

Attachment Y

Wetland Restoration and Mitigation Plan

WETLAND RESTORATION AND MITIGATION PLAN

RIVERSIDE SOLAR, LLC TOWNS OF LYME AND BROWNVILLE JEFFERSON COUNTY, NEW YORK

Matter No. 21-00752

Prepared For:

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1.0 INTRODUCTION AND PROJECT DESCRIPTION

On behalf of Riverside Solar, LLC (the Applicant), TRC has prepared this draft Wetland Restoration and Mitigation Plan (the Plan) to ensure restoration to New York State (State) regulated wetlands and adjacent areas and to compensate for impacts to wetland acreage and reduced wetland functions and values associated with the construction and operation of the Riverside Solar Project (the Facility).

The Facility will have a generating capacity of 100 megawatts (MW) alternating current (AC) and will be located on land leased and/or purchased from owners of private property in the Towns of Lyme and Brownville, Jefferson County, New York (the Facility Site). Proposed Facility components include commercial-scale solar photovoltaic (PV) arrays, access roads, inverters, fencing, electric collection lines, and electrical interconnection facilities. The Applicant intends to construct, own, operate, and maintain all components of the Facility. The Facility's new collection substation will collect the power generated from the solar modules via collection lines located throughout the Facility. A new proposed interconnection line will originate from the collection substation and extend from the Facility Site to the existing National Grid Lyme Tap Line off the Thousand Islands – Coffeen St. 115 kV transmission line #4.

The Applicant submitted an application to the New York State Office of Renewable Energy Siting (ORES) in pursuit of a Permit for a Major Renewable Energy Facility under Section 94-c of the New York State Executive Law to construct the Facility in October 2021. This Plan has been drafted in response to the Notice of Incomplete Application provided by ORES on December 17, 2021 which requested additional details regarding wetland restoration and mitigation proposed for the Facility.

The Applicant's proposed wetland restoration and mitigation measures are provided herein; the level of detail is conceptual in stage and will be updated in accordance with § 900-10.2(f) of the 94-c regulations as part of a Final Wetland Restoration and Mitigation Plan to be submitted at a later date.

1.1 Regulatory Requirements

Under the Federal Compensatory Mitigation Rule (40 CFR § 230.93; “federal guidelines”), compensatory mitigation can be carried out through four methods:

- the restoration of a previously existing wetland or other aquatic site;
- the enhancement of an existing aquatic site’s functions;
- the establishment (i.e., creation) of a new aquatic site; or
- the preservation of an existing aquatic site.

The federal guidelines state that “the preferred order of compensatory mitigation is wetland restoration, then creation, and finally enhancement.” Wetland restoration is defined in the federal guidelines as “reclaiming a degraded wetland to bring back one or more functions that have been partially or completely lost by such actions as filling or draining.” Wetland creation is defined as “making a new wetland, usually by flooding or excavating lands that were not previously occupied by a wetland.” Wetland enhancement is defined in the mitigation guidelines as “altering an existing functional wetland to increase selected functions and benefits to a degree that offsets losses of these functions or benefits in another wetland or parts of the same wetland.” Preservation is defined in the mitigation guidelines as “the removal of a threat to, or preventing the decline of, aquatic resources by an action in or near those aquatic resources.”

There are generally thought to be three mechanisms for providing compensatory mitigation: Permittee-responsible compensatory mitigation, mitigation banks, and in-lieu fee mitigation. The Compensatory Mitigation Rule identifies a preference of mitigation mechanisms. Mitigation banks are the most preferred option, followed by in-lieu fee mitigation, and finally a permittee-responsible mitigation project, which typically involves wetland creation or enhancement.

New York State compensatory mitigation guidelines, outlined by the Office of Renewable Energy Siting (ORES), are comparable to the federal regulations. ORES’s 94-c regulations offer four types of compensatory mitigation for facilities impacting wetlands and adjacent areas. These are creation, restoration, enhancement, and the purchase of existing wetland mitigation bank credits. Creation, according to 94-c regulations, refers making a new wetland or expanding an existing wetland. Restoration according to 94-c regulations means rehabilitating a degraded wetland or adjacent area to return lost functions. Enhancement, according to the 94-c

regulations, means altering the function of an existing wetland or adjacent area to increase the functions to offset losses to a wetland or adjacent area. The final type of compensatory mitigation, according to 94-c regulations involves purchasing wetland credits from an existing wetland bank within the same HUC-8 watershed. To be consistent with the regulations, the Applicant explored each of the compensatory mitigation options available for this Facility.

Wetland and waterbody surveys were conducted within the proposed Facility Site from June 1 to June 5, September 23, and December 17, 2020. A Wetland and Stream Delineation Report describing the wetlands and surface waters identified in the survey area was provided in the Section 94-c Application as Appendix 14-1 to Exhibit 14 (Wetlands). The Facility was sited to minimize impacts to wetlands and streams to the maximum extent practicable.

Mapping by the New York State Department of Environmental Conservation (NYSDEC) depicts one NYSDEC-mapped wetland within the Facility Site. One of the wetlands delineated by TRC, W-BF-6, inside the Facility Site is associated with this mapped NYSDEC freshwater wetland. The Applicant received the JD from ORES on June 1, 2021 (Appendix 14-3). In addition to wetland W-BF-6, the ORES Jurisdictional Determination also considers six wetlands not previously mapped by NYSDEC to fall under NYS jurisdiction, including wetlands W-BF-5, W-BF-11, W-NSD-1, W-NSD-7, W-NSD-9, and W-NSD-10. The Applicant received a PJD from the USACE on October 22, 2021. Regulated wetlands located within the Facility Site are listed in Table 3 of Appendix 14-1. Wetland features delineated during the onsite wetland surveys are shown on Figure 14-1, while the existing mapped wetlands are shown in Figure 13-2 in Exhibit 13.

The Facility design process used information from the wetland and waterbody delineation to place components where they would avoid and/or minimize impacts to State-jurisdictional wetlands (and their 100-foot adjacent areas) and waterbodies wherever possible. The current Facility layout avoids permanent impacts to six of the seven State-jurisdictional wetlands and waterbodies by locating Facility solar array structures and other Facility components outside the delineated features to the maximum extent practicable. In addition, haul roads and collection lines were routed around delineated features. The Facility is designed to avoid/minimize impacts to these wetlands by siting solar arrays, racking systems, collection lines, and all ancillary

features at least 100 feet away from the wetland boundary (Appendix 5-1 Issued for Permitting [IFP] Design Drawings included as part of the Application).

Unavoidable impacts associated with the Facility require restoration of 0.797 acres of wetlands, restoration of 26.845 acres of adjacent areas, and compensatory mitigation for a total of 0.026 acre related to the construction of an access road and culvert installation. Wetlands are classified as either Class I, II, III, or IV, depending on various identified attributes.

Based on the Facility impacts outlined in Table 1, 0.797 acre of wetland W-BF-5 will require restoration post-construction and 0.026 acres of wetland W-BF-5 will require mitigation. Section 2 details the Applicant's proposed steps for the post-construction restoration of the 0.797 acre. According to the Facility impacts, 26.845 acres of adjacent areas will also require post-construction restoration. The Applicant has elected to perform on-site compensatory mitigation to restore 0.026 acre of wetland W-BF-5 to meet the mitigation requirement outlined in Table 1 of §900-2.15(g)(3). Section 3 details the Applicant's proposed steps for on-site mitigation.

Table 1. Anticipated Facility Impacts to State-Regulated Wetlands

Wetland Type and ID	Wetland Classification	Impact Activity	Impact Amount (ac)	Mitigation Ratio ¹
W-BF-5; PEM	Class III, IV, or Unmapped >12.4 Acres	Access Road	0.005	A(M3)
		Grading	0.003	A(M3)
		Culvert	0.018	A(M3)
		Selective Tree Clearing	0.628	A
		Limit of Disturbance (LOD)	0.142	A
		Fence Line	0.001	A
		Total	0.797	-
		Total Requiring Mitigation	0.026	-

¹A: Allowed; no mitigation or enhancement required. Restoration required.
A(M3): Allowed, mitigation required (1:1 mitigation ratio by area of impact – creation, restoration, and enhancement).

As shown in Table 1, above, one palustrine emergent (PEM) State-jurisdictional wetland (W-BF-5) will be impacted by the Facility. Impacts are related to grading and construction of an access road, including culvert installation, as well as impacts related to selective tree clearing within the wetland limits, the Limit of Disturbance (LOD), and the fence line for the Facility. Impacts include 0.771 acre of “allowed” impacts as classified in Table 14-2 of Exhibit 14, and 0.026 acre of impact which is classified as A(M3) will require mitigation due to grading, culvert installation, and access road construction. These impacts require a 1:1 mitigation ratio by area of impact, which consists of wetland creation.

Table 2. Anticipated Facility Impacts to State-Regulated Adjacent Areas

Wetland Type and ID	Wetland Classification	Impact Activity	Impact Amount (ac)	Mitigation Ratio ¹
W-BF-5; PEM	Class III, IV, or Unmapped >12.4 Acres	Gravel Area	0.003	A
		HDD Pits	0.003	A
		Inverters	0.002	A
		Laydown Yard	0.002	A
		Fenced Area	5.524	A
		Selective Tree Clearing	12.443	A
		Access Road	0.772	A
		Array Area	2.005	A
		Grading	0.126	A
		Culvert	0.230	A
		Fence Line	0.293	A
W-NSD-1; PEM	Class III, IV, or Unmapped >12.4 Acres	LOD	2.663	A
		Selective Tree Clearing	0.439	A
		Array Area	0.006	A
		Fence Line	0.007	A
W-NSD-7: PSS	Class III, IV, or Unmapped >12.4 Acres	LOD	0.004	A
		Fenced Area	1.17	A
		Array Area	0.121	A
		Fence Line	0.023	A
W-NSD-9; PEM	Class III, IV, or Unmapped >12.4 Acres	LOD	0.368	A
		Fenced Area	0.264	A
		Array Area	0.008	A
		Fence Line	0.007	A
W-NSD-10; PEM	Class III, IV, or Unmapped >12.4 Acres	LOD	0.070	A
		Fenced Area	0.001	A
		Array Area	0.079	A
		Grading	0.117	A
		Fence Line	0.004	A
		LOD	0.091	A
		Total	26.845	
¹ A: Allowed; no mitigation or enhancement required.				

As detailed in Table 1, 26.845 acres of State-regulated adjacent areas associated with wetlands W-BF-5, W-NSD-1, W-NSD-7, W-NSD-9, and W-NSD-10 will be impacted as part of the Facility. The impacts to the regulated adjacent areas are classified as "allowed" according to Table 1 of Section 900-2.15(g) in the 94-c regulations, and therefore, no mitigation or enhancement of these areas is required.

The Facility layout and siting will improve the functions and values of the adjacent areas on-site. Adjacent areas provide a protective buffer for the wetlands and often share the functions and values of the wetlands they surround. The functions and values will be increased by the Facility because impacted adjacent areas will be planted with a native seed mix which will stabilize the ground, minimize erosion, increase biodiversity, and restore the land post-construction.

2.0 WETLAND MITIGATION

To offset unavoidable Facility-related impacts to 0.026 acre of PEM wetland, the Applicant anticipates undertaking an on-site compensatory wetland restoration mitigation project at the Facility Site. In-kind mitigation will be utilized to compensate for the wetland impacts proposed at the Facility. In-kind mitigation means replacing a wetland that is being altered with a wetland of the same type. Replacement with the same wetland cover type maintains (or increases) the amount of that type in the watershed, which generally is thought to allow the continuation of similar functions and values to the impacted wetland. This would result in no net loss of wetland functions and values.

The Applicant understands that the impacts to wetland W-BF-5 as a result of the Facility likely constitute "fill" and, therefore, creation of a wetland is required. Per §900-2.15(g)(2)(iv)(a): *Creation, in cases of activities requiring fill, means making a new wetland or expanding an existing wetland in lands that were not previously occupied by a wetland.* As described above, the impacts of 0.026 acre are allowed but the Applicant must mitigate at a ratio of 1:1. Due to the small amount of mitigation required, the Applicant will choose to implement an in-kind mitigation project on-site. The Applicant will prioritize mitigation within existing wetland W-BF-5, as the limited wetland impacts associated with the Facility will affect this wetland and there are several opportunities for mitigation at wetland W-BF-5. The Applicant will conduct on-site mitigation within one or more of the following Facility Site parcels, as appropriate, as shown on Figure 1:

- Parcel ID 62.00-1-62.1;
- Parcel ID 62.00-1-63; and/or
- Parcel ID 62.00-1-61.1

Each of these parcels contains mapped portions of existing wetland W-BF-5 and offer opportunities for mitigation. The Applicant will coordinate with the landowners regarding potential opportunities for mitigation at these parcels.

The Applicant understands that there are currently no options for in-lieu fee purchase of wetland mitigation credits in the watershed where the Facility is located; however, this is the optimal choice for wetland mitigation. Therefore, if the purchase of wetland mitigation bank credits becomes available prior to implementation of the Final Wetland Restoration and Mitigation Plan, the Applicant will evaluate the feasibility of purchasing wetland mitigation bank credits in place of the on-site wetland mitigation plan through coordination with ORES.

Restoration, monitoring and maintenance will follow the requirements outlined in §900-6.4(q)(1-2) of the 94-c regulations. To ensure a successful mitigation site, a functional assessment was performed on the wetland impacted by the construction of the Facility (wetland W-BF-5).

2.1 Functional Assessment of the Impacted Wetland

The Facility will impact the PEM cover type of one wetland (W-BF-5) which is considered State-jurisdictional. The palustrine emergent marsh portion of wetland W-BF-5 is dominated by reed canary grass, sensitive fern (*Onoclea sensibilis*) lake sedge (*Carex lacustris*), tussock sedge (*Carex stricta*), and jewelweed (*Impatiens caapensis*). The palustrine scrub-shrub (PSS) portion of the wetland is dominated by red osier dogwood (*Cornus alba*), gray dogwood (*Cornus racemosa*), and American elm (*Ulmus americana*). The palustrine unconsolidated bottom (PUB) portion of this wetland is dominated by reed canary grass and common duckweed (*Lemna minor*). Indicators of hydrology observed during the delineation included surface water, high water table, saturation, inundation visible on aerial imagery, drift deposits, water-stained leaves, drainage patterns, saturation visible on aerial imagery, microtopographic relief, geomorphic position, and the FAC-neutral test. Wetland W-BF-5 soil textures included silt loam, silty clay loam, and clay. Hydric soil indicators observed were Redox Dark Surface (F6) and Depleted Matrix (F3).

A small PEM portion of this wetland will be permanently filled for the construction of a permanent access road and culvert (Table 1). The effect of the fill will result in a small reduction of wetland functions in the immediate area of impact. Cumulatively, across the larger landscape, the effects on the overall health of the wetlands or the Lake Ontario watershed is inconsequential.

The impacted wetland (W-BF-5) was assessed for functions and values as part of the wetland delineation survey efforts, via desktop review of available aerial imagery and on-site photos, and through review of collected data in conjunction with the US Army Corps of Engineers (USACE) Highway Methodology Workbook Supplement (USACE, 1999).

Further considerations were made in light of the functions and values listed in Article 24 of the Environmental Conservation Law (ECL), §24-0105. The primary functions of wetland W-BF-5 (PEM) include:

1. **Groundwater recharge and discharge** is a primary function of the impacted wetlands.
2. **Floodflow alteration** is a function related to the ability and effectiveness of a wetland to reduce flood damage by acting as a buffer system that desynchronizes and delays runoff.
3. A portion of the affected wetland contains open water sufficient enough in size to **support fish and/or shellfish**.
4. **Sediment/toxicant retention** is a function related to the wetland's ability to reduce the degradation of water quality by trapping sediments, toxicant, or pathogens.
5. **Nutrient removal** is a function of this wetland due to the practices associated with agriculture on site. This function considered the effectiveness of the wetland to trap nutrients in runoff from the surrounding lands.
6. **Production export** is present within the affected wetland and this function evaluates the effectiveness of the wetland to produce food or usable products.
7. **Sediment/shoreline stabilization** is a function of this wetland as two streams are present within the wetland.

8. The affected wetlands provide **habitat of various wildlife species** and varying degrees of value to wildlife.

While the functions and values provided by wetland W-BF-5 include those related to the PEM, PSS, and PUB portions of the wetland, impacts are limited to a small portion of PEM wetland. Therefore, construction of the access road, as well as associated culvert installation and grading, are anticipated to contribute to a minor decrease in the following functions of wetland W-BF-5:

- Groundwater recharge/discharge;
- Floodflow alteration; and
- Wildlife habitat.

There are opportunities for wetland creation at the Facility Site as on-site wetlands, including portions of wetlands W-BF-5, have been historically filled or drained by agricultural activities. These activities can negatively impact wetland functionality and cause persistent disturbance.

2.2 Mitigation Options Considered

The Facility is located within the Chaumont-Perch watershed (HUC 04150102). There are no authorized wetland mitigation banks within this watershed at this time. As such, this option is assumed not feasible. The next option of the Applicant was in-lieu fee mitigation. Similarly, there are no approved in-lieu fee mitigation programs available for this watershed. As a result, an on-site permittee-responsible project is the only option thought available to perform compensatory mitigation.

As previously described, the NYSDEC Mitigation Guidance (October 26, 1993), Federal Mitigation Rule and specifically ORES's 94-c regulations prefer that the wetlands impacted be compensated in-kind. In-kind mitigation means replacing a wetland that is being altered with a wetland of the same type. Replacement with the same wetland cover type maintains (or increases) the amount of that type in the watershed, which generally is thought to allow the continuation of similar functions and values to the impacted wetland. In this instance, the wetland impacted is under the jurisdiction of both the State and the USACE.

2.3 Mitigation Area Selection

In order to identify a mitigation area to satisfy Facility requirements and regulatory guidance, an in-depth desktop investigation will be conducted. The Facility Site will be thoroughly investigated for placement of the mitigation area of at least 0.026 acres in size and with space for an additional buffer area around the restored wetland to ensure its long-term protection. Priority will be placed on creating a mitigation wetland relatively close to where the impacts will occur to increase the likelihood that lost or degraded functions would be replaced, and within parcels which contain portions of delineated wetland W-BF-5. The primary criteria used in the evaluation of potential mitigation sites are:

- The mitigation activities will be located within the parcel interior providing a natural buffer to outside influences that may cause undesirable and uncontrollable impacts to important wetland characteristics, for example, hydrology;
- The site would benefit from wetland creation activities i.e., is heavily influenced by non-native species;
- The site will require low to no manipulation of existing grades and the planned contours can blend naturally into the existing landscape;
- The site is easily accessible for mitigation activities as well as for monitoring and maintenance;
- The depth to restrictive layer and soil rockiness will not be a limiting factor;
- The adjacent upland area offers a functional buffer;
- It has connectivity or is adjacent to the same State-regulated wetland that is being impacted;
- The site is accessible from a nearby road and will not require tree clearing or boulder relocation to gain access;
- Construction feasibility and cost;
- Wetland hydrology can be obtained or is currently present;
- The site is within the same watershed HUC-8 sub basin as the impacted wetland: Chaumont-Perch; and
- The site has the ability to replace the functions and values of the impacted wetlands.

The Applicant prefers on-site mitigation but in the event that the Facility Site is not suitable for in-kind mitigation, the Applicant will pursue and consider options for off-site mitigation within the same watershed. A more in-depth mitigation plan which outlines and details construction specifications, proposed mitigation site description, a planting plan, invasive species management plan and best management practices will be included in the Final Wetland Restoration and Mitigation Plan prior to the start of construction. The Final Wetland Restoration and Mitigation Plan pursuant Section 900-10.2(f) will be submitted to ORES for review and approval.

2.4 Post-Construction Monitoring Plan

During the first full growing season after construction of an on-site mitigation area, and for the following five years, mitigation monitoring is required. Any on-site mitigation area created will be evaluated once in the late spring/early summer and again in late summer/early fall. Annual monitoring reports will be produced for five years post-construction. The observations will be compared to the Success Standards listed in the Guidance for Mitigation Plan Checklist as summarized in Table 3. Vegetation will be monitored annually in permanent plots established within the mitigation area. Post-construction monitoring will continue until at least 85% absolute cover of native herbaceous species with the appropriate wetland indicator status has been reestablished over the entire wetland mitigation area. A formal post-construction assessment will be performed after the fifth growing season. As soils within the wetland restoration portion of the mitigation site may be highly disturbed during restoration, the development of a hydric soil profile is anticipated to take longer than the monitoring period and therefore not included as a success criterion.

Table 3. Success Standards and Criteria for On-Site Mitigation

Success Standard	Criteria
1. Herbaceous Stem Density: Adequate stem density to provide species diversity, stabilize soils and promote diffuse water flow through wetland	Average stem density in wetland creation area (within herbaceous sub-sampling plots) comparable to adjacent wet meadow at Year 5 post-planting
2. Vegetative Cover: Overall 80% vegetative cover across entire wetland area by non-invasive species ¹ in non-open water areas by the end of the first full growing season	Average vegetative cover meets 80% success standard in non-open water areas
3. Invasive Species: Invasive plants documented prior to construction of the mitigation site are controlled	Less than 5% areal cover of invasive species over the entire wetland area at the end of the 5-year monitoring period
4. Wetland Plant Density: Hydrophytic vegetation dominates the plant community within the wetland creation area	The majority of dominant vegetation within sampling plots are hydrophytes at Year 5 post-planting
5. Site Stabilization: All slopes, soils, substrates, and restored features are stabilized, diffuse flow of runoff within wetland	No evidence of channelized flow resulting in sediment transport. Less than 5% bare ground within vegetation sampling plots at Year 5
6. Wetland Hydrology: Wetland hydrology indicator present	At least one primary or two secondary wetland hydrology indicator ² reported within the wetland creation area at Year 5 post-planting
7. Site Protection: Long-term land protection mechanism in place	Documentation of recorded conservation easement, no evidence of human disturbance adversely impacting wetland functions and values during monitoring period

¹As defined in New York State Prohibited and Regulated Invasive Plants (NYSDEC and NYS Department of Agriculture and Markets, 2014)

²As defined in Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (U.S. Army Corps of Engineers 2012).

Monitoring reports submitted on behalf of the Applicant will include at least the following:

- Descriptions of any remedial actions done during the monitoring year, including a summary of all invasive species management activities conducted throughout the year and figures showing their remaining extent throughout the mitigation area;
- Time-lapse log of photos taken from established vantage points throughout the mitigation area;
- Sub-sample (approximately 10% of planted zones) vegetation plot data to document survival of planted material and percent cover;
- Comprehensive list of plant species identified within vegetation plots;
- Results of both field reconnaissance over the entire mitigation area and the average measured vegetation cover within sampling plots demonstrating that above Success Standards have been achieved;
- General health and vigor of the surviving plants, the prognosis for their future survival and a diagnosis of the cause(s) of morbidity or mortality, and recommendations for project success;
- Incidental observations of all breeding birds and other wildlife species; and
- Any additional recommended remedial measures to achieve or maintain achievement of the Success Standards including anticipated remedial actions to be taken. These may be taken in the non-growing season.

The Year 1 monitoring report will also include a summary of work completed at the mitigation area during the restoration period, and pre- and post-restoration photographs from established vantage points.

The mitigation area shall be delineated annually to evaluate the extent of mitigation that qualifies as wetland. Procedures shall follow those established by the USACE and NYSDEC, including those dictated by permit. The delineations shall be conducted early in the growing season (April-June) and recorded with GPS to quantify acreage with sub-meter accuracy.

2.5 Site Protection

On-site mitigation area(s) will be protected with a permanent conservation easement and with a Declaration of Restrictive Covenants. It is anticipated that a conservation easement will include the upland buffer/ adjacent area of 100 feet around the restored wetland area in order to best protect the restored wetland in line with future regulatory considerations of the NYSDEC/ORES.

2.6 Financial Assurance

Consistent with Federal Register Vol 73, no. 70: 332.3 (n)(1) and (2), financial assurances that provide a high level of confidence that the compensatory mitigation will be completed. The Applicant will provide proof of the financial ability to fund proposed on-site wetland mitigation and will enter into a binding contract for the implementation of the mitigation area with a qualified third party. Financial assurances will be detailed in the Final Wetland Restoration and Mitigation Plan.

3.0 REFERENCES

NYSDEC. 1993. Freshwater Wetlands Regulation Guidelines on Compensatory Mitigation.
Available at: https://www.dec.ny.gov/docs/wildlife_pdf/wetmitgdln.pdf.

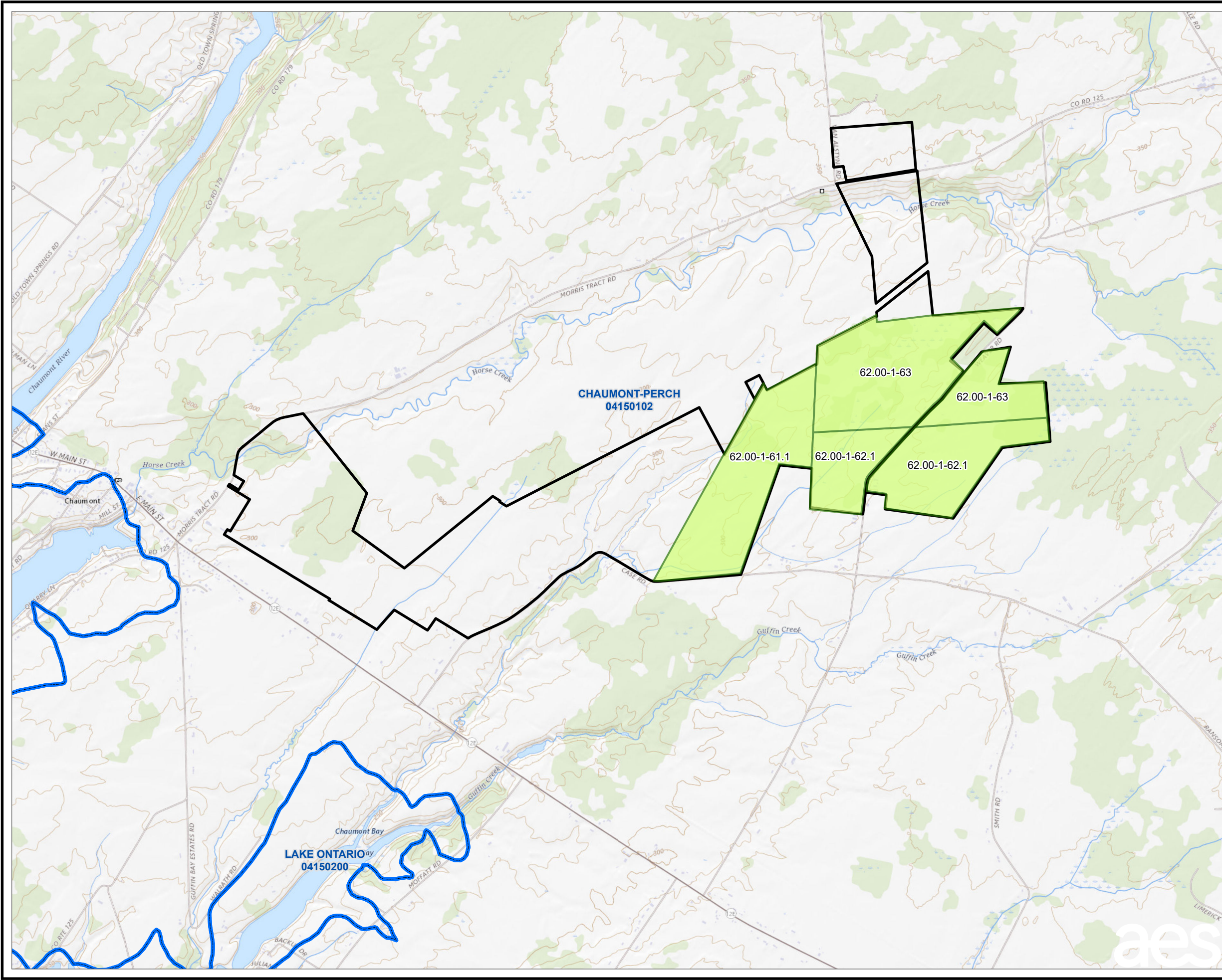
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New York State Executive Law § 94-c. Available at: <https://ores.ny.gov/regulations>.

U.S. Army Corps of Engineers (USACE). 1993. *The Highway Methodology Workbook*. U.S.
Army Corps of Engineers, New England Division. NEDEP-360-1-30. 30 pp.

USACE. 1999. *The Highway Methodology Workbook Supplement. Wetland Functions and
Values: A Descriptive Approach*. U.S. Army Corps of Engineers, New England Division.
NAEEP-360-1-30a. 32 pp.

APPENDIX A

Figures



LEGEND

- POTENTIAL WETLAND MITIGATION PARCEL
- HUC-8 WATERSHED BOUNDARY
- FACILITY SITE

NOTES:

1. THIS FIGURE IS DESIGNED TO BE VIEWED OR PRINTED IN COLOR AT 11X17.

2. NON-CONTIGUOUS PORTIONS OF FACILITY PARCELS WHICH ARE NOT CONTROLLED FOR USE AS PART OF THE FACILITY ARE NOT SHOWN ON THIS MAP.

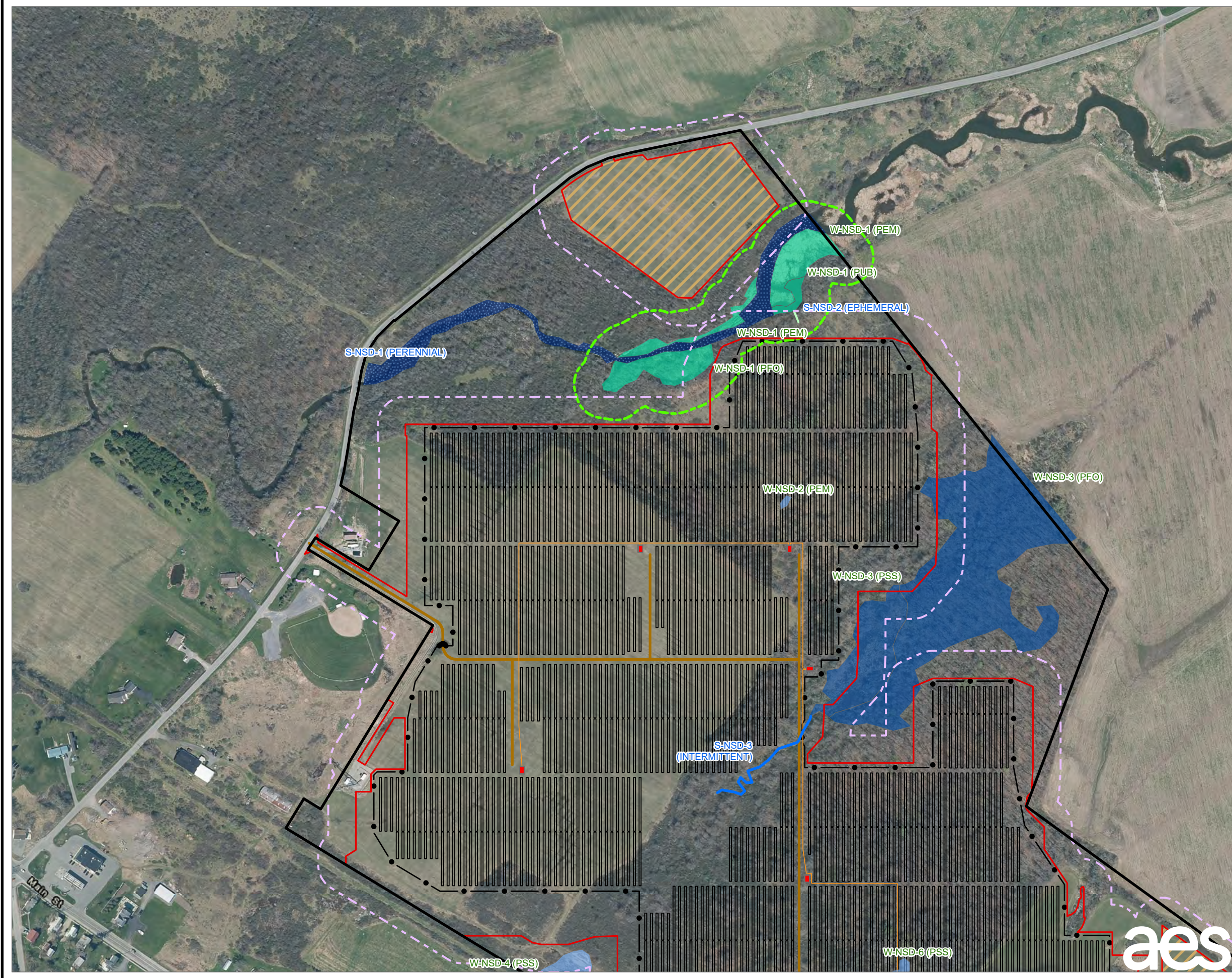
BASE MAP: USGS TOPO BASEMAP
DATA SOURCES: TRC, NYSGIS, USGS.

1:24,000
1" = 2,000'

0 2,000 4,000 FEET

PROJECT:		RIVERSIDE SOLAR LLC TOWNS OF LYME & BROWNVILLE JEFFERSON COUNTY, NY	
TITLE:		POTENTIAL WETLAND MITIGATION PARCELS	
DRAWN BY:	A. KAILAS	PROJ. NO.:	373222
CHECKED BY:	W. HILLEGAS	FIGURE 1	
APPROVED BY:	S. KRANES		
DATE:	FEBRUARY 2022		

215 GREENFIELD PKWY, STE 102
LIVERPOOL, NY 13088



LEGEND

- PROPOSED SOLAR PANEL ARRAY
- PROPOSED INVERTER EQUIPMENT PAD
- PROPOSED LAYDOWN YARD
- PROPOSED ACCESS ROAD
- PROPOSED FENCE
- PROPOSED UNDERGROUND COLLECTION LINE
- LIMIT OF DISTURBANCE
- 100-FOOT BUFFER OF LIMIT OF DISTURBANCE
- FACILITY SITE
- DELINEATED STREAM - NON-JURISDICTIONAL
- DELINEATED STREAM - USACE JURISDICTIONAL
- DELINEATED STREAM SURFACE WATER - USACE JURISDICTIONAL
- DELINEATED WETLAND - NON-JURISDICTIONAL
- DELINEATED WETLAND - USACE JURISDICTIONAL
- DELINEATED WETLAND - STATE JURISDICTIONAL
- STATE-REGULATED ADJACENT AREA
- APPROXIMATED STREAMS

NOTES:

- THIS FIGURE IS DESIGNED TO BE VIEWED OR PRINTED IN COLOR AT 11X17.
- NON-CONTIGUOUS PORTIONS OF FACILITY PARCELS WHICH ARE NOT CONTROLLED FOR USE AS PART OF THE FACILITY ARE NOT SHOWN ON THIS MAP.
- THE WETLAND STUDY AREA CONSISTS OF THE FACILITY SITE EXCEPT AREAS OF LANDOWNER-IMPOSED DEVELOPMENT RESTRICTION.

BASE MAP: NYSGIS "LATEST ORTHOIMAGERY" ONLINE SERVICE LAYER.
DATA SOURCES: TRC, NYSGIS.

1:4,200
1" = 350'

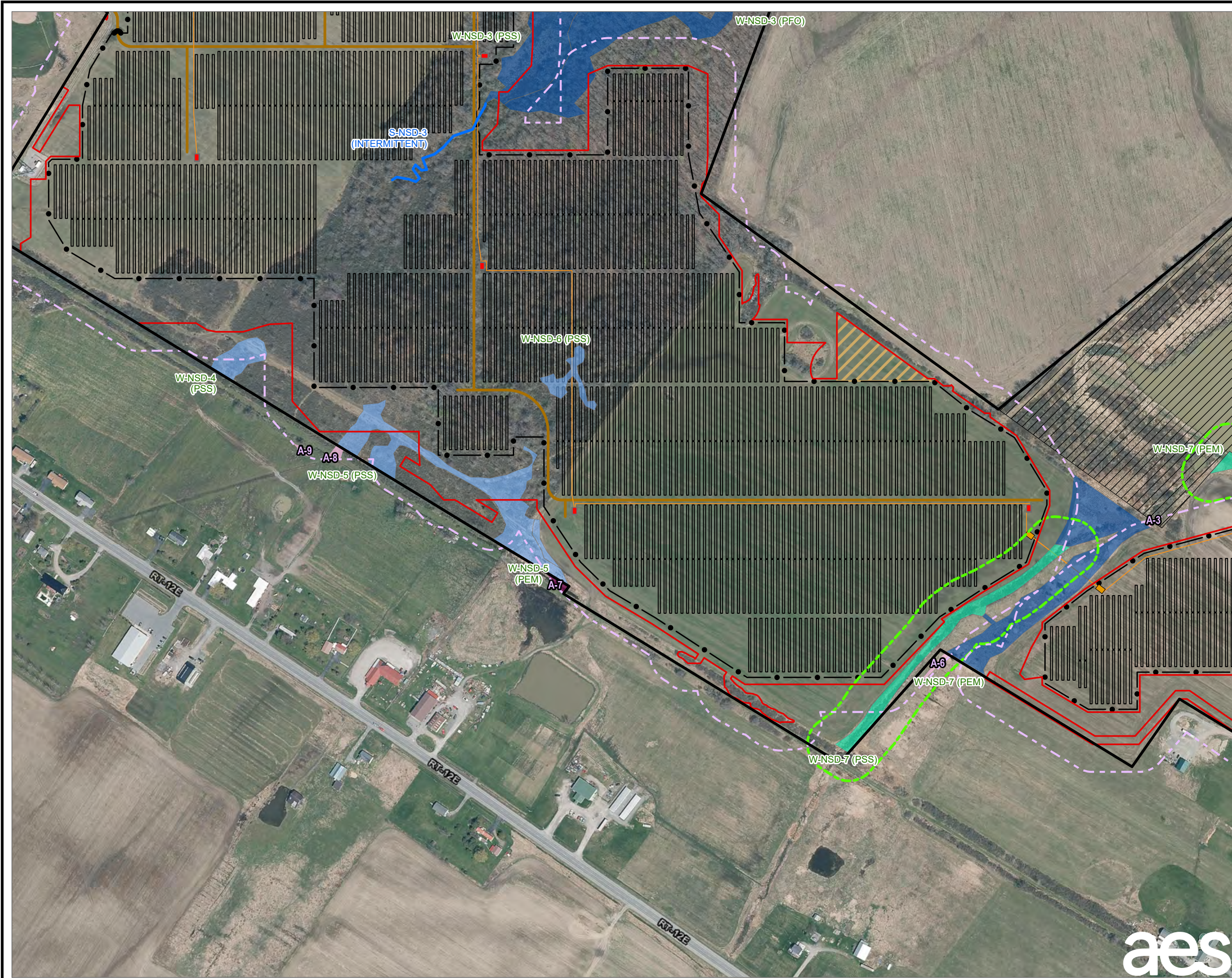
0 350 700 FEET

PROJECT: RIVERSIDE SOLAR LLC
TOWNS OF LYME & BROWNVILLE
JEFFERSON COUNTY, NY

TITLE: PROPOSED FACILITY LAYOUT AND
DELINEATED WETLANDS AND STREAMS

DRAWN BY: A. KAILAS	PROJ. NO.: 373222
CHECKED BY: W. HILLEGAS	FIGURE 2 Sheet 1 of 10
APPROVED BY: S. KRANES	
DATE: FEBRUARY 2022	

215 GREENFIELD PKWY, STE 102
LIVERPOOL, NY 13088



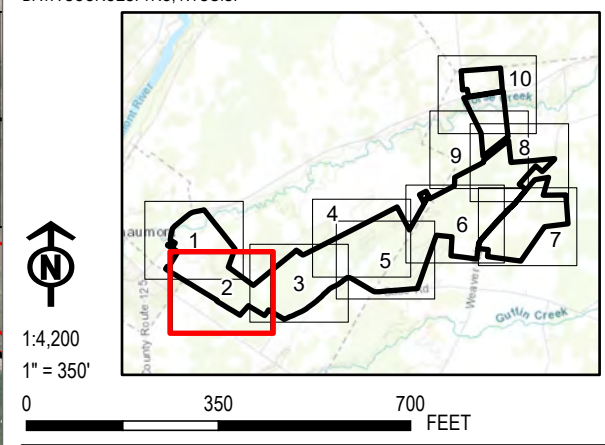
LEGEND



- PROPOSED SOLAR PANEL ARRAY
- PROPOSED INVERTER EQUIPMENT PAD
- PROPOSED LAYDOWN YARD
- PROPOSED ACCESS ROAD
- PROPOSED FENCE
- PROPOSED UNDERGROUND COLLECTION LINE
- PROPOSED HDD PIT
- LIMIT OF DISTURBANCE
- 100-FOOT BUFFER OF LIMIT OF DISTURBANCE
- LANDOWNER-IMPOSED DEVELOPMENT RESTRICTED AREA
- FACILITY SITE
- DELINEATED STREAM - USACE JURISDICTIONAL
- DELINEATED WETLAND - NON-JURISDICTIONAL
- DELINEATED WETLAND - USACE JURISDICTIONAL
- DELINEATED WETLAND - STATE JURISDICTIONAL
- STATE-REGULATED ADJACENT AREA
- APPROXIMATED FEATURES WITHIN 100 FEET OF LIMIT OF DISTURBANCE
- APPROXIMATED PEM WETLAND
- APPROXIMATED PSS WETLAND
- APPROXIMATED STREAMS

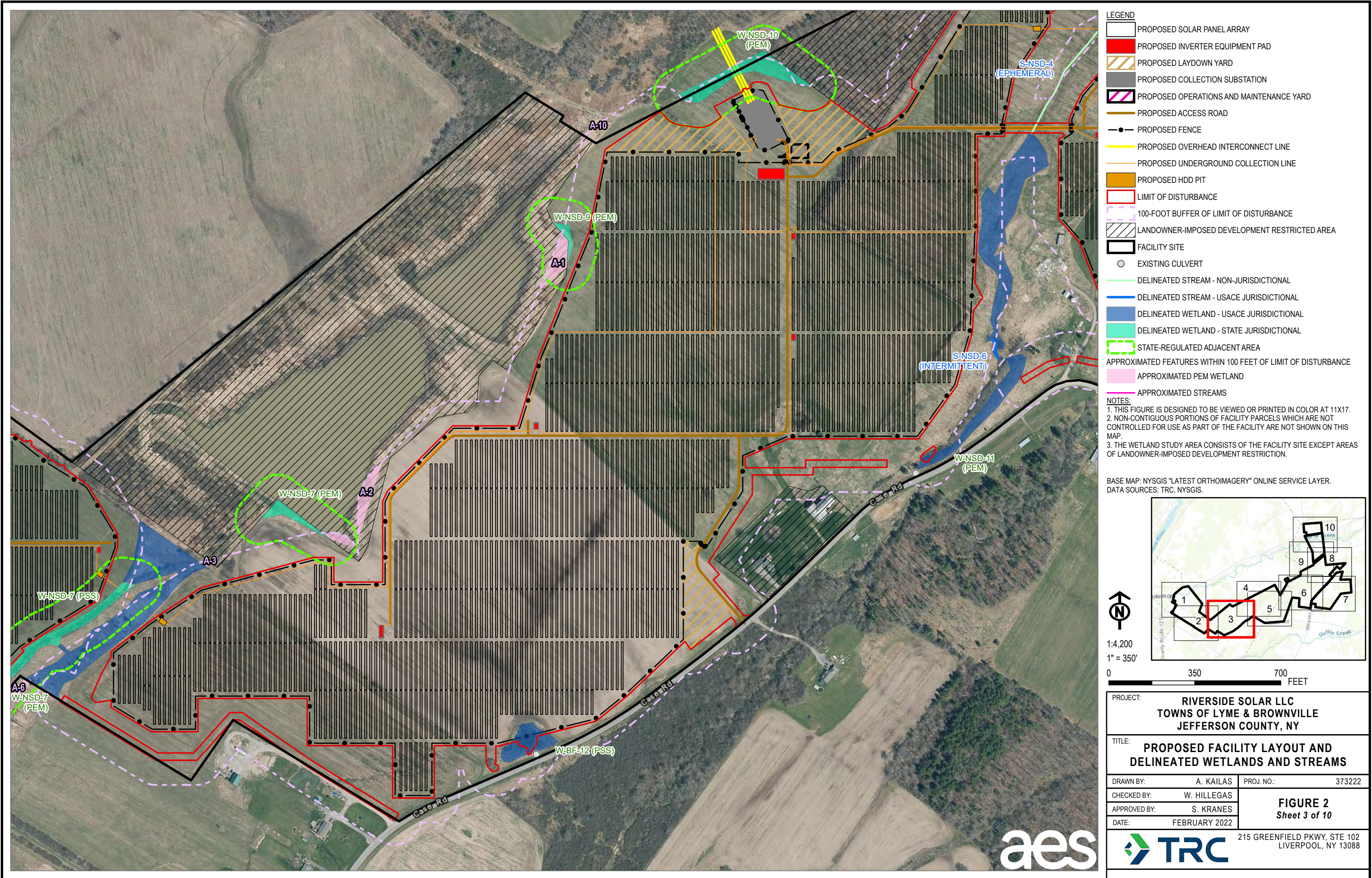
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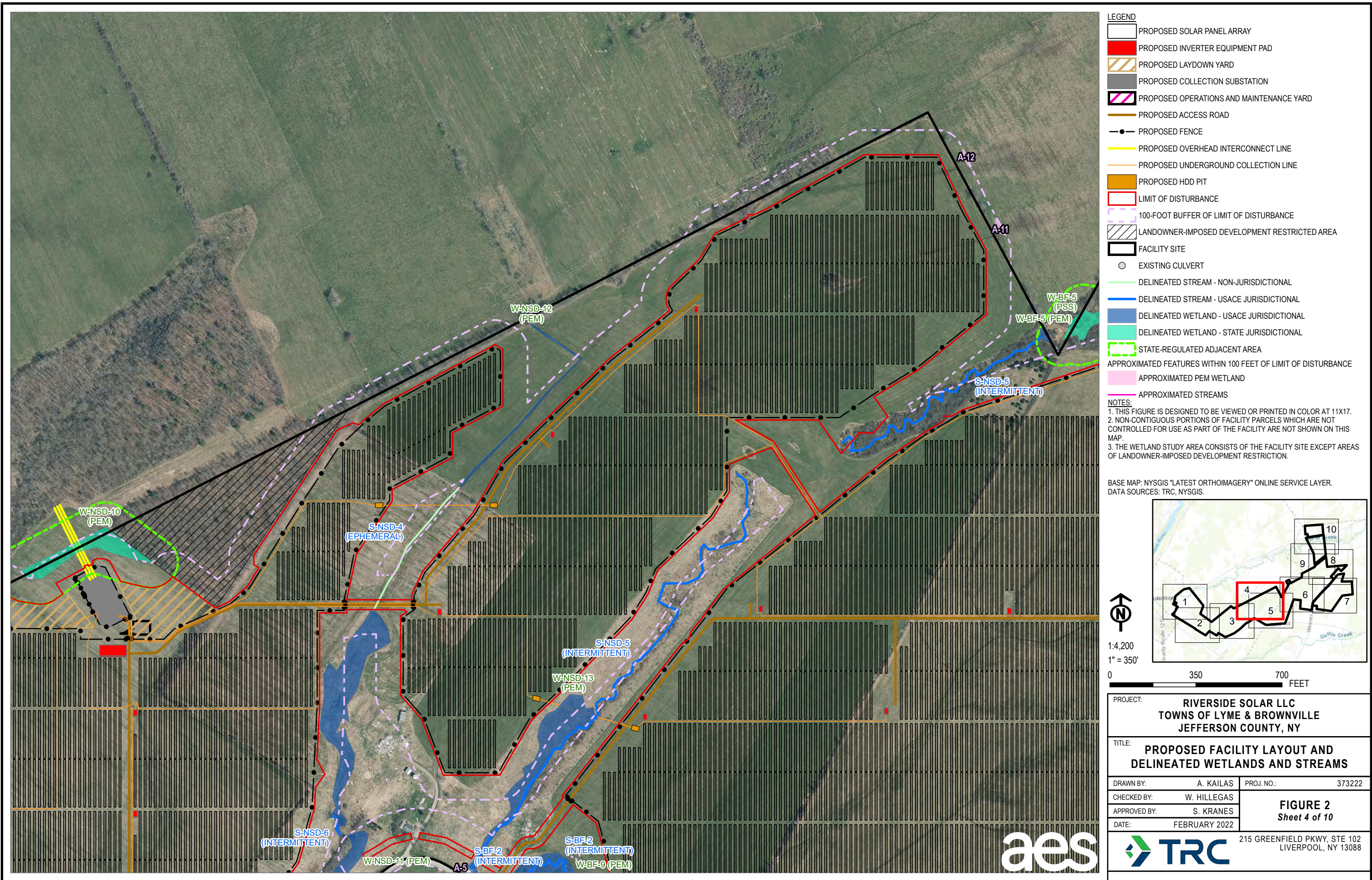
1. THIS FIGURE IS DESIGNED TO BE VIEWED OR PRINTED IN COLOR AT 11X17.
2. NON-CONTIGUOUS PORTIONS OF FACILITY PARCELS WHICH ARE NOT CONTROLLED FOR USE AS PART OF THE FACILITY ARE NOT SHOWN ON THIS MAP.
3. THE WETLAND STUDY AREA CONSISTS OF THE FACILITY SITE EXCEPT AREAS OF LANDOWNER-IMPOSED DEVELOPMENT RESTRICTION.

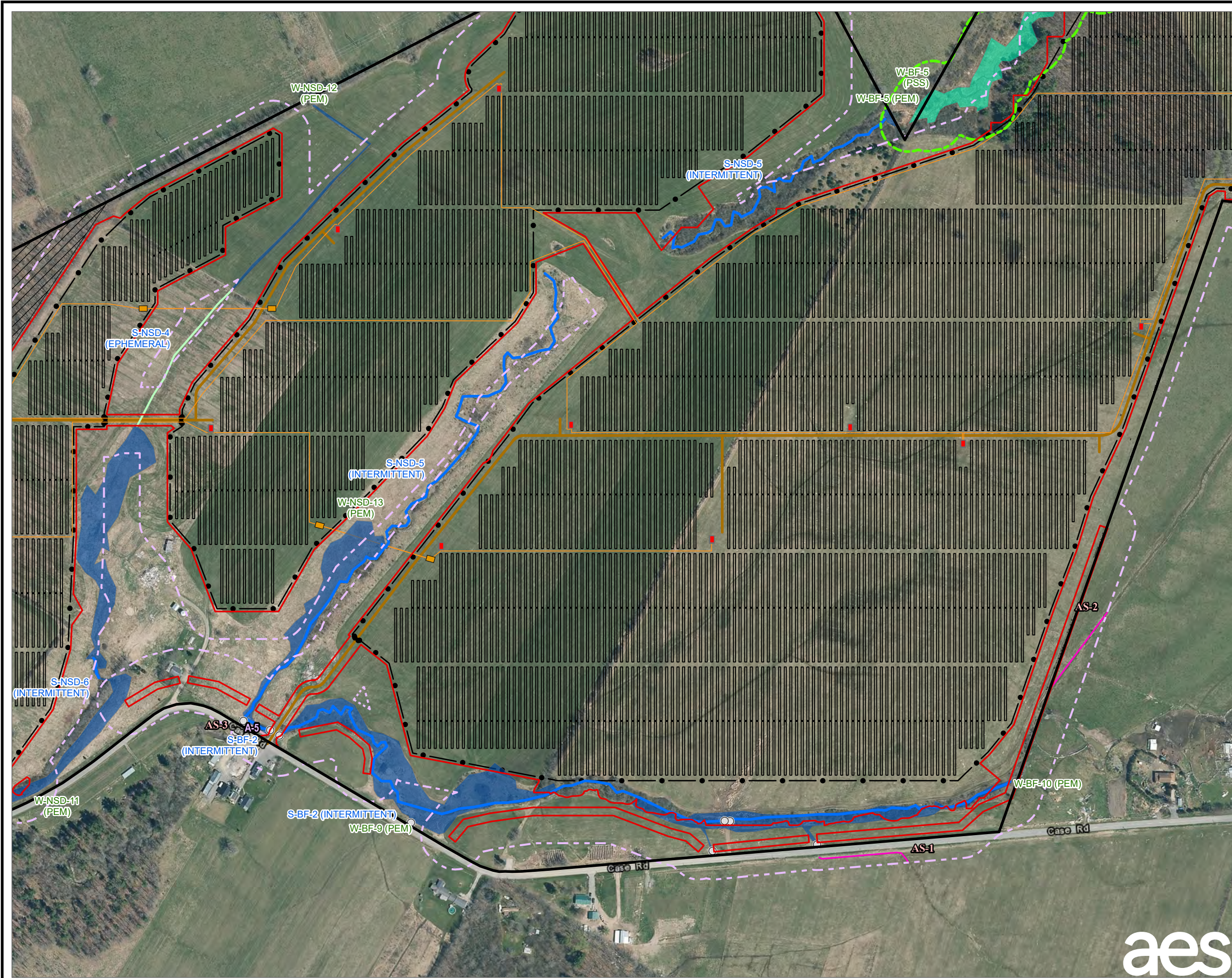
BASE MAP: NYSGIS "LATEST ORTHOIMAGERY" ONLINE SERVICE LAYER.
DATA SOURCES: TRC, NYSGIS.



PROJECT:		RIVERSIDE SOLAR LLC TOWNS OF LYME & BROWNVILLE JEFFERSON COUNTY, NY	
TITLE:		PROPOSED FACILITY LAYOUT AND DELINEATED WETLANDS AND STREAMS	
DRAWN BY:	A. KAILAS	PROJ. NO.:	373222
CHECKED BY:	W. HILLEGAS	FIGURE 2 Sheet 2 of 10	
APPROVED BY:	S. KRANES		
DATE:	FEBRUARY 2022		
		 215 GREENFIELD PKWY, STE 102 LIVERPOOL, NY 13088	





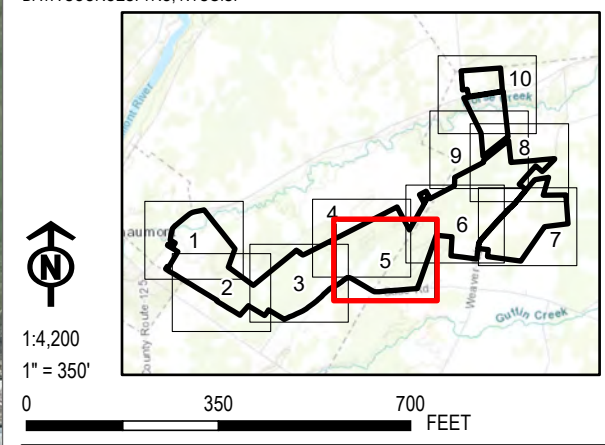


- LEGEND**
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 - PROPOSED ACCESS ROAD
 - PROPOSED FENCE
 - PROPOSED UNDERGROUND COLLECTION LINE
 - PROPOSED HDD PIT
 - LIMIT OF DISTURBANCE
 - 100-FOOT BUFFER OF LIMIT OF DISTURBANCE
 - LANDOWNER-IMPOSED DEVELOPMENT RESTRICTED AREA
 - FACILITY SITE
 - EXISTING CULVERT
 - DELINEATED STREAM - NON-JURISDICTIONAL
 - DELINEATED STREAM - USACE JURISDICTIONAL
 - DELINEATED WETLAND - USACE JURISDICTIONAL
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 - APPROXIMATED FEATURES WITHIN 100 FEET OF LIMIT OF DISTURBANCE
 - APPROXIMATED PEM WETLAND
 - APPROXIMATED STREAMS

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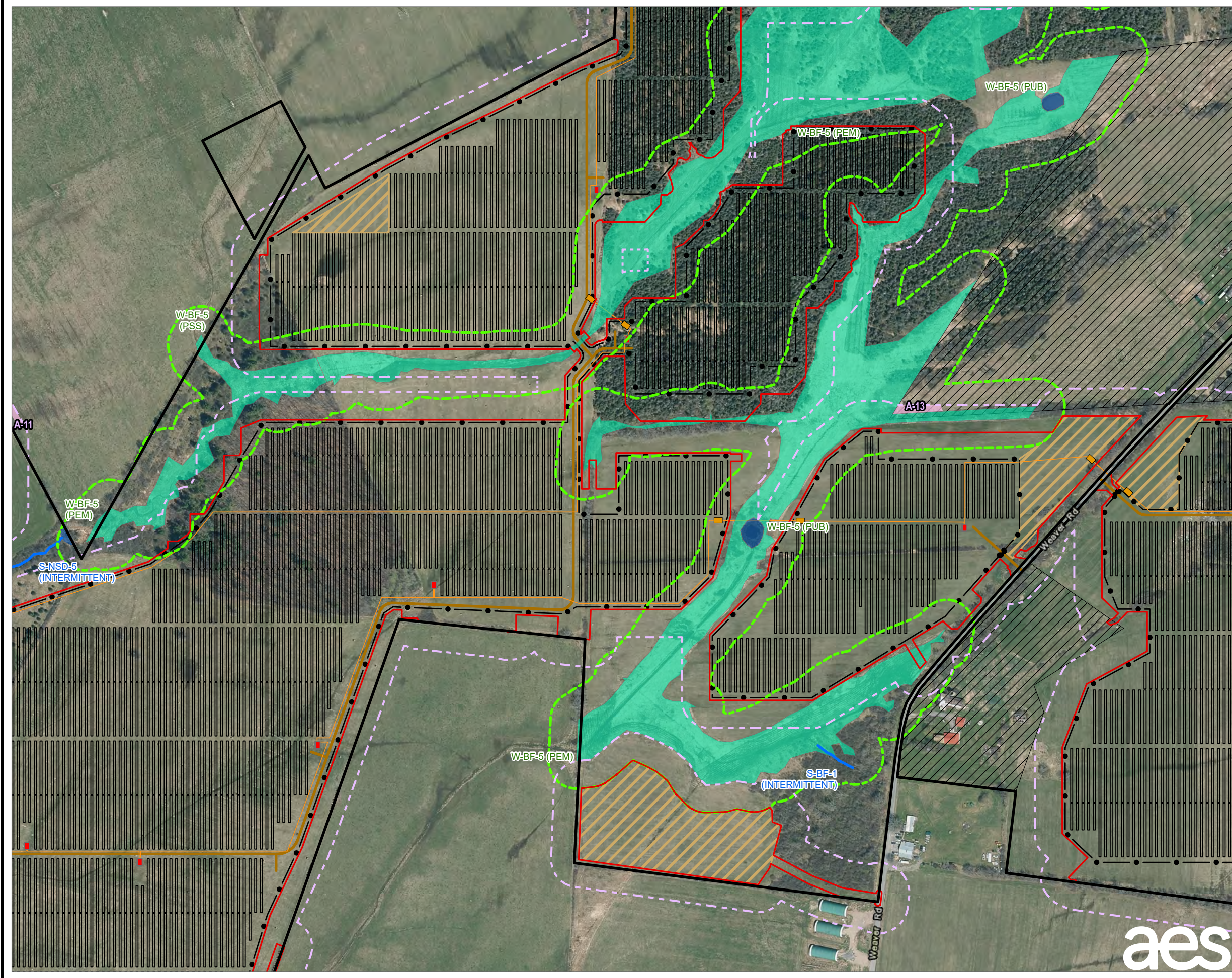
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DRAWN BY: A. KAILAS	PROJ. NO.: 373222
CHECKED BY: W. HILLEGAS	FIGURE 2 Sheet 5 of 10
APPROVED BY: S. KRANES	
DATE: FEBRUARY 2022	
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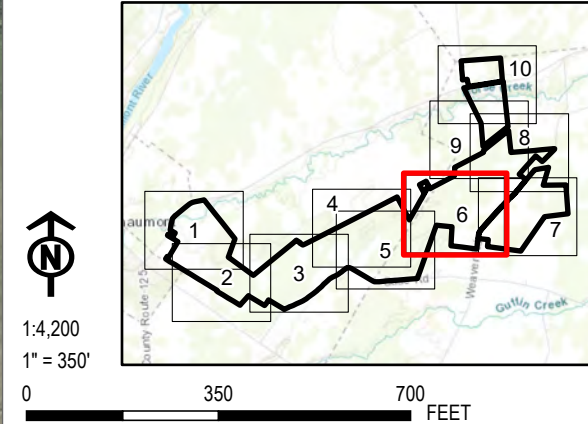


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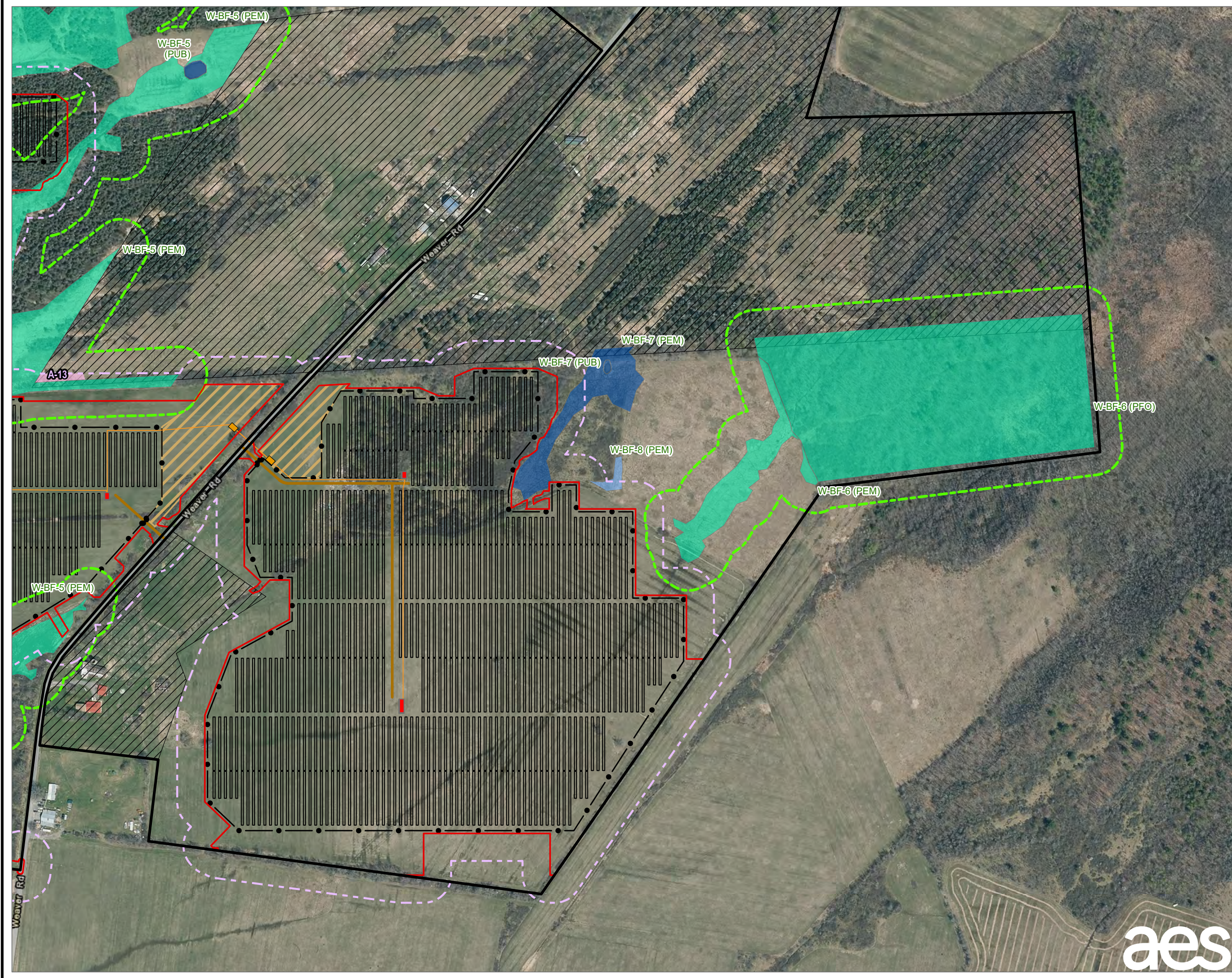
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CHECKED BY:	W. HILLEGAS	FIGURE 2 Sheet 6 of 10	
APPROVED BY:	S. KRANES		
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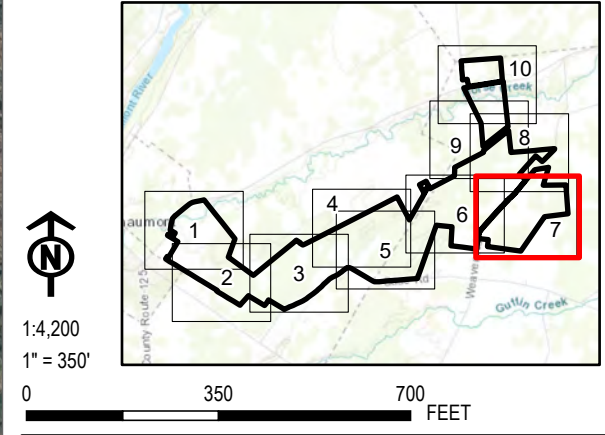


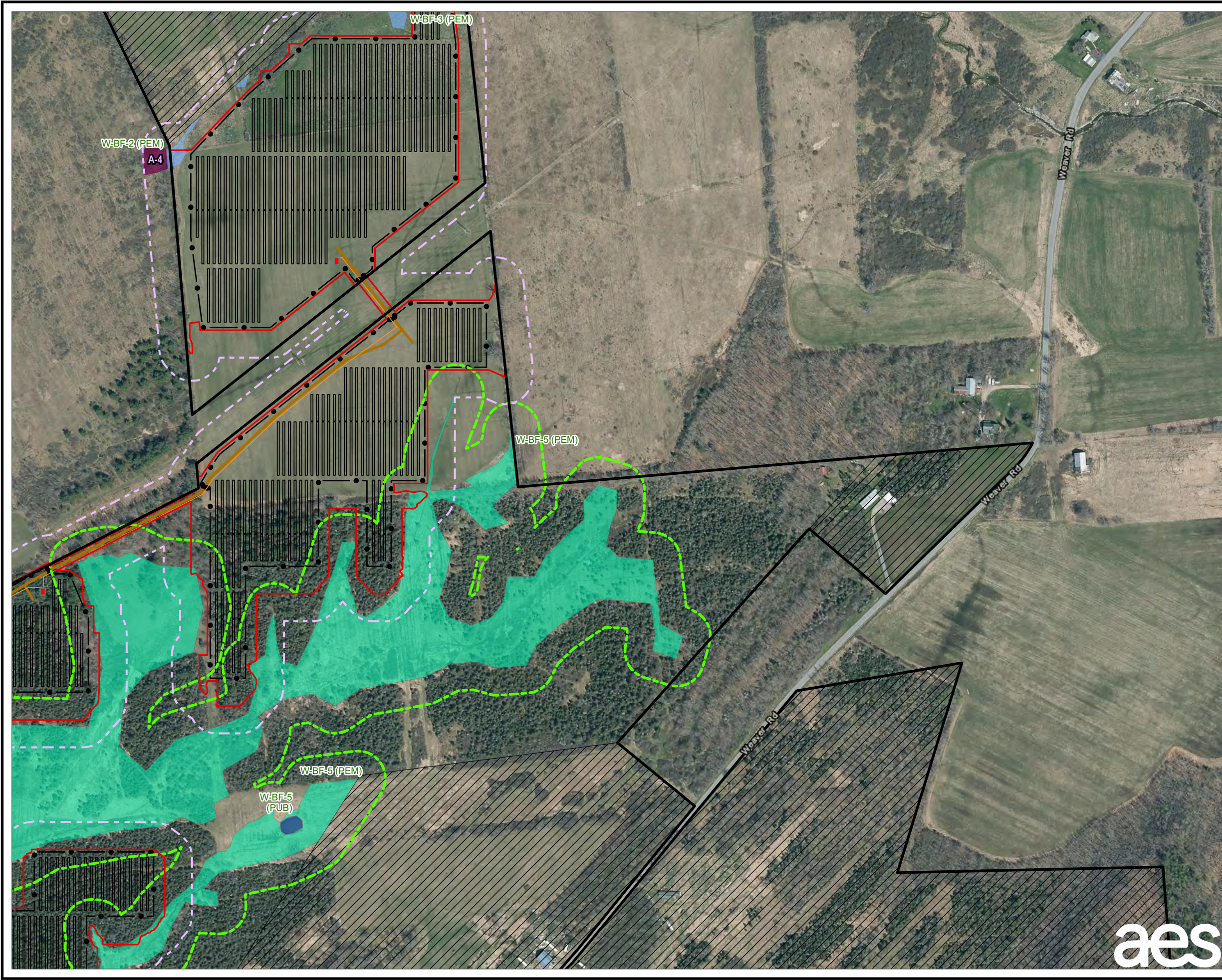
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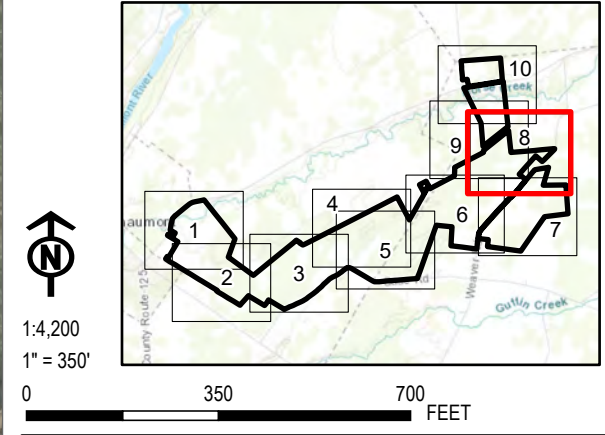


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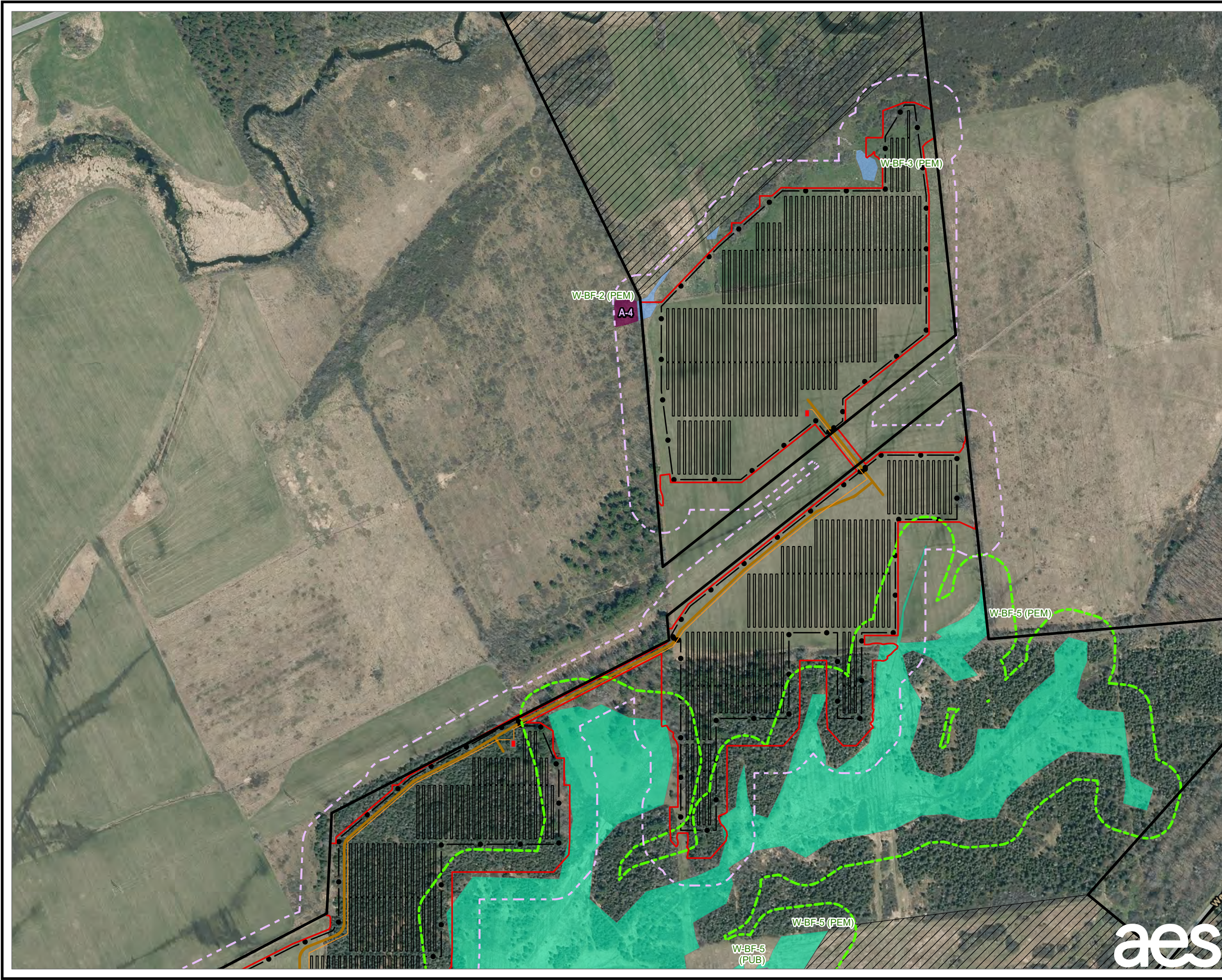
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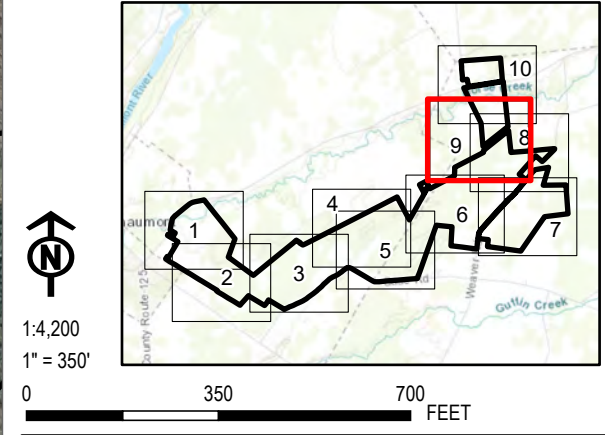


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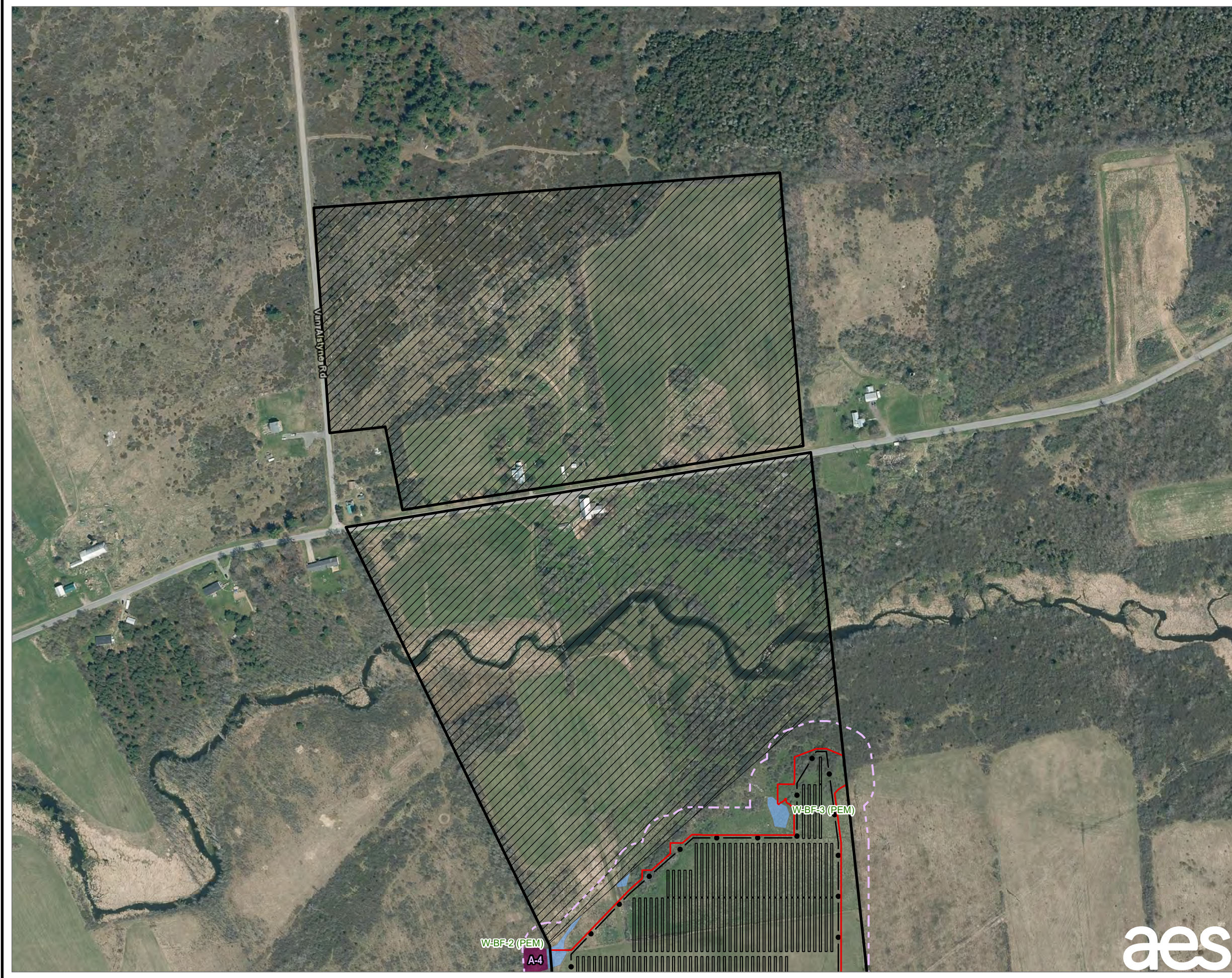
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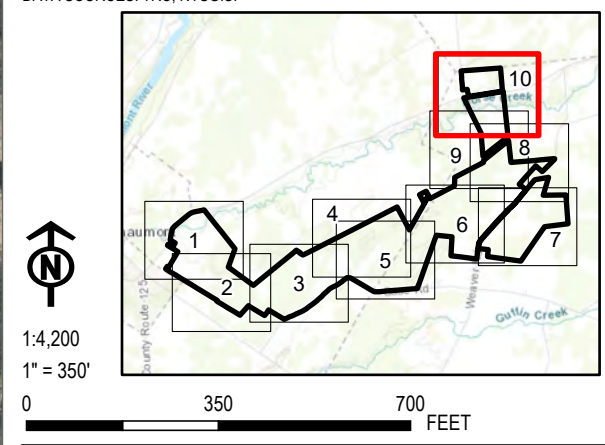


- LEGEND
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