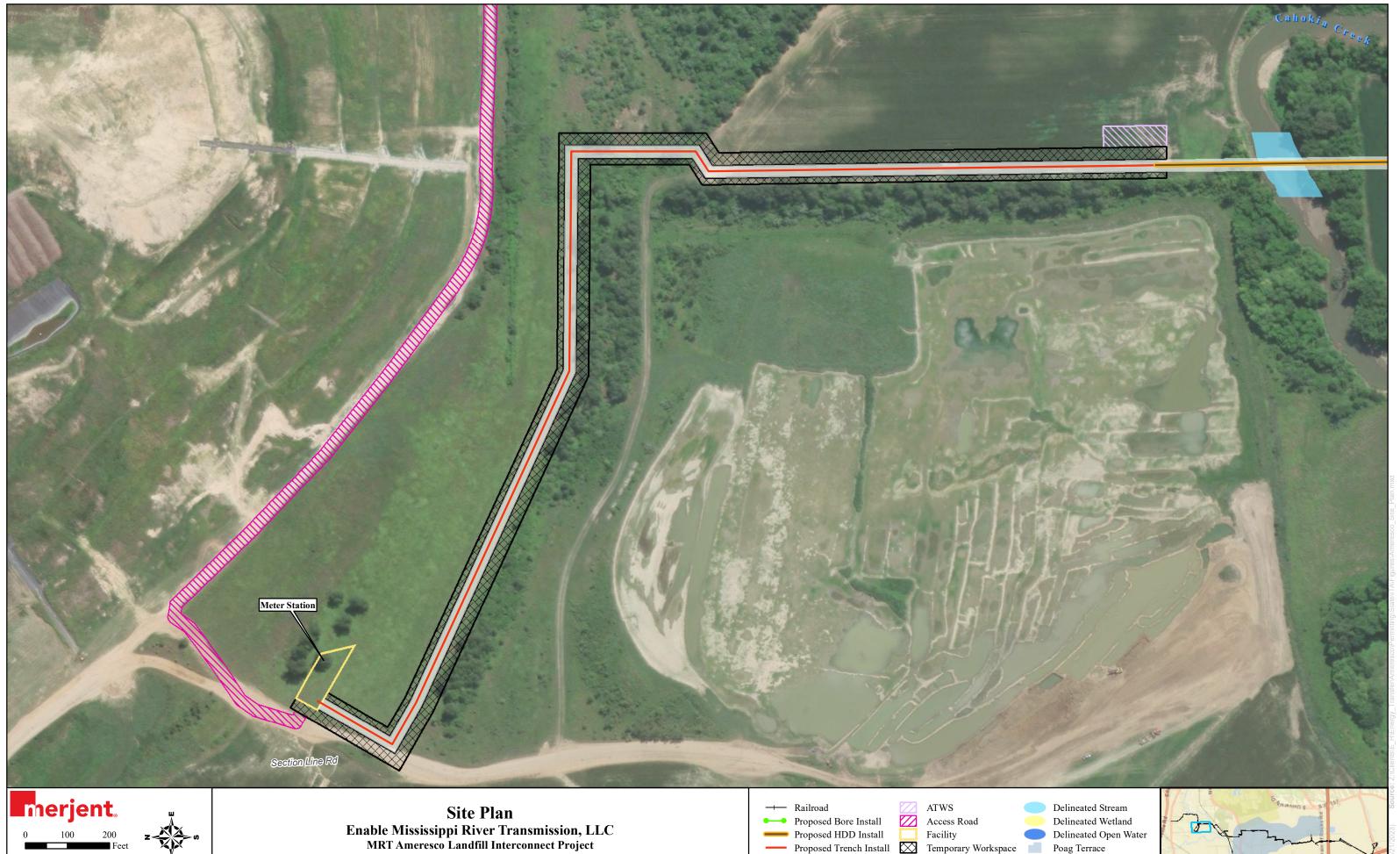
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Enable Mississippi River Transmission, LLC MRT Ameresco Landfill Interconnect Project Madison County, Illinois

Permanent Workspace





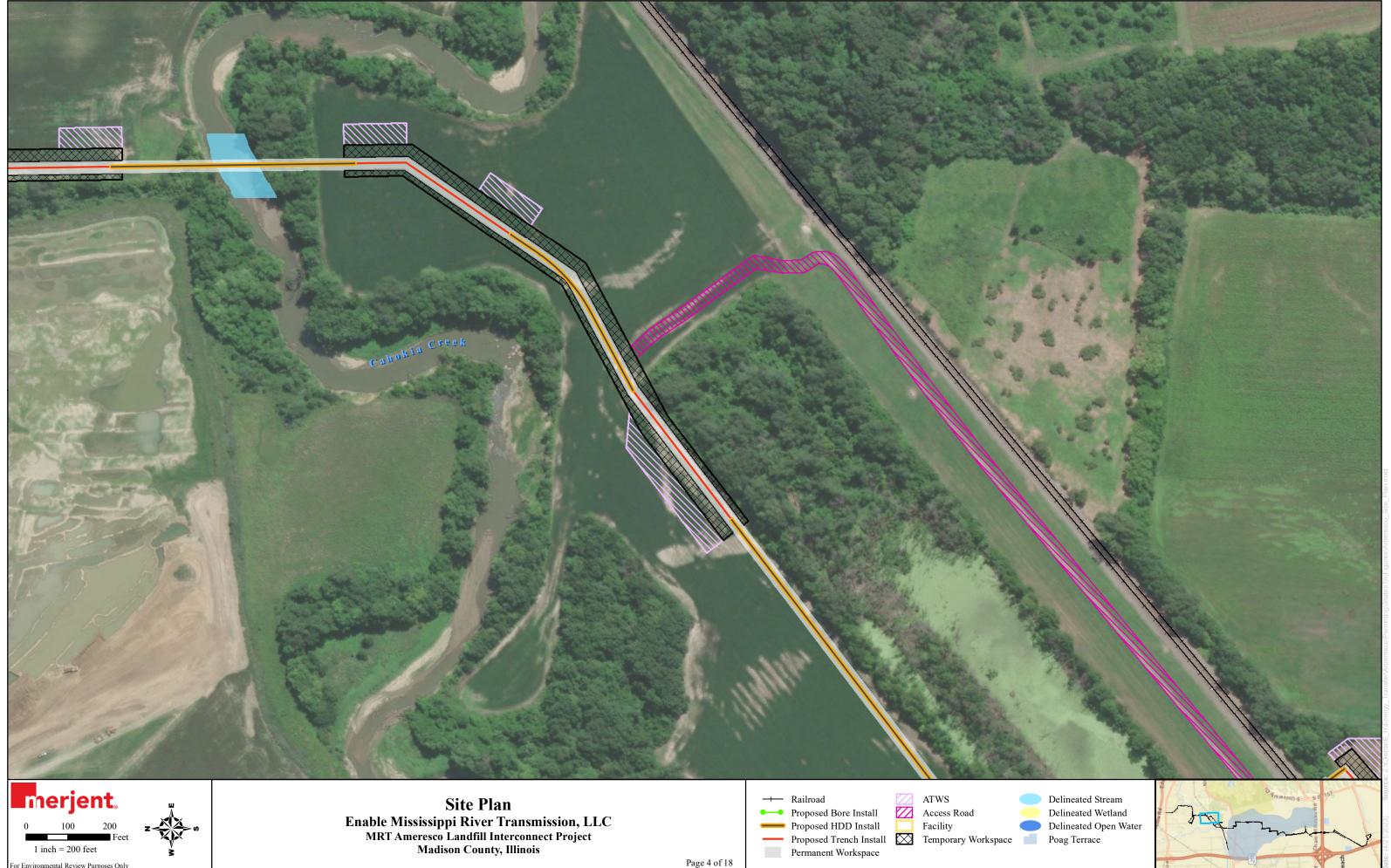
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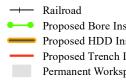
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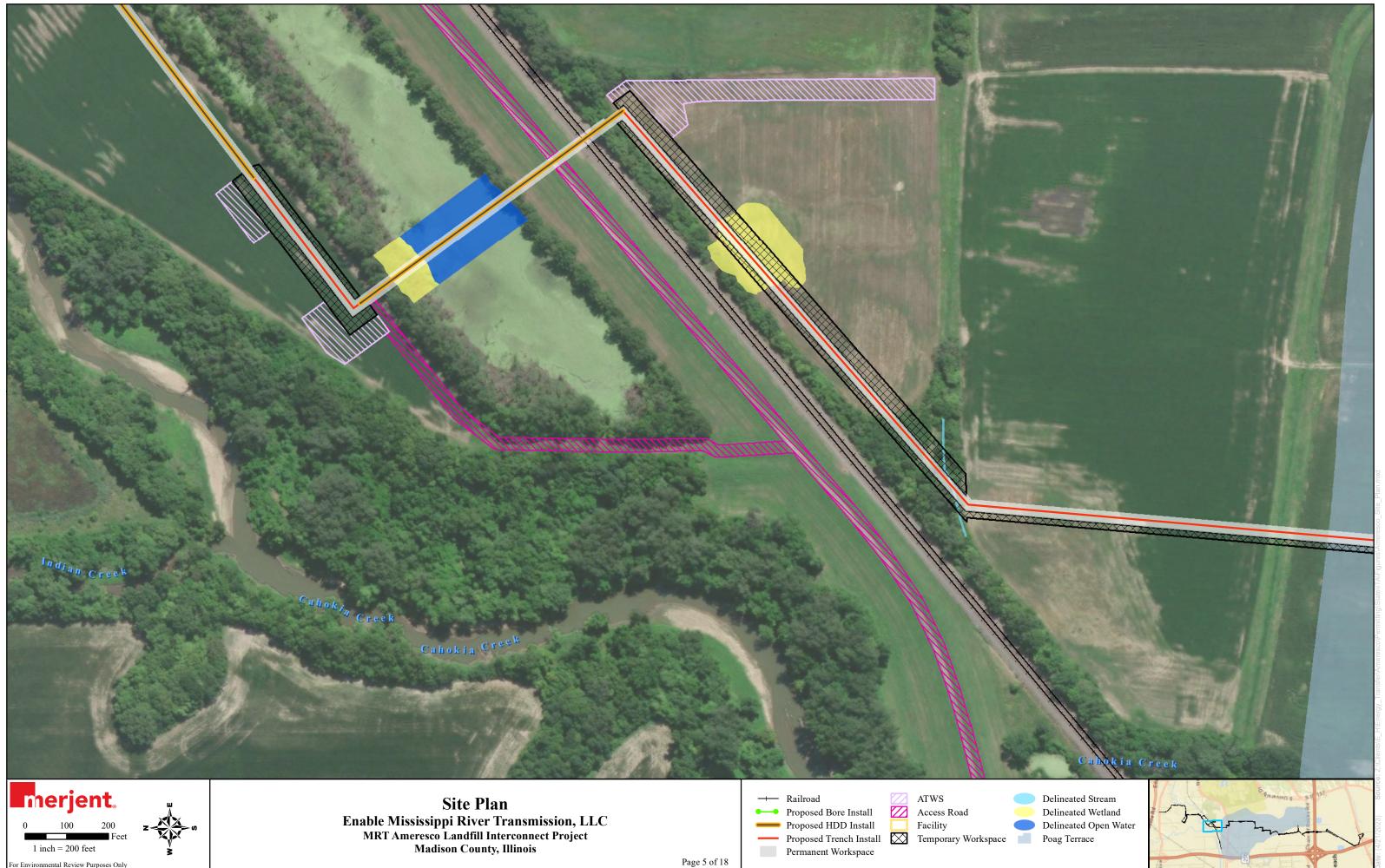






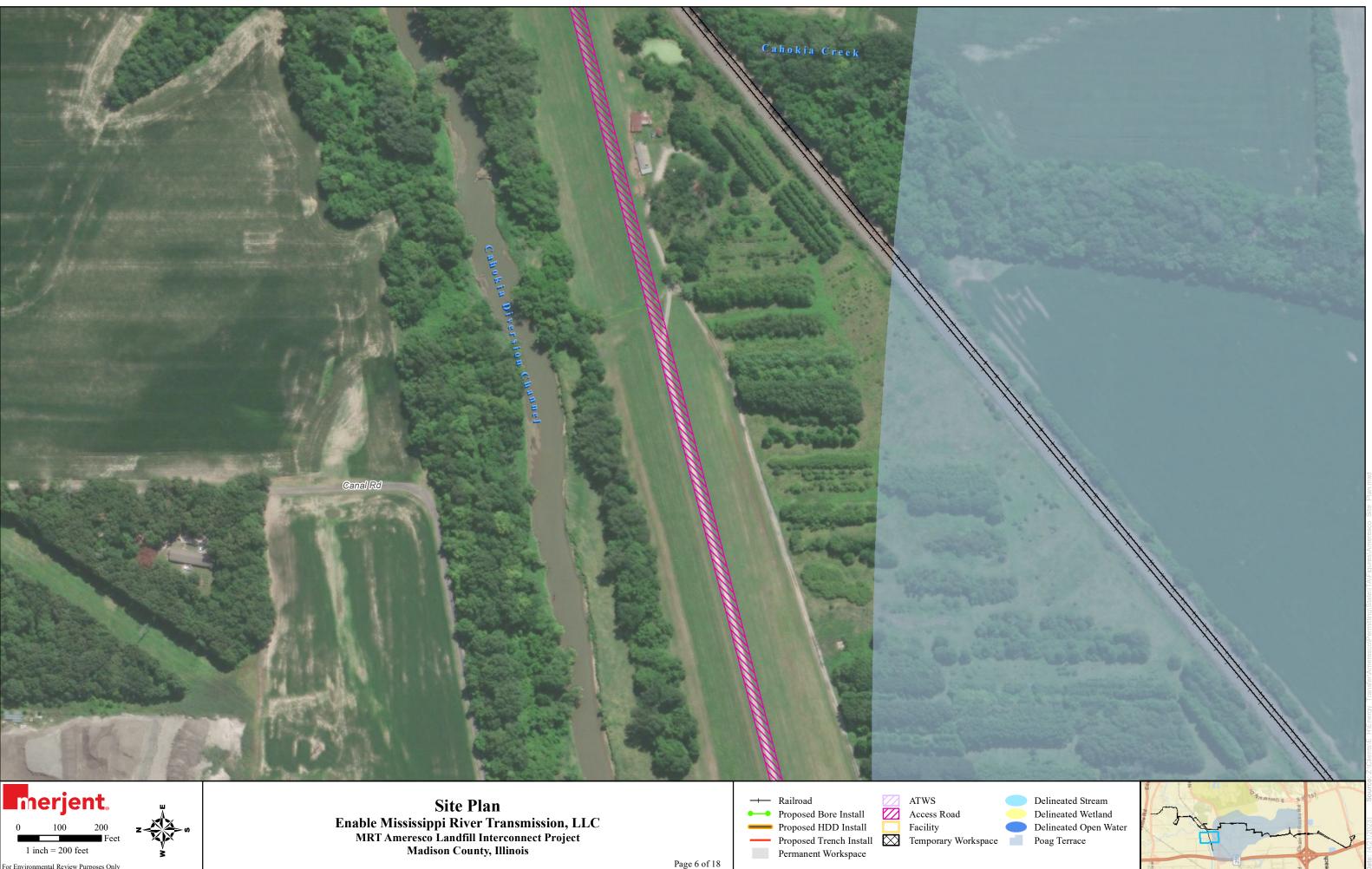






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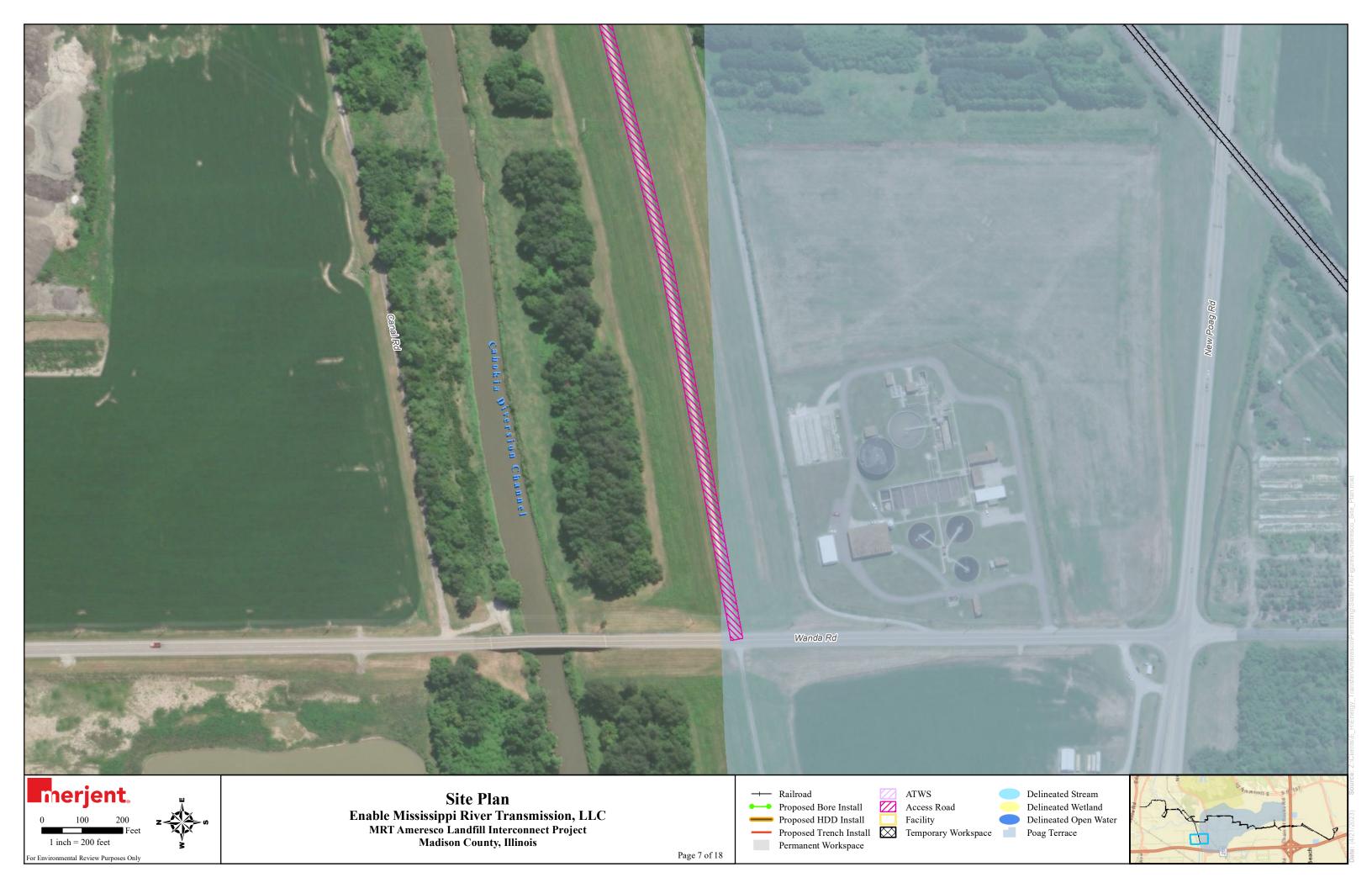


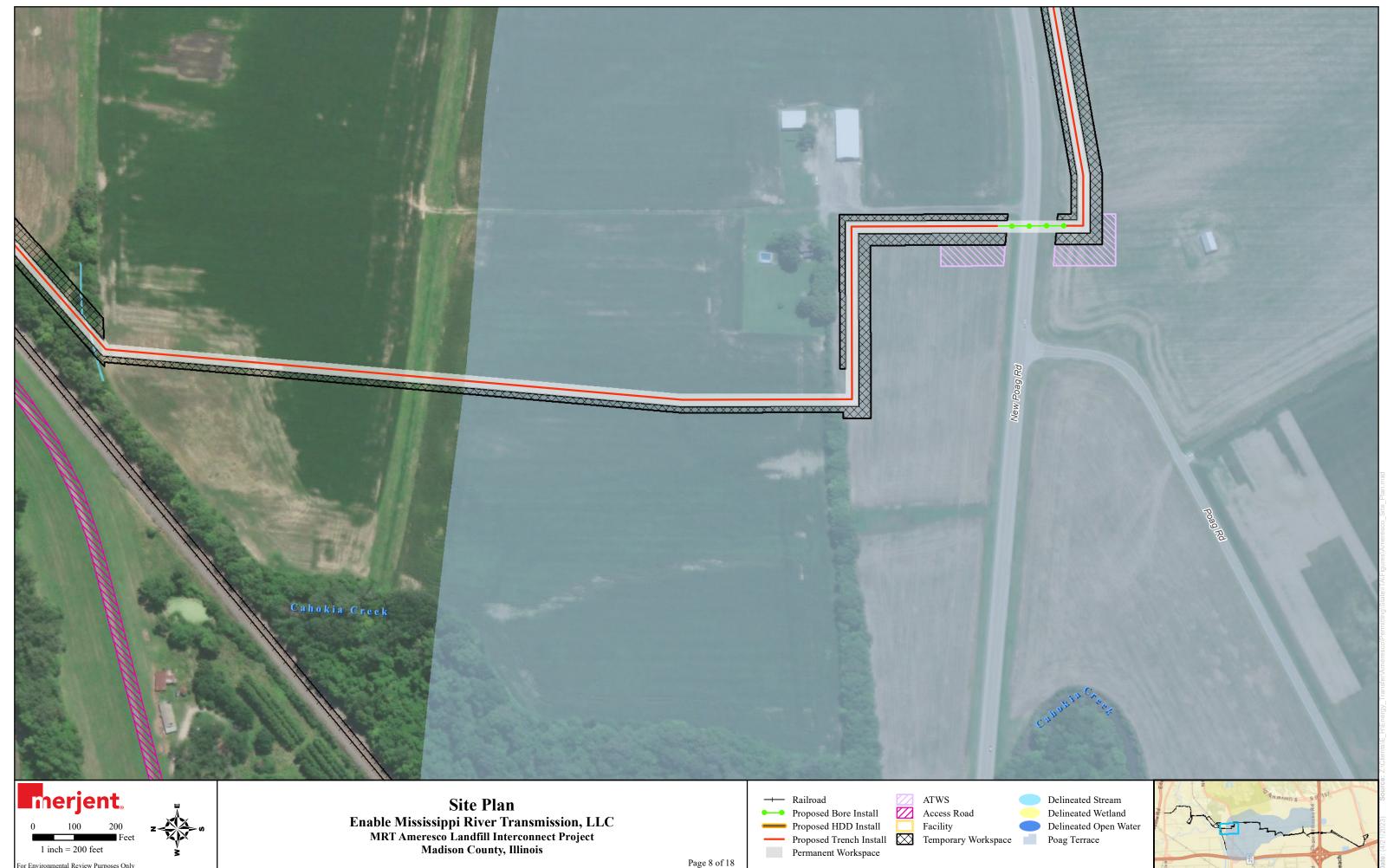




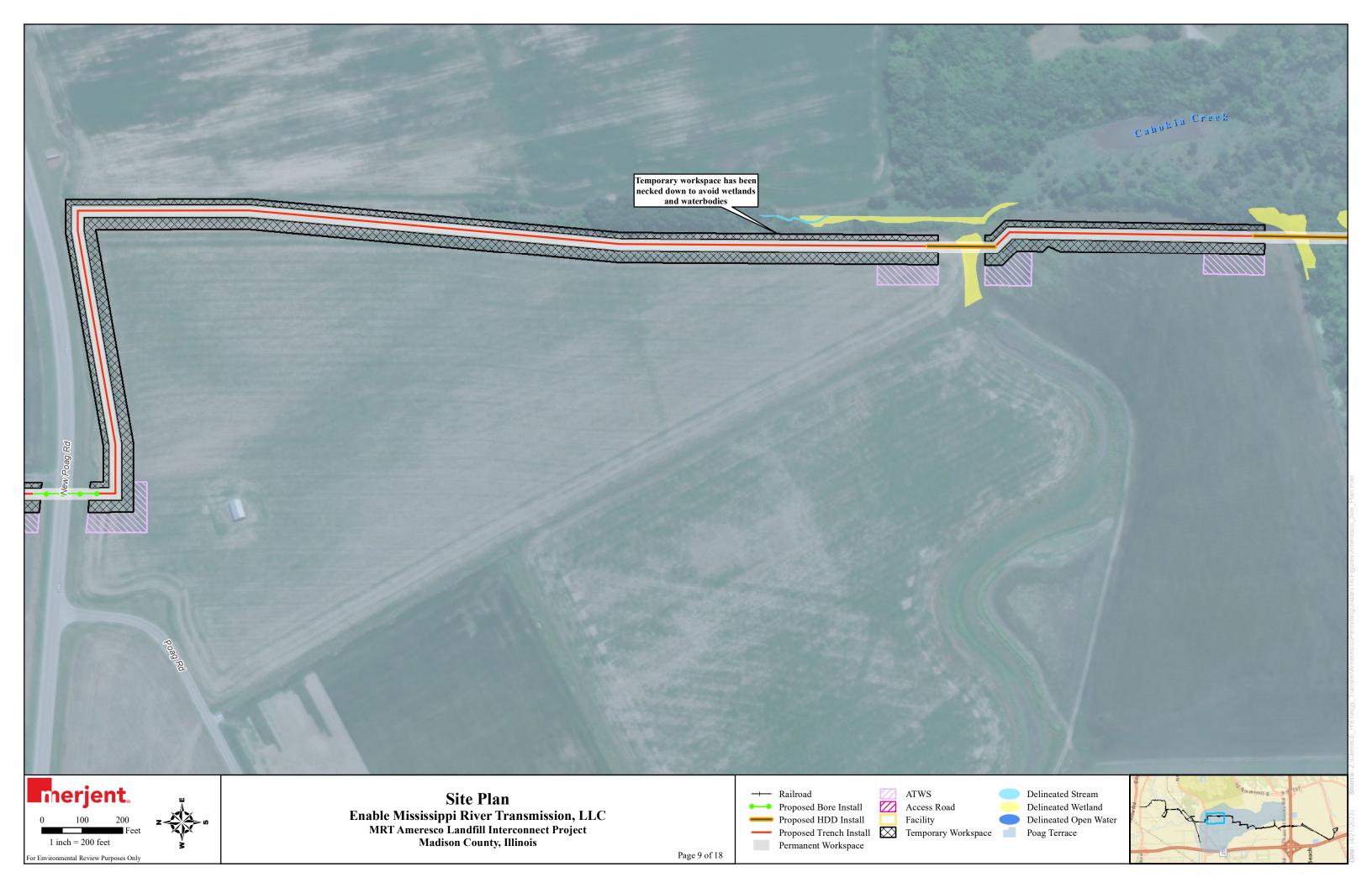


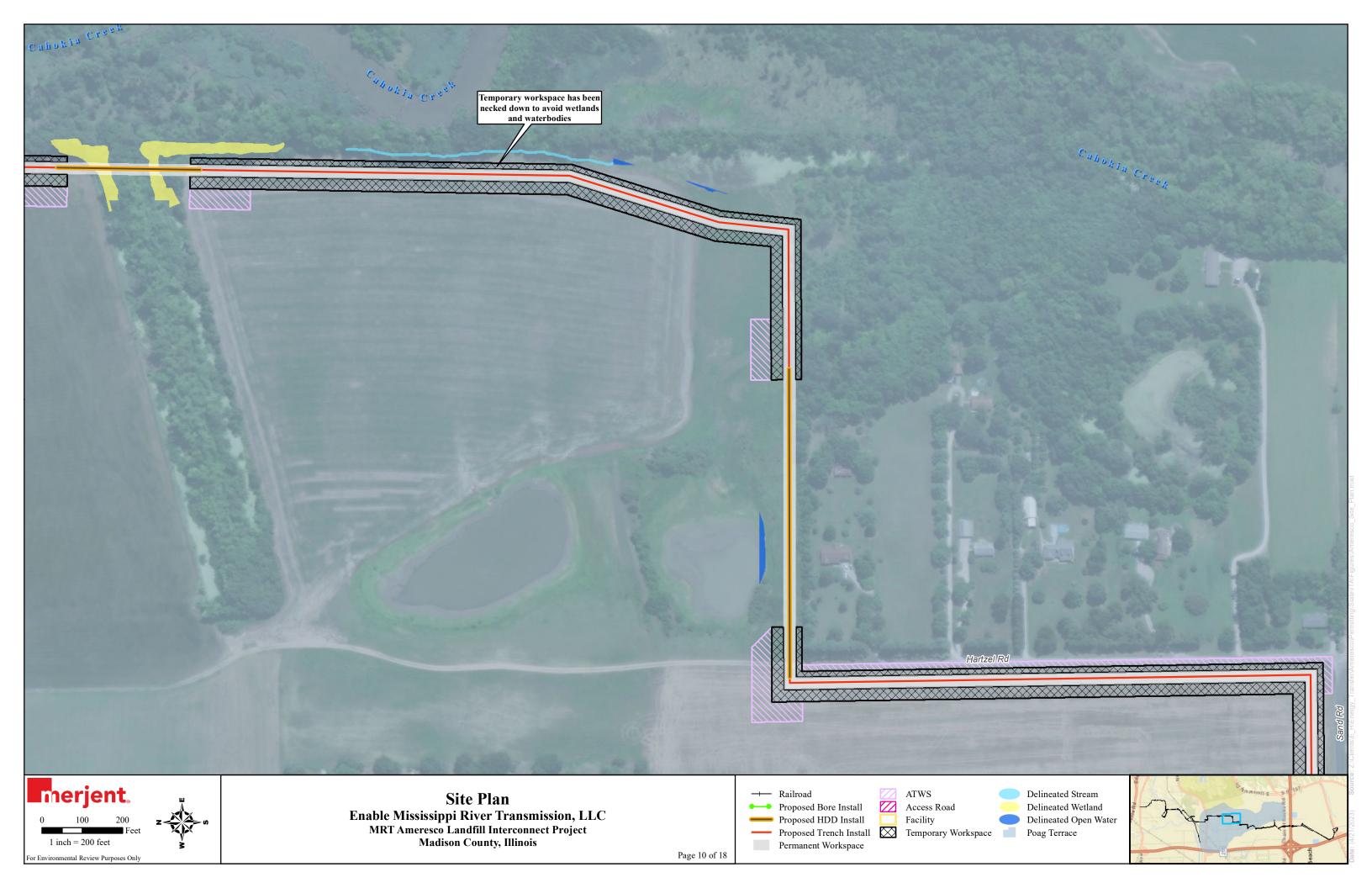


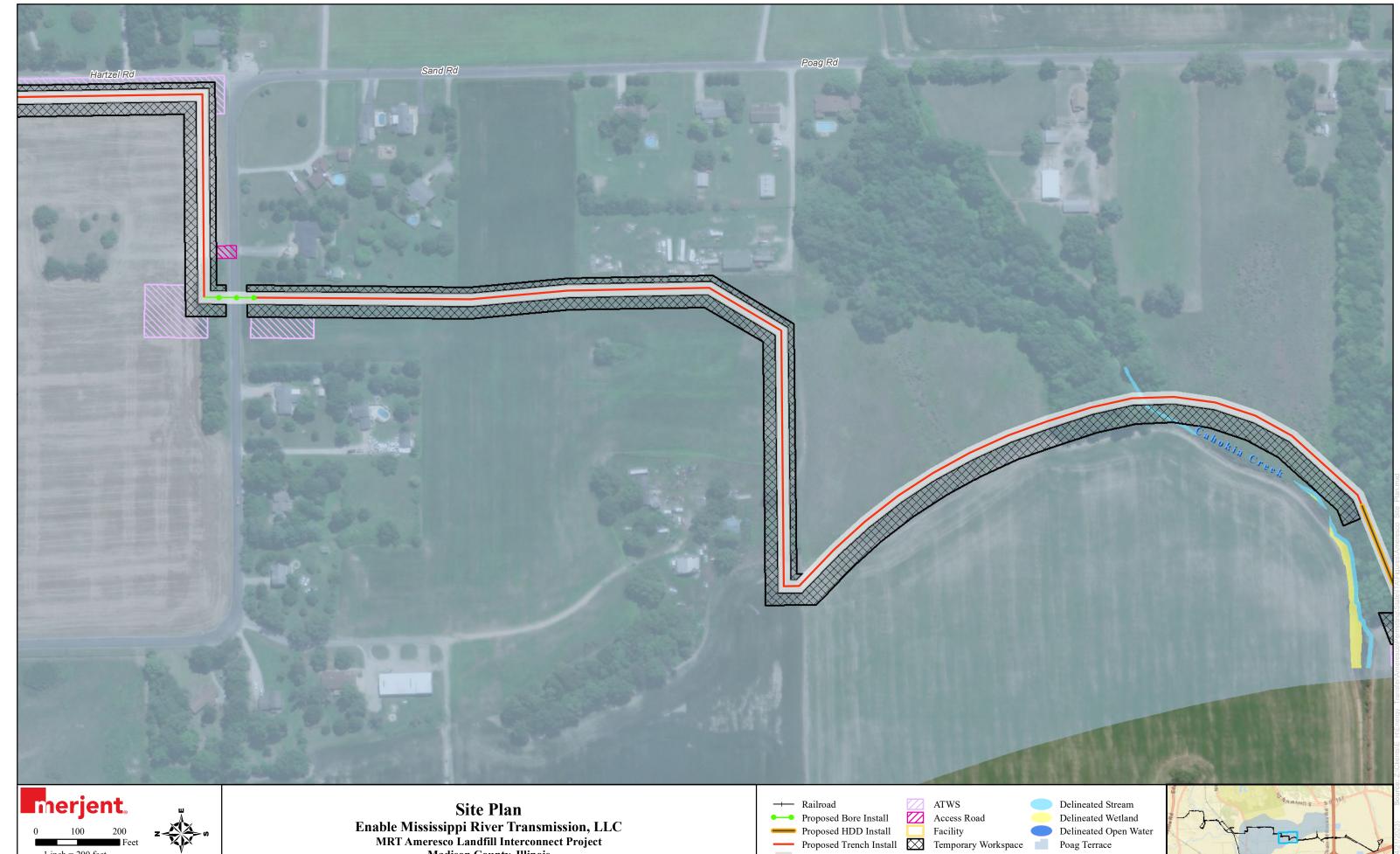




For Environmental Review Purposes Only







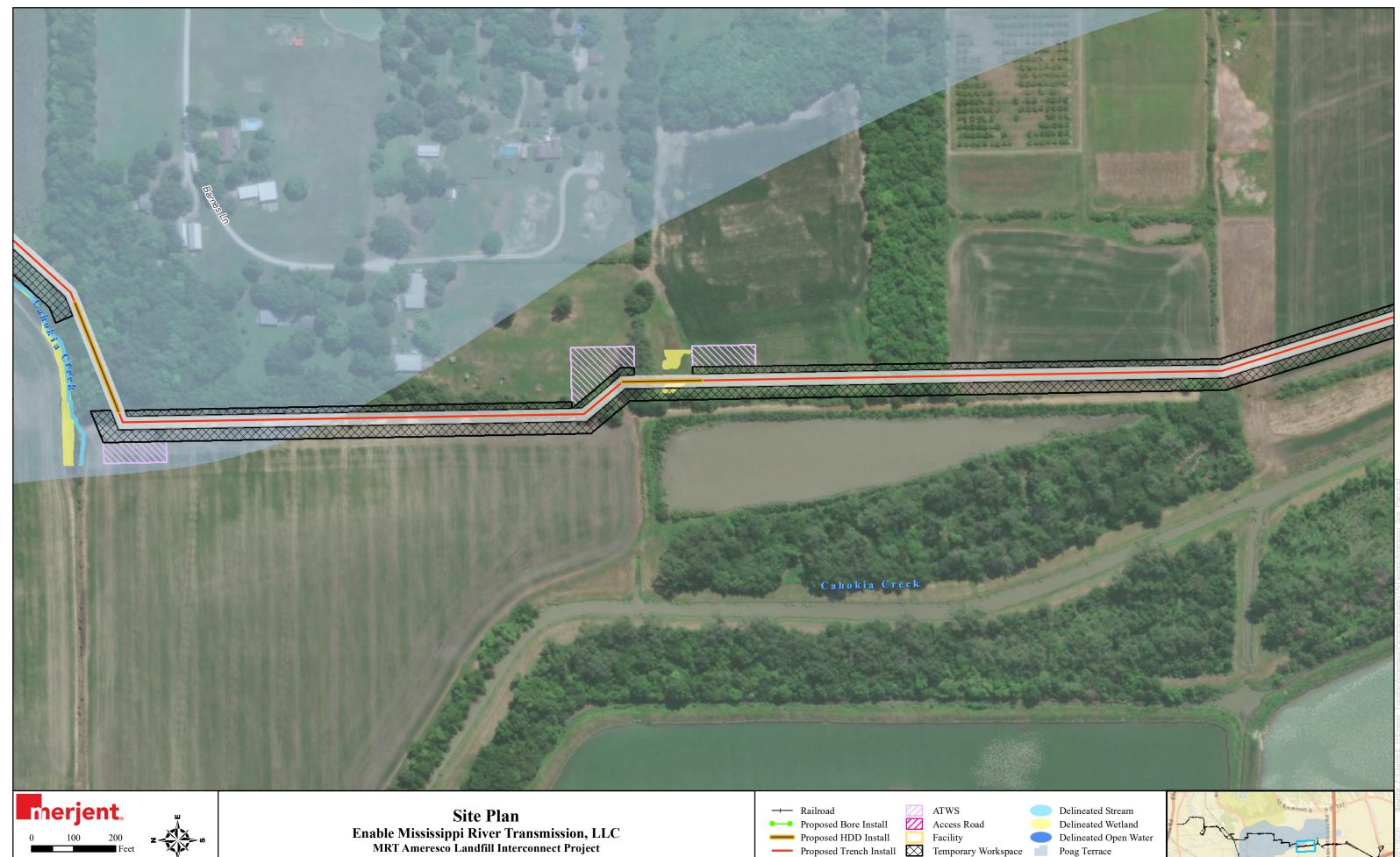


Enable Mississippi River Transmission, LLC MRT Ameresco Landfill Interconnect Project Madison County, Illinois

Permanent Workspace

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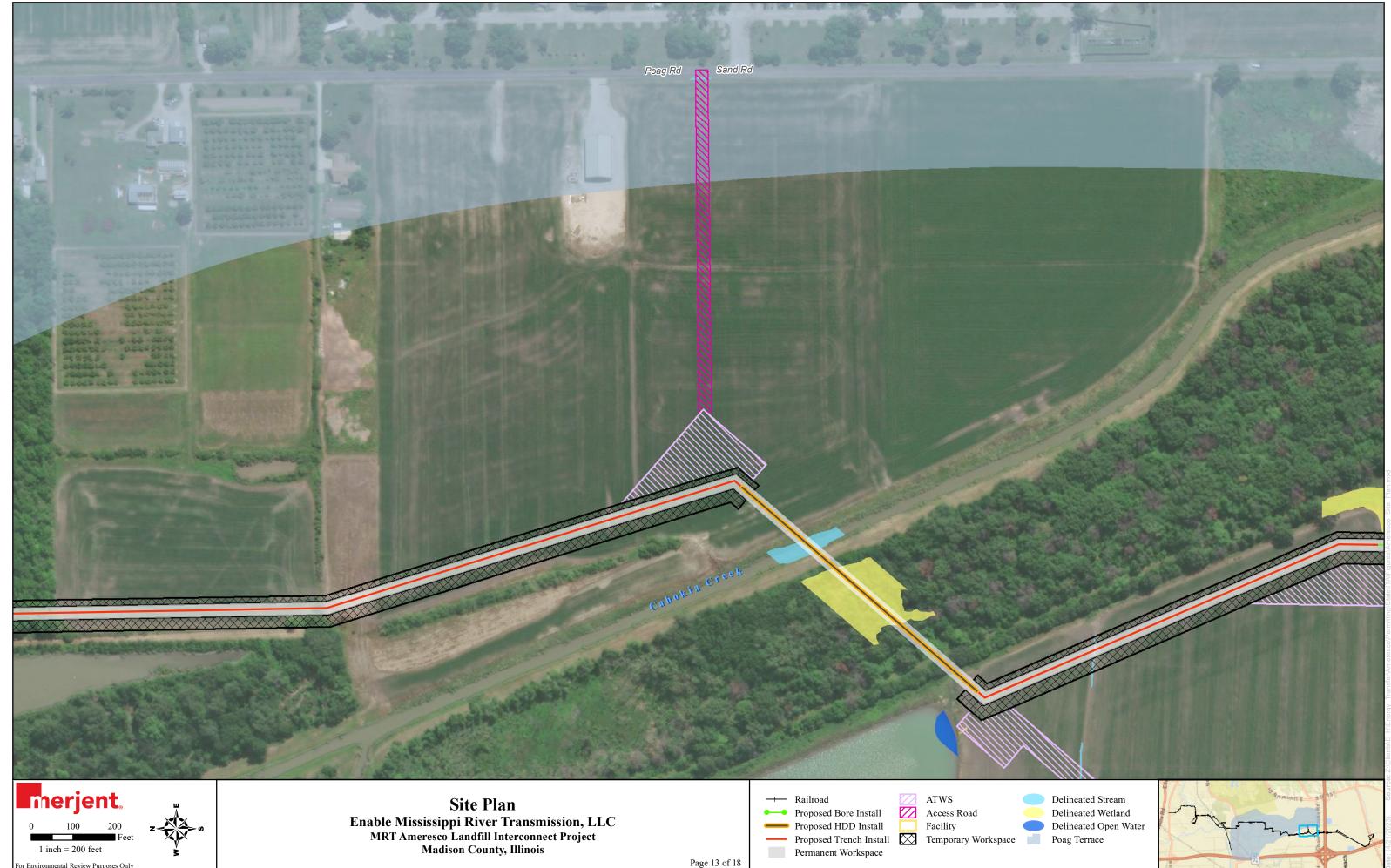


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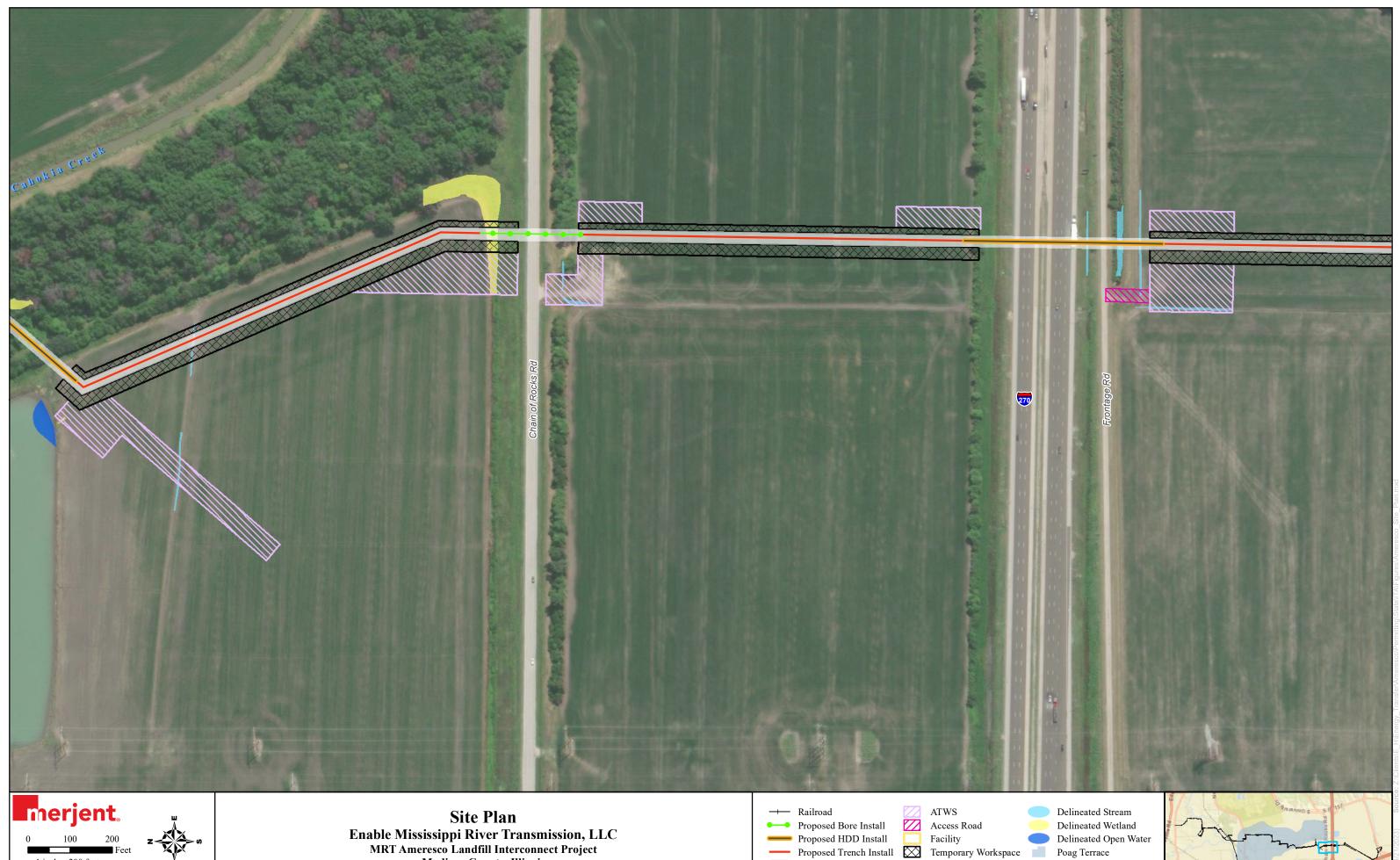
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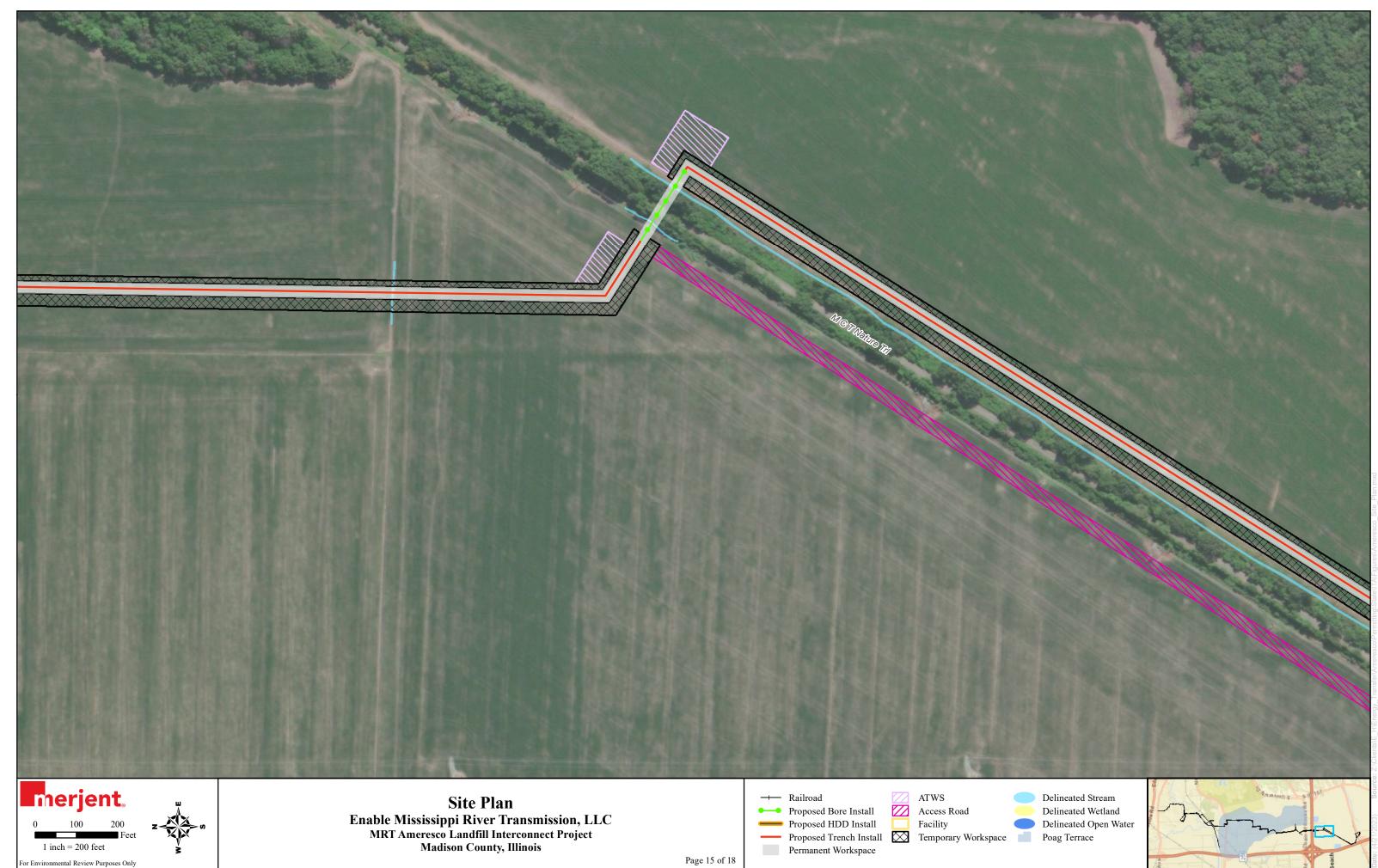


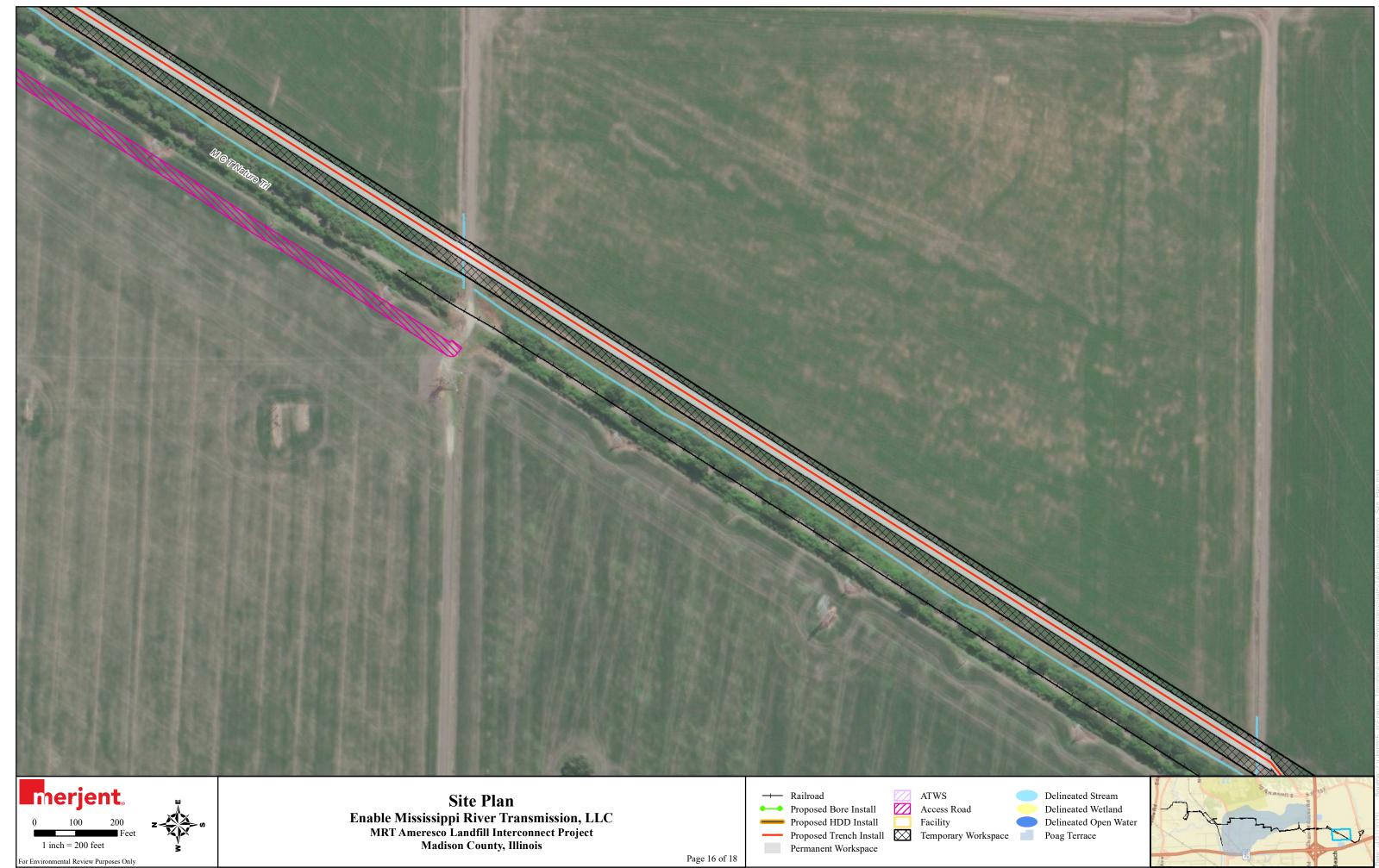
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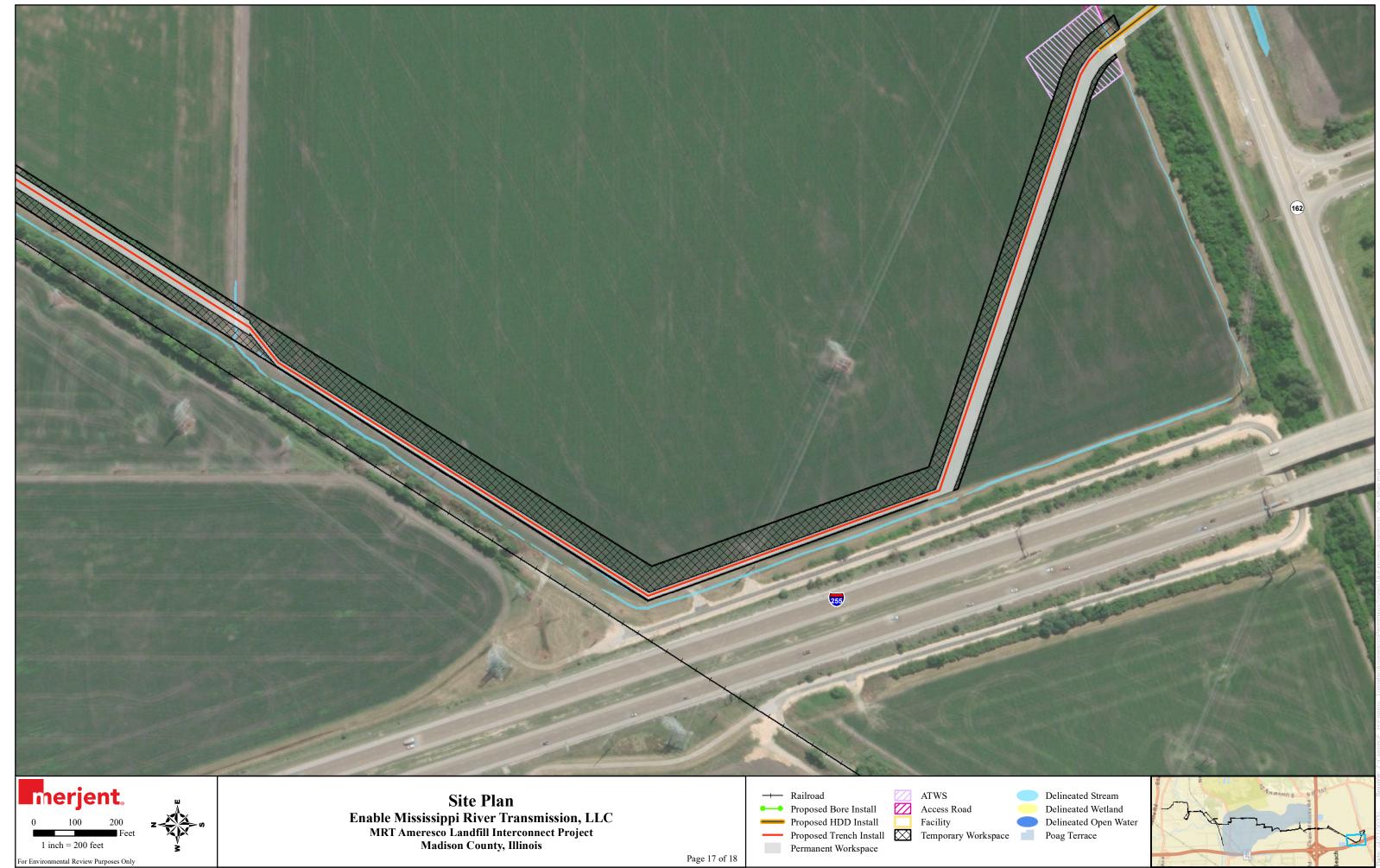
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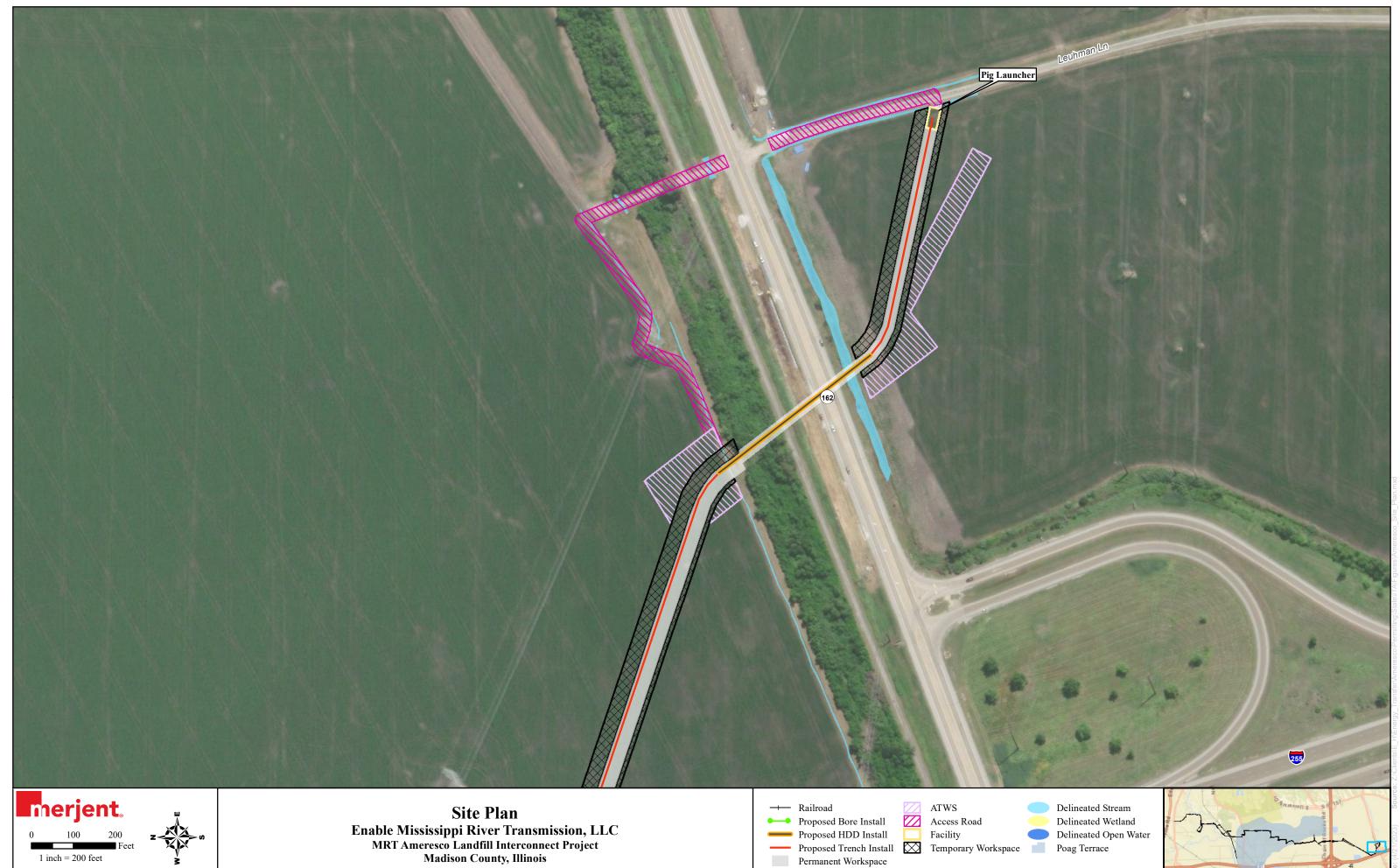
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Enable Mississippi River Transmission, LLC MRT Ameresco Landfill Interconnect Project Madison County, Illinois

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Appendix B Site Photos

Longitude

-90.03511

Photo ID UPP9001_A Feature ID UPP9001

Type Upland Latitude

38.734542

Orientation Southeast Comment

County: Madison State: Illinois Date: 9/12/2022



Photo ID	
UPP9001_B	
Feature ID	
UPP9001	
Туре	
Upland	
Latitude	Longitude
38.734542	-90.03511
Orientation	
Northwest	
Comment	
	facing Northwest

Photo of UPP9001 facing Southeast



Longitude -90.035079

Photo ID UPP9002_A Feature ID UPP9002

Type Upland Latitude

West

38.734467 Orientation

Comment

Photo of UPP9002 facing West



Photo ID		
UPP9002_B		
Feature ID		
UPP9002		
Туре		
Upland		
Latitude	Longitude	
38.734467	-90.035079	
Orientation		
East		
Comment		
Photo of UPP9002 facing East		



Longitude

-90.030123

Photo ID

Type Upland Latitude

UPP9003_A Feature ID UPP9003

38.751272

Orientation Northeast Comment County: Madison State: Illinois Date: 9/12/2022



Photo ID	
UPP9003_B	
Feature ID	
UPP9003	
Туре	
Upland	
Latitude	Longitude
38.751272	-90.030123
Orientation	
Southwest	
Comment	
Photo of UPP9003 facing Southwest	

Photo of UPP9003 facing Northeast



Longitude

-90.028953

Photo ID UPP9004_A Feature ID UPP9004 Type Upland Latitude

38.75059

North

Orientation

Comment

Photo of UPP9004 facing North



Photo ID	
UPP9004_B	
Feature ID	
UPP9004	
Туре	
Upland	
Latitude	Longitude
38.75059	-90.028953
Orientation	
South	
Comment	
Photo of LIPP9	004 facing South



Longitude

-90.028953

Photo ID UPP9004_C Feature ID UPP9004

Type Upland

East

Latitude

38.75059 Orientation

Comment

Photo of UPP9004 facing East

County: Madison State: Illinois Date: 9/12/2022



Photo ID		
UPP9004_D		
Feature ID		
UPP9004		
Туре		
Upland		
Latitude	Latitude Longitude	
38.75059	-90.028953	
Orientation		
West		
Comment		
Photo of UPP9004 facing West		



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Longitude

-90.032645

Photo ID UPP9006_A Feature ID UPP9006

Type Upland Latitude

38.74629

North

Orientation

Comment

Photo of UPP9006 facing North





Longitude

-90.035125

Photo ID UPP9007_A Feature ID UPP9007

Type Upland Latitude

38.743116

Orientation

Comment

Photo of UPP9007 facing North

North



UPP9007_B	
Feature ID	
UPP9007	
Туре	
Upland	
Latitude	Longitude
38.743116	-90.035125
Orientation	
South	
Comment	
Photo of UPP9007 fa	cing South



Photo ID

UPP9008_A

Feature ID	
UPP9008	
Туре	
Upland	
Latitude	Longitude
38.740364	-90.037565
Orientation	
North	
Comment	
Photo of UPP9008 fa	cing North



Photo ID		
UPP9008_B		
Feature ID		
UPP9008		
Туре		
Upland		
Latitude	Longitude	
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Orientation		
South		
Comment		
Photo of UPP9008 facing South		

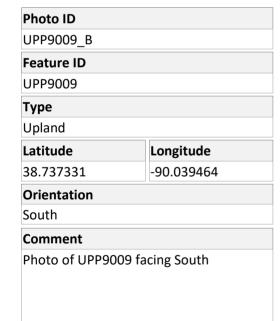


County: Madison State: Illinois Date: 9/12/2022



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Upland	
Latitude	Longitude
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Orientation	
North	
Comment	
Photo of UPP9009 facing North	

Photo ID UPP9009_A





County: Madison State: Illinois Date: 9/12/2022



UPP9010_A		
Feature ID		
UPP9010		
Туре		
Upland		
Latitude	Longitude	
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Orientation		
North		
Comment		
Photo of UPP9010 facing North		

Photo ID

Photo ID	
UPP9010_B	
Feature ID	
UPP9010	
Туре	
Upland	
Latitude	Longitude
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Orientation	
South	
Comment	
Photo of LIPP901	0 facing South



County: Madison State: Illinois Date: 9/12/2022



UPP9011_A	
Feature ID	
UPP9011	
Туре	
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Latitude	Longitude
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Orientation	
North	
Comment	
Photo of UPP9011 fa	cing North

Photo ID

Photo ID	
UPP9011_B	
Feature ID	
UPP9011	
Гуре	
Upland	
Latitude	Longitude
38.759712	-90.030109
Orientation	
South	
Comment	
Photo of UPP902	11 facing South



County: Madison State: Illinois Date: 9/12/2022



UPP9012_A	
Feature ID	
UPP9012	
Туре	
Upland	
Latitude	Longitude
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Orientation	
North	
Comment	
Photo of UPP9012 fa	cing North

Photo ID

Photo ID UPP9012_B Feature ID UPP9012

Type Upland Latitude

38.757953

Orientation

Comment

Photo of UPP9012 facing South

South



Longitude

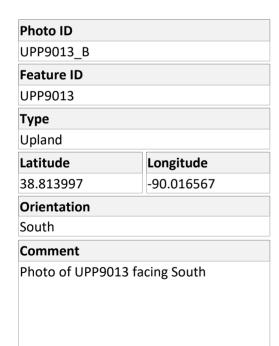
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County: Madison State: Illinois Date: 9/13/2022



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Comment	
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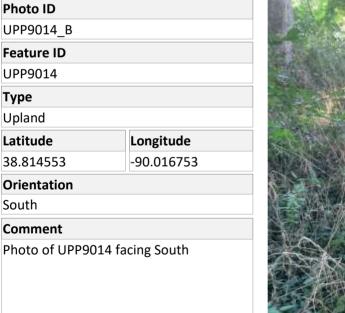
Photo ID





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UPP9014_A	
Feature ID	
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Туре	
Upland	
Latitude	Longitude
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Orientation	
North	
Comment	
Photo of UPP9014 fa	acing North





County: Madison State: Illinois Date: 9/13/2022



Photo ID

UPP9015

Туре Upland Latitude

South

Comment

UPP9015_A	
Feature ID	
UPP9015	
Туре	
Upland	
Latitude	Longitude
38.812226	-90.018342
Orientation	
North	
Comment	
	5 facing North





Longitude

-90.020602

Photo ID UPP9016_A Feature ID UPP9016

Type Upland Latitude

38.810883

Orientation

Comment

Photo of UPP9016 facing North

North



Photo ID	
UPP9016_B	
Feature ID	
UPP9016	
Туре	
Upland	
Latitude	Longitude
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Orientation	
South	
Comment	
	6 facing South





Photo ID	
UPP9017	_A

_	
Feature ID	
UPP9017	
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Upland	
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Orientation	
North	
Comment	
Photo of UPP9017	' facing North

Photo ID	
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Feature ID	
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Туре	
Upland	
Latitude	Longitude
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Orientation	
South	
Comment	
	acing South



Longitude

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Photo ID UPP9018_A Feature ID UPP9018

Type Upland Latitude

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Orientation

Comment

Photo of UPP9018 facing North

North



Photo ID	
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Feature ID	
UPP9018	
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Upland	
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South	
Comment	
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County: Madison State: Illinois Date: 9/13/2022



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Upland	
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North	
Comment	
Photo of UPP9019 fa	cing North

Photo ID UPP9019_A

Longitude
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cing South



County: Madison State: Illinois Date: 9/13/2022



Feature ID	
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Orientation	
North	
Comment	
Photo of UPP9020 fa	cing North

Photo ID UPP9020_A

Photo ID	
UPP9020_B	
Feature ID	
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Туре	
Upland	
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Orientation	
South	
Comment	
Photo of LIPPOO	20 facing South





Photo ID	
UPP9021_A	
Feature ID	
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Туре	
Upland	
Latitude	Longitude
38.819466	-90.018863
Orientation	
North	
Comment	
Photo of UPP9021 fa	cing North

eature ID	
IPP9021	
уре	
Jpland	
.atitude	Longitude
38.819466	-90.018863
Drientation	
South	
Comment	
hoto of UPP90	21 facing South



Longitude

-90.01673

Photo ID UPP9022_A Feature ID UPP9022

Type Upland Latitude

38.818924

Orientation

Comment

Photo of UPP9022 facing North

North



Photo ID	
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Feature ID	
UPP9022	
Туре	
Upland	
Latitude	Longitude
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Orientation	
South	
Comment	
Photo of UPP9022	facing South



Longitude

-90.016973

Photo ID UPP9023_A Feature ID UPP9023

Type Upland Latitude

38.81726

North

Orientation

Comment

Photo of UPP9023 facing North



Photo ID		
UPP9023_B		
Feature ID		
UPP9023		
Туре		
Upland		
Latitude		Longitude
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Orientation		
South		
Comment		
	2 f	ing South



County: Madison State: Illinois Date: 9/13/2022



Feature ID	
UPP9024	
Туре	
Upland	
Latitude	Longitude
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Orientation	
West	
Comment	
Photo of UPP9024 fa	cing West

Photo ID UPP9024_A

Photo ID	
UPP9024_B	
Feature ID	
UPP9024	
Туре	
Upland	
Latitude	Longitude
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Orientation	
East	
Comment	
)24 facing East



Longitude

-90.025734

Photo ID UPP9025_A Feature ID UPP9025

Type Upland Latitude

East

38.80048

Orientation

Comment

Photo of UPP9025 facing East



Photo ID	
JPP9025_B	
eature ID	
JPP9025	
Гуре	
Upland	
Latitude	Longitude
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Orientation	
West	
Comment	
Photo of UPP9	025 facing West



Longitude

-90.021721

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Type Upland

Latitude 38.805618

North

Orientation

Comment

Photo of UPP9026 facing North



Photo ID	
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Feature ID	
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Туре	
Upland	
Latitude	Longitude
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Orientation	
South	
Comment	
Photo of UPP9026 fa	cing South



Longitude

-90.021721

Photo ID UPP9026_C Feature ID UPP9026

Type Upland

Latitude 38.805618

Orientation Southwest Comment

County: Madison State: Illinois Date: 9/13/2022



Photo ID	
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Туре	
Upland	
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Orientation	
Northwest	
Comment	
Photo of UPP9026 fa	cing Northwest

Photo of UPP9026 facing Southwest



Longitude

-90.030833

Photo ID UPP9028_A Feature ID UPP9028

Type Upland Latitude

38.763331

Orientation

Comment

Photo of UPP9028 facing North

North



Photo ID	
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Feature ID	
UPP9028	
Туре	
Upland	
Latitude	Longitude
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Orientation	
South	
Comment	
	cing South





Photo I	D
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UPP9029_A	
Feature ID	
UPP9029	
Туре	
Upland	
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Orientation	
North	
Comment	
Photo of UPP9029 fa	cing North

Photo ID		1
UPP9029_B		
Feature ID		
UPP9029		<i>h</i>
Туре		6
Upland		
Latitude	Longitude	
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Orientation		
South		
Comment		
Photo of UPP90	29 facing South	



Longitude

-90.028584

Photo ID UPP9030_A Feature ID UPP9030

Type Upland Latitude

38.781862

Orientation

Comment

Photo of UPP9030 facing North

North



UPP9030_B	
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Туре	
Upland	
Latitude	Longitude
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East	
Comment	
Photo of UPP9030 f	acing East



Longitude

-90.028265

Photo ID UPP9031_A Feature ID UPP9031

Type Upland Latitude

38.780366

Orientation

Comment

Photo of UPP9031 facing North

North



Photo ID	
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Comment	
Photo of UPP90	31 facing South



Longitude

-90.028664

Photo ID UPP9032_A Feature ID UPP9032

Type Upland Latitude

38.77873

North

Orientation

Comment

Photo of UPP9032 facing North



Photo ID	
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Feature ID	
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Гуре	
Jpland	
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Drientation	
outh	
Comment	
Photo of UPP9	032 facing South



Longitude

-90.029514

Photo ID UPP9033_A Feature ID UPP9033

Type Upland Latitude

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Orientation

Comment

Photo of UPP9033 facing North

North



Photo ID		
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Feature ID		
UPP9033		
Туре		
Upland		
Latitude		Longitude
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Orientation		
South		
Comment		
	t fa	cing South



County: Madison State: Illinois Date: 9/14/2022



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Comment		
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Photo ID

Photo ID

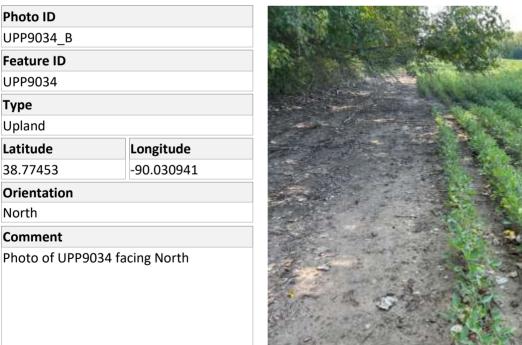
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38.77453

Comment

North

Туре Upland Latitude



Longitude

-90.030821

Photo ID UPP9035_A Feature ID UPP9035

Type Upland Latitude

38.772738

Orientation

Comment

Photo of UPP9035 facing North

North



Photo ID	
UPP9035_B	
Feature ID	
UPP9035	
Туре	
Upland	
Latitude	Longitude
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Orientation	
South	
Comment	
Photo of UPP9035 facing South	



Longitude

-90.030447

Photo ID UPP9036_A Feature ID UPP9036

Type Upland Latitude

38.769479

Orientation

Comment

Photo of UPP9036 facing North

North

County: Madison State: Illinois Date: 9/14/2022



Photo ID		
JPP9036_B		
Feature ID		
JPP9036		
Гуре		
Jpland		
Latitude	Longitud	le
38.769479	-90.0304	47
Drientation		
South		
Comment		
	facing Sout	L.



County: Madison State: Illinois Date: 9/14/2022



UPP9037_A			
Feature ID			
UPP9037			
Туре			
Upland			
Latitude	Longitude		
38.76778	-90.030766		
Orientation			
North			
Comment			
Photo of UPP9037 facing North			

Photo ID

Photo ID	
UPP9037_B	
Feature ID	
UPP9037	
Туре	
Upland	
Latitude	Longitude
38.76778	-90.030766
Orientation	
South	
Comment	
	037 facing South



Longitude

-90.029415

Photo ID UPP9038_A Feature ID UPP9038

Type Upland Latitude

38.765051

Orientation

Comment

Photo of UPP9038 facing North

North

County: Madison State: Illinois Date: 9/14/2022



Photo ID		
UPP9038_B		
Feature ID		
UPP9038		
Туре		
Upland		
Latitude	Longitude	
38.765051	-90.029415	
Orientation		
South		
Comment		
Photo of UPP9038 facing South		



Longitude

-90.021138

Photo ID UPP9039_A Feature ID UPP9039

Type Upland Latitude

38.821184

Orientation

Comment

Photo of UPP9039 facing North

North

County: Madison State: Illinois Date: 9/14/2022



Photo ID	
UPP9039_B	
Feature ID	
UPP9039	
Туре	
Upland	
Latitude	Longitude
38.821184	-90.021138
Orientation	
South	
Comment	
	facing South



County: Madison State: Illinois Date: 9/14/2022



Feature ID			
UPP9040			
Туре			
Upland			
Latitude	Longitude		
38.820922	-90.020532		
Orientation			
North			
Comment			
Photo of UPP9040 facing North			

Photo ID UPP9040_A

Photo ID	
JPP9040_B	
Feature ID	
JPP9040	
Гуре	
Jpland	
atitude	Longitude
38.820922	-90.020532
Orientation	
South	
Comment	
	facing South



County: Madison State: Illinois Date: 9/14/2022

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est		24	Ser Pr		A Y
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				X	(AR)

Feature ID			
UPP9041			
Туре			
Upland			
Latitude	Longitude		
38.820989	-90.021664		
Orientation			
Southwest			
Comment			
Photo of UPP9041 facing Southwest			

Photo ID UPP9041_A

Photo ID		
UPP9041_B		
Feature ID		
UPP9041		
Туре		
Upland		
Latitude	Longitude	
38.820989	-90.021664	
Orientation		
North		
Comment		
Photo of UPP9041 facing North		



Longitude

-90.0214

Photo ID UPP9042_A Feature ID UPP9042

Type Upland Latitude

38.820839

Orientation

Comment

Photo of UPP9042 facing North

North

County: Madison State: Illinois Date: 9/14/2022



Photo ID UPP9042_B	
011 3042_0	
Feature ID	
UPP9042	
Туре	
Upland	
Latitude	Longitude
38.820839	-90.0214
Orientation	
South	
Comment	
Photo of UPP9042 fa	cing South



Longitude

-90.030966

Photo ID UPP9043_A Feature ID UPP9043

Type Upland Latitude

38.762603

Orientation Northeast Comment County: Madison State: Illinois Date: 9/14/2022



Photo of UPP9043 fa	cing Northeast
Photo ID	
UPP9043_B	
Feature ID	
UPP9043	
Туре	
Upland	
Latitude	Longitude
38.762603	-90.030966
Orientation	
Northwest	
Comment	
Photo of UPP9043 fa	cing Northwest



County: Madison State: Illinois Date: 9/15/2022



UPP9044_A	
Feature ID	
UPP9044	
Туре	
Upland	
Latitude	Longitude
38.782902	-90.028049
Orientation	
North	
Comment	
Photo of UPP9044 facing North	

Photo ID

Photo ID	
UPP9044_B	
Feature ID	
UPP9044	
Туре	
Upland	
Latitude	Longitude
38.782902	-90.028049
Orientation	
South	
Comment	
Photo of UPP90	11 facing South



County: Madison State: Illinois Date: 9/15/2022

Photo ID		
UPP9045_A		
Feature ID		
UPP9045		
Туре		
Upland		
Latitude	Longitude	
38.787076	-90.026888	
Orientation		
North		
Comment		
Photo of UPP904	45 facing North	

Photo ID	
UPP9045_B	
Feature ID	
UPP9045	
Туре	
Upland	
Latitude	Longitude
38.787076	-90.026888
Orientation	
South	
Comment	
Photo of UPP9045	facing South



Longitude

-90.02645

Photo ID UPP9046_A Feature ID UPP9046

Type Upland Latitude

38.790108

Orientation

Comment

Photo of UPP9046 facing North

North

County: Madison State: Illinois Date: 9/15/2022



Photo ID	
UPP9046_B	
Feature ID	
UPP9046	
Туре	
Upland	
Latitude	Longitude
38.790108	-90.02645
Orientation	
South	
Comment	
	6 facing South



County: Madison State: Illinois Date: 9/15/2022

Photo ID		
UPP9047_A		
Feature ID		
UPP9047		
Туре		
Upland		
Latitude	Longitude	
38.790526	-90.023961	
Orientation		
North		
Comment		
Photo of UPP9047 facing North		



Photo ID	
UPP9047_B	
Feature ID	
UPP9047	
Туре	
Upland	
Latitude	Longitude
38.790526	-90.023961
Orientation	
South	
Comment	
Photo of UPP9047 facing South	



County: Madison State: Illinois Date: 9/16/2022



UPP9048	
Туре	
Upland	
Latitude	Longitude
38.794934	-90.023827
Orientation	
North	
Comment	
Photo of UPP9048 fa	cing North

Photo ID UPP9048_A Feature ID

Photo ID

Type Upland Latitude

UPP9048_B Feature ID UPP9048

38.794934

Orientation

Comment

Photo of UPP9048 facing South

South



Longitude

-90.023827

County: Madison State: Illinois Date: 9/16/2022

Photo ID		
UPP9049_A		
Feature ID		
UPP9049		
Туре		
Upland		
Latitude	Longitude	
38.797885	-90.02599	
Orientation		
North		
Comment		
Photo of UPP90	49 facing North	



Photo ID	
UPP9049_B	
Feature ID	
UPP9049	
Туре	
Upland	
Latitude	Longitude
38.797885	-90.02599
Orientation	
South	
Comment	
Photo of UPP9049 facing South	



Longitude

Photo ID UPP9090_A Feature ID UPP9090

Type Northwest Latitude

-90.033032 Orientation 38.733773 Comment County: Madison State: Illinois Date: 2/13/2023



Photo ID	
UPP9090_B	
Feature ID	
UPP9090	
Туре	
Southeast	
Latitude	Longitude
-90.033032	
Orientation	
38.733773	
Comment	
Photo of UPP9090 facing Southeast	

Photo of UPP9090 facing Northwest



County: Madison State: Illinois Date: 2/13/2023



UPP9091_A	
Feature ID	
UPP9091	
Туре	
Northeast	
Latitude	Longitude
-90.032875	
Orientation	
38.735159	
Comment	
Photo of UPP9091 facing Northeast	

Photo ID

Photo ID	
UPP9091_B	
Feature ID	
UPP9091	
Туре	
Southwest	
Latitude	Longitude
-90.032875	
Orientation	
38.735159	
Comment	
Photo of UPP9091 fa	cing Southwest



Longitude

Photo ID UPP9092_A Feature ID UPP9092

Type Northwest Latitude

-90.032958 Orientation 38.735326 Comment

County: Madison State: Illinois Date: 2/13/2023



Photo ID	
UPP9092_B	
Feature ID	
UPP9092	
Туре	
Southeast	
Latitude	Longitude
-90.032958	
Orientation	
38.735326	
Comment	
Photo of UPP9092 fa	cing Southeast

Photo of UPP9092 facing Northwest



Longitude

Photo ID UPP9093_A Feature ID UPP9093

Type Northeast Latitude

-90.034041 Orientation 38.735158 Comment County: Madison State: Illinois Date: 2/13/2023



UPP9093_B Feature ID UPP9093 Type	
UPP9093	
Туре	
Southwest	
Latitude	Longitude
-90.034041	
Orientation	
38.735158	
Comment	
Photo of UPP9093 fac	ing Southwest

Photo of UPP9093 facing Northeast



Longitude

Photo ID UPP9094_A Feature ID UPP9094

Type Northeast Latitude

-90.035903 Orientation 38.734413 Comment

County: Madison State: Illinois Date: 2/13/2023



Photo ID	
UPP9094_B	
Feature ID	
UPP9094	
Туре	
Southwest	
Latitude	Longitude
-90.035903	
Orientation	
38.734413	
Comment	
Photo of UPP9094 fa	cing Southwest

Photo of UPP9094 facing Northeast



County: Madison State: Illinois Date: 2/13/2023



Photo ID		
UPP9095_A		
Feature ID		
UPP9095		
Туре		
Northwest		
Latitude	Longitude	
-90.038388		
Orientation		
Orientation 38.734506		
38.734506	cing Northwest	
38.734506 Comment	cing Northwest	
38.734506 Comment	cing Northwest	
38.734506 Comment	cing Northwest	

Photo ID	
UPP9095_B	
Feature ID	
UPP9095	
Туре	
Southeast	
Latitude	Longitude
-90.038388	
Orientation	
38.734506	
Comment	
	cing Southeast



County: Madison State: Illinois Date: 2/14/2023

Photo ID		
UPP9096_A		
Feature ID		
UPP9096		
Туре		
Southwest		
Latitude	Longitude	
-90.034181		
Orientation		
38.803903		
Comment		
Photo of UPP9096 facing Southwest		



Photo ID		
UPP9096_B		
Feature ID		
UPP9096		
Туре		
Northeast		
Latitude	Longitude	
-90.034181		
Orientation		
38.803903		
Comment		
Photo of UPP9096 facing Northeast		



PHOTOGRAPHIC LOG

Project Name:Ameresco Landfill ProjectClient Name:Enable Mississippi River TransmissionSamplingPoint:Soil StationFeature Id:UPP9097

Longitude

Photo ID UPP9097_A Feature ID UPP9097

Type East Latitude

-90.027528 Orientation 38.805244 Comment

Photo of UPP9097 facing East

County: Madison State: Illinois Date: 2/14/2023



Photo ID		
UPP9097_B		
Feature ID		
UPP9097		
Туре		
West		
Latitude	Longitude	
-90.027528		
Orientation		
38.805244		
Comment		
Photo of UPP9097 facing West		



Longitude

Photo ID UPP9098_A Feature ID UPP9098

Type Southwest Latitude

-90.020249 Orientation 38.809394 Comment

County: Madison State: Illinois Date: 2/14/2023



Photo ID		
UPP9098_B		
Feature ID		
UPP9098		
Туре		
Northeast		
Latitude	Longitude	
-90.020249		
Orientation		
38.809394		
Comment		
Photo of UPP9098 fa	cing Northeast	

Photo of UPP9098 facing Southwest



County: Madison State: Illinois Date: 2/14/2023



UPP9099_A	
Feature ID	
UPP9099	
Туре	
Northwest	
Latitude	Longitude
-90.017782	
Orientation	
Orientation 38.81126	
38.81126	cing Northwest
38.81126 Comment	cing Northwest
38.81126 Comment	cing Northwest

Photo ID

Photo ID		
UPP9099_B		N. A. Mark
Feature ID		
UPP9099		and the second
Туре		The state of the
Southwest		
Latitude	Longitude	1 T.
-90.017782		
Orientation		and the second
38.81126		1.10
Comment		States .
Photo of UPP9099 fa	cing Southwest	



Longitude

Photo ID UPP9100_A Feature ID UPP9100

Type Northeast Latitude

-90.02478 Orientation 38.807098 Comment County: Madison State: Illinois Date: 2/14/2023



Photo ID	
UPP9100_B	
Feature ID	
UPP9100	
Туре	
Southwest	
Latitude	Longitude
-90.02478	
Orientation	
38.807098	
Comment	
Photo of UPP9100 fa	cing Southwest

Photo of UPP9100 facing Northeast



County: Madison State: Illinois Date: 2/14/2023

Photo ID		S. Charles
UPP9101_A		A STATE
Feature ID		and the second
UPP9101		- 9K./
Туре		Allow T
Northeast		
Latitude	Longitude	
-90.024505		a sharan
Orientation		
38.808673		Sec. St.
Comment		
Photo of UPP9101 fa	cing Northeast	



Photo ID	
UPP9101_B	
Feature ID	
UPP9101	
Туре	
Southwest	
Latitude	Longitude
-90.024505	
Orientation	
38.808673	
Comment	
Photo of UPP9101 fa	cing Southwest



County: Madison State: Illinois Date: 2/14/2023



Photo ID	
UPP9102_A	
Feature ID	
UPP9102	
Туре	
East	
Latitude	Longitude
-90.027048	
Orientation	
38.765005	
Comment	
Photo of UPP9102 fa	cing East

Photo ID	
UPP9102_B	
Feature ID	
UPP9102	
Туре	
West	
Latitude	Longitude
-90.027048	
Orientation	
38.765005	
Comment	
Photo of UPP9102 fa	cing West



County: Madison State: Illinois Date: 2/14/2023



UPP9103_A	
Feature ID	
UPP9103	
Туре	
South	
Latitude	Longitude
-90.030573	
Orientation	
Orientation 38.755858	
38.755858	cing South
38.755858 Comment	cing South
38.755858 Comment	cing South
38.755858 Comment	cing South

Photo ID

UPP9103_B	
Feature ID	
UPP9103	
Туре	
North	
Latitude	Longitude
-90.030573	
Orientation	
38.755858	
Comment	
	cing North



County: Madison State: Illinois Date: 2/14/2023



Photo ID		
UPP9104_A		
Feature ID		
UPP9104		
Туре		
Southwest		
Latitude	Longitude	
-90.031647		
Orientation		
38.748769		
Comment		
Photo of UPP9104 facing Southwest		

Photo ID	
UPP9104_B	
Feature ID	
UPP9104	
Туре	
Northeast	
Latitude	Longitude
-90.031647	
Orientation	
38.748769	
Comment	
Photo of UPP9104 fa	cing Northeast
1	



County: Madison State: Illinois Date: 2/14/2023

Photo ID		A Kitt
UPP9105_A		
Feature ID		an Ha
UPP9105		A A A
Туре		
Northeast		South State
Latitude	Longitude	-
-90.029978		
Orientation		Service and
38.75083		
Comment		
Photo of UPP9105 fa	cing Northeast	



Photo ID	
UPP9105_B	
Feature ID	
UPP9105	
Туре	
Southwest	
Latitude	Longitude
-90.029978	
Orientation	
38.75083	
Comment	
Photo of UPP9105 fa	cing Southwest



Longitude

Photo ID UPP9106_A Feature ID UPP9106

Type Southwest Latitude

-90.030508 Orientation 38.759929 Comment County: Madison State: Illinois Date: 2/14/2023



Photo ID	
UPP9106_B	
Feature ID	
UPP9106	
Туре	
Northeast	
Latitude	Longitude
-90.030508	
Orientation	
38.759929	
Comment	
Photo of UPP9106 fa	cing Northeast

Photo of UPP9106 facing Southwest



County: Madison State: Illinois Date: 2/14/2023

Photo ID	
UPP9107_A	
Feature ID	
UPP9107	
Туре	
Southwest	
Latitude	Longitude
-90.034847	
Orientation	
38.734717	
Comment	
Photo of UPP9107 fa	cing Southwest



Photo ID	
UPP9107_B	
Feature ID	
UPP9107	
Туре	
Northeast	
Latitude	Longitude
-90.034847	
Orientation	
38.734717	
Comment	
Photo of UPP9107 fa	cing Northeast



Longitude

Photo ID UPP9108_A Feature ID UPP9108

Type West Latitude

-90.037772 Orientation 38.733762 Comment

Photo of UPP9108 facing West

County: Madison State: Illinois Date: 2/14/2023



Photo ID	
UPP9108_B	
Feature ID	
UPP9108	
Туре	
East	
Latitude	Longitude
-90.037772	
Orientation	
38.733762	
Comment	
Photo of UPP9108 fa	icing East



County: Madison State: Illinois Date: 9/13/2022



WP9001_UP_A

Feature ID

WP9001_UP

Туре

Upland

Latitude	Longitude
38.809123	-90.023331

Orientation

North

Comment

Photo of WP9001_UP facing North

Photo ID		
WP9001_UP_B		
Feature ID		
WP9001_UP		
Туре		
Upland		
Latitude	L	ongitude
38.809123	-9	0.023331
Orientation		
South		
Comment		
		acing South



 Project Name:
 Ameresco Landfill Project

 Client Name:
 Enable Mississippi River Transmission

 SamplingPoint:
 Soil Station

 Feature Id:
 WP9001_WET_PFO

County: Madison State: Illinois Date: 9/13/2022



WP9001_WET_PFO_A

Feature ID

WP9001_WET_PFO

Туре

Wetland

Latitude	Longitude
38.808978	-90.023214

Orientation

North

Comment

Photo of WP9001_WET_PFO facing North



Photo ID

WP9001_WET_PFO_B

Feature ID

WP9001_WET_PFO

Туре

Latitude	Longitude
38.808978	-90.023214

Orientation

South

Comment

Photo of WP9001_WET_PFO facing South



County: Madison State: Illinois Date: 9/13/2022



Photo ID

WP9002_UP_A

Feature ID

WP9002_UP

Туре

Upland

 Latitude
 Longitude

 38.806525
 -90.02346

Orientation

North

Comment

Photo of WP9002_UP facing North

		Contraction of the
		and the
E ANT		Sold State
	A CAR	
	Constant of	1000
	N-T-M	J. C. C.

Photo ID

WP9002_UP_B

Feature ID

WP9002_UP

Туре	
Upland	
Latitude	Longitude
38.806525	-90.02346
Orientation	

South

Comment

Photo of WP9002_UP facing South



Page 71 of 115

 Project Name:
 Ameresco Landfill Project

 Client Name:
 Enable Mississippi River Transmission

 SamplingPoint:
 Soil Station

 Feature Id:
 WP9002_WET_PEM

County: Madison State: Illinois Date: 9/13/2022

Photo ID

WP9002_WET_PEM_A

Feature ID

WP9002_WET_PEM

Туре

Wetland

Latitude	Longitude
38.806718	-90.023075

Orientation

North

Comment

Photo of WP9002_WET_PEM facing North



Photo ID

WP9002_WET_PEM_B

Feature ID

WP9002_WET_PEM

Туре

Wetland

Latitude	Longitude
38.806718	-90.023075

Orientation

South

Comment

Photo of WP9002_WET_PEM facing South



Page 72 of 115

Photo ID		
WP9003_UP_A		
Feature ID		
WP9003_UP		
Туре		
Upland		
Latitude	Longitude	
38.790893	-90.021975	
Orientation		
Northeast		
Comment		
Photo of WP9003_UP facing Northeast		



Longitude
-90.021975
UP facing Southwest



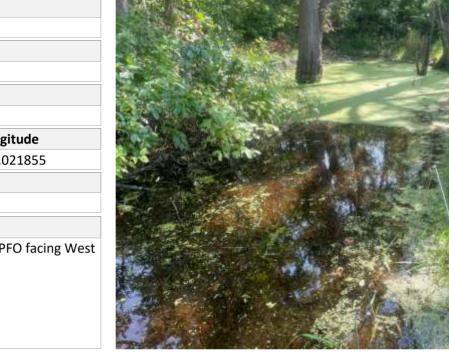
 Project Name:
 Ameresco Landfill Project

 Client Name:
 Enable Mississippi River Transmission

 SamplingPoint:
 Soil Station

 Feature Id:
 WP9003_WET_PFO

County: Madison State: Illinois Date: 9/15/2022



Feature ID		
WP9003_WET_PFO		
Туре		
Wetland		
Latitude	Longitude	
38.790934	-90.021855	
Orientation		
West		
Comment		
Photo of WP9003_WET_PFO facing We		

Photo ID

WP9003_WET_PFO_A





 Project Name:
 Ameresco Landfill Project

 Client Name:
 Enable Mississippi River Transmission

 SamplingPoint:
 Soil Station

 Feature Id:
 WP9004_UP

County: Madison State: Illinois Date: 9/15/2022



Photo ID

WP9004_UP_A

Feature ID

WP9004_UP

-	
Ivno	
IVDC	

Upland

Latitude	Longitude
38.793136	-90.022149

Orientation

North

Comment

Photo of WP9004_UP facing North

Photo ID		1000
WP9004_UP_B		
Feature ID		
WP9004_UP		12
Туре		
Upland		Ser.
Latitude	Longitude	
38.793136	-90.022149	
Orientation		SAS.
South		Ne no
Comment		100
Photo of WP9004_U	P facing South	7/20



 Project Name:
 Ameresco Landfill Project

 Client Name:
 Enable Mississippi River Transmission

 SamplingPoint:
 Soil Station

 Feature Id:
 WP9004_WET_PEM

County: Madison State: Illinois Date: 9/15/2022

Photo ID

WP9004_WET_PEM_A

Feature ID

WP9004_WET_PEM

Туре

Wetland

Latitude	Longitude
38.792996	-90.022146

Orientation

Northeast

Comment

Photo of WP9004_WET_PEM facing Northeast



Photo ID

WP9004_WET_PEM_B

Feature ID

WP9004_WET_PEM

Туре

Wetland	
---------	--

Latitude	Longitude
38.792996	-90.022146

Orientation

Southwest

Comment

Photo of WP9004_WET_PEM facing Southwest



Longitude

-90.029946

Photo ID

Type Upland Latitude

38.760591

Orientation Northwest Comment

WP9005_UP_A Feature ID WP9005_UP County: Madison State: Illinois Date: 9/14/2022



Photo ID		
WP9005_UP_B		
Feature ID		
WP9005_UP		
Туре		
Upland		
Latitude	Longitude	
38.760591	-90.029946	
Orientation		
Northeast		
Comment		
Photo of WP9005_UP facing Northeast		
_	U	

Photo of WP9005_UP facing Northwest



 Project Name:
 Ameresco Landfill Project

 Client Name:
 Enable Mississippi River Transmission

 SamplingPoint:
 Soil Station

 Feature Id:
 WP9005_UP_B

County: Madison State: Illinois Date: 9/14/2022

WP9005_UP_B_A		
Feature ID		
WP9005_UP_B		
Туре		
Upland		
Latitude	Longitude	
38.760866	-90.029515	
Orientation		
North		
Comment		
Photo of WP9005_UP_B facing North		

Photo ID



Photo ID	
WP9005_UP_B_B	
Feature ID	
WP9005_UP_B	
Туре	
Upland	
Latitude	Longitude
38.760866	-90.029515
Orientation	
South	
Comment	
Photo of WP9005_U	P_B facing South



Project Name: Ameresco Landfill Project **Client Name:** Enable Mississippi River Transmission SamplingPoint: Soil Station Feature Id: WP9005_WET_PEM

County: Madison State: Illinois Date: 9/14/2022



	-	
Feature ID		
WP9005_WET_PEM		
Туре		
Wetland		
Latitude	Longitude	
38.760488	-90.030434	
Orientation		
East		
Comment		
Photo of WP9005_WET_PEM facing East		

Photo ID

Photo ID

Feature ID

Туре Wetland

Latitude 38.760488

West

Orientation

Comment

WP9005_WET_PEM_B

WP9005_WET_PEM

WP9005_WET_PEM_A



Longitude

-90.030434

 Project Name:
 Ameresco Landfill Project

 Client Name:
 Enable Mississippi River Transmission

 SamplingPoint:
 Soil Station

 Feature Id:
 WP9006_UP

Longitude

-90.030428

Photo ID

Type Upland Latitude

38.763679

Orientation Southeast Comment

WP9006_UP_A Feature ID WP9006_UP County: Madison State: Illinois Date: 9/14/2022



Photo ID		
WP9006_UP_B		
Feature ID		
WP9006_UP		
Туре		
Upland		
Latitude	Longitude	
38.763679	-90.030428	
Orientation		
Northwest		
Comment		
Photo of WP9006_UP facing Northwest		

Photo of WP9006_UP facing Southeast



Project Name: Ameresco Landfill Project **Client Name:** Enable Mississippi River Transmission SamplingPoint: Soil Station Feature Id: WP9006_UP_B

County: Madison State: Illinois Date: 9/14/2022

Photo ID		
WP9006_UP_B_A		
Feature ID		NS AN A STATE
WP9006_UP_B		
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Latitude	Longitude	
38.764222	-90.030071	
Orientation		的成本的第三人称单数的复数形式
Northwest		
Comment		
Photo of WP9006_UP_B facing Northwest		
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WP9006_UP_B_B		Tartin Dilling and the second
Feature ID		
WP9006_UP_B		and the second
Туре		

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WP9006_UP_B_B		
Feature ID		
WP9006_UP_B		
Туре		
Upland		
Latitude	Longitude	
38.764222	-90.030071	
Orientation		
Southeast		
Comment		
Photo of WP9006_UP_B facing Southeast		



 Project Name:
 Ameresco Landfill Project

 Client Name:
 Enable Mississippi River Transmission

 SamplingPoint:
 Soil Station

 Feature Id:
 WP9006_WET_PFO

County: Madison State: Illinois Date: 9/14/2022

Photo ID

WP9006_WET_PFO_A

Feature ID

WP9006_WET_PFO

Туре

Wetland

Latitude	Longitude
38.763757	-90.030541

Orientation

North

Comment

Photo of WP9006_WET_PFO facing North



Photo ID

WP9006_WET_PFO_B

Feature ID

WP9006_WET_PFO

Туре	
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Latitude	Longitude
38.763757	-90.030541

Orientation

South

Comment

Photo of WP9006_WET_PFO facing South



 Project Name:
 Ameresco Landfill Project

 Client Name:
 Enable Mississippi River Transmission

 SamplingPoint:
 Soil Station

 Feature Id:
 WP9006_WET_PFO_B

County: Madison State: Illinois Date: 9/14/2022

Feature ID		
WP9006_WET_PFO_	В	
Туре		
Wetland		
Latitude	Longitude	
38.764088	-90.030405	
Orientation		
North		
Comment		
Photo of WP9006_WET_PFO_B facing		
North		



Photo	ID
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Photo ID

WP9006_WET_PFO_B_A

WP9006_WET_PFO_B_B

Feature ID

WP9006_WET_PFO_B

Туре

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Latitude	Longitude		
38.764088	-90.030405		

Orientation

South

Comment

Photo of WP9006_WET_PFO_B facing South



Page 83 of 115

County: Madison State: Illinois Date: 9/14/2022



Photo ID

WP9007_UP_A

Feature ID	
WP9007_UP	
Туре	
Upland	
Latitude	Longitude
38.775077	-90.031052
Orientation	
Northwest	
Comment	
Photo of WP9007	7_UP facing Northwest



Photo ID

WP9007_UP_B

Feature ID

WP9007_UP

Т	y	p	е

U	p	a	n	d
-	r .	-	•••	

Latitude	Longitude		
38.775077	-90.031052		

Orientation

Northeast

Comment

Photo of WP9007_UP facing Northeast



Page 84 of 115

 Project Name:
 Ameresco Landfill Project

 Client Name:
 Enable Mississippi River Transmission

 SamplingPoint:
 Soil Station

 Feature Id:
 WP9007_WET_PEM

County: Madison State: Illinois Date: 9/14/2022



WP9007_WET_PEM_A

Feature ID

WP9007_WET_PEM

Туре

Wetland

Latitude		Longitude		
	38.775014	-90.030928		

Orientation

West

Comment

Photo of WP9007_WET_PEM facing West

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	S. Collar			國於內面	法的科技	
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					1940	
					1	AV &
					STATES -	

Photo ID

WP9007_WET_PEM_B

Feature ID

WP9007_WET_PEM

Туре

Latitude	Longitude
Wetland	

38.775014

Orientation

East

Comment

Photo of WP9007_WET_PEM facing East

-90.030928

 Project Name:
 Ameresco Landfill Project

 Client Name:
 Enable Mississippi River Transmission

 SamplingPoint:
 Soil Station

 Feature Id:
 WP9008_WET_PEM

County: Madison State: Illinois Date: 9/14/2022



Photo ID

WP9008_WET_PEM_A

Feature ID

WP9008_WET_PEM

Туре

Wetland

Latitude	Longitude
38.771047	-90.030337

Orientation

East

Comment

Photo ID

Photo of WP9008_WET_PEM facing East

WP9008_WET_PEM	
Type Wetland	
Latitude	Longitude
38.771047	-90.030337
Orientation	
West	
Comment	
Photo of WP9008_V	VET_PEM facing West



Longitude

-90.030483

Photo ID

Type Upland Latitude

38.771031

Orientation

Comment

North

WP9009_UP_A Feature ID WP9009_UP County: Madison State: Illinois Date: 9/14/2022



Photo ID	
WP9009_UP_B	
Feature ID	
WP9009_UP	
Туре	
Upland	
Latitude	Longitude
38.771031	-90.030483
Orientation	
South	
Comment	
Photo of WP9009_UP facing South	

Photo of WP9009_UP facing North



Project Name: Ameresco Landfill Project Client Name: Enable Mississippi River Transmission SamplingPoint: Soil Station Feature Id: WP9009_WET_PEM

Longitude

-90.030575

County: Madison State: Illinois Date: 9/14/2022

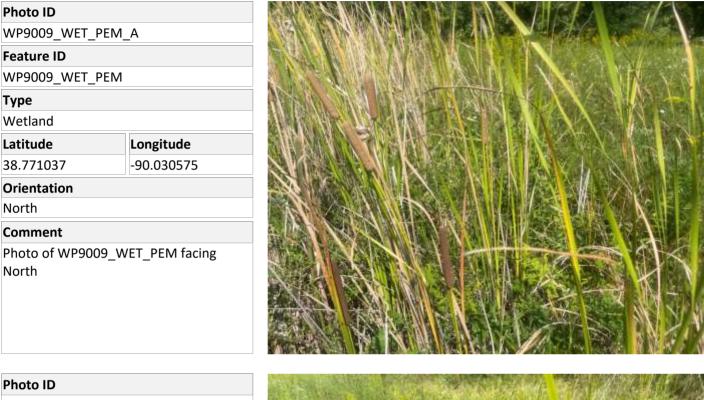


Photo ID

Photo ID

Feature ID

38.771037

Orientation

Comment

North

North

Туре Wetland Latitude

WP9009_WET_PEM_A

WP9009_WET_PEM

WP9009_WET_PEM_B

Feature ID

WP9009_WET_PEM

Туре	
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Latitude	Longitude
38.771037	-90.030575

Orientation

South

Comment

Photo of WP9009_WET_PEM facing South



County: Madison State: Illinois Date: 9/12/2022



SP9001		
Туре		
Intermittent		
Latitude	Longitude	
38.73463	-90.035174	
Orientation		
West		
Comment		
Photo of SP9001 facing West		
Photo ID		
SP9001_B		
Feature ID		
SP9001		

Photo ID SP9001_A Feature ID

Intermittent

Latitude

38.73463 Orientation

Comment

Photo of SP9001 facing East

East



Longitude

-90.035174

Longitude

-90.029538

Photo ID SP9002_A Feature ID SP9002 Type

Intermittent Latitude

38.751077

Orientation Northeast Comment County: Madison State: Illinois Date: 9/12/2022



Photo ID	
SP9002_B	
Feature ID	
SP9002	
Туре	
Intermittent	
Latitude	Longitude
38.751077	-90.029538
Orientation	
Southwest	
Comment	
Photo of SP9002 facing Southwest	

Photo of SP9002 facing Northeast



Page 90 of 115

Longitude

-90.031231

Photo ID SP9003_A Feature ID SP9003 Type

Ephemeral Latitude

38.748478

Orientation Southwest Comment County: Madison State: Illinois Date: 9/12/2022



Longitude	
-90.031231	
Orientation	
Northeast	
Photo of SP9003 facing Northeast	

Photo of SP9003 facing Southwest



Longitude

-90.033221

Photo ID SP9004_A Feature ID SP9004 Type

Intermittent Latitude

38.745684

Orientation

Comment

Photo of SP9004 facing North

North



Photo ID		
SP9004_B		
Feature ID		
SP9004		
Туре		
Intermittent		
Latitude	Longitude	
38.745684	-90.033221	
Orientation		
South		
Comment		
Photo of SP9004 facing South		



Longitude

-90.035644

Photo ID SP9005_A Feature ID SP9005 Type

Ephemeral Latitude

38.743047

Orientation Southwest

-



Comment		
Photo of SP9005 facing Southwest		
Photo ID		
SP9005_B		
Feature ID		
SP9005		
Туре		
Ephemeral		
Latitude	Longitude	
38.743047	-90.035644	
Orientation		
Northeast		
Comment		
Photo of SP9005 faci	ng Northeast	



Photo ID		
SP9006_A		
Feature ID		
SP9006		
Туре		
Ephemeral		
Latitude	Longitude	
38.738241 -90.038938		
Orientation		
Southeast		
Comment		
Photo of SP9006 facing Southeast		



Photo ID		
SP9006_B		
Feature ID		
SP9006		
Туре		
Ephemeral		
Latitude	Longitude	
38.738241	-90.038938	
Orientation		
Northwest		
Comment		
Photo of SP9006 facing Northwest		
Latitude 38.738241 Orientation Northwest Comment	-90.038938	



Photo ID		
SP9007_A		
Feature ID		
SP9007		
Туре		
Ephemeral		
Latitude	Longitude	
38.739058	-90.038773	
Orientation		
West		
Comment		
Photo of SP9007 facing West		



Photo ID	
SP9007_B	
Feature ID	
SP9007	
Туре	
Ephemeral	
Latitude	Longitude
38.739058	-90.038773
Orientation	
East	
Comment	
Photo of SP9007 faci	ng East



Longitude

-90.030033

Photo ID SP9008_A Feature ID SP9008 Type

Ephemeral Latitude

38.75641

Orientation Southeast Comment County: Madison State: Illinois Date: 9/12/2022



Photo ID	
SP9008_B	
Feature ID	
SP9008	
Туре	
Ephemeral	
Latitude	Longitude
38.75641	-90.030033
Orientation	
Northwest	
Comment	
Photo of SP9008 faci	ng Northwest

Photo of SP9008 facing Southeast



Longitude

-90.030041

Photo ID SP9009_A Feature ID SP9009 Type

Ephemeral Latitude

38.756278

Orientation

Comment

Photo of SP9009 facing East

East



Feature ID SP9009 Type Ephemeral Latitude Lc	
SP9009 Type Ephemeral Latitude Lo	
Type Ephemeral Latitude Lo	
Ephemeral Latitude	
Latitude Lo	
	ongitude
38.756278 -9	0.030041
Orientation	
West	
Comment	
Photo of SP9009 facing West	





Photo ID		
SP9010_A		
Feature ID		
SP9010		
Туре		
Ephemeral		
Latitude	Longitude	
38.756624	-90.030048	
Orientation		
West		
Comment		
Photo of SP9010 facing West		

Photo ID		
SP9010_B		
Feature ID		
SP9010		
Туре		
Ephemeral		
Latitude	Lon	gitude
38.756624	-90.	030048
Orientation		
East		
Comment		
	facing Ea	



Photo ID		
SP9011_A		
Feature ID		
SP9011		
Туре		
Perennial		
Latitude	Longitude	
38.81479	-90.016874	
Orientation		
East		
Comment		
Photo of SP9011 facing East		



Photo ID		
SP9011_B		
Feature ID		
SP9011		
Туре		
Perennial		
Latitude	Longitude	
38.81479	-90.016874	
Orientation		
West		
Comment		
Photo of SP9011 facing West		
	-	



Longitude

-90.029962

Photo ID SP9012_A Feature ID SP9012 Type Perennial Latitude

38.764347

Orientation Northwest Comment County: Madison State: Illinois Date: 9/14/2022



Photo ID	
SP9012_B	
Feature ID	
SP9012	
Туре	
Perennial	
Latitude	Longitude
38.764347	-90.029962
Orientation	
Southeast	
Comment	
Photo of SP9012 faci	ng Southeast

Photo of SP9012 facing Northwest



Page 100 of 115

Longitude

-90.030976

Photo ID SP9013_A Feature ID SP9013 Type

Intermittent Latitude

38.774938

Orientation

Comment

Photo of SP9013 facing South

South

County: Madison State: Illinois Date: 9/14/2022



Photo ID	
SP9013_B	
Feature ID	
SP9013	
Туре	
Intermittent	
Latitude	Longitude
38.774938	-90.030976
Orientation	
North	
Comment	
Photo of SP9013 faci	ng North



Page 101 of 115

Longitude

-90.03153

Photo ID SP9014_A Feature ID SP9014 Type

Ephemeral Latitude

38.762506

Orientation

East



Comment	
Photo of SP9014 faci	ng East
Photo ID	
SP9014_B	
Feature ID	
SP9014	
Туре	
Ephemeral	
Latitude	Longitude
38.762506	-90.03153
Orientation	
West	
Comment	
Photo of SP9014 faci	ng West



Longitude

Photo ID SP9070_A Feature ID SP9070 Type

Northwest Latitude

-90.032283 Orientation 38.733676 Comment County: Madison State: Illinois Date: 2/13/2023



Photo ID		
SP9070_B		
Feature ID		
SP9070		
Туре		
Southeast		
Latitude		Longitude
-90.032283		
Orientation		
38.733676		
Comment		
Photo of SP0070 f	acii	ng Southeast

Photo of SP9070 facing Northwest



Page 103 of 115



Photo ID	
SP9071_A	
Feature ID	
SP9071	
Туре	
Northwest	
Latitude	Longitude
-90.032161	
Orientation	
38.733743	
Comment	
Photo of SP9071 faci	ng Northwest

SP9071_B	
Feature ID	
SP9071	
Туре	
Southeast	
Latitude	Longitude
-90.032161	
Orientation	
38.733743	
Comment	
Photo of SP0071 faci	ng Southeast



Longitude

Photo ID SP9072_A Feature ID SP9072 Type Southwest

Latitude -90.033977 Orientation 38.733967 Comment County: Madison State: Illinois Date: 2/13/2023



Photo ID	
SP9072_B	
Feature ID	
SP9072	
Туре	
Northeast	
Latitude	Longitude
-90.033977	
Orientation	
38.733967	
Comment	
Photo of SP9072 faci	ng Northeast

Photo of SP9072 facing Southwest



Longitude

Photo ID SP9073_A Feature ID SP9073 Type Northeast Latitude

-90.032669 Orientation 38.734763 Comment County: Madison State: Illinois Date: 2/13/2023



Photo ID	
SP9073_B	
Feature ID	
SP9073	
Туре	
Southwest	
Latitude	Longitude
-90.032669	
Orientation	
38.734763	
Comment	
Photo of SP9073 fac	ing Southwest

Photo of SP9073 facing Northeast



Longitude

Photo ID SP9074_A Feature ID SP9074 Type Southwest

Latitude -90.03296 Orientation 38.735341 Comment County: Madison State: Illinois Date: 2/13/2023



Photo ID	
SP9074_B	
Feature ID	
SP9074	
Туре	
Northeast	
Latitude	Longitude
-90.03296	
Orientation	
38.735341	
Comment	
Photo of SP9074 faci	ng Northeast

Photo of SP9074 facing Southwest



Page 107 of 115

Photo ID		ADDRESS
SP9075_A		1 and 1
Feature ID		AND THE OWNER
SP9075		
Туре		
Northeast		
Latitude	Longitude	
-90.033578		Sec.
Orientation		
38.735313		A BARA
Comment		
Photo of SP9075 faci	ng Northeast	



Photo ID	
SP9075_B	
Feature ID	
SP9075	
Туре	
Southwest	
Latitude	Longitude
-90.033578	
Orientation	
38.735313	
Comment	
Photo of SP9075 faci	ng Southwest







Photo ID	
SP9076_B	
Feature ID	
SP9076	
Туре	
North	
Latitude	Longitude
-90.026031	
Orientation	
38.764995	
Comment	
Photo of SP9076 faci	ng North



County: Madison State: Illinois Date: 2/14/2023



SP9077_A	
Feature ID	
SP9077	
Туре	
South	
Latitude	Longitude
-90.030591	
Orientation	
38.755963	
Comment	
Photo of SP9077 faci	ng South

Photo ID

Photo ID	
SP9077_B	
Feature ID	
SP9077	
Туре	
North	
Latitude	Longitude
-90.030591	
Orientation	
38.755963	
Comment	
	ng North



County: Madison State: Illinois Date: 2/14/2023



SP9078_A	
Feature ID	
SP9078	
Туре	
East	
Latitude	Longitude
-90.030137	
Orientation	
38.752797	
Comment	
Photo of SP9078 faci	ng East

Photo ID

Photo ID	
SP9078_B	
Feature ID	
SP9078	
Туре	
West	
Latitude	Longitude
-90.030137	
Orientation	
38.752797	
Comment	
Photo of SP9078 facing West	



Photo ID		
SP9079_A		
Feature ID		
SP9079		
Туре	Туре	
North		
Latitude	Longitude	
-90.030541		
Orientation		
38.759888		
Comment		
Photo of SP9079 facing North		



Photo ID	
SP9079_B	
Feature ID	
SP9079	
Туре	
South	
Latitude	Longitude
-90.030541	
Orientation	
38.759888	
Comment	
Photo of SP9079 facing South	



County: Madison State: Illinois Date: 2/14/2023



SP9080_A		
Feature ID		
SP9080		
Туре		
West		
Latitude	Longitude	
-90.030316		
Orientation		
38.760038		
Comment		
Photo of SP9080 facing West		

Photo ID

Photo ID	
SP9080_B	
Feature ID	
SP9080	
Туре	
East	
Latitude	Longitude
-90.030316	
Orientation	
38.760038	
Comment	
Photo of SP9080 fa	acing Fast



County: Madison State: Illinois Date: 9/12/2022



Photo	ID

Photo ID

Longitude	
-90.022925	
Photo of OWP9001 facing Northeast	



OWP9001		
Туре		
Natural Pond		
Longitude		
-90.022925		
Orientation		
Southwest		
Comment		
acing Southwest		

County:	Madison
State:	Illinois
Date:	9/12/2022

Photo ID		
OWP9002_A		
Feature ID		
OWP9002		
Туре		
Natural Pond		
Latitude	Longitude	
38.763419	-90.031521	
Orientation		
East		
Comment		
Photo of OWP9002 facing East		
38.763419 -90.031521 Orientation East Comment		



Photo ID		
OWP9002_B		
Feature ID		
OWP9002		
Туре		
Natural Pond		
Latitude	Longitude	
38.763419	-90.031521	
Orientation		
North		
Comment		
Photo of OWP9002 facing North		



Appendix C Agency Correspondence



United States Department of the Interior

U.S. FISH AND WILDLIFE SERVICE Southern Illinois Sub-Office (ES) 8588 Route 148 Marion, Illinois 62959



In Reply Refer To: FWS/SISO Consultation Code: 2023-0046916

March 8, 2023

Michelle Cortez Perennial Environmental Services, LLC

Thank you for the February 20, 2023, email requesting review of the Enable MRT Ameresco Landfill Project in Madison County, Illinois on behalf of the Federal Energy Regulatory Commission. The proposed project involves 7 miles of new pipeline lateral, a meter station, and contractor yard. These comments are provided under the authority of and in accordance with the provisions of the Endangered Species Act of 1973, as amended; the Fish and Wildlife Coordination Act; the Migratory Bird Treaty Act, and the National Environmental Policy Act.

Fish and Wildlife Resources

Although we have no objection to the proposed project, we recommend that impacts to streams and/or wetlands be avoided or minimized to the greatest extent possible. Activities in the project area that would alter streams and/or wetlands may require a Section 404 permit from the US Army Corps of Engineers.

Threatened and Endangered Species

To facilitate compliance with Section 7(c) of the Endangered Species Act of 1973, as amended, Federal agencies are required to obtain from the Fish and Wildlife Service (Service) information concerning any species, listed or proposed to be listed, which may be present in the area of a proposed action. You provided a species list of was obtained from the Service's Information for Planning and Conservation (IPaC) website on February 17, 2023. That list includes the endangered Indiana bat, threatened decurrent false aster, threatened eastern massasauga rattlesnake, threatened eastern prairie fringed orchid, threatened northern long-eared bat, proposed as endangered tricolored bat, and candidate monarch butterfly. There is no designated critical habitat in the project area currently.

Information in your consultation letter indicates that impacts to potential habitat of the eastern prairie fringed orchid and decurrent false aster will be avoided, thus you have determined the proposed project will have no effect on these species. This precludes the need for further action on this project as required under Section 7 of the Endangered Species Act of 1973, as amended, for these species.

Information in your letter indicates that minimal tree clearing will be necessary and will occur from October 1 to March 31 to avoid impacts to the listed bat species. Based on this information, the Service concurs that the proposed project is not likely to adversely affect the Indiana bat and

northern long-eared bat. The proposed measures should also avoid and minimize impacts to the tricolored bat; thus, the Service has determined that the proposed project is not likely to jeopardize the continued existence of the tricolored bat. If the proposed project extends beyond the final listing for the species, reinitiation of consultation may be necessary.

Based on the project description and location, the Service concurs that the proposed project is not likely to adversely affect the eastern massasauga rattlesnake and is not likely to jeopardize the continued existence of the monarch butterfly. Should this project be modified, or new information indicate listed or proposed species may be affected, consultation or additional coordination with this office, as appropriate, should be initiated.

Thank you for the opportunity to provide comment on the proposed project. For additional coordination, please contact me at (618) 998-5945.

Sincerely,

/s/ Matthew T. Mangan

Fish and Wildlife Biologist