LEVEL TWO ENVIRONMENTAL INFORMATION DOCUMENT

For:

ADMINISTRATION BUILDING AND WATER TREATMENT PLANT PROJECTS

NJ IBANK PROJECT #1101002-006

East Windsor Township, Mercer County, New Jersey

OCTOBER 2023

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TABLE OF CONTENTS

LIST OF ATTACHMENTS

1.0 INTRODUCTION

On behalf of the East Windsor Municipal Utilities Authority (EWMUA), Paulus, Sokolowski and Sartor, LLC (PS&S) is pleased to submit this Level 2 Review Environmental Information Document to the New Jersey Department of Environmental Protection (NJDEP) Division of Water Quality, Municipal Finance and Construction Element.

The EWMUA is requesting funding from the New Jersey Infrastructure Bank (NJ IBank) for the Administration Building, including a Maintenance Building, (Contract 1) and the Water Treatment Plant (Contract 2).

This Environmental Information Document is provided in support of the requested financing of the proposed Project and has been prepared in compliance with the requirements listed at N.J.A.C. 7:22-10.5(b).

2.0 PROJECT AND PLANNING AREA DESCRIPTION

EWMUA currently provides water and wastewater services to a population of approximately 25,000 people in the Township of East Windsor, Mercer County, New Jersey (NJ). EWMUA relies primarily on four (4) of its five (5) Water Treatment Plants (WTP's) with a combined flow of 3.25 MGD, sourced with seven (7) wells screened in the regional Potomac-Raritan-Magothy (PRM) aquifer.

In addition to its five (5) WTP's, the EWMUA owns and operates one (1) booster pump station, three (3) elevated water storage tanks, two (2) standpipes and 220 miles of water mains.

East Windsor Township has a total area of 15.66 square miles. The township borders Robbinsville Township and West Windsor Township in Mercer County; Cranbury Township, Monroe Township and Plainsboro Township in Middlesex County; and both Millstone Township and Upper Freehold Township in Monmouth County. The town is primarily a residential/rural community with commercial/industrial businesses located throughout.

The proposed project site is located at 146 Millstone Road, East Windsor, New Jersey and encompasses farmland in Mercer County. The site includes three (3) lots on the southwest side of Millstone Road (Block: 1; Lots: 2, 5.01 and 5.02). The proposed project area is a smaller portion of the project site, totaling approximately seven (7) acres of a 183.939 -acre parcel privately owned by EWMUA. The site is bordered by a wooded lot to the south, a cosmetic company to the east and a wastewater treatment plant to the west.

A wastewater treatment facility is located in the northeaster corner of Lot 2, a water tower directly south of the wastewater treatment facility, and a solar array in the northeasterly corner. The southern half of the property, including Lots 5.01 and 5.02 are

currently fallow farmland. The farming operations have been curtailed, and there has been no change in use. The EWMUA is proposing to redevelop the southeasterly corner of the property.

3.0 EXISTING ENVIRONMENTAL CONDITIONS

Due to the relationship between the proposed project area and the larger overall EWMUA site, this section describes the existing environmental conditions within the footprint of the proposed project area. Existing environmental conditions were evaluated through a desktop data analysis using publicly available data sources, a review of available project materials, and were field verified during a site visit. As required by N.J.A.C. 7:22-10.5(b)3, this section documents the findings of that assessment.

Existing environmental conditions in and around the project area are identified on the following maps, provided in Appendix B:

- Figure 1 – Project Location Map
- Figure 2 - USGS Site Location Map
- Figure 3 - Tax Map
- Figure 4 - Street Map
- Figure 5 - Wetlands Map
- Figure 6 - FEMA 100-Year Floodplain Map
- Figure 7 - Landscape Project Map
- Figure 8 - Soils Map
- Figure 9 – Sewer Service Area Map
- Figure 10 – Environmental Constraints Map

Site photographs documenting the existing site conditions are provided in Appendix C.

Water Quality and Supply

EWMUA is the water purveyor for the project site. As detailed in Section 5, the project is proposed to address existing water quality and water supply needs.

Surface Water and Hydrology

There are no streams located within or near the proposed project area. The northern limit of the overall EWMUA site is the Millstone River and an unnamed tributary of the Millstone River, which are classified by NJDEP as FW2-NT (N.J.A.C. 7:9B-1.15). The entire project site is located within the Millstone watershed management area (HUC14) and within the Millstone River (above Carnegie Lake) sub-watershed.

NJDEP mapped Freshwater Wetlands are identified within the project area. Additional information regarding wetlands within the project area is provided below.

Stormwater from the existing water tower access and farmland is conveyed as overland runoff (west to east direction) into existing wetlands located at the far southeast corner of

the site. Runoff eventually flows off the site via a culvert and inlet at Millstone Road and goes north to discharge into Millstone River.

Geology, Topography and Soils

Geology

East Windsor Township and the Project Area are located within the Coastal Plain physiographic province of New Jersey, as shown on the New Jersey Geological Survey map. The unconsolidated deposits of the Coastal Plain province range in age from the upper Lower Cretaceous to the Miocene (dating back to 90 million years ago up to 10 million years ago, according to the New Jersey Geological Survey). Locally, the NJDEP GeoWeb Geology dataset shows that the Project Area is underlain by fine- to coarse-grained quartz sand, interbedded with thin-bedded clay or clay-silt comprising the Magothy Formation (Kmg). Superimposed on this formation are deposits as much as 140 feet thick comprised of sand, clayey sand, pebble gravel, minor silt, clay, and cobble gravel, with sand typically including weathered feldspar (Pennsauken Formation – Tp).

Topography

According to the USGS Topographic Map, Hightstown Quadrangle of 2021, the topography of the site is relatively flat. Topography within the site ranges from 89 to 93 feet.

Soils

The USDA SSURGO Database and USDA Soil Survey of Mercer County New Jersey indicates that the soil mapping units on and immediately adjacent to the Project Area (Figure 8 in Appendix B) include the following soil series:

- Mattapex and Bertie loams, 0 to 5 percent slopes (MBYB)

The Mattapex component makes up 50 percent of the map unit. Slopes are 0 to 5 percent. This component is on marine terraces on coastal plains. The parent material consists of silty eolian deposits over marine deposits and/or coarse fluviomarine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded nor ponded. A seasonal zone of water saturation is at 30 inches during January-April. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria.

The Bertie component makes up 40 percent of the map unit. Slopes are 0 to 5 percent. This component is on marine terraces on coastal plains. The parent material consists of loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The

natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded nor ponded. A seasonal zone of water saturation is at 24 inches during January, February, March, and December. Organic matter content in the surface horizon is about 2 percent. Non - irrigated land capability classification is 2w. This soil does not meet hydric criteria.

- Othello silt loams, 0 to 2 percent slopes, Northern Coastal Plain (OthA)

The Othello, drained component makes up 50 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats, coastal plains. The parent material consists of silty eolian deposits over fluviomarine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded and rarely ponded. A seasonal zone of water saturation is at 14 inches during January-April. Organic matter content in the surface horizon is about 2 percent. Non - irrigated land capability classification is 3w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface.

The Othello, undrained component makes up 30 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats on coastal plains. The parent material consists of silty eolian deposits over fluviomarine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded and occasionally ponded. A seasonal zone of water saturation is at 5 inches (depth from the mineral surface is 3 inches) during January-April. Organic matter content in the surface horizon is about 68 percent. Non - irrigated land capability classification is 5w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface.

- Sassafras sandy loam, 5 to 10 percent slopes, Northern Coastal Plain (SacC)

The Sassafras component makes up 80 percent of the map unit. Slopes are 5 to 10 percent. This component is on fluviomarine terraces on uplands coastal plains. The parent material consists of loamy fluviomarine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded nor ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Non - irrigated land capability classification is 3e. Irrigated land capability classification is 3e. This soil does not meet hydric criteria.

Air Quality

Ambient Air Quality Standards

National and New Jersey Ambient Air Quality Standards (AAQS) have been adopted in accordance with requirements of the Clean Air Act for several air pollutants, to protect public health and welfare allowing for an adequate margin of safety. AAQS have been adopted for carbon monoxide, nitrogen dioxide, ozone, particulate matter, lead, and sulfur dioxide. The AAQS include primary and secondary standards. The primary standards have been established at levels to protect public health with an adequate margin of safety. The secondary standards have been established to protect the public welfare from the adverse effects associated with pollutants in the ambient air. National and New Jersey AAQS are presented in Table 3-1, below.

Attainment Status

Areas that meet the National AAQS for a criteria pollutant are designated as being in attainment of the standards; areas where a criteria pollutant level exceeds the applicable National AAQS are designated as being in non-attainment of the standards. Some non-attainment areas are subcategorized based on the severity of air contaminant concentrations (marginal, moderate, serious, severe, and extreme for ozone; and moderate and serious for PM10 and CO). When insufficient data exists to determine the attainment status of an area with respect to the National AAQS, the area may be designated as unclassifiable (or attainment).

Currently, Region 2, which includes New Jersey, is in a nonattainment area for ozone.

Background Air Quality

Regional air quality is influenced by vehicle traffic on nearby roadways and train traffic on adjacent rail lines. These activities generate air emissions including carbon monoxide (CO), nitrogen oxides (NOX), and volatile organic compounds (VOCs). Additional air emissions are generated by various commercial and industrial operations in the general vicinity.

A comparison of pollutants and regional status monitored by the USEPA and the NJDEP is provided in Table 3-1.

Table 3-1
National and New Jersey Ambient Air Quality Standards and Regional Statistics [a]

Pollutant	Primary	Secondary	Regional Monitoring [b]
Carbon Monoxide (CO)			
1-hour Average	35 ppm	35 ppm	5.1 ppm (2)
8-hour Average	9 ppm	10 ppm	3.2 ppm (2)
Nitrogen Dioxide (NO_2)			
1-hour Average	100 ppb	--	85 ppb (2)
Annual	53 ppb	53 ppb	19 ppb (2)
12-Month	100 µg/m^3 (53 ppb)	100 µg/m^3 (53 ppb)	19 ppb (2)

Ozone (O_3)			
1-hour Average	0.12 ppm	0.12 ppm	0.120 ppm [4]
8-hour Average	0.070 ppm	0.070 ppm	**0.096** ppm [4]
Sulfur Dioxide (SO_2)			
1-hour Average	75 ppb	75 ppb	8.4 ppb [4]
3-hour Average	0.5 ppm	0.5 ppm	0.0058 ppm [2]
24-hour Average	365 µg/m3 (14 ppm)	260 µg/m3 (10 ppm)	0.0042 ppm [2]
Annual Arithmetic Mean	80 µg/m3 (0.03 ppm)	60 µg/m3 (0.02 ppm)	0.0006 ppm [2]
Particulates ($PM_{2.5}$)			
Annual	12.0 µg/m^3	15.0 µg/m^3	9.45 µg/m^3 [3]
24-hour	35 µg/m^3	35 µg/m^3	33.3 µg/m^3 [3]
Particulates (PM_{10})			
24-hour	150 µg/m^3	150 µg/m^3	42 µg/m^3 [3]
Lead (Pb)			
Quarterly Average	1.5 µg/m^3	1.5 µg/m^3	0.003 µg/m^3 [4]

Notes:
[a] Most Stringent National or State Standard
ppm = parts per million
ppb = parts per billion
µg/m^3 = micrograms per cubic meter

Stations:
[b] Highest monitoring station reported:
[1] Bayonne
[2] Jersey City
[3] Jersey City Firehouse
[4] Newark Firehouse
[5] Union City High School

Source: NJDEP, 2018 Air Quality Report

Plant and Animal Communities

The EWMUA site consists of 183.939 acres of land made up of an existing wastewater treatment plant and both fallow and actively farmed agricultural fields, and the surrounding vegetated hedgerows. The vegetated areas are anticipated to provide habitat for certain common wildlife species that are well adapted to disturbed and suburban environments. The fallow fields contain plant species typical of early successional habitat, such as common boneset (*Eupatorium perfoliatum*), and goldenrods (*Solidago spp.*), and the actively farmed fields contain corn (*Zea mays*). The vegetated hedgerows are comprised of species anticipated to occur within disturbed habitat, including Japanese honeysuckle (Lonicera japonica), oriental bittersweet (*Celastrus orbiculatus*), pin oak (*Quercus palustris*), red oak (*Quercus rubra*), black locust (*Robinia pseudoacacia*), multiflora rose (*Rosa multiflora*), black cherry (*Prunus serotina*), and common mugwort (*Artemisia vulgaris*). White-tailed deer (*Odocoileus virginianus*), Eastern gray squirrel (*Sciurus carolinensis*), groundhogs (*Marmota monax*), various songbirds, and other suburban-adapted species are likely to be seasonally present on the site.

Cultural Resources

A review of the NJ-GeoWeb Historic Preservation dataset indicates that the site does not fall within any Historic Districts nor does it contain any known Historic Properties. The nearest Historic Property to the site is the Johnson Covenhoven House (Eligible INDV),

located on John White Road in Cranbury Township, across the Millstone River to the north.

Land Use

The project site currently includes an existing water tower, access road and open fallow farmland. The project site is within East Windsor Township's Research Office (RO) zone. Permitted uses in the RO zone include:

- Manufacturing, preparation, processing or fabrication of products, with all activities and product storage taking place within a completely enclosed building.
- Scientific or research laboratories which are devoted to research, design and experimentation including experimental operation of equipment and pilot plants.
- The warehousing or storage of products within a completely enclosed building provided that no retail sales or motor freight facilities shall be permitted except as incidental and accessory to a permitted or conditional use.
- Computer centers.
- Pharmaceutical operations.
- Offices and office buildings, including medical professional.
- Industrial office parks meeting the specific Bulk and Area Requirements set forth in Subsection 20-19.4 of this chapter.
- Commuter parking facilities.
- Agricultural and horticultural uses.
- Day-care centers, child-care centers, and nursery schools.
- Additionally, the use of land and/or buildings by the Township of East Windsor is permitted in all zoning districts.

Environmentally Critical Areas

Wetlands

Palustrine emergent wetlands were observed onsite, mainly in the southeast portion of the project area adjacent to Millstone Road. A NJDEP Letter of Interpretation application was submitted by CME Associates on April 3, 2023 to verify the limits of wetlands they delineated onsite, and is currently under review (File No. 1101-23-0002.1, LLI230001).

Vernal Habitats

A review of the NJ-GeoWeb Landscape dataset indicates that the Project Area is not located in or adjacent to any mapped vernal habitat or vernal pools. In addition, no vernal habitat was identified on the property during the site visit. The closest mapped vernal habitats as identified by the NHD report is potential vernal habitat ID# 1594, across the Millstone River to the northeast in the Township of Cranbury, and vernal habitat ID# 2842 to the west in the Township of West Windsor.

Endangered or Threatened Wildlife or Plant Species

NJDEP Landscape Project Mapping (Figure 7 – Appendix B) indicates that a portion of the overall EWMUA site is classified as Rank 4, which is assigned to habitats that have one or more occurrences of at least one New Jersey endangered species. Bald eagle (*Haliaeetus leucocephalus*) foraging habitat is mapped on the northern portion of Block 1, Lot 2, in the riparian corridor associated with the Millstone River that borders the overall EWMUA site to the north. However, as depicted on the Landscape Project Mapping, the Project Area where proposed activities will occur (in the southeast portion of the overall EWMUA site) does not contain any habitat mapped as Rank 4.

Additionally, NJDEP has issued a Natural Heritage Database (NHD) report on plant and animal communities on and in the vicinity of the Project Site. A copy of the NHD letter report is provided as Appendix D. The following species were identified in the NHD report:

- Bald eagle (*Haliaeetus leucocephalus*) – Rank 4, foraging

Wild and Scenic River Corridors

The nearest waterway to the Project Area is the Millstone River, which borders the property to the north. The Millstone River is not designated as a Wild and Scenic River Corridor nor is it being studied for possible designation into the System.

Riparian Zones

The Millstone River, which borders the property to the north, and its associated tributaries are the nearest waterways to the Project Area. They are located at least 0.2 miles from the northern boundary of the Project Area, which is a greater distance than the maximum possible riparian zone width of 300 feet for waterways in New Jersey, and therefore the Project Area is not anticipated to contain any riparian zones.

Tidelands Claims

The project area is not subject to any Tidelands Claims.

Flood Plains

The northern portion of the overall EWMUA site is located within the Flood Hazard Area of the Millstone River. Figure 6 – FEMA 100-Year Floodplain Map (Appendix B) depicts the extent of the mapped 100-year floodplain and floodway of the Millstone River along the northern portion of the Site. The elevation of the 100-year floodplain is subject to confirmation by the NJDEP in accordance with the with the Flood Hazard Area (FHA) Control Act Rules (N.J.A.C. 7:13); however, it is not anticipated that the Project Area where proposed activities will occur is located within a floodplain.

Coastal Areas

No portion of the project site is within a coastal area.

Steep Slopes

The project site is generally flat and does not have steep slopes.

Sole Source Aquifers

The project area is underlain by the bedrock Potomac-Raritan-Magothy aquifer system, which is identified as a sole source aquifer. According to the Aquifers of New Jersey map prepared by the NJDEP and the New Jersey Geological Survey, the Potomac-Raritan-Magothy aquifer is an aquifer of the Coastal Plain. The Potomac-Raritan-Magothy map unit is described by the New Jersey Geological Survey as:

> *Interbedded sand, gravel, silt, and clay separated into lower, middle, and upper aquifers. Includes the Raritan confining unit composed of interbedded sand, silt, and clay. Primary intergranular porosity and permeability. Water is fresh, moderately hard with a near-neutral pH. Salinity increases towards the coastline near Delaware and Raritan Bays. Elevated iron and manganese are common. Calcium and magnesium levels decrease and sodium and potassium levels generally increase to the southeast. Calcium-bicarbonate type waters dominate.*

New Jersey aquifers are ranked by their ability to yield groundwater (measured in gallons per minute, or gpm) to high-capacity wells. The Potomac-Raritan-Magothy aquifer system is classified as Rank A, greater than 500 gpm median yields. The aquifer system is a sole source aquifer, which is defined by the USEPA as an aquifer that supplies at least 50% of the drinking water for its service area, and where there is no reasonable alternative drinking water source available in the case that aquifer becomes contaminated.

Parks and Preserves

PS&S reviewed the NJ-GeoWeb Open Space dataset as well as East Windsor Township's list of parks and pathways to evaluate the presence of parks and preserves on or near the Project Area. None of the parcels comprising the overall EWMUA site are identified as parks or preserves. The closest parcel mapped as open space is known as Block 2, Lot 1, located to the east directly across Millstone Road. The parcel is identified as municipally-owned with public access, encumbered by the Green Acres Program, and is part of the East Windsor Millstone Rocky Brook greenspace.

Aquifer Recharge Areas

Areas where conditions are such that precipitation can permeate the ground and refill an aquifer's water supply are known as aquifer recharge areas. Aquifer recharge areas are grouped by the number of inches of recharge per year and ranked, with 16 to 23 inches per year being the highest at Rank A. Portions of the project area are Rank B (11 to 15

in/ year) and Rank C (8 to 10 in/ year). The remainder of the project area is mapped as wetlands and open water and therefore has no recharge rates calculated.

Waterbodies

The overall EWMUA site is located adjacent to the Millstone River, which is classified by the NJDEP as a stream/river in the perennial hydrographic category. No mapped waterbodies are located within the proposed Project Area where activities will occur.

Important Farmlands

The project site includes areas mapped as Prime Farmland, Farmland of Statewide Importance, and Farmland of Statewide Importance if Drained. No portion of the project area includes Prime Farmland, however the project area does include areas of Farmland of Statewide Importance and Farmland of Statewide Importance if drained.

Special Local, State, and Federal Jurisdictions

The project area is not located within any areas subject to the jurisdiction of the Pinelands Commission, the Coastal Area Facility Review Act, the New Jersey Meadowlands Commission, the Delaware and Raritan Basin Commission, or the New Jersey Highlands Water Protection and Planning Council. The project area is located within the Delaware and Raritan Canal Commission Review Zone B, and Major Projects are subject to review.

4.0 PURPOSE AND NEED FOR PROJECT

EWMUA intends to relocate and construct a new 3.5 million gallon per day (MGD) with full build out to 5 MGD WTP to service two (2) production wells (already installed) as well as construction of an administration building and a maintenance building. The existing WTP and administration building suffer from repetitive loss due to flooding. This new facility will add a tremendous benefit to system resiliency and prevent loss of service due to flooding. These facilities will be constructed to meet the LEED certificate criteria. As mentioned, the construction of these facilities is emergent due to the current flooding conditions encountered frequently at the existing Well #5 WTP (to be decommissioned when project is complete), administration building and maintenance facility.

The pump house associated with existing Well No. 5 has been significantly impacted by periodic flooding (climate change) and has become an unsafe and unreliable source and therefore requires replacement. In order to replace this well and facility and in addition provide for firm capacity and consolidate supply and treatment, EWMUA has already drilled two (2) new production wells and plans to construct a treatment plant,

maintenance facility and administrative office on an existing EWMUA property at 147 Millstone Road.

The scope of work involves construction of a WTP, Administration Building and Maintenance Building, all to be located on an existing property owned by EWMUA and adjacent to the Pollution Control Facility. EWMUA proposes to develop a total production water supply of up to 3.5 MGD and a full buildout of 5 MGD at this location. The EWMUA owned parcels are significant in size, with a combined area of approximately 170 acres. This overall effort would result in two (2) anchor sources and a consolidated treatment location for EWMUA, which would offset the loss of Well 5 as well as provide for backup in the event of a loss of Wells 1 and 2, 3 and 7, 6R, or 8 and allow EWMUA to meet their firm capacity requirement. The land use of the proposed site is predominantly agricultural, with the wastewater operations to the eastern end of the site, undeveloped to the north and south, and with a residential area to the west. Once this WTP is constructed, EWMUA will be able to shutdown each water treatment plant, one at a time and update them to meet the current Safe Water Drinking Act (SWDA) standards.

5.0 FUTURE ENVIRONMENT (NO-ACTION ALTERNATIVE)

See discussion regarding No Action alternative included in Section 8.0 herein.

6.0 EXISTING ENVIRONMENTAL INFRASTRUCTURE

As noted in Section 2.0, the EWMUA currently provides water and wastewater services to a population of approximately 25,000 people in the Township of East Windsor, Mercer County, New Jersey (NJ). EWMUA relies primarily on four (4) of its five (5) Water Treatment Plants (WTP's) with a combined flow of 3.25 MGD, sourced with seven (7) wells screened in the regional Potomac-Raritan-Magothy (PRM) aquifer.

In addition to its five (5) WTP's, the EWMUA owns and operates one (1) booster pump station, three (3) elevated water storage tanks, two (2) standpipes and 220 miles of water mains.

147 Millstone Road

Three (3) wells have been installed at the EWMUA next to the wastewater treatment site over the period of April 2021 through September 2023. The first well was a Pilot well to evaluate stratigraphy and determine the aquifer thickness and makeup and to act as an observation well for production Wells No.'s 9 and 10. This well is designated as the Pilot well, and this is a 4" PVC well screened from 150 feet (ft) to 180 ft below grade. Production Well No. 9 was next installed in 2022 and Production Well No. 10 was installed in 2023. Wells Nos. 9 and 10 were installed as 24-inch by 18-inch steel double cased, reverse circulation gravel packed wells. Well No. 9 is completed to a depth of 202' and is constructed with a stainless-steel screen (0.045 slot) from 157 to 197 ft below grade. Well No. 10 is completed to a depth of 205' and is constructed with a stainless-steel screen (0.030 slot) from 157 to 200 ft below grade.

Both production Wells Nos. 9 and 10 were step-rate and constant-rate tested, and both exhibit very similar characteristics in terms of specific capacity and static and pumping levels. Approximate static groundwater is 30 ft. below grade in both wells. Both wells exhibit specific capacity ranging from 45 to 50 gpm/ft, and both sustained pumping rates of 2,200 gpm for 72-hours with approximately 45 to 48 ft of drawdown. The wells recover to approximately 90% of pre-pumping (static) water levels within one (1) -hour of cessation of pumping. These wells are installed in the Middle PRM aquifer unit. Testing will be fully described in the ultimate hydrogeologic report for these wells which will support an application for a major modification of the current EWMUA allocation permit.

The EWMUA's current water allocation limits are as noted in Table 1 below:

Table 6-1 – Water Allocation Limits	
Firm Capacity (MGD)	6.061
Monthly Limit (MGM)	157
Yearly Limit (MGY)	1,316

The EWMUA's current peak water demands are as noted in Table 2 below:

Table 6-2 – Current Peak Water Demands	
Daily Demand (MGD)	2.96
Monthly Demand (MGM)	88.80
Yearly Demand (MGY)	982.25

7.0 WASTEWATER TREATMENT AND WATER SUPPLY PROJECTS CONSTRAINTS ANALYSIS

As a result of the project, the capacity of the proposed water treatment plant will be 3.5 MGD with a potential full build out of up to 5 MGD.

As a result of this project EWMUA is requesting a major modification to its existing permit. The EWMUA will be requesting additional allocation for the instantaneous, daily and monthly, and possibly yearly limits. In addition, EWMUA will be looking to transfer Well No. 5 allocation to the new WTP.

8.0 ALTERNATIVES

The following sections describe the alternatives considered for Contract 1 – Administration Building and Contract 2 – WTP.

8.1 No-Action Alternative

Under this alternative this project would not be constructed. As discussed herein, Contract 1- Administration Building and Contract 2 – WTP have been planned to allow continued operation of Well No. 5 which is an unsafe and unreliable source of water for the EWMUA's drinking water system.

In addition, if this project is not implemented the EWMUA DWS would remain without two (2) anchor sources and a consolidated treatment location for EWMUA. As noted herein, this project is necessary to offset the loss of Well 5 as well as provide for backup in the event of a loss of Wells 1 & 2, 3 & 7, 6R, or 8 and allow EWMUA to meet their firm capacity requirement.

8.2 Construction of Contracts 1 and 2

This alternative consists of the improvements noted in Section 11.1 herein. This alternative would be the most cost-effective option for the users and would ensure continued effective and resilient water system operation and compliance with NJDEP regulations.

Work under these Contracts would achieve sufficient treatment capacity, would optimize system treatment and distribution, as well as allow for repairs and updates to other system components. In addition, this would allow for a resilient and redundant water supply to all those served by EWMUA.

Lastly, this alternative would allow EWMUA to meet firm capacity.

9.0 ALTERNATIVES – COST COMPARISON

The proposed alternative was selected based on a variety of factors centered on assuring that the alternative would provide reliable, safe, compliant and resilient water service to the residents of East Windsor, NJ. No alternative was eliminated solely on the basis of cost.

The total loan amount for Contract 1 – Administration Building and Contract 2 – Water Treatment Plant are as detailed in Table 9-1 below:

Table 9-1 – Total Loan Cost

Item Description	**Subtotal**
Construction – Contract 1 – Administration Building	$12,532,632
Construction – Contract 2 – Water Treatment Plant	$20,000,000
Construction Cost (CC) – Total	**$32,532,652**
Administration – 3% of CC	$975,980
Planning and Design	$1,450,000
Engineering During Construction – 12% of CC	$3,903,918
Contingencies – 5% of CC	$1,626,633
Total Loan Amount	**$40,489,182**

10.0 ALTERNATIVES – SUMMARY OF IMPACTS

The no-action alternative would result in the loss of opportunity for the benefits associated with the proposed project.

The no-action alternative would therefore have negative impacts related to water quality, water supply, and economics. The purposes of the proposed project would not be met with the no-action alternative.

11.0 SELECTED PLAN

11.1 Proposed Improvements

Contract 1 – Administration Building

The EWMUA proposes the construction of an approximately 7,115 square feet (SF) Administrative Building. The proposed administration building would be open to the public for the payment of bills, customer service, and board meetings. The administration building will comprise of a multipurpose boardroom and office spaces.

This construction will include the construction of an asphalt parking lot and access roads. These developments will also include water and sanitary sewer services and other utilities.

Work under Contract 1 will also include the construction of a new maintenance building and garage with a footprint of approximately 11,775 SF. The proposed maintenance building will comprise of office space, locker rooms, a lunchroom, and a garage.

This construction will also include the construction of an asphalt parking lot and access roads.

An access roadway to the proposed new Administration and Maintenance Buildings will be constructed. The roadway will be approximately 34 feet wide and allow for two-way travel associated with the proposed administration building and will impact approximately 21,035 SF. The proposed roadway will also have four (4) stormwater outfalls located along the road which would impact 1,625 SF. Additionally, due to a new utility crossing there would be an impact of 2,670 SF.

The Administration Building and the Maintenance Building have been fully designed and the contract documents are ready for public bid. The approximate total disturbance for Contract 1 is 300,514 SF or 6.9 acres. The total new impervious surface for this project is 144,834 SF or 3.325 acres.

Contract 2 – Water Treatment Plant

The design for the Water Treatment Plant has not yet been completed, as such, the status for the plant is subject to change and the area of disturbance has not been finalized.

However, the Water Treatment Plant is anticipated to be a one story, 10,000 square feet building to treat the water supplies from Wells No.s 9 and 10. The Water Treatment Plant, Administration Building and Maintenance Building are being constructed to service these wells.

In summary, the project scope will entail, but is not limited to:

- Contract 1 – Administration Building (Contract 1)
    - The construction of the Administration Building, which is to be a one-story, approximately 7,000 square foot building comprised of a multipurpose boardroom and office space.
    - The construction of a Maintenance Building and garage, which is to be one-story, approximately 11,000 SF. This building is comprised of office space, locker rooms, lunchroom and a garage.

- Construction of an access road, approximately 21,000 SF. The roadway will be approximately 34 FT wide and allow for two-way travel associated with the proposed buildings.
- The location for the temporary storage and stockpile areas for Contract 1 will be located on the north side of the Administration and Maintenance Buildings and will encompass approximately 512 SF.
- Proposed site utilities include the following:
    - Storm System
        - 1,636 Lineal Feet (LF) of perforated pipe
        - 753 LF of 8" High Density Polyethylene (HDPE) pipe
        - 418 LF of 12" Reinforced Concrete Pipe (RCP)
        - 867 LF of 15" RCP
        - 270 LF of 18" RCP
        - 156 LF of 24" RCP
        - 328 LF of 30" RCP
    - Potable Water System
        - 860 LF of 8" HDPE DR11 DIPS
    - Gas – approximately 910 LF of piping
    - Sewer System
        - 332 LF of 4" polyvinyl chloride (PVC) force main
        - 116 LF of 6" PVC
        - 423 LF of 8" PVC
        - 15 LF of 10" OVC
    - Electric – Approximatley 1,540 LF of conduit.
- Contract 2 – WTP (Contract 2): The construction of a Water Treatment Plant which is one story, approx. 10,000 SF building will house the treatment processes required to treat the raw water from Wells 9 and 10 to SWDA standards. Additional detail will be provided for this contract once the design is complete.

11.2 Summary of Impacts

The Summary of Impacts can be completed for the entire project once the design for Contract 2 – Water Treatment Plant has been progressed.

11.3 Adverse Impacts That Cannot Be Avoided

During the construction period, short-term, minor impacts to transportation/traffic, air quality and noise are anticipated. All short-term impacts will require conditions to minimize and mitigate impacts to the proposed project site and surrounding areas, regulated through State identified agencies.

11.4 Short Term Uses and Long Term Benefits

The short term uses and long term benefits of the proposed project are detailed below.

Short Term Uses

- The short-term use of the improvements constructed as a result of Contract 1 – Administration Building and Contract 2 – WTP would allow the EWMUA to decommission the unsafe and unreliable DWS source, Well #5.
- Allow the EWMUA to meet their firm capacity.
- Consolidate water supply and treatment.
- Enhanced water quality for the DWS customers.

Long Term Benefits

- Provide backup for Wells 1 and 2, 3 and 7, 6R or 8.
- Allow updating of the existing EWMUA WTP's one at a time to meet the current S.D.W.A. requirements.
- All materials used in this development are cleaner and greener than existing.
- Provide for a more resilient water system for the EWMUA customers.

11.5 Irreversible and Irretrievable Commitments of Resources

Except for the resources consumed during construction operations, the proposed project and associated activities will not result in irreversible and irretrievable commitments of resources.

11.6 Mitigation Measures

A soil and sediment control plan will be implemented to mitigate the effects of construction on water quality. The intent of this plan is to minimize the movement of sediments off-site during construction and reduce the potential impact these sediments may otherwise have on the surrounding environment. A silt fence will be provided to protect the existing tributaries and wetland vegetation from construction activities.

The Project will be designed to meet the water quality requirements of the State Stormwater Management Rules, which will result in the reduction of long-term impacts to the water quality of surrounding water bodies.

Air quality impacts during construction will be minimized to the extent practicable by use of standard vehicle emissions equipment.

The landscaping design will incorporate the planting of native vegetation and minimizes the use of lawns, fertilizers, and pesticides.

The use of Best Management Practices is proposed during the construction and operation of the project.

12.0 DESCRIPTION OF STEPS NEEDED AND TIME FRAME NEEDED FOR IMPLEMENTATION OF THE PROJECT

The next step for implementation of this project is for the EWMUA to procure a design engineer for Contract 2 – WTP. This engineer will be responsible for the preliminary design, final design, permitting, bidding and construction administration services for this project.

The design engineer will be responsible for preparation of a schedule for project implementation which will be provided to the NJDEP for review at that time.

13.0 IDENTFY OF THE OWNER OR OPERATOR OF THE PROPOSED FACILITIES

The owner and operator of the proposed facilities will be the EWMUA.

14.0 PERMIT STATUS AND SUMMARY

Table 14-1 documents the permits required for the Contract 1- Administration Building and Contract 2- Water Treatment Plant and the status of the permitting effort:

Table 14-1
Permit Status

Agency	Permit	Status
NJDEP	FWW GP2 – Utility Crossing	Pending
NJDEP	FWW GP11 – Outfall	Pending
NJDEP	Transition Area Waiver – Linear Development	Pending
NJDEP	LOI	Pending
Mercer County Soil Conservation District	Soil Erosion Sediment Control Plan Certification	Pending*
NJDEP	Stormwater Construction 5G3 Authorization	Pending
DRCC	Zone B Drainage Review	Conditional Approval Pending SCD Approval
East Windsor Township Planning Board	Capital Review	Issued
NJDEP	Bureau of Safe Drinking Water	To be Submitted
NJDEP	Treatment Works Approval	To be Submitted
East Windsor Township	Various Local Approvals	To be Submitted

*Will need to be updated to include Contract 2 – Water Treatment Plant

15.0 COORDINATION WITH FEDERAL, STATE AND LOCAL AGENCIES

As the project has advanced it has been the subject of extensive planning and consultation efforts with various Federal, State and Local agencies.

At this time, the coordination process has progressed to the permitting stage as detailed in Table 14-1.

16.0 ASSESSMENT OF CONSISTENCY WITH THE AREAWIDE WATER QUALITY MANAGEMENT PLAN

Not applicable as this is a Drinking Water project.

17.0 ASSESSMENT OF CONSISTENCY WITH THE NEW JERSEY STATEWIDE WATER SUPPLY PLAN

The Water Supply Management Act, in recognition that the water resources are essential to the health, safety, and welfare of the people of NJ, empowers NJDEP to plan and manage water supplies to meet State, regional and local water needs. Accordingly, NJDEP administers a regulatory program that manages water supplies to protect quantity and quality of the State's water resources.

A key metric in assessing the sustainability of any given Public Water System (PWS) to meet demands within its service area is the degree to which the PWS is in Deficit or Surplus as determined by NJDEP's Division of Water Supply and Geoscience. Pursuant to NJDEP's most recent (01/20/2023) assessment of the EWMUA's Surplus/ Deficit, the EWMUA has a Firm Capacity surplus of 1.184 MGD and a Water Allocation Permit surplus of 20.961 MGM / 200.182 MGY.

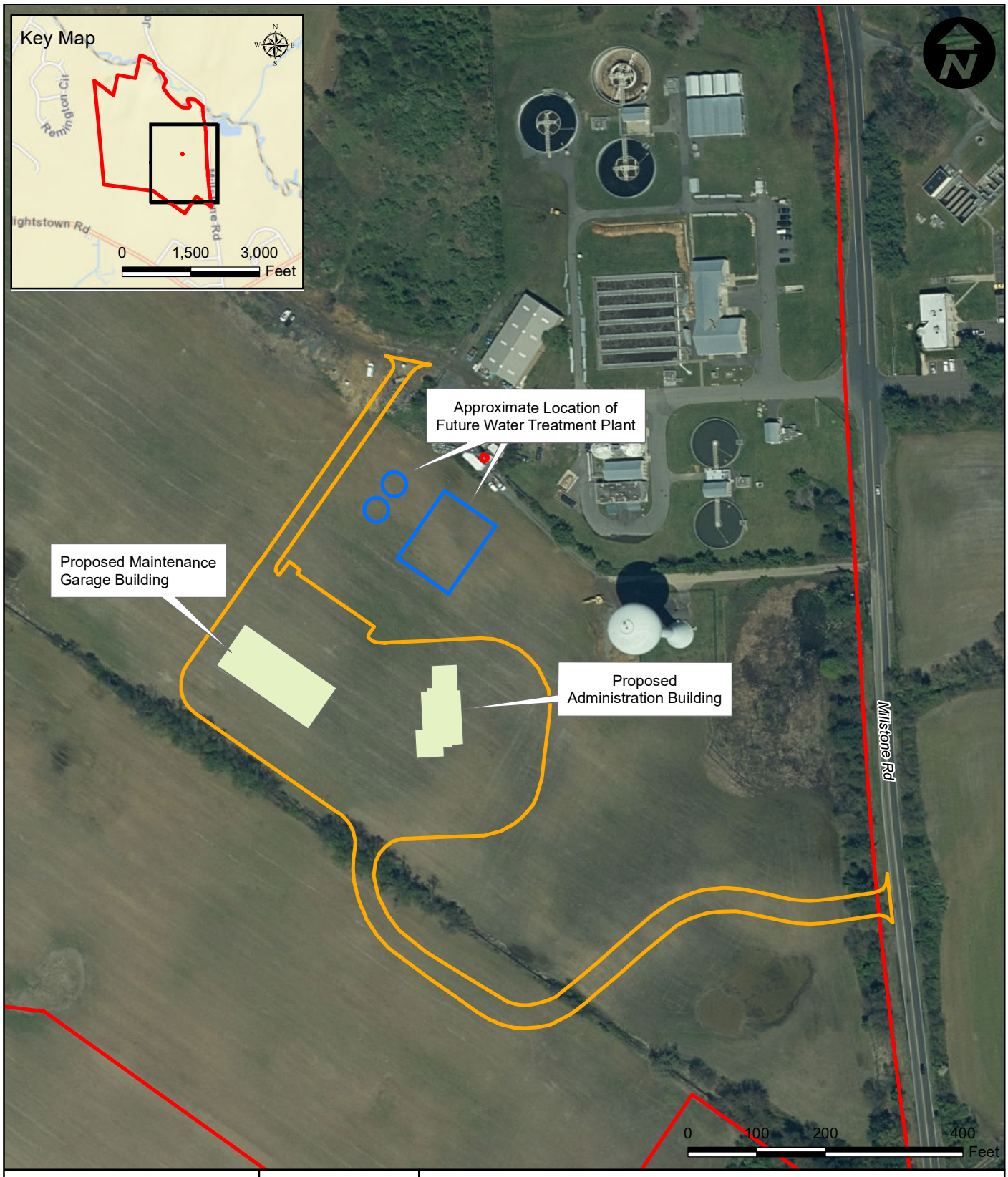
In addition, it has been determined that any demands from the development of this site will not require an increase in water allocation.

18.0 ASSESSMENT OF CONSISTENCY WITH STORMWATER MANAGEMENT RULES

The currently approved redevelopment plan for the portion of the EWMUA site in question includes the construction of an administration building, maintenance garage, and associated improvements including asphalt access roads, pedestrian sidewalks, and asphalt parking lots. The project also includes the construction of stormwater management improvements/Green Infrastructure Best Management Practices (GI BMPs) which include small scale infiltration basins, pervious pavement systems, and a stormwater conveyance system. Based on the approvals received for the project, the combination of the previously referenced GI BMPs address the stormwater control requirements for the project.

Any future redevelopment of the site will be subject to the latest stormwater management rules in place at the time approvals for further development of the site are pursued. A stormwater management plan, utilizing GI BMPs as required based on the current rules, will need to be designed and implemented as required to address the stormwater control requirements for that project.

APPENDIX A



Legend

Site Location

Sources:
Project Location features have been extracted from Spiezle and CME plan titled "EWMUA Site-DEP Plans" dated 7/5/2023
Esri, Streetmap USA, 2012
NJDEP, High Resolution Orthoimagery, 2020

PS&S
3 MOUNTAINVIEW ROAD
WARREN, NEW JERSEY 07059
PHONE: (732) 560-9700

PROJECT LOCATION MAP

East Windsor Municipal Utilities Authority
Level 2 Environmental Impact Study
Block 1, Lots 2, 5.01, and 5.02
Township of East Windsor
Mercer County, New Jersey

Drawn By: DM	Scale: 1" = 200'	Project No. 06375.0001
Chk'd By: NB	Date: 9/20/2023	Figure No. 1

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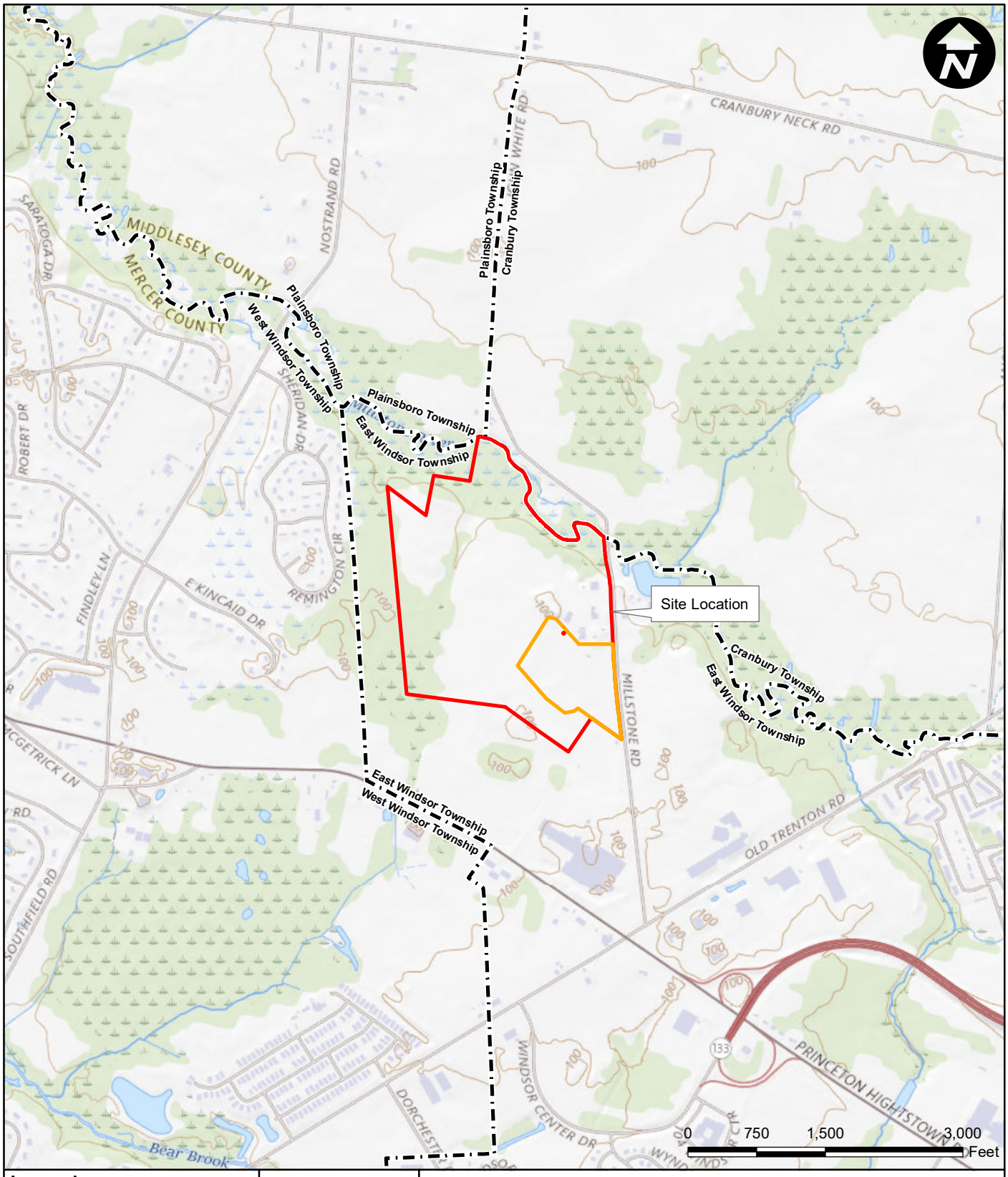

Legend

- Project Area
- Site Location
- Municipal Boundary

Sources:
NJOIT, Municipalities of NJ, 2020
USGS, US Topo, The National Map
Hightstown Quad, 2021
STATE PLANE COORDINATES
E 473304
N 532313

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WARREN, NEW JERSEY 07059
PHONE: (732) 560-9700

USGS SITE LOCATION MAP

East Windsor Municipal Utilities Authority
Level 2 Environmental Impact Study
Block 1, Lots 2, 5.01, and 5.02
Township of East Windsor
Mercer County, New Jersey

Drawn By: DM	Scale: 1" = 1,500'	Project No. 06375.0001
Chk'd By: NB	Date: 9/20/2023	Figure No. 2

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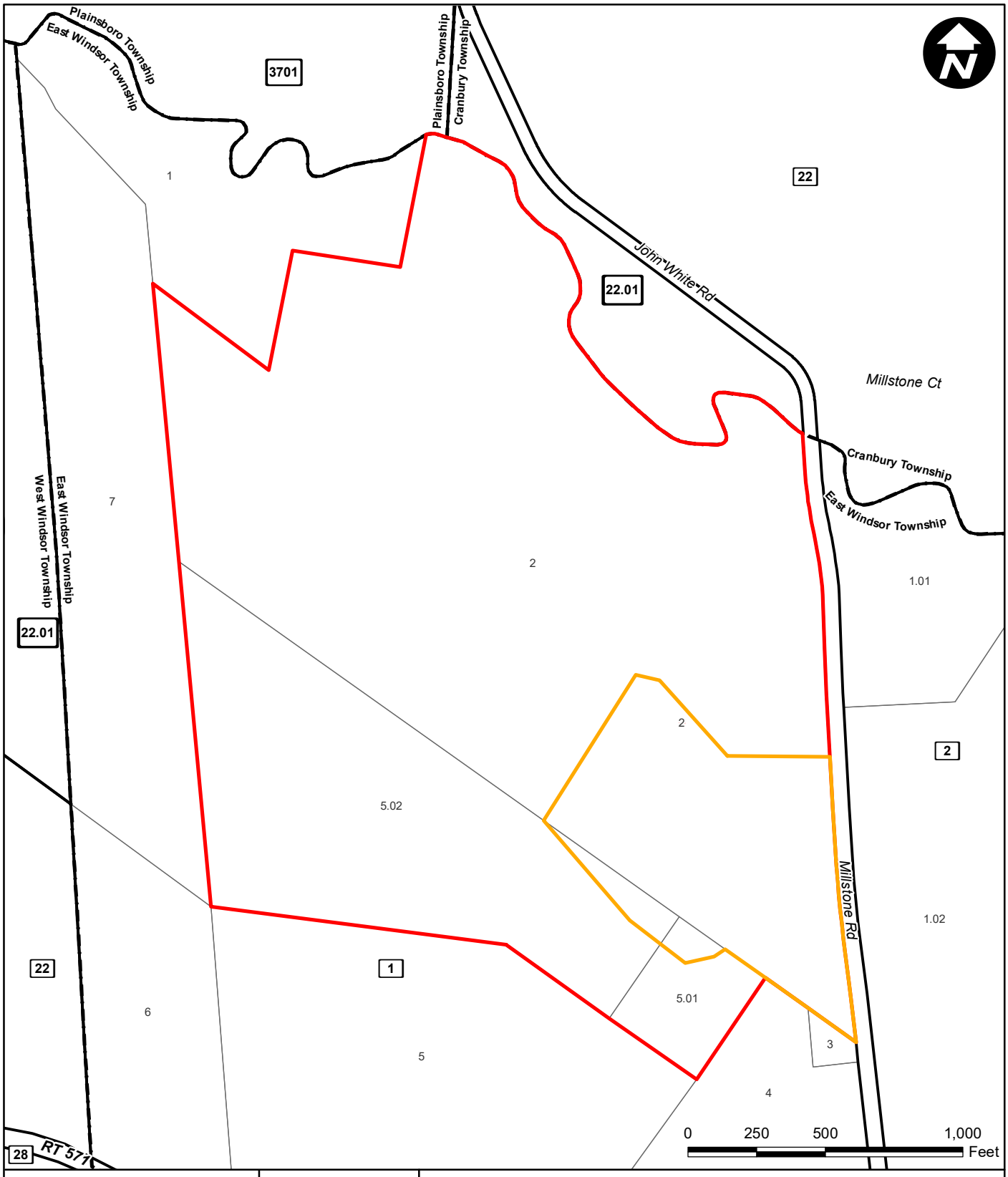

Legend

- Project Area
- Site Location
- Block
- Lot
- Municipal Boundary

Sources:
NJOIT, OGIS, Parcels Composite of NJ, 2021
NJOIT, Municipalities of NJ, 2020
Esri, Streetmap USA, 2012

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TAX MAP

East Windsor Municipal Utilities Authority
Level 2 Environmental Impact Study
Block 1, Lots 2, 5.01, and 5.02
Township of East Windsor
Mercer County, New Jersey

Drawn By: DM	Scale: 1" = 500'	Project No. 06375.0001
Chk'd By: NB	Date: 9/20/2023	Figure No. 3

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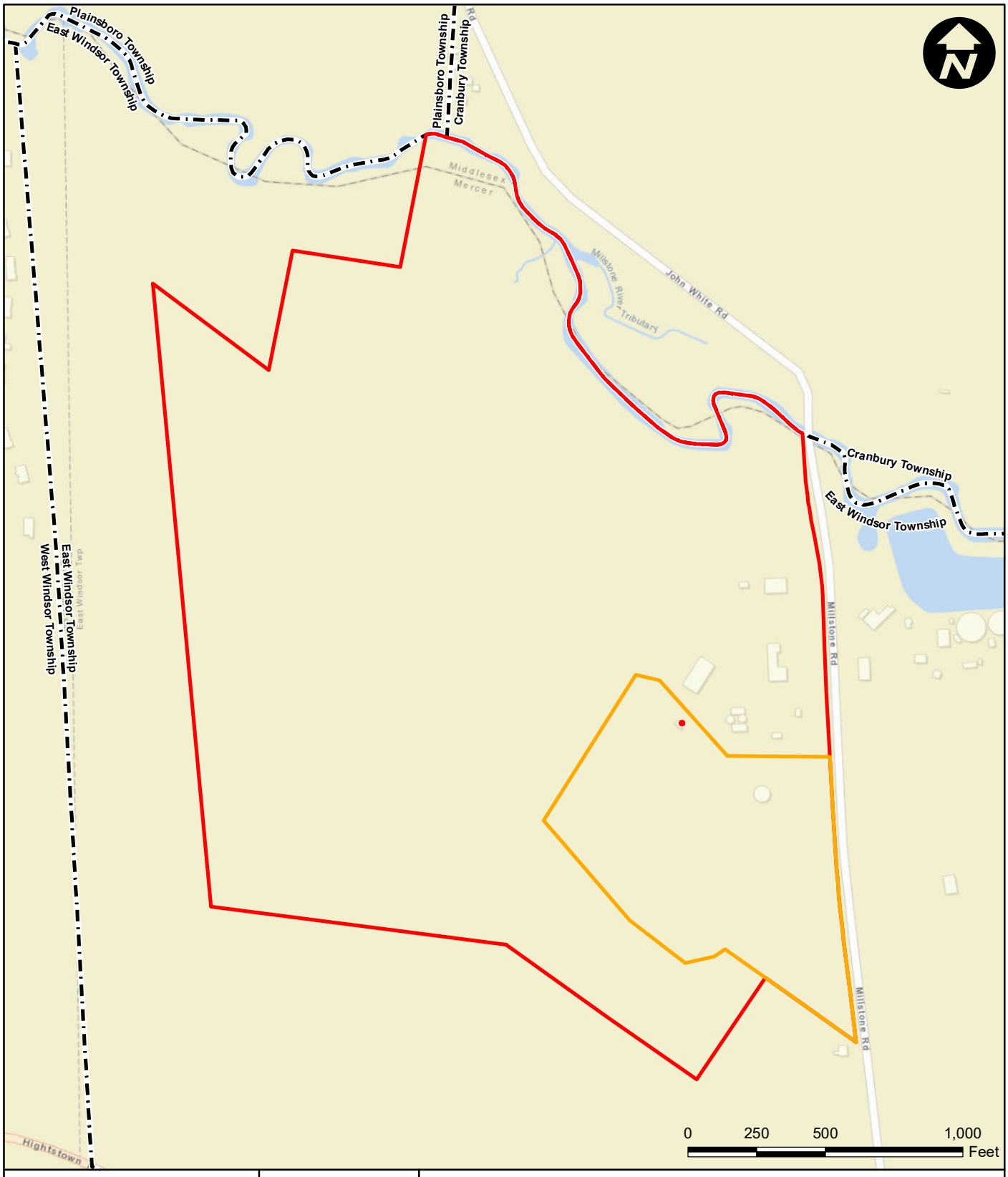

Legend

- Project Area
- Site Location
- Municipal Boundary

Sources:
NJOIT, Municipalities of NJ, 2020
Esri, World Street Map, 2023

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PHONE: (732) 560-9700

STREET MAP

East Windsor Municipal Utilities Authority
Level 2 Environmental Impact Study
Block 1, Lots 2, 5.01, and 5.02
Township of East Windsor
Mercer County, New Jersey

Drawn By: DM	Scale: 1" = 500'	Project No. 06375.0001
Chk'd By: NB	Date: 9/20/2023	Figure No. 4

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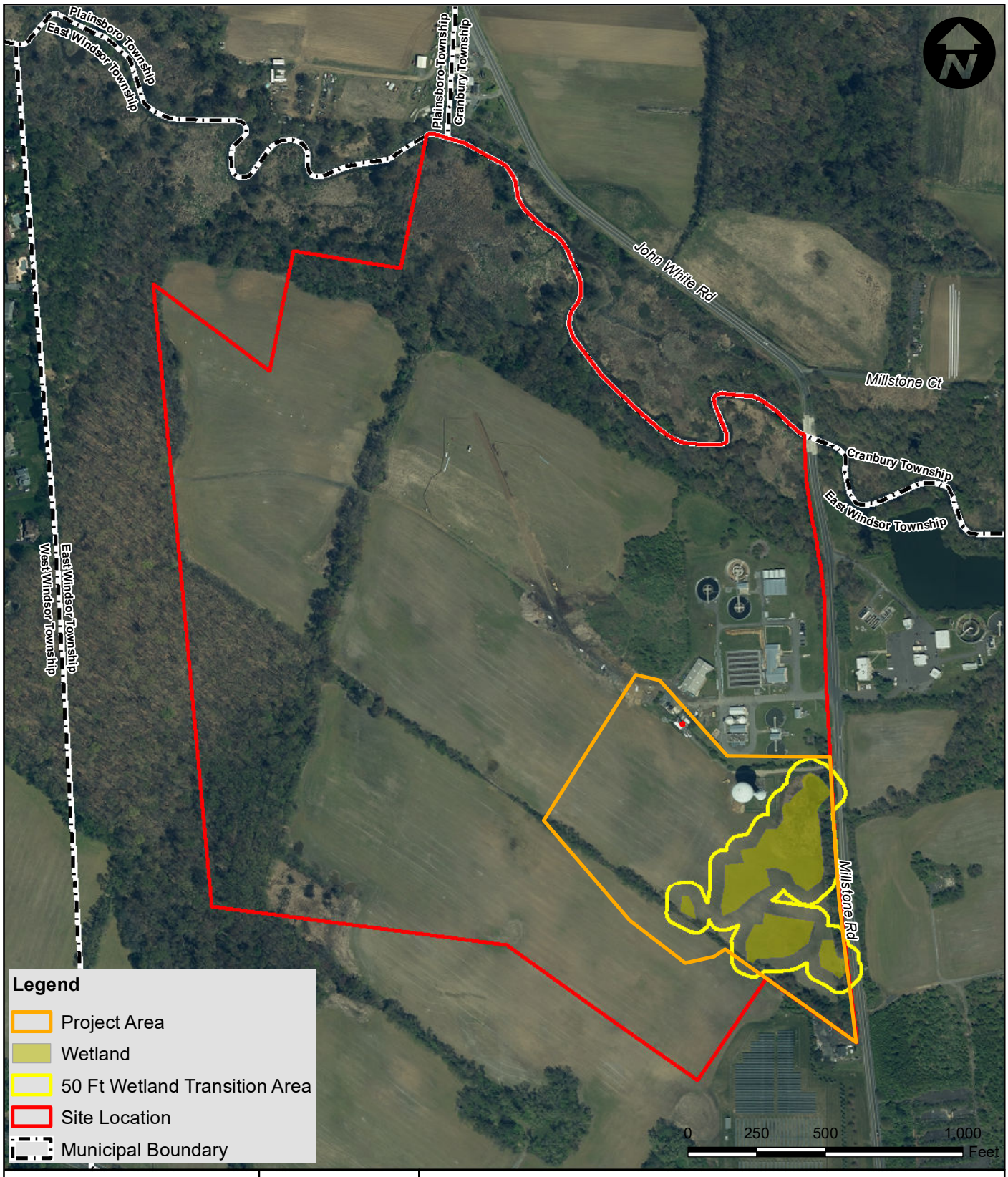

Note:
LOI Wetlands and Transition Areas received from CME Associates plan titled "Freshwater Wetlands Location Map" dated 3/30/2023

Sources:
NJDEP, High Resolution Orthoimagery, 2020
NJOIT, Municipalities of NJ, 2020
Esri, Streetmap USA, 2012

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PHONE: (732) 560-9700

WETLANDS MAP

East Windsor Municipal Utilities Authority
Level 2 Environmental Impact Study
Block 1, Lots 2, 5.01, and 5.02
Township of East Windsor
Mercer County, New Jersey

Drawn By: DM	Scale: 1" = 500'	Project No. 06375.0001
Chk'd By: NB	Date: 9/20/2023	Figure No. 5

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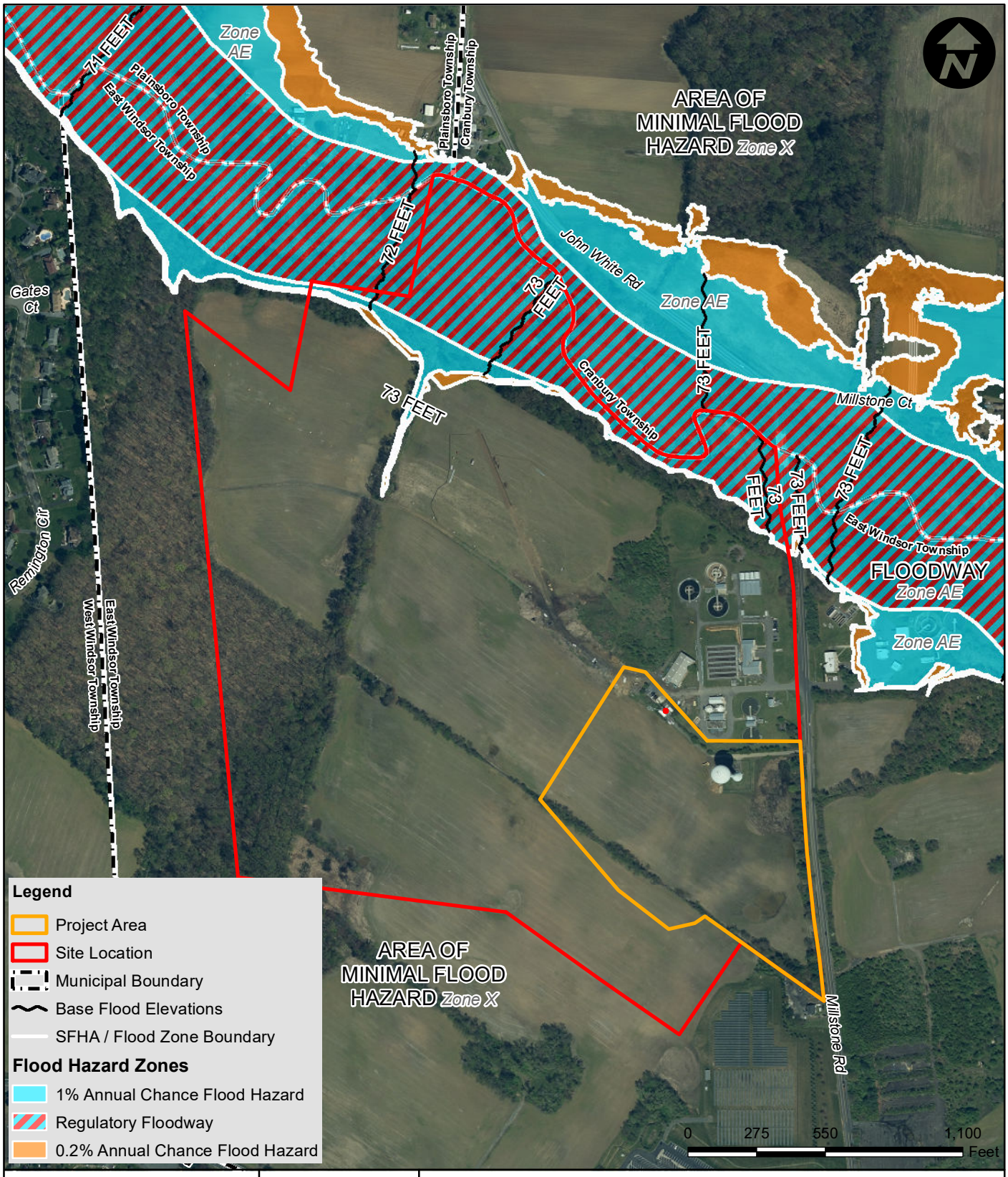

Note:
Delineation of the lateral limits of flood hazard area is approximate and requires additional topographic survey. This map is not a delineation of the flood hazard area pursuant to NJDEP NJAC 7:13-3.1.
Vertical Datum: NAVD88

Sources:
FEMA, National Flood Hazard Layer, 8/28/2019
NJOIT, Municipalities of NJ, 2020
Esri, Streetmap USA, 2012
NJDEP, High Resolution Orthoimagery, 2020

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PHONE: (732) 560-9700

FEMA FLOOD HAZARD MAP

East Windsor Municipal Utilities Authority
Level 2 Environmental Impact Study
Block 1, Lots 2, 5.01, and 5.02
Township of East Windsor
Mercer County, New Jersey

Drawn By: DM	Scale: 1" = 550'	Project No. 06375.0001
Chk'd By: NB	Date: 9/20/2023	Figure No. 6

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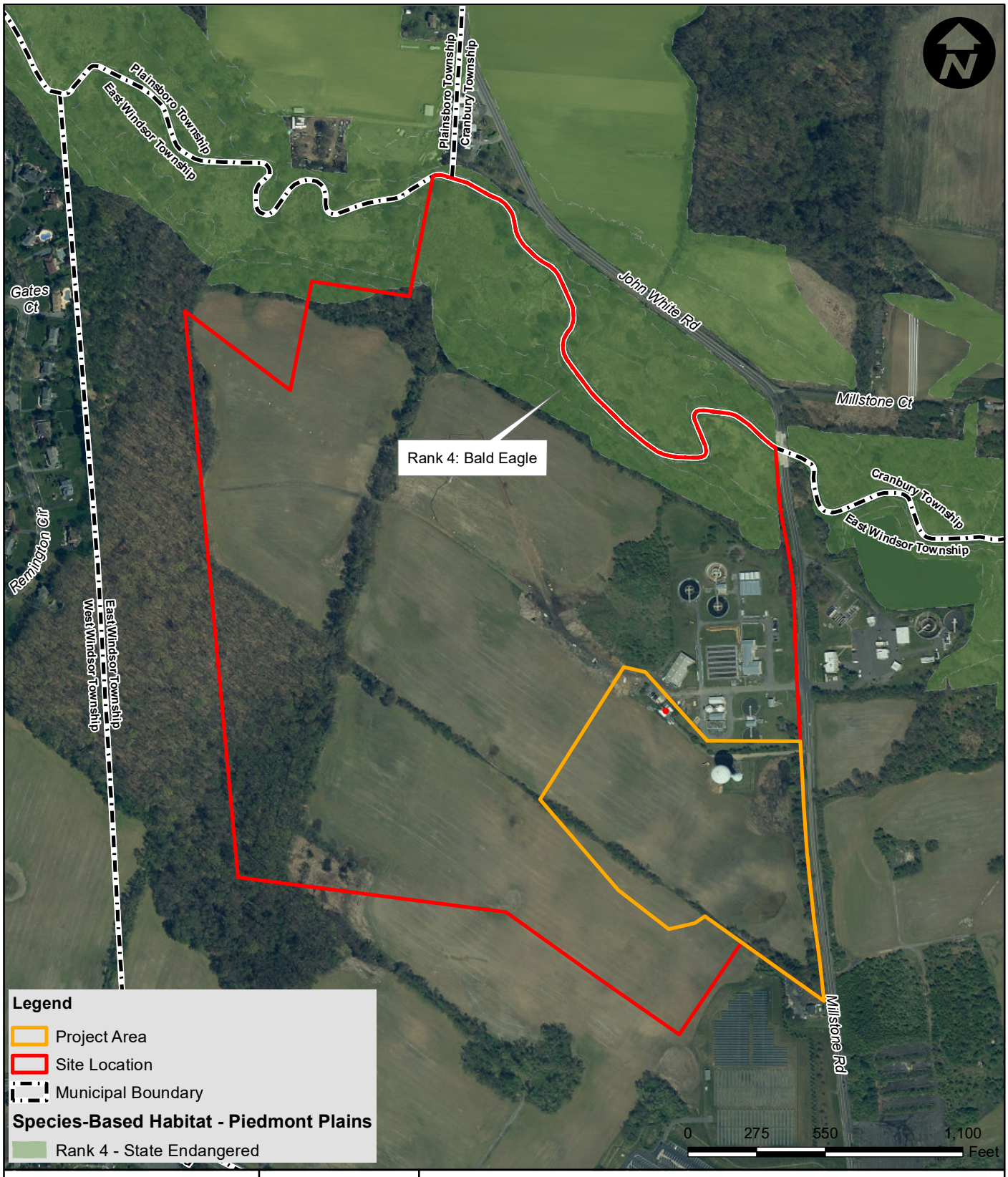

Note:
Rank 4 - assigned to species-specific habitat patches with one or more occurrences of State endangered species.

Sources:
NJDEP Division of Fish & Wildlife Endangered Nongame Species Program, NJDEP Landscape Version 3.3, 05/2017
NJOIT, Municipalities of NJ, 2020
Esri, Streetmap USA, 2012
NJDEP, High Resolution Orthoimagery, 2020

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WARREN, NEW JERSEY 07059
PHONE: (732) 560-9700

LANDSCAPE PROJECT MAP

East Windsor Municipal Utilities Authority
Level 2 Environmental Impact Study
Block 1, Lots 2, 5.01, and 5.02
Township of East Windsor
Mercer County, New Jersey

Drawn By: DM	Scale: 1" = 550'	Project No. 06375.0001
Chk'd By: NB	Date: 9/20/2023	Figure No. 7

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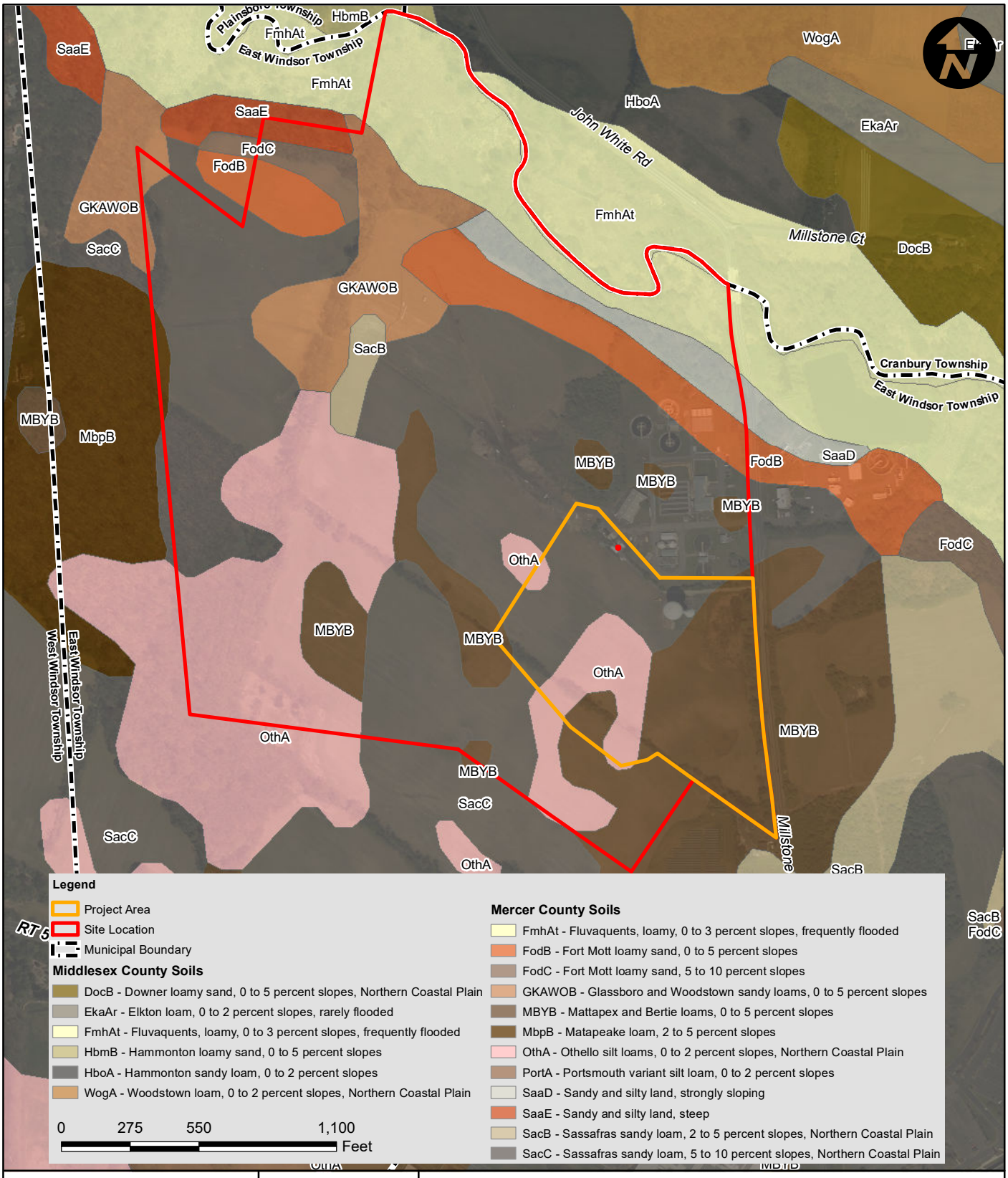

SOILS MAP

East Windsor Municipal Utilities Authority
Level 2 Environmental Impact Study
Block 1, Lots 2, 5.01, and 5.02
Township of East Windsor
Mercer County, New Jersey

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WARREN, NEW JERSEY 07059
PHONE: (732) 560-9700

Sources:
Soil Survey Geographic (SSURGO) database for Mercer and Middlesex County, USDA-NRCS, 2017
NJOIT, Municipalities of NJ, 2020
Esri, Streetmap USA, 2012
NJDEP, High Resolution Orthoimagery, 2020

Drawn By: DM	Scale: 1" = 550'	Project No. 06375.0001
Chk'd By: NB	Date: 9/20/2023	Figure No. 8

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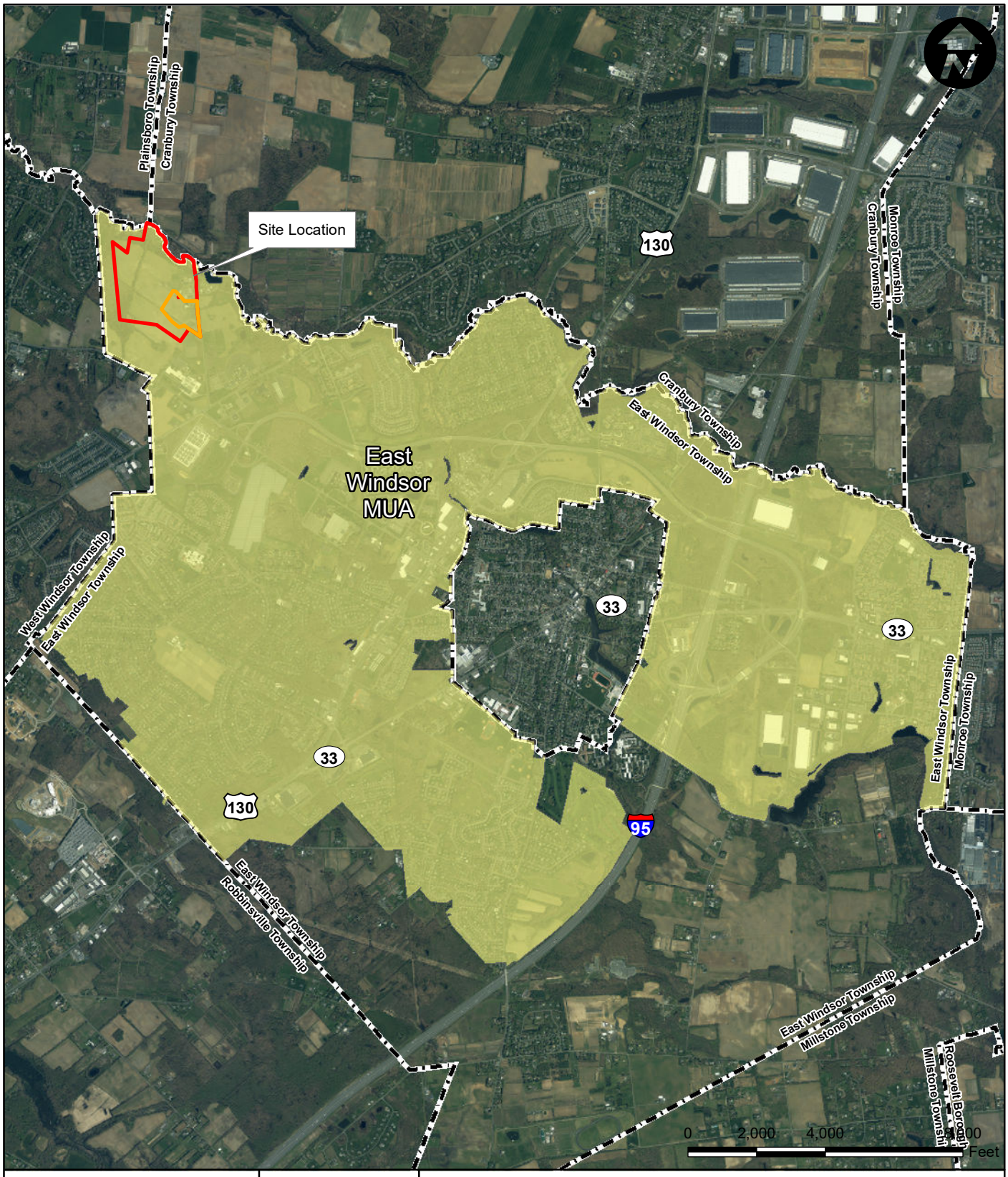

Legend

- Project Area
- Site Location
- Sewer Service Area
- Municipal Boundary

Sources:
NJDEP, Statewide Sewer Service Area, 2023
NJDEP, High Resolution Orthoimagery, 2020
NJOIT, Municipalities of NJ, 2020
Esri, Streetmap USA, 2012

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PHONE: (732) 560-9700

SERVICE AREA MAP

East Windsor Municipal Utilities Authority
Level 2 Environmental Impact Study
Block 1, Lots 2, 5.01, and 5.02
Township of East Windsor
Mercer County, New Jersey

Drawn By: DM	Scale: 1" = 4,000'	Project No. 06375.0001
Chk'd By: NB	Date: 9/20/2023	Figure No. 9

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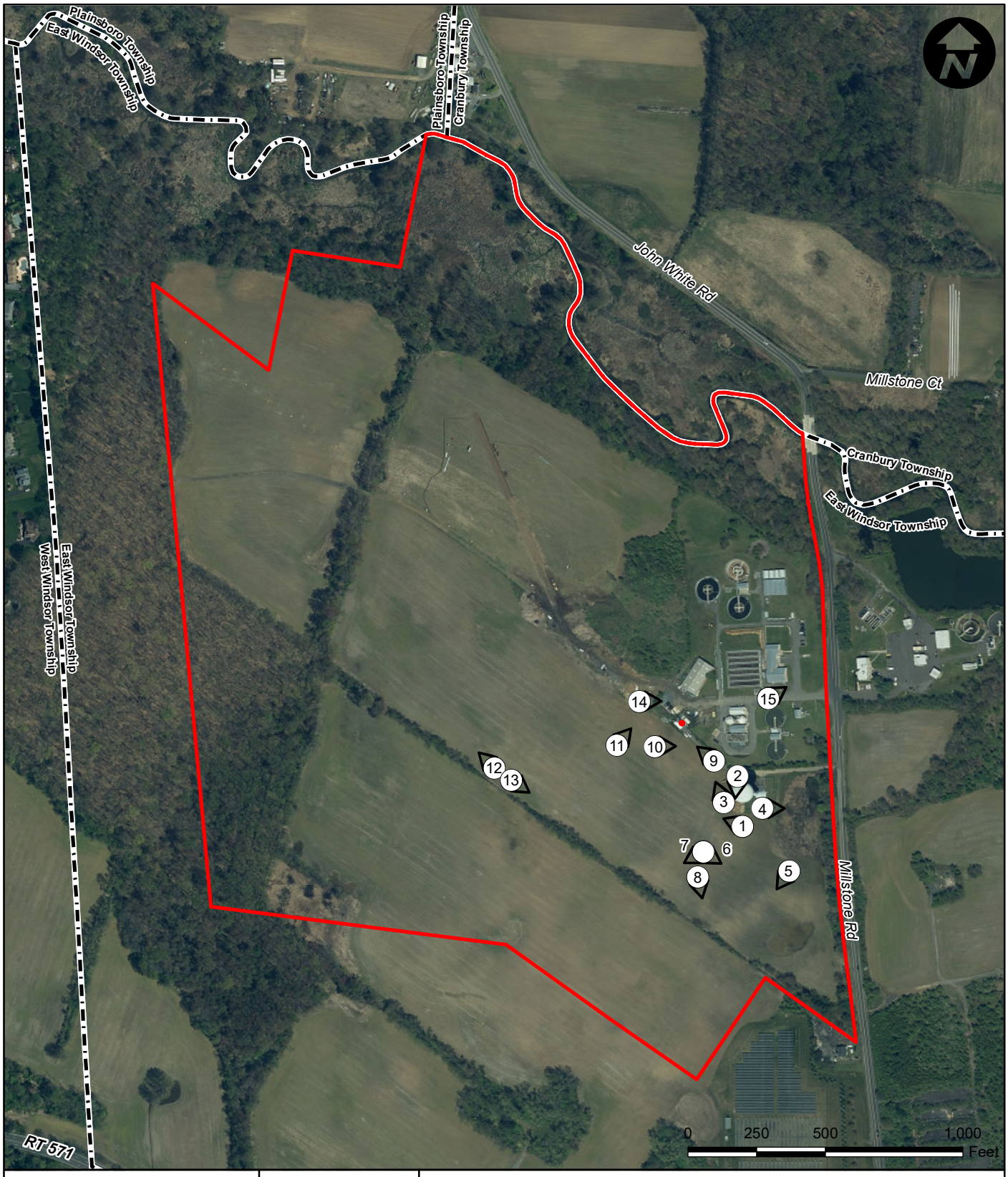
APPENDIX B



Legend

- Photo Location
- Site Location
- Municipal Boundary

Note:
Photo Locations are approximate.

Sources:
NJDEP, High Resolution Orthoimagery, 2020
NJOIT, Municipalities of NJ, 2020
Esri, Streetmap USA, 2012

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WARREN, NEW JERSEY 07059
PHONE: (732) 560-9700

PHOTO LOCATION MAP

East Windsor Municipal Utilities Authority
Level 2 Environmental Impact Study
Block 1, Lots 2, 5.01, and 5.02
Township of East Windsor
Mercer County, New Jersey

Drawn By: DM	Scale: 1" = 500'	Project No. 06375.0001
Chk'd By: NB	Date: 9/20/2023	Appendix C

Path: P:\06375\0001\DWGs\Y-GIS\Maps\AppendC_Photo_20230920.mxd

Photo 1: View facing northwest of agricultural field. East Windsor, NJ, 9/11/23.

Photo 2: View facing south of agricultural field. East Windsor, NJ, 9/11/23.

Photo 3: View facing north toward existing water tower. East Windsor, NJ, 9/11/23.

Photo 4: View facing east toward field and trees along Millstone Road. East Windsor, NJ, 9/11/23.

Photo 5: View facing southwest of field and hedgerow. East Windsor, NJ, 9/11/23.

Photo 6: View of fields and edge of agricultural field. East Windsor, NJ, 9/11/23.

Photo 7: View facing southwest of agricultural fields. East Windsor, NJ, 9/11/23.

Photo 8: View facing south of agricultural fields and hedgerow. East Windsor, NJ, 9/11/23.

Photo 9: View facing northwest along existing gravel access road. East Windsor, NJ, 9/11/23.

Photo 10: View facing east toward water tower along existing access road. East Windsor, NJ, 9/11/23.

Photo 11: View facing northwest along existing access road in agricultural fields. East Windsor, NJ, 9/11/23.

Photo 12: View facing northwest of new well site. East Windsor, NJ, 9/11/23.

Photo 13: View facing southeast along existing access road and hedgerow. East Windsor, NJ, 9/11/23.

Photo 14: View facing east in existing facility. East Windsor, NJ, 9/11/23.

Photo 15: View facing east toward Millstone Road in existing facility. East Windsor, NJ, 9/11/23.

APPENDIX C

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
STATE PARKS, FORESTS & HISTORIC SITES
OFFICE OF NATURAL LANDS MANAGEMENT
501 East State Street
P.O. Box 420, Mail Code 501-04
Trenton, New Jersey 08625-0420
Tel. (609) 984-1339 * Fax (609) 984-1427
https://www.nj.gov/dep/parksandforests/natural/index.html

PHILIP D. MURPHY
Governor

TAHESHA L. WAY
Lt. Governor

SHAWN M. LATOURETTE
Commissioner

September 26, 2023

Nicole Bryan
PS&S, LLC
3 Mountainview Road
Warren, NJ 07059

Re: East Windsor Municipal Utilities Authority
Block(s) - 1, Lot(s) - 2 and 5.02
East Windsor Township, Mercer County

Dear Ms. Bryan:

Thank you for your data request regarding rare species information for the above referenced project site.

Searches of the Natural Heritage Database and the Landscape Project (Version 3.3) are based on a representation of the boundaries of your project site in our Geographic Information System (GIS). We make every effort to accurately transfer your project bounds from the map(s) submitted with the Natural Heritage Data Request Form into our GIS. We do not typically verify that your project bounds are accurate, or check them against other sources.

We have checked the Landscape Project habitat mapping and the Biotics Database for occurrences of any rare wildlife species or wildlife habitat on the referenced site. The Natural Heritage Database was searched for occurrences of rare plant species or ecological communities that may be on the project site. Please refer to Table 1 (attached) to determine if any rare plant species, ecological communities, or rare wildlife species or wildlife habitat are documented on site. A detailed report is provided for each category coded as 'Yes' in Table 1.

We have also checked the Landscape Project habitat mapping and Biotics Database for occurrences of rare wildlife species or wildlife habitat in the immediate vicinity (within ¼ mile) of the referenced site. Additionally, the Natural Heritage Database was checked for occurrences of rare plant species or ecological communities within ¼ mile of the site. Please refer to Table 2 (attached) to determine if any rare plant species, ecological communities, or rare wildlife species or wildlife habitat are documented within the immediate vicinity of the site. Detailed reports are provided for all categories coded as 'Yes' in Table 2. These reports may include species that have also been documented on the project site.

We have also checked the Landscape Project habitat mapping and Biotics Database for all occurrences of rare wildlife species or wildlife habitat within one mile of the referenced site. Please refer to Table 3 (attached) to determine if any rare wildlife species or wildlife habitat is documented within one mile of the project site. Detailed reports are provided for each category coded as 'Yes' in Table 3. These reports may include species that have also been documented on the project site.

For requests submitted in order to make a riparian zone width determination as part of a Flood Hazard Area Control Act (FHACA) rule application, we report records for all rare plant species and ecological communities tracked by the Natural Heritage Program that may be on, or in the immediate vicinity of, your project site. A subset of these plant species is also covered by the FHACA rules when the records are located within one mile of the project site. One-mile searches for FHACA plant species will only report precisely located occurrences for those wetland plant species identified under the FHACA regulations as being critically dependent on the watercourse. Please refer to Table 3 (attached) to determine if any

precisely located rare wetland plant species covered by the FHACA rules have been documented. Detailed reports are provided for each category coded as 'Yes' in Table 3. These reports may include species that have also been documented on, or in the immediate vicinity of, the project site.

The Natural Heritage Program reviews its data periodically to identify priority sites for natural diversity in the State. Included as priority sites are some of the State's best habitats for rare and endangered species and ecological communities. Please refer to Tables 1, 2 and 3 (attached) to determine if any priority sites are located on, in the immediate vicinity, or within one mile of the project site.

A list of rare plant species and ecological communities that have been documented from the county (or counties), referenced above, can be downloaded from https://nj.gov/dep/parksandforests/natural/heritage/database.html. If suitable habitat is present at the project site, the species in that list have potential to be present.

Status and rank codes used in the tables and lists are defined in EXPLANATION OF CODES USED IN NATURAL HERITAGE REPORTS, which can be downloaded from https://nj.gov/dep/parksandforests/natural/docs/nhpcodes_2010.pdf.

Beginning May 9, 2017, the Natural Heritage Program reports for wildlife species will utilize data from Landscape Project Version 3.3. If you have questions concerning the wildlife records or wildlife species mentioned in this response, we recommend that you visit the interactive web application at the following URL, https://njdep.maps.arcgis.com/apps/webappviewer/index.html?id=0e6a44098c524ed99bf739953cb4d4c7, or contact the Division of Fish and Wildlife, Endangered and Nongame Species Program at (609) 292-9400.

For additional information regarding any Federally listed plant or animal species, please contact the U.S. Fish & Wildlife Service, New Jersey Field Office at http://www.fws.gov/northeast/njfieldoffice/endangered/consultation.html.

Information supplied by the Natural Heritage Program summarizes existing data known to the program at the time of the request regarding the biological elements (species and/or ecological communities) or their locations. They should never be regarded as final statements on the elements or areas being considered, nor should they be substituted for on-site surveys required for environmental assessments.

Thank you for consulting the Natural Heritage Program. The attached invoice details the payment due for processing this data request. Feel free to contact us again regarding any future data requests.

Sincerely,

Robert J. Cartica
Administrator

c: NHP File No. 23-4007435-28570

Table 1: On Site Data Request Search Results (6 Possible Reports)

Report Name	Included	Number of Pages
1. Possibly on Project Site Based on Search of Natural Heritage Database: Rare Plant Species and Ecological Communities Currently Recorded in the New Jersey Natural Heritage Database	No	0 pages included
2. Natural Heritage Priority Sites On Site	No	0 pages included
3. Rare Wildlife Species or Wildlife Habitat on the Project Site Based on Search of Landscape Project 3.3 Species Based Patches	Yes	1 page(s) included
4. Vernal Pool Habitat on the Project Site Based on Search of Landscape Project 3.3	No	0 pages included
5. Rare Wildlife Species or Wildlife Habitat on the Project Site Based on Search of Landscape Project 3.3 Stream Habitat File	No	0 pages included
6. Other Animal Species On the Project Site Based on Additional Species Tracked by Endangered and Nongame Species Program	No	0 pages included

Rare Wildlife Species or Wildlife Habitat on the Project Site Based on Search of Landscape Project 3.3 Species Based Patches

Class	Common Name	Scientific Name	Feature Type	Rank	Federal Protection Status	State Protection Status	Grank	Srank
Aves								
	Bald Eagle	Haliaeetus leucocephalus	Foraging	4	NA	State Endangered	G5	S1B,S2N
	Great Blue Heron	Ardea herodias	Foraging	2	NA	Special Concern	G5	S3B,S4N

Table 2: Vicinity Data Request Search Results (6 possible reports)

Report Name	Included	Number of Pages
1. Immediate Vicinity of the Project Site Based on Search of Natural Heritage Database: Rare Plant Species and Ecological Communities Currently Recorded in the New Jersey Natural Heritage Database	No	0 pages included
2. Natural Heritage Priority Sites within the Immediate Vicinity	No	0 pages included
3. Rare Wildlife Species or Wildlife Habitat Within the Immediate Vicinity of the Project Site Based on Search of Landscape Project 3.3 Species Based Patches	Yes	1 page(s) included
4. Vernal Pool Habitat In the Immediate Vicinity of Project Site Based on Search of Landscape Project 3.3	Yes	1 page(s) included
5. Rare Wildlife Species or Wildlife Habitat In the Immediate Vicinity of the Project Site Based on Search of Landscape Project 3.3 Stream Habitat File	No	0 pages included
6. Other Animal Species In the Immediate Vicinity of the Project Site Based on Additional Species Tracked by Endangered and Nongame Species Program	No	0 pages included

Rare Wildlife Species or Wildlife Habitat Within the Immediate Vicinity of the Project Site Based on Search of Landscape Project 3.3 Species Based Patches

Class	Common Name	Scientific Name	Feature Type	Rank	Federal Protection Status	State Protection Status	Grank	Srank
Aves								
	Bald Eagle	Haliaeetus leucocephalus	Foraging	4	NA	State Endangered	G5	S1B,S2N
	Great Blue Heron	Ardea herodias	Foraging	2	NA	Special Concern	G5	S3B,S4N

Vernal Pool Habitat
In the Immediate Vicinity of
Project Site Based on Search of
Landscape Project 3.3

Vernal Pool Habitat Type	Vernal Pool Habitat ID
Vernal habitat area	2842
Potential vernal habitat area	1594

Total number of records: 2

Wednesday, September 27, 2023

NHP File No.: 23-4007435-28570

Table 3: Within 1 Mile for Riparian Zone Width Determination
(6 possible reports)

Report Name	**Included**	**Number of Pages**
1. Rare Plant Species Occurrences for Riparian Zone Width Determination (Flood Hazard Area Control Act Rule Appplication) - Within One Mile of the Project Site Based on Search of Natural Heritage Database	No	0 pages included
2. Natural Heritage Priority Sites for Riparian Zone Width Determination - Within One Mile of the Project Site	No	0 pages included
3. Rare Wildlife Species or Wildlife Habitat for Riparian Zone Width Determination - Within One Mile of the Project Site Based on Search of Landscape Project 3.3 Species Based Patches	Yes	1 page(s) included
4. Vernal Pool Habitat for Riparian Zone Width Determination - Within One Mile of the Project Site Based on Search of Landscape Project 3.3	Yes	1 page(s) included
5. Rare Wildlife Species or Wildlife Habitat for Riparian Zone Width Determination - Within One Mile of the Project Site Based on Search of Landscape Project 3.3 Stream Habitat File	No	0 pages included
6. Other Animal Species for Riparian Zone Width Determination - Within One Mile of the Project Site Based on Additional Species Tracked by Endangered and Nongame Species Program	No	0 pages included

Rare Wildlife Species or Wildlife Habitat for Riparian Zone Width Determination
Within One Mile of the Project Site
Based on Search of Landscape Project 3.3 Species Based Patches

Class	Common Name	Scientific Name	Feature Type	Rank	Federal Protection Status	State Protection Status	Grank	Srank
Aves								
	Bald Eagle	Haliaeetus leucocephalus	Foraging	4	NA	State Endangered	G5	S1B,S2N
	Great Blue Heron	Ardea herodias	Foraging	2	NA	Special Concern	G5	S3B,S4N

Vernal Pool Habitat for Riparian Zone Width Determination
Within One Mile of the Project Site
Based on Search of Landscape Project 3.3

Vernal Pool Habitat Type	Vernal Pool Habitat ID
Vernal habitat area	2842
Potential vernal habitat area	1571
Potential vernal habitat area	1594

Total number of records: 3