
ENVIRONMENTAL IMPACT STATEMENT
FOR
PSE&G'S TEMPORARY LAYDOWN & OUTDOOR STORAGE
AT FERBER FARM

7 MEYERSVILLE ROAD, GREEN VILLAGE

BLOCK 48.20, LOTS 185 & 187

BLOCK 48.21, LOTS 174, 174.01, 180 & 182

TOWNSHIP OF CHATHAM

BLOCK 12.01, LOTS 3 & 4, TOWNSHIP OF HARDING

MORRIS COUNTY, NEW JERSEY

IN SUPPORT OF

PSE&G'S ROSELAND TO PLEASANT VALLEY (RPV)
TRANSMISSION PROJECT

JANUARY 2020

SUBMITTED BY:

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DWSA Reference No. 19-340.00

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1. INTRODUCTION

This report has been prepared in accordance with the Township of Chatham Land Development Ordinance §30-67 governing Requirements for an Environmental Impact Statement (EIS). In accordance with §30-67.2, an Environmental Impact Statement is required for all preliminary major subdivisions and for preliminary site plans involving any new building or structure or soil removal operation. Although no new buildings or structures, nor any soil movement operations are proposed under this application, this EIS has been prepared to examine the existing environmental conditions of the area that may be affected by the proposed temporary laydown and outdoor storage project. Several reports, documents, websites, and on-line reference materials were consulted in the preparation of this EIS. A site visit was performed on September 13, 2019. A bibliography has been provided at the end of this report for reference.

The site is known as:

7 Meyersville Road, Green Village
Block 48.20, Lots 185 & 187; Block 48.21, Lots 174, 174.01, 180 & 182, Township of Chatham
(Tax Map Nos. 4 and 5)
Block 12.01, Lots 3 & 4, Township of Harding (Tax Map No. 8)
Morris County, New Jersey

The Property Owner / Applicant is:

Public Service Electric and Gas Company (PSE&G)
4000 Hadley Road, 2nd Floor
South Plainfield, New Jersey 07080

1.1 Project Background and Role of the Outdoor Storage Area to the Overall RPV Project

The temporary laydown and outdoor storage area is in support of an electrical transmission line project, referred to as the Roseland – Pleasant Valley (RPV) Transmission Project. The RPV Project is a linear project that is split up into two (2) segments within PSE&G's existing transmission Right-of-Way (ROW) corridor; Segment 1 encompasses Roseland to Branchburg and Segment 2 encompasses Branchburg to Pleasant Valley. RPV is a transmission tower project that was approved as a baseline project by PJM, our independent system operator, as a FERC Form 715 Local Criteria Equipment Assessment Project. The existing lattice type transmission towers that were largely installed between 1927 and 1930 are being replaced with a Y frame monopole structure. The Y frame monopole will be built to the PSE&G 345kV standard but operated at 230kV. The transmission line is being replaced in-kind at 230kV.

It is anticipated that the proposed storage area within Chatham will be utilized for material to support the RPV project for a period of approximately 3-years. The overall RPV project is scheduled to begin construction in spring of 2020 and is estimated for completion by August 2023. The project plans to begin receiving material on-site starting 1st quarter 2020. This yard in Chatham will not be the only storage area for the project. There are additional storage area(s) proposed that are located at key segments along the ROW, specifically, one storage area was recently approved in the Township of Raritan to support the Branchburg to Pleasant Valley Segment of the project. The RPV transmission corridor is approximately 52 miles long, and this yard in Chatham is critical to support the Roseland to Branchburg Segment of the project. PSE&G received approval for a second laydown within this segment, roughly 10 miles away, at the Livingston Mall.

1.2 Project Description Overview

The materials to be stored would include timber matting, monopole segments, transmission line hardware, tool storage, construction equipment and reels. It is anticipated that there will be some vehicle parking on site as well. No permanent structures are proposed, and no hazardous materials are to be stored. PSE&G construction managers (anticipated to be up to 3 office personnel and up to 10 contractor personnel on site daily) will occupy the existing single-family residence and the 1-story masonry buildings, as is, for office space. If required, and in addition to the outdoor storage, the two 1-story masonry garages and 2-story barn will be utilized to store material listed above. Dumpsters for construction debris will be located on site as PSE&G sorts material for proper recycling and/or disposal. Screening from adjacent properties naturally occurs on this site with a dense tree cover along the outskirts of the property. A small guard shack (to be occupied by a single security guard) is proposed to be situated by the site entrance (within Harding) for security. If required, the project may utilize temporary construction trailers and port-a-johns. Sections of the existing split-rail fence will be repaired. Minimal tree removal will be required and will be planted at a 1:1 ratio near the entrance to the site.

2. SITE INFORMATION

2.1 Property Location

The proposed temporary laydown and outdoor storage area is located at 7 Meyersville Road, Green Village and has frontage along Meyersville Road, with minimal frontage along Green Village Road (County Route 646) at Fawcett Lane. The overall site area is approximately 53.4 acres and is straddling the municipal boarder of Chatham and Harding Townships, with sole access from Meyersville Road on Lot 3 in the Township of Harding. The subject property is in the northwestern portion of Chatham, approximately one-tenth mile north of the Great Swamp National Wildlife Refuge, along Meyersville Road. **(Figures 1 and 2)**

2.2 Current Land Use and Land Cover

The subject property within Chatham consists of a two-story frame single-family residence and associated farmland. Several accessory buildings include a 2-story barn, two 1-story masonry buildings and two 1-story masonry garages. The property within Chatham is located within the R-1 and R-3 Residence Zoning Districts. The property within Harding is located within the R-2 and R-1 Residence Zoning Districts. The parcels within Harding are undeveloped open fields. The majority of land uses surrounding the subject property are single-family residential. The Green Village Volunteer Fire Department and Green Village Deli are located to the north. Morris County Open Space is located to the northeast. Land Use Cover Mapping from NJDEP 2012 GeoWeb identifies the land as urban, cropland and pastureland, agricultural wetlands (modified), deciduous wooded wetlands, and deciduous forest. The State Planning Area is PA-5 Environmentally Sensitive. The Highlands Planning Area Overlay follows the western property line. **(Figures 3, 4 and 5)**

3. EXISTING SITE CONDITIONS

3.1 Topography and Surface Water Bodies

The topography consists of relatively flat open fields, ranging in elevation 240-feet to 250-feet (NAVD 88) and gently sloping to the southeast. There is an existing man-made agricultural ditch and isolated wetland on Lot 174, a man-made pond on Lot 174.01 and the Loantaka Brook which traverses Lot 182 in a northerly to southerly direction, within the Passaic River Upper Watershed. As per Chatham Township's Natural Resources Inventory (NRI), the Loantaka Brook is a tributary of the Passaic River, which flows from Morris Township through Chatham Township and enters the Great Swamp. There it joins Great Brook and flows southwest into the Passaic River.

Two (2) tributaries to the Loantaka Brook exist on site: one traverses Lot 174 in a northwesterly to southeasterly direction from near Fawcett lane and then heads southeast to the Loantaka Brook. The other is further south and traverses the property south of Lot 174.01, in a southeasterly direction. Portions of the land surrounding these natural features are located within FEMA Zone "A," as delineated on the Site Plan prepared by PSEG Services Corporation Surveys & Mapping and Preliminary FEMA Flood Insurance Rate Map, Morris County, New Jersey, (ALL JURISDICTIONS), Panel 427 of 475, revised February 26, 2016. The remaining portions, generally in the vicinity of the single-family residence, 1-story and 2-story masonry buildings and garages, are located within FEMA Zone "X." The site is encompassed by freshwater wetlands. A New Jersey Department of Environmental Protection Letter of Interpretation (NJDEP LOI) is being obtained to certify the location and classification of all wetlands and associated transition areas. To the best extent practicable, PSE&G intends to use areas of the property that fall outside of the wetlands and associated buffers, except for those areas which must cross the on-site tributaries to the Loantaka Brook. **(Figures 6, 7 and 8)**

3.2 Soil Characteristics

Based on the Morris County Soil Survey and the USDA National Resources Conservation Service (NRCS), Soil Survey Geographic Database (SSURGO) the predominant soils mapped within the areas of the property being utilized for storage are Pompton sandy loam(PohB) classified as Hydrologic Soils Group Type A/D, Preakness sandy loam (PrkAt) classified as Hydrologic Soils Group Type D, and Riverhead gravelly sandy loam (RksB) classified as Hydrologic Soils Group Type B.

- **PohB – Pompton sandy loam, 3 to 8 percent slopes.** These soils are somewhat poorly drained with very high runoff characteristics when wet and consist of sandy loams and gravelly sandy loams. The surface profile is typically sandy loam down to 28 inches, gravelly sandy loam to 36 inches and gravelly loamy sand to 60 inches below the surface. Depth to water table is about 6 to 18 inches.
- **PrkAt – Preakness sandy loam, 0 to 3 percent slopes, frequently flooded.** These soils are poorly drained with low runoff characteristics when wet and consist of sandy loams, loamy sand and sand. The surface profile is typically sandy loam down to 24 inches, loamy sand to 33 inches and sand to 60 inches below the surface. Depth to water table is about 0 to 6 inches.
- **RksB - Riverhead gravelly sandy loam, 3 to 8 percent slopes.** These soils are well drained with low runoff characteristics when wet and consist of gravelly sandy loam and loamy sand. The surface profile is typically gravelly sandy loam down to 33 inches and loamy sand to 60 inches below the surface. Depth to water table is more than 80 inches.

The predominant soils mapped beyond the areas being utilized for storage (adjacent to the Loantaka Brook) are Preakness dark surface variant sandy loam (PrkAt) and Parsippany silt loam (PbpAt) both classified as Hydrologic Soils Group Type D, Timakwa / Adrian muck (AdrAt) classified as Hydrologic Soils Group Type B/D and Udorthents (UdrB) classified as Hydrologic Soils Group B.

- **PrsdAt – Preakness dark surface variant sandy loam, 0 to 3 percent slopes, frequently flooded.** These soils are very poorly drained with low runoff characteristics when wet and consist of muck, sandy loam, loamy sand and sand. The surface profile is typically muck to 16 inches, sandy loam to 32 inches, loamy sand to 43 inches and sand to 72 inches. Depth to water table is about 0 to 6 inches.
- **PbpAt – Parsippany silt loam, 0 to 3 percent slopes, frequently flooded.** These soils are poorly drained with negligible runoff characteristics when wet and consist of silt loam, silty clay loam, silty clay, fine sandy loam, loamy fine sand and loamy sand. The surface profile is typically silt loam to 7 inches, silty clay loam to 17 inches, silty clay to 36 inches, fine sandy loam to 41 inches, loamy fine sand to 53 inches and loamy sand to 64 inches. Depth to water table is about 0 to 6 inches.
- **AdrAt – Timakwa / Adrian muck, 0 to 3 percent slopes, frequently flooded.** These soils are very poorly drained with negligible runoff characteristics when wet and consist of muck, very gravelly coarse sand and gravelly loamy very fine sand. The surface profile is typically muck to 37 inches, very gravelly loamy coarse sand to 47 inches and gravelly loamy very fine sand to 60 inches. Depth to water table is 0 inches.
- **UdrB – Udorthents, refuse substratum, 0 to 8 percent slopes.** These soils are well drained with low runoff characteristics when wet and consist of loam, gravelly loam and gravelly sandy loam. The surface profile is typically loam to 5 inches, gravelly loam to 21 inches and gravelly sandy loam to 80 inches. Depth to water table is more than 80 inches. **(Figure 9)**

3.3 Geology

According to Chatham Township's Natural Resources Inventory (NRI), Chatham Township lies within the Piedmont Plain Physiographic Province of New Jersey, which is the mid-state region south of the Highlands. The Piedmont Physiographic Province comprises approximately one-fifth of the State, about 1,600 square miles. This Province is mainly underlain by slightly folded and faulted sedimentary rocks of the Triassic and Jurassic age and igneous rocks of Jurassic age. NJDEP's GeoWeb identifies with Boonton Formation (basalt, fine to coarse-grained). A small formation of Hook Mt. Basalt bedrock exists to the northwest of Chatham (north of Green Village Road and east of Spring Valley Road) and identifies with a fault close to the present alignment of Route 202. The terrain in this vicinity is below Route 202 and above the Great Swamp. **(Figure 10)**

3.4 Vegetation

The property is made up of agricultural wetlands, as well as deciduous wooded wetlands along the floodplain of the Loantaka Brook. As per the NRI, this floodplain is anticipated to contain "typical floodplain trees - red maple, silver maple, american elm, white ash, pin oak, white oak, swamp white oak and grey birch. Floodplain shrubs found here are greenbriar, japanese barberry, multiflora rose, poison ivy, spice bush, northern arrowwood, witch hazel, dogwood, and highbush blueberry." No disturbance is proposed in this forested area.

To the southeast, an existing tree line provides a natural screening from the residential properties within Harding, opposite the existing driveway off Meyersville Road. In addition, a dense buffer exists between residential properties to the northeast in Chatham, and a generous screening exists within the front yard of Meyersville Road, to the northwest, straddling both Harding and Chatham.

3.5 Wildlife

A review of the NJ Landscape Project 3.3 – Skylands Landscape GIS Layer and Species Table identifies agricultural wetlands, designated as Rank 1 for being a potential suitable habitat and potential for vernal pool habitats. A few records of T&E species have been documented as follows:

- Rank 3, State Threatened – Wood Turtle (*Glyptemys insculpta*)
- Rank 3, State Threatened – Barred Owl (*Strix varia*)
- Rank 4, State Endangered – Blue-spotted Salamander (*Ambystoma laterale*)
- Rank 4, State Endangered – Red-shouldered Hawk (*Buteo lineatus*)
- Rank 4, State Endangered – Sedge Wren (*Cistothorus platensis*)
- Rank 5, Federally Endangered – Bog Turtle (*Glyptemys muhlenbergii*)
- Rank 5, Federally Endangered – Indiana Bat (*Myotis sodalis*)

The NRI identifies “good habitat for these species in many areas [of Chatham Township] because of the abundant wetlands and extensive preserved open space both in the Great Swamp National Wildlife Refuge and in township land outside of the refuge.” **(Figure 11 and NJDEP Natural Heritage Program File No. 19-4007464-17440)**

3.6 Air Quality

New Jersey’s Air Quality Index (AQI), monitored by the NJ Department of Environmental Protection under *Air Now*, overall defines good air quality in NJ, where air quality is considered satisfactory, and air pollution poses little or no risk. The U.S. Environmental Protection Agency (US EPA) Air Quality Index Report for Morris County in 2018 reported 323 good days and 37 moderate days out of the year. The reported median AQI for Morris County was 34 and maximum of 136, whereas 1-50 is defined as good, 51-100 is defined as moderate and 101-150 is defined as unhealthy for sensitive groups.

3.7 Surface Water Quality

The site is located within Upper Passaic, Whippany, and Rockaway Watershed Management Area No. 6 and HUC-11 Passaic River Upr (above Pine Bk br) Watershed. The HUC-14 Sub-Watershed is the Loantaka Brook, where the section of stream present onsite (Green Village) is described as a FW2-NT. Per Chatham’s Special Water Resource Areas Map, the Loantaka Brook on site holds a 300-foot riparian buffer, as it is upstream of a protected Category 1 water. Under N.J.A.C. 7:9B, “FW2” is the general surface water classification applied to those fresh waters that are not designated as FW1 or Pinelands Waters. “NT” or “Nontrout Waters” is fresh waters that have not been designated in N.J.A.C. 7:9B-1.15(c) through (i) as trout production or trout maintenance. These waters are generally not suitable for trout because of their physical, chemical or biological characteristics, but are often suitable for a wide variety of other fish species.

3.8 Noise Characteristics

The single-family residence is situated within a rural setting, surrounded amongst residential single-family homes, and the Green village Volunteer Fire Department and Green Village Deli to the north. With the exception of the occasional sound alarm that may go off at the Fire Department, there appears to be no significant noise sources, other than local traffic along Meyersville Road and Green Village Road (County Route 646).

3.9 Historical and Archeological Features

According to the NJDEP's GeoWeb database, the subject property does not have any historic or archeological features. The closest identified historic property in this vicinity is the Elias Boudinot Home located at 461 Green Village Road and known as Block 48.21, Lot 165 per Chatham's Tax Map. **(Figure 5)**

4. ASSESSMENT OF ENVIRONMENTAL IMPACT

4.1 Sewerage facilities

Per NJDEP's GeoWeb, the site appears to be outside of the sewer service area. Prior to occupancy, the site will be evaluated by a wastewater management professional to confirm the capacity and adequacy of the existing facilities servicing the single-family residence. Port-a-johns are planned to be installed on the premises. Upon construction completion, the portable bathrooms will be removed from the site and any use of the sewerage facilities will be discontinued. **(Figure 12)**

4.2 Water Supply & Water Usage

Per NJDEP's GeoWeb, the site falls within New Jersey American Water's service area. However, available survey information of the site confirms the presence of a private well and available water to the existing single-family residence, the 2-story barn, the 1-story masonry garages and at least one of the 1-story masonry buildings. Prior to closing on the property, the applicant will have the water inspected for water pressure and adequacy of supply for use by the project. There is no anticipated possible interference with existing private and public water supply for up to a 5-mile radius, as the project does not propose any dewatering activities. Upon construction completion, water use at the site will no longer be required.

4.3 Stormwater Management

A Stormwater Management evaluation has been prepared in accordance with Chatham Township's Stormwater Control Ordinance §30-64.3 and the Stormwater Management Rules found at N.J.A.C. 7:8. The proposed improvements will result in over one (1) acre of disturbance. Therefore, the project is considered a "major development" and subject to demonstrating compliance with Stormwater Quantity, Stormwater Quality, Nonstructural Stormwater Management Strategies and Groundwater Recharge. Compliance with these regulations is demonstrated in the Stormwater Management Report prepared by Tetra Tech, dated December 2019.

4.4 Solid Waste Disposal

PSE&G's use of the site as a temporary laydown area shall include timber matting, soil erosion control materials, rebar cages, bolts and monopole segments. These materials will be temporarily stored until the construction crew is ready for their installation along the transmission right-of-way.

All solid waste generated during construction will be collected at the laydown area and sorted into dumpsters based on material and disposal requirements. Construction debris will be collected frequently to prevent any adverse impacts caused by windblown movement or impacts to the aesthetics of the area. Solid waste will be collected and disposed of by a State licensed waste hauler to an NJDEP permitted landfill in accordance with applicable State regulations. Recyclable material will be collected and disposed of in accordance with PSE&G's recycling policies and all applicable local, county, and State regulations. Furthermore, no hazardous substances will be transported to or from the laydown.

4.5 Air Pollution

Local air quality may be temporarily affected by emissions from construction vehicles and delivery trucks during the initial phase of bringing material to the site. This effect should be minimal as emissions will not be excessive and dispersion of particulates is rapid over a spatial area. In efforts to mitigate the potential of dust being raised, an approved Soil Erosion and Sediment Control Plan will be implemented. Temporary timber matting will minimize soil movement, thereby assuring the protection of air quality.

4.6 Traffic and Noise

During the initial phase of bringing material to the site, approximately 9-12 trucks are anticipated throughout the day, with that number being reduced to approximately 5 anticipated trucks per day, thereafter. A total of approximately 15-20 employees are expected to park on site daily, from Monday through Saturday. The project plans to utilize the existing driveway off Meyersville Road to enter the site. Site circulation will be accommodated by a 20-foot wide one-way driveway. One egress driveway is temporarily proposed approximately along Meyersville Road to accommodate a righthand turn only. The highest anticipated trip generation to and from the site is in the early morning and late afternoon hours for construction personnel. The project proposes to mitigate delivery traffic by scheduling truck deliveries throughout the course of the day. On-site deliveries would require minimal truck idling and would be immediately directed towards the rear of the laydown yard. Accumulation of truck traffic along Meyersville Road, Green Village Road (County Route 646) and adjacent local roadways will therefore be minimal when considering the number of trips throughout the course of the day.

Noise levels are regulated by Chatham Township's Board of Health Ordinance Chapter BH:IV – Noise Control, §BH:4-3.2.b, construction or demolition work are permitted between the hours of 7:00 a.m. and 6:00 p.m., Monday through Friday and between the hours of 8:00 a.m. and 6:00 p.m., Saturday. Under Harding's Ordinance Chapter 258 – Noise, §258-4, construction or demolition work are permitted between the hours of 7:00 a.m. and 7:00 p.m., Monday through Saturday. Anticipated noise-generating equipment shall include diesel engines and forklifts. The noise levels on site will be in compliance with the State's standards and will be in accordance with the Townships' noise ordinances.

4.7 Social / Economic

The temporary outdoor storage and laydown is anticipated for approximately three 3-years. Upon completion of the RPV project, PSE&G intends to utilize this site for mitigation. Although this laydown project would have minimal to little effect on the Township's assessments on the property, the site would remain in its natural state and would not be developed. Therefore, there would be little to no impact on municipal infrastructure or emergency services, including but not limited to

school facilities, parks, roads, police and firefighting personnel, etc. There may be an opportunity to create open space. Jobs are temporarily being created under the RPV Project, as PSE&G plans to replace several existing lattice type towers throughout Chatham and the surrounding municipalities. The public will ultimately benefit from the replacement of aging infrastructure.

4.8 Aesthetics

The laydown area is proposed to be temporarily altered to include timer matting at grade and construction materials and equipment. The monopole sections are not proposed to be stacked higher than 15-feet. The majority of construction equipment and personnel vehicles will be stored well within the property limits, thereby providing minimal visual impact from Meyersville and Green Village Roads. Select tree clearing (approximately 6 trees) will be necessary for the proposed matting. To offset any visual impact at the entrance driveway, PSE&G intends to provide a tree replacement at a 1:1 ratio consisting of 3 Red maple (*Acer Rubrum*) and 3 Eastern Red Cedar (*Juniperus Virginiana*). The tree replacement is based on the removal of trees with a diameter of twelve-inches (12") or greater when measured approximately 4.5-feet from grade, as identified on the PSEG Surveys & Mapping Site Plan. Upon project completion, the property will be reverted to its natural existing condition and the present character of the area will not be altered. No permanent development is planned for this site. PSE&G ultimately intends to use the site for mitigation purposes.

4.9 Energy Conservation

The project does not require the construction of any new buildings. The buildings will be used as is for construction personnel. The arrangement of the timber matting allows the truck vehicles to circulate the site in a single direction. The area of the waffle matting has been sized to double up on the rows of monopole sections in order to reduce the amount of matting being brought to the site.

5. UNAVOIDABLE ENVIRONMENTAL IMPACTS AND STEPS TAKEN TO MINIMIZE ENVIRONMENTAL DAMAGE

5.1 Streams, Riparian Buffers and Freshwater Wetlands

The project has been designed to have temporary and minimal adverse impact on any of the streams, floodplains or associated wetlands and transition areas. In accordance with the Freshwater Wetlands Protection Act Rules (N.J.A.C. 7:7A 1 et. seq.), and the Flood Hazard Area Act Rules (N.J.A.C. 7:7A 13 et. seq.), PSE&G applied to the NJDEP Division of Land Use Regulation for a Freshwater Wetlands Individual Permit and Letter of Interpretation, as well as a Flood Hazard Area (FHA) Individual Permit and Line Verification. The FWW and FHA Individual Permits are necessitated by the proposed temporary disturbances to wetlands, transition areas and riparian buffer areas. The contractor will place timber matting and other stabilization material to minimize disturbances and to provide additional protection to underlying soils. The use of matting minimizes temporary impacts by allowing the soil profile and hydrologic characteristics to remain in place, while also helping to promote more practical and effective restoration efforts following the completion of construction. The site will be restored under an approved soil erosion and sediment control plan in accordance with Chatham's Control of Soil Erosion and Sedimentation, Ordinance, §21-1.

5.2 Wildlife

As listed within the NJDEP Natural Heritage Program database, the site is mapped for Bog Turtle, Blue Spotted Salamander, Wood Turtle, Barred Owl, Red Shouldered Hawk, Indiana Bat and Northern Long Eared Bat. The United States Fish and Wildlife Service (USFWS) and NJDEP Endangered and Nongame Species Program (ENSP) will review the project for any potential suitable habitat, including vernal pool habitat. Regarding Bog Turtle, Best Management Practices (BMPs) will be followed, including silt fencing along the entire perimeter of the project. If deemed necessary, a monitor during the mat placement and removal may be provided. Similarly, regarding Wood Turtle, any risk could also be mitigated by keeping the agricultural field mowed low during the active season. Regarding the Blue Spotted Salamander, the project does not anticipate the hayfields to be suitable habitat. Most vernal pools are situated greater than 1,000 feet away, or otherwise not anticipated to be suitable. Lastly, the on-site pond is full of fish and is not considered vernal. Regarding the Barred Owl and Red Shouldered Hawk, no work is proposed within a forested area. The limited tree clearing within an active hayfield is unlikely to affect Barred Owl or Red Shouldered Hawk. If deemed necessary by the USFWS and NJDEP ENSP, the site may be screened for occupied cavities prior to the work. Similarly, the site is mapped for Indiana Bat maternity and roost areas. If deemed necessary, individual trees can be monitored prior to the work. In any event, the USFWS and NJDEP ENSP will review the plan and advise of any additional Best Management Practices (BMPs).

5.3 Plants

There are no rare plants mapped on site per the NJDEP Natural Heritage Program database. A tree removal and replacement plan and application will be filed with Chatham Township for approximately 5-6 live trees with a D.B.H. of 12 inches or greater that cannot be avoided, including 4 Red Maple and 1 Red Oak. The proposed replacement trees are native to the area. Once the project is complete, the site will be used for mitigation purposes and so the temporary adverse impacts will be outweighed by the permanent preservation of the existing agricultural and forested wetlands.

5.4 Air and Water

As mentioned under Section 4 Assessment of Environmental Impact, the anticipated air and water pollution will be controlled by installing soil erosion and sediment control measures prior to any disturbance to the site; all solid waste will be collected, sorted and disposed in accordance with all local and State regulations; recyclable material will be collected and disposed of in accordance with PSE&G's recycling policies and all applicable local, county, and State regulations; and no hazardous substances will be transported to or from the laydown.

6. ALTERNATIVES ANALYSIS AND CONCLUSION

The temporary laydown and outdoor storage area is in support of an electrical transmission line project, referred to as the Roseland – Pleasant Valley (RPV) Transmission Project. The closest Public Utility Facility along PSE&G's transmission corridor is the Roseland Switching Station: an unmanned electric public utility station yard, located in Segment 1 within the Borough of Roseland, nearly 13 miles away. The entire length of Segment 1 is approximately 30 miles. The necessity of storing the equipment in an area proximate and centrally located to the overall transmission line construction is

essential in order to expedite the construction of the project and reduce impact to the local road system.

At the conclusion of the RPV project, the laydown site will be restored to original condition. PSE&G intends to utilize the property for wetlands mitigation, at a minimum with the New Jersey Department of Environmental Protection (NJDEP). Therefore, no future development is planned for this site. For all reasons stated above, the intended use for mitigation and to keep the land in its natural state, including the potential to farm, outweighs all potential and permanent impacts that might otherwise occur if the land were to be developed permanently.

7. LICENSES AND PERMITS

- Township of Chatham Preliminary and Final Site Plan Approval with Variances;
- Township of Harding Township Council Presentation;
- New Jersey Department of Environmental Protection (NJDEP) Flood Hazard Area Verification and Individual Permit;
- New Jersey Department of Environmental Protection (NJDEP) Freshwater Wetlands Letter of Interpretation and Individual Permit
- Township of Chatham Soil Erosion and Sediment Control Plan Certification;
- Township of Chatham Tree Removal and Replacement Application;
- Township of Chatham Certification for continued use of a septic system, as required;
- Township of Chatham Application for certification of smoke detector and carbon monoxide, alarm and portable fire extinguisher compliance; and
- Township of Chatham Application for Construction Records Clearance, upon request by e-mail, written, OPRA or by phone, required.

8. DOCUMENTATION

- Chatham Township Environmental Commission Natural Resources Inventory 2013, dated January 14, 2013. <https://www.chathamtownship-nj.gov/natural-resources-inventory>
- Geographic Information Systems Mapping Layers (NJOIT)
 - NJDEP Land Use / Land Cover Data 2012
 - NJDEP Surface Water Quality Data
 - Morris County Parcel Map Data
 - NJDOT NJ Roadway Network 2015
 - NJ State Plan Policy Map 2010
- NJDEP, Flood Hazard Area Control Act Rules, N.J.A.C. 7:13-1.1 et seq.
- NJDEP, New Jersey Geographic Information System, NJ-GeoWeb Interactive Web Application, accessed on various dates.
- NJDEP, Division of Fish and Wildlife, New Jersey's Landscape Project, Version 3.3; Revised and updated May 2017.
- N.J.A.C. 7:9B Surface Water Quality Standards
https://www.nj.gov/dep/rules/rules/njac7_9b.pdf

- NJ Department of Environmental Protection Air Now Air Quality Index Report <http://www.njaqinow.net/>
- US Environmental Protection Agency Air Quality Index Report <https://www.epa.gov/outdoor-air-quality-data/air-quality-index-report>
- New Jersey Private Well Testing Act Program - state.nj.us www.state.nj.us/dep/watersupply/pwta/pdf/pwta_report.pdf

APPENDIX A Site Photographs

**PSE&G Temporary Laydown & Outdoor Storage at Ferber Farm
7 Meyersville Road, Green Village, NJ**



1) View of the existing driveway off Meyersville Road, facing southeast.

**PSE&G Temporary Laydown & Outdoor Storage at Ferber Farm
7 Meyersville Road, Green Village, NJ**



2) View of the property from Meyersville Road, facing southeast.



3) View of the property from Meyersville Road, facing south.

**PSE&G Temporary Laydown & Outdoor Storage at Ferber Farm
7 Meyersville Road, Green Village, NJ**



4) View of the entrance driveway off Meyersville Road, facing northwest.



5) View of the western portion of the property from along the driveway, facing north.

**PSE&G Temporary Laydown & Outdoor Storage at Ferber Farm
7 Meyersville Road, Green Village, NJ**



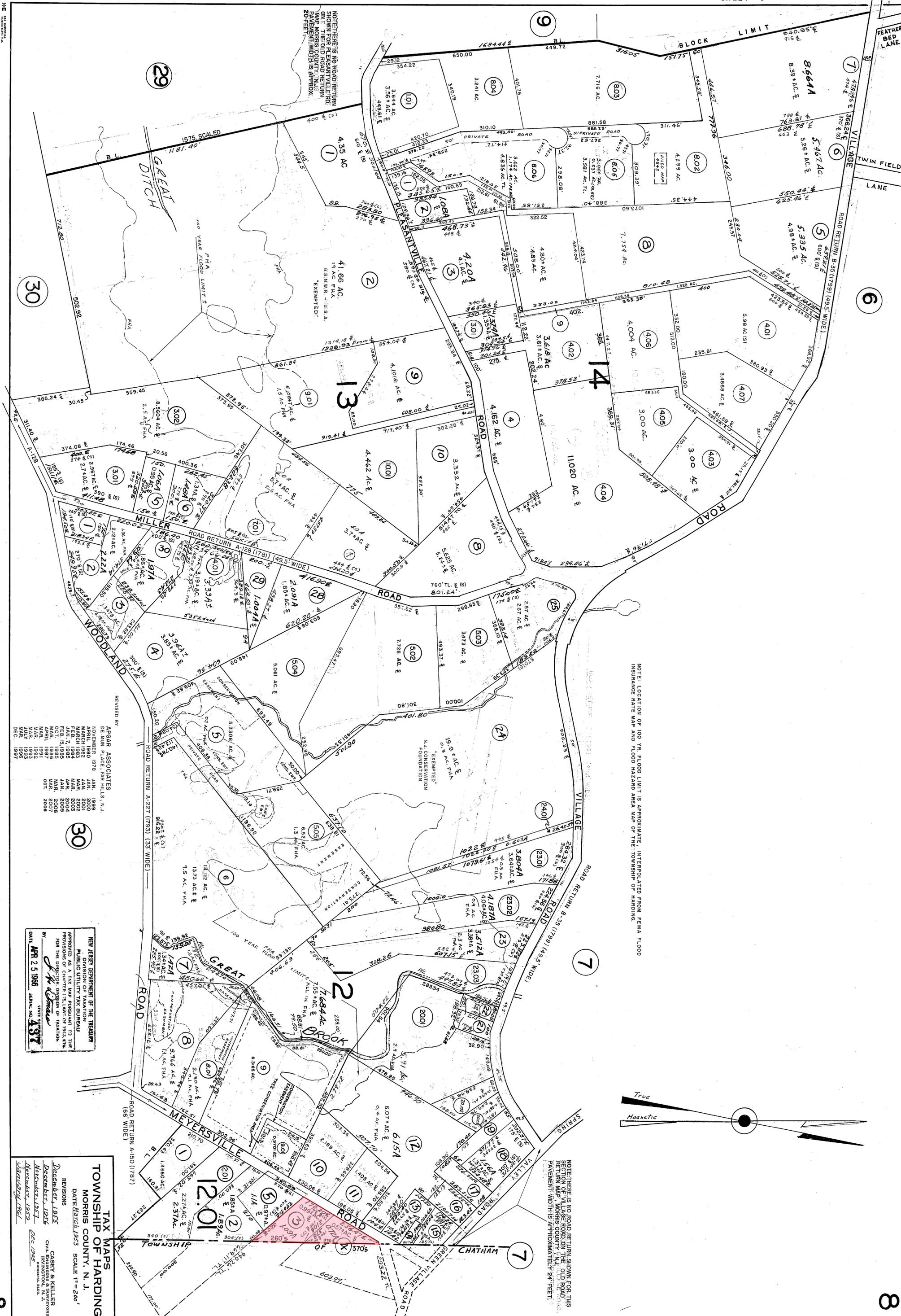
6) View of the central portion of the property from the driveway, facing northeast.



7) View of the eastern portion of the property from the driveway, facing east.

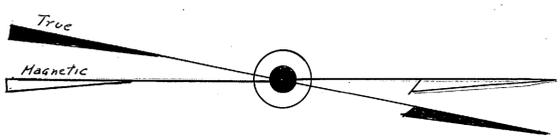
APPENDIX B

Figures & Maps



NOTE: THERE IS NO ROAD RETURN SHOWN FOR THIS SECTION OF VILLAGE ROAD ON THE OLD ROAD. ROAD RETURN MAP, MORRIS COUNTY, N.J., 1953. PAVEMENT WIDTH IS APPROXIMATELY 24 FEET.

NOTE: LOCATION OF 100 YR. FLOOD LIMIT IS APPROXIMATE. INTERPOLATED FROM FEMA FLOOD INSURANCE RATE MAP AND FLOOD HAZARD AREA MAP OF THE TOWNSHIP OF HARDING.



REVISED BY
 APGAR ASSOCIATES
 DE MONI PLACE, FRR HILLS, N.J.

NOVEMBER, 1978
 APRIL, 1980
 MARCH, 1982
 MARCH, 1983
 JANUARY, 1985
 FEBRUARY, 1985
 OCTOBER, 1985
 MARCH, 1987
 APRIL, 1987
 MAY, 1987
 JULY, 1987
 MARCH, 1989

JAN, 1989
 JAN, 2001
 MAR, 2002
 APR, 2004
 APR, 2004
 MAR, 2006
 OCT, 2006
 DEC, 2006

NEW JERSEY DEPARTMENT OF THE TREASURY
 DIVISION OF TAXATION
 PUBLIC UTILITY TAX BUREAU
 APPROVED AS A TAX MAP PURSUANT TO THE
 PROVISIONS OF CHAPTER 152, PAR. 19.12, N.J.S.A.
 FOR THE DIVISION OF TAXATION

DATE: APR 25 1986 SERIAL NO. 437

TAX MAPS
 TOWNSHIP OF HARDING
 MORRIS COUNTY, N. J.
 REVISIONS
 December, 1955
 December, 1956
 November, 1957
 January, 1961

CASEY & KELLER
 CIVIL ENGINEERS & SURVEYORS
 100 WILSON ROAD
 MORRIS COUNTY, N.J. 07960

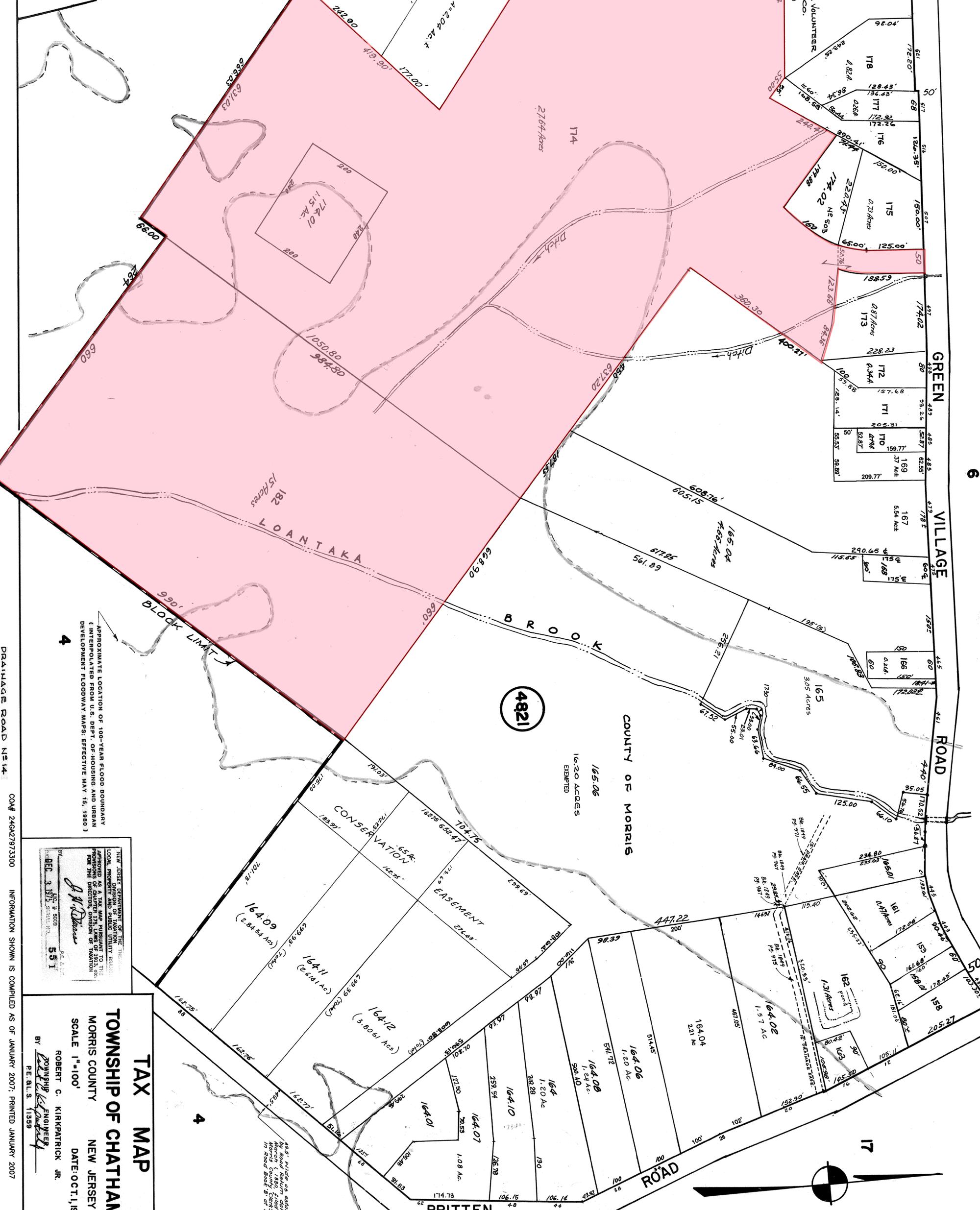
PARK EXEMPTED

TO MEYERSVILLE
160'
120'
120'

TOWNSHIP OF HARDING MORRIS COUNTY

Boundary Line 3

DATE	REVISIONS	LIC.NO.
JAN 1 1981	BY	
JAN 15 1983		
JAN 24 1989		
JAN 23 1990		
JUNE 2004	ARR (COA# 246A27973300)	17119
JANUARY 2007	CHRIS REHMANN - ARR	17119



4821

DRAINAGE ROAD NE 14
COA# 246A27973300
INFORMATION SHOWN IS COMPILED AS OF JANUARY 2007. PRINTED JANUARY 2007

APPROXIMATE LOCATION OF 100-YEAR FLOOD BOUNDARY
(INTERPOLATED FROM U.S. DEPT. OF HOUSING AND URBAN
DEVELOPMENT FLOODWAY MAPS; EFFECTIVE MAY 15, 1980)

NEW JERSEY DEPARTMENT OF THE TREASURY
LOCAL PRODUCTION DIVISION OF PUBLIC UTILITY SERVICE
PROVIDING TAX MAPS PURSUANT TO THE
PROVISIONS OF CHAPTER 123, P.L. 1980
FOR THE DIRECTOR, DIVISION OF TAXATION

BY: *[Signature]*
DEC 3 1975, SERIAL NO. 551

TAX MAP

TOWNSHIP OF CHATHAM

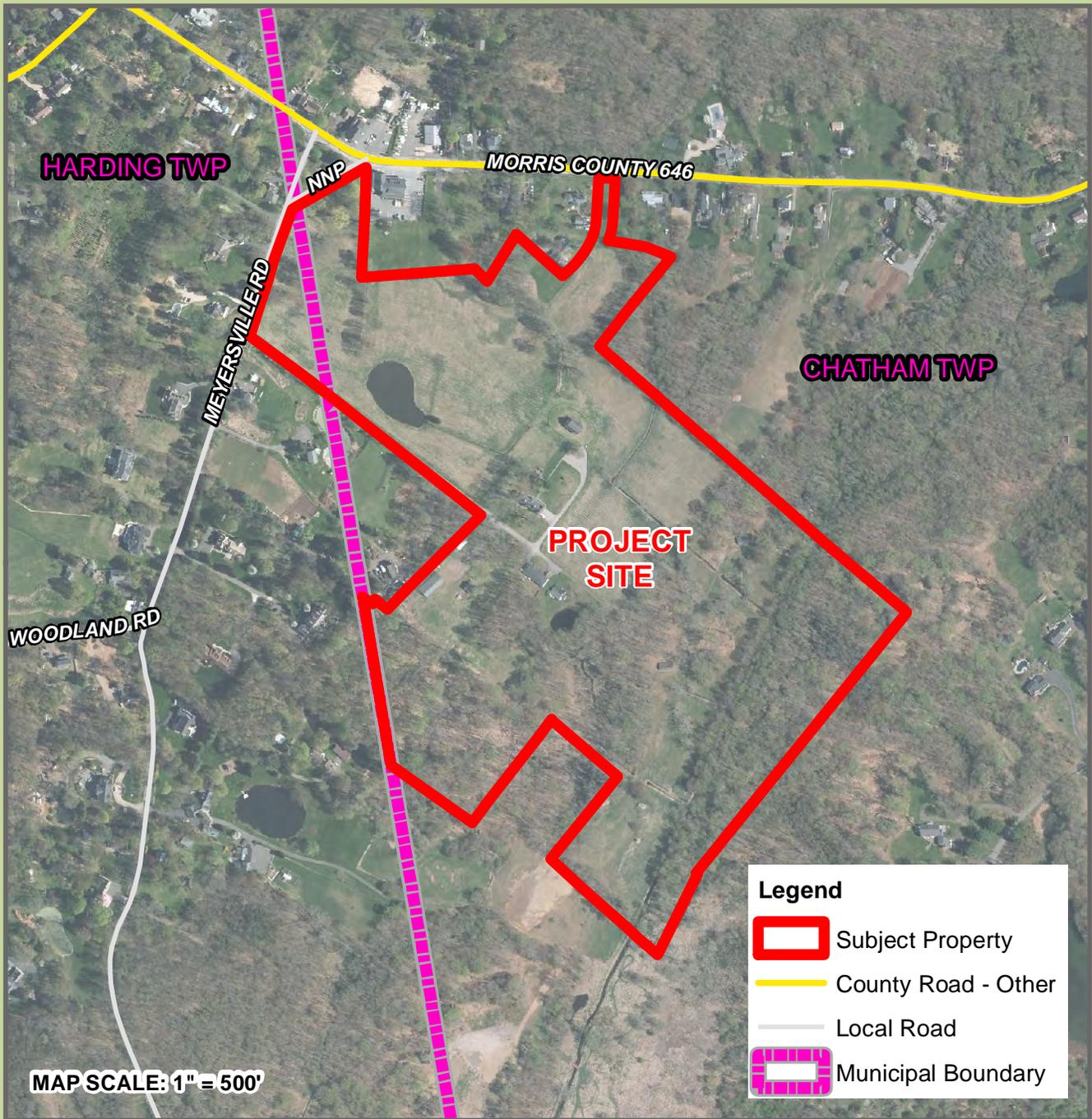
MORRIS COUNTY
NEW JERSEY

SCALE 1"=100'
DATE: OCT. 1, 1975

ROBERT C. KIRKPATRICK JR.
BY: *[Signature]*
P.E. S.L.S. 13389

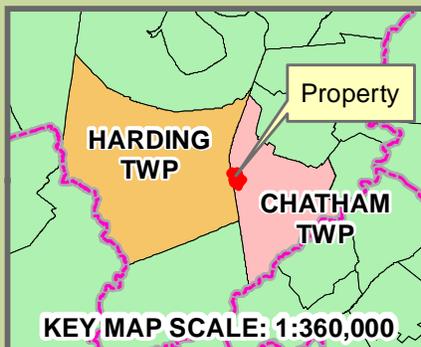
18.3' wide easement
March 1, 1880, filed in the
Morris County Clerk's office
in Road Book 8 of 1898 40

FIGURE 2: ROADWAY MAP (NJDOT 2017)



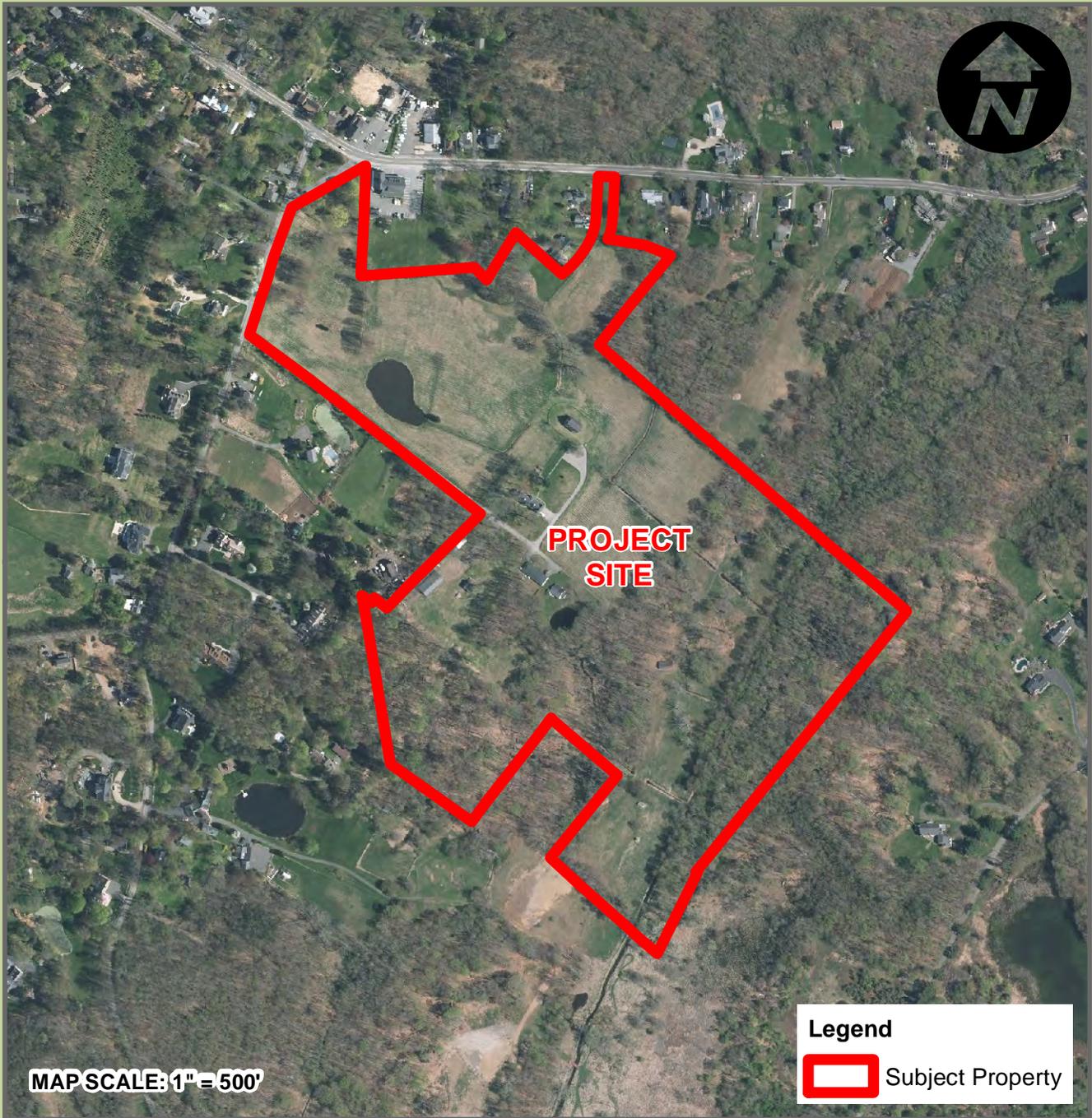
DW SMITH ASSOCIATES, LLC
 1450 State Route 34
 Wall, NJ 07753
 P. 732-363-5850
 F. 732-905-8669
 ngingther@dwsmith.com

Date: October 15, 2019
 Job Number: 19-340 T21



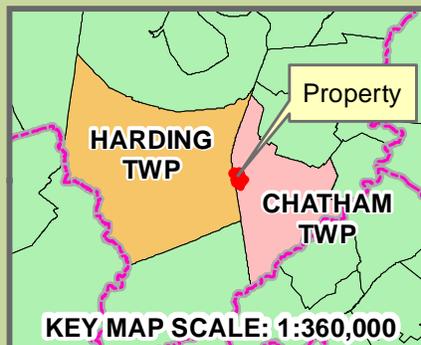
Ferber Farm Laydown
 Block 48.20, Lots 185 & 187
 Block 48.21, Lots 174, 174.01,
 180 & 182
 Township of Chatham
 Block 12.01, Lots 3 & 4
 Township of Harding
 Morris County, New Jersey
 (Y): 622,910 (X): 505,780

FIGURE 3: AERIAL MAP (NJOIT 2015)



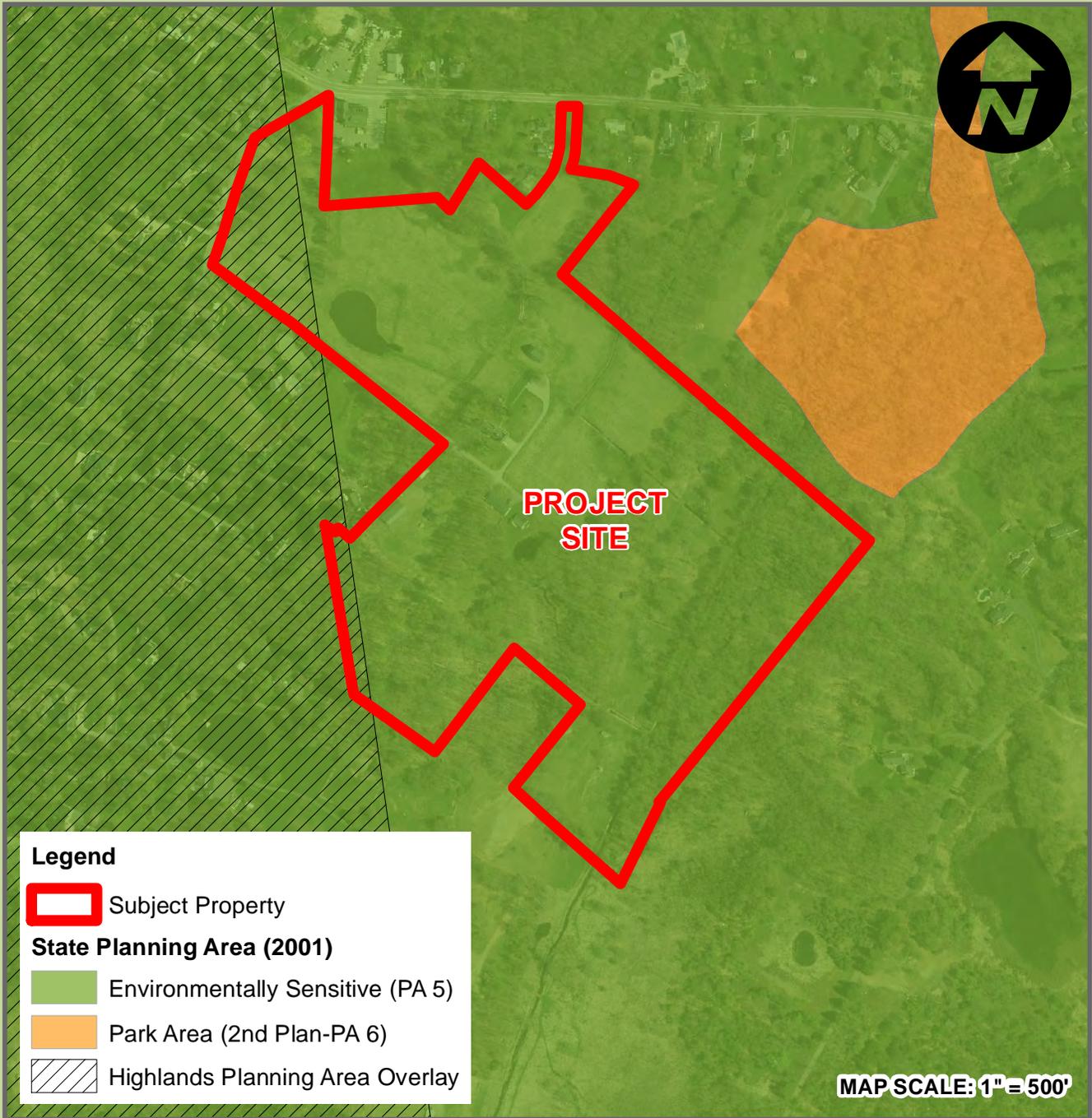
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F. 732-905-8669
nginther@dwsmith.com

Date: October 15, 2019
Job Number: 19-340 T21



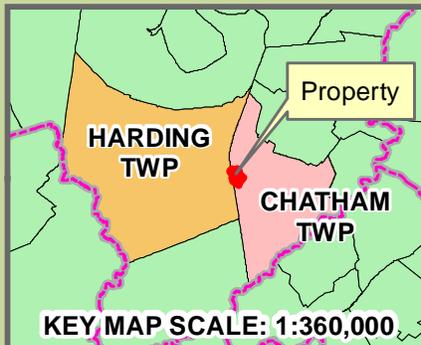
Ferber Farm Laydown
Block 48.20, Lots 185 & 187
Block 48.21, Lots 174, 174.01,
180 & 182
Township of Chatham
Block 12.01, Lots 3 & 4
Township of Harding
Morris County, New Jersey
(Y): 622,910 (X): 505,780

FIGURE 4: STATE PLANNING AREA MAP (NJDCA)



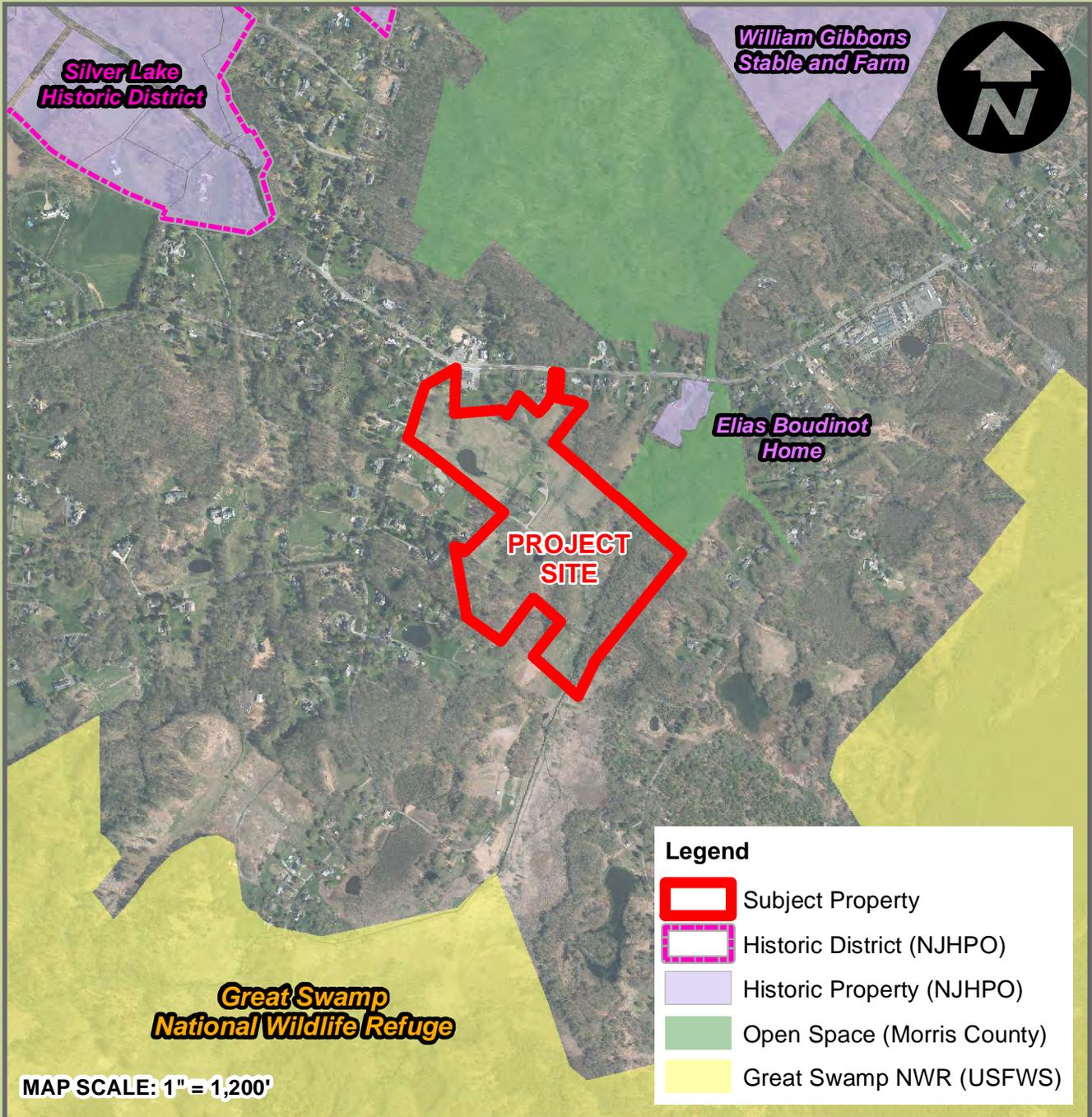
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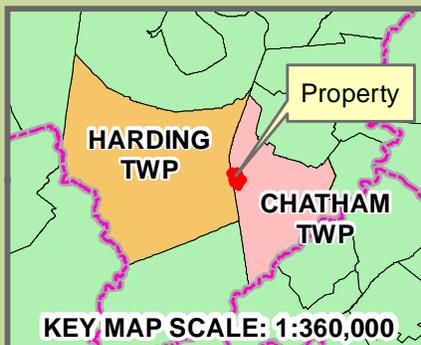
Ferber Farm Laydown
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 180 & 182
 Township of Chatham
 Block 12.01, Lots 3 & 4
 Township of Harding
 Morris County, New Jersey
 (Y): 622,910 (X): 505,780

FIGURE 5: PROTECTED AREAS MAP



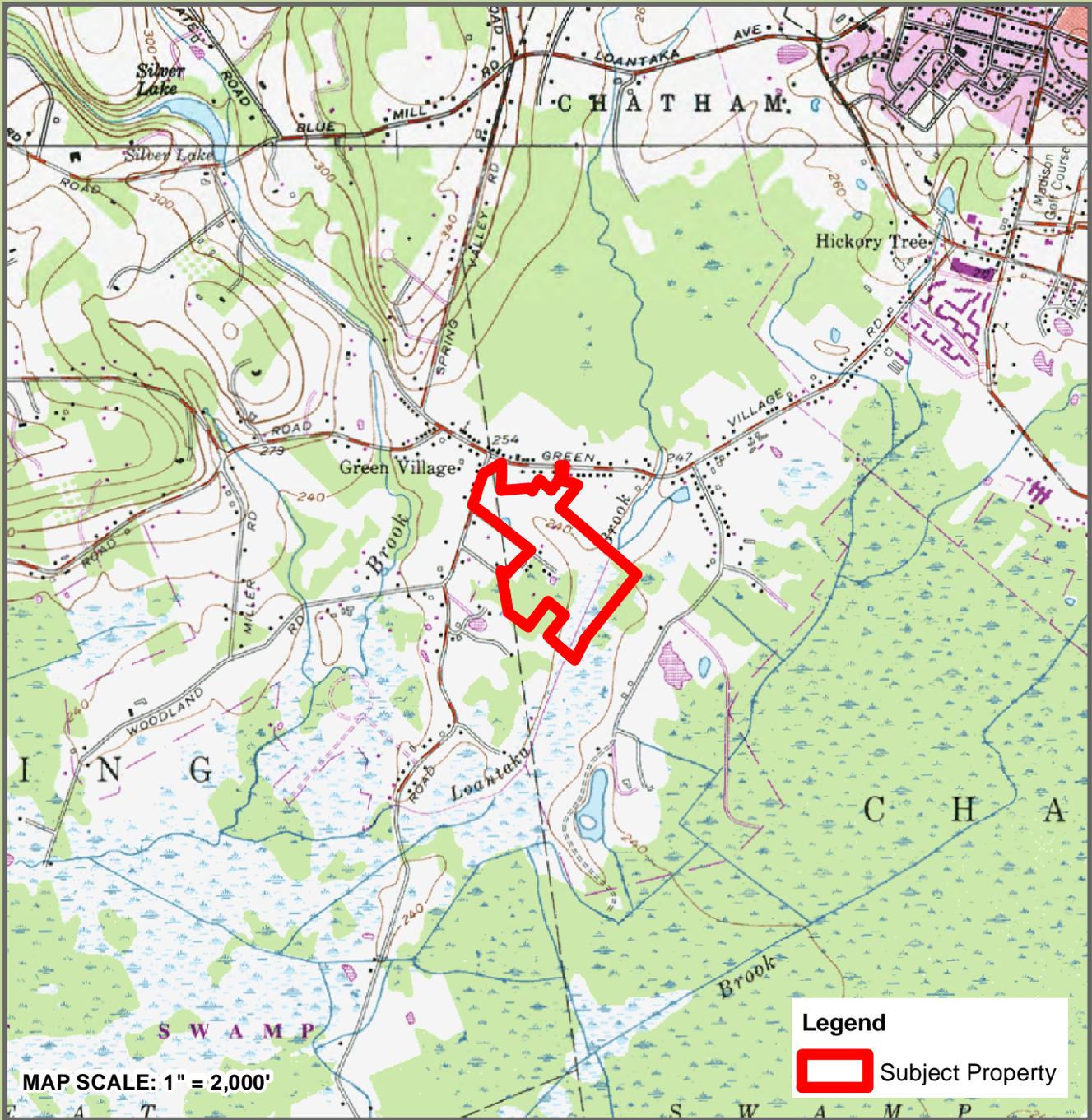
DW SMITH ASSOCIATES, LLC
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 nginther@dwsmith.com

Date: October 15, 2019
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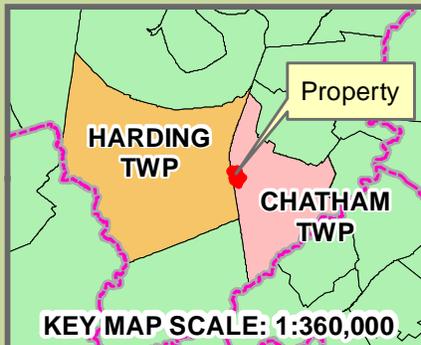
Ferber Farm Laydown
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 180 & 182
 Township of Chatham
 Block 12.01, Lots 3 & 4
 Township of Harding
 Morris County, New Jersey
 (Y): 622,910 (X): 505,780

FIGURE 6: CHATHAM QUAD MAP (USGS)



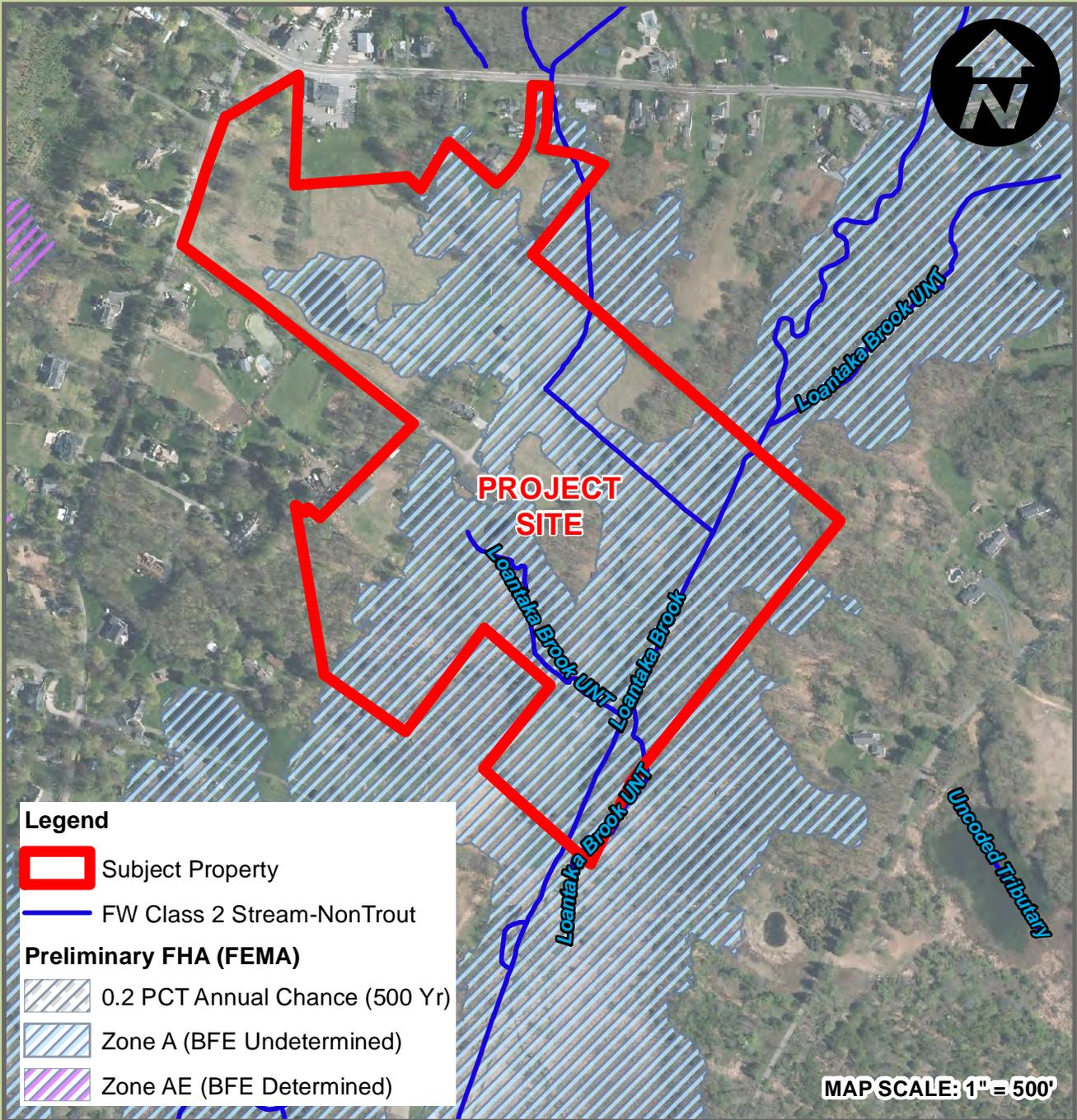
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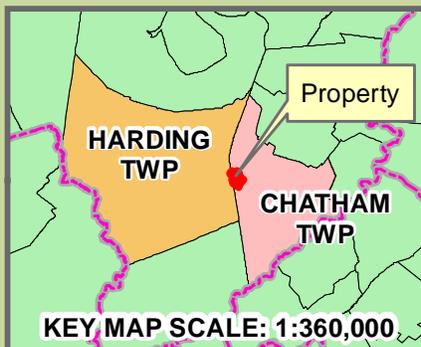
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 Morris County, New Jersey
 (Y): 622,910 (X): 505,780

FIGURE 8: FLOOD HAZARD AREA MAP (FEMA)



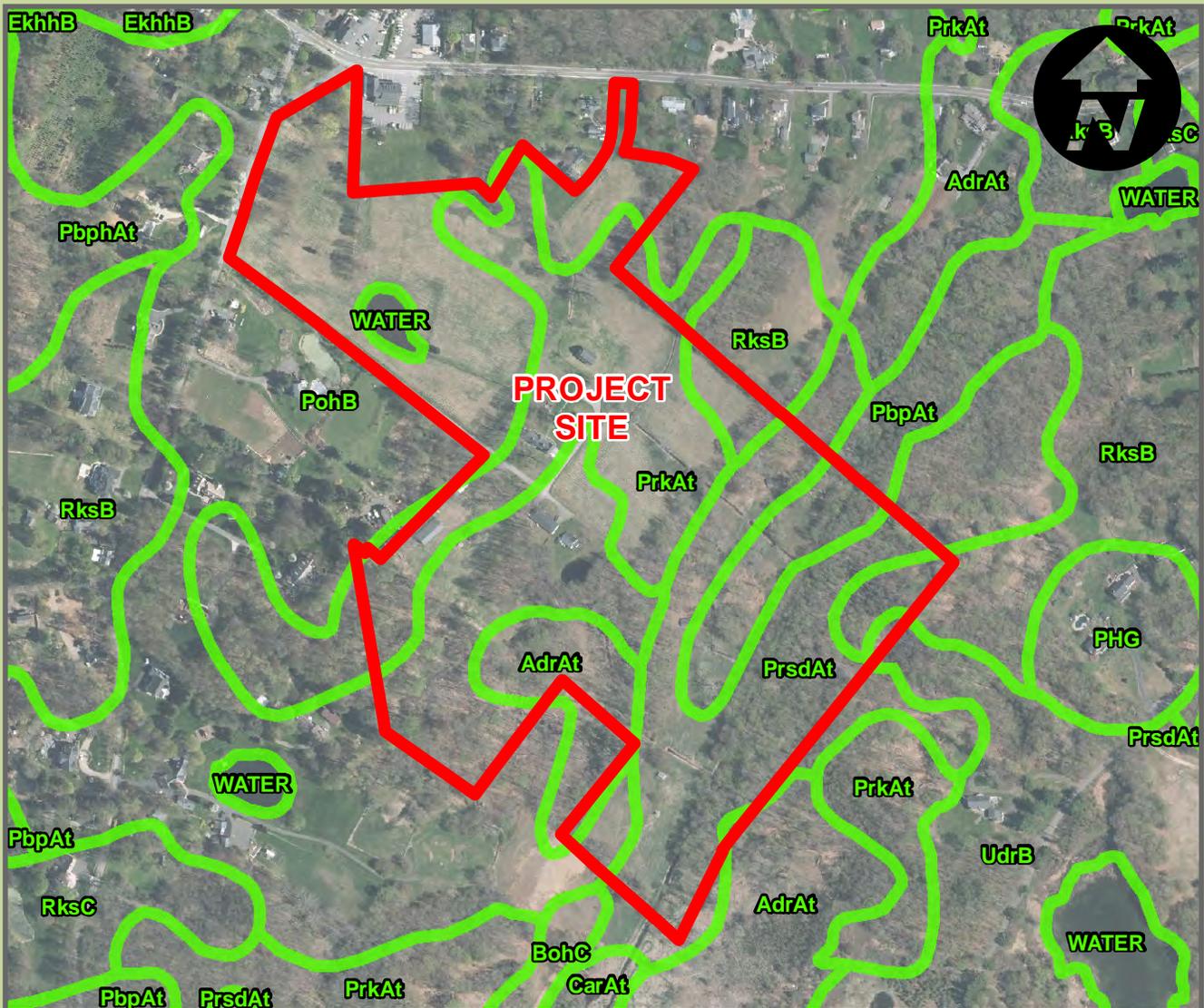
DW SMITH ASSOCIATES, LLC
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 nginther@dwsmith.com

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 Township of Harding
 Morris County, New Jersey
 (Y): 622,910 (X): 505,780

FIGURE 9: SOILS MAP (SSURGO)



AdrAt, Adrian muck, 0 to 3 percent slopes, frequently flooded
 PbpAt, Parsippany silt loam, 0 to 3 percent slopes, frequently flooded
 PohB, Pompton sandy loam, 3 to 8 percent slopes
 PrkAt, Preakness sandy loam, 0 to 3 percent slopes, frequently flooded
 PrsdAt, Preakness dark surface variant sandy loam, 0 to 3 percent slopes
 RksB, Riverhead gravelly sandy loam, 3 to 8 percent slopes
 UdrB, Udorthents, refuse substratum, 0 to 8 percent slopes

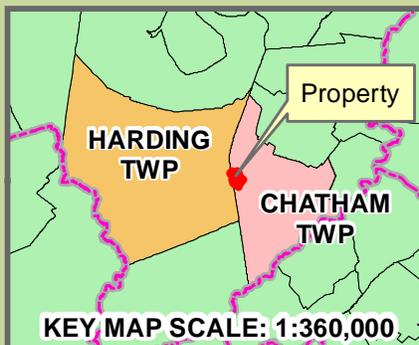
Legend

- Subject Property
- Soils Boundary

MAP SCALE: 1" = 500'

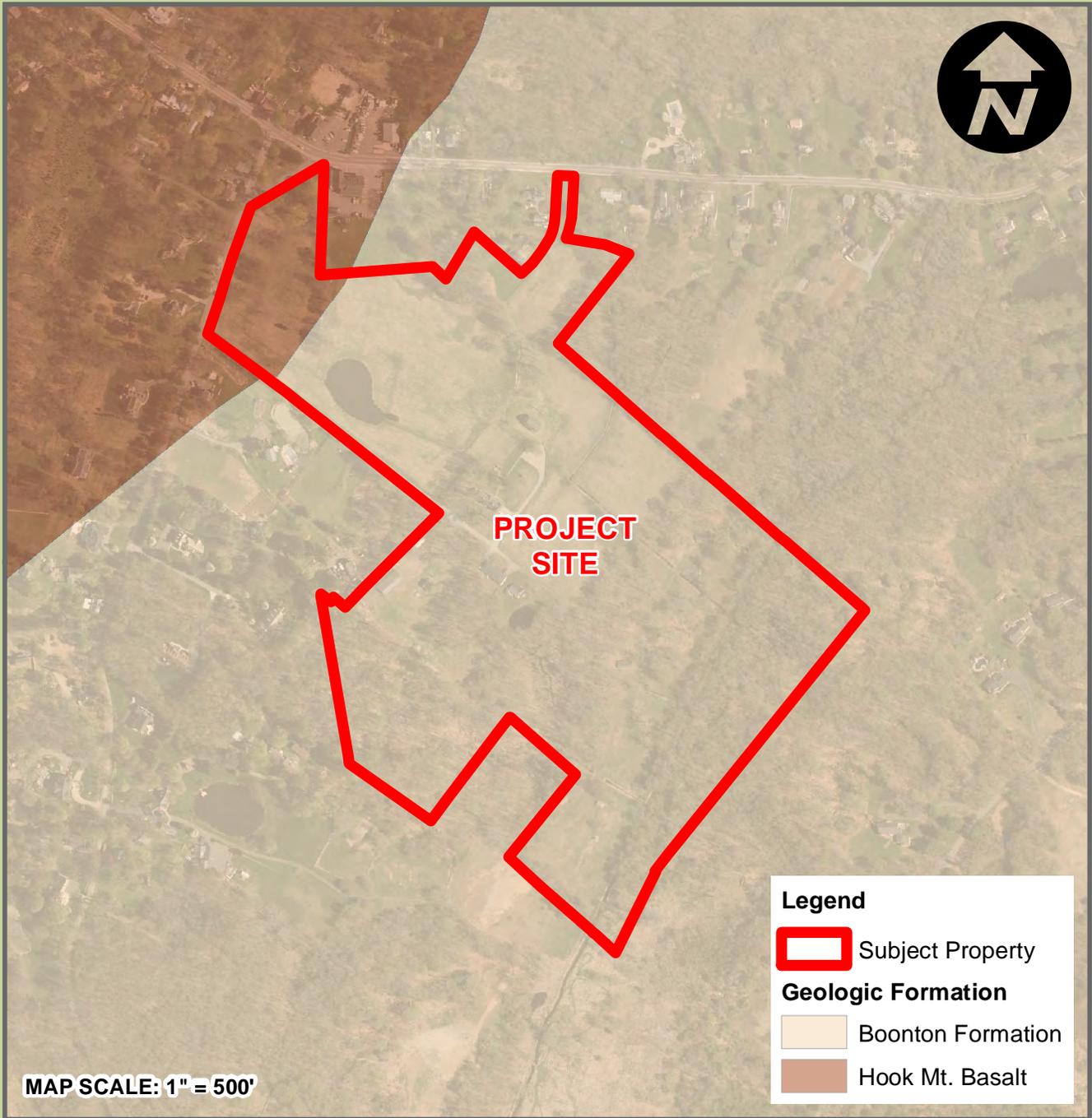
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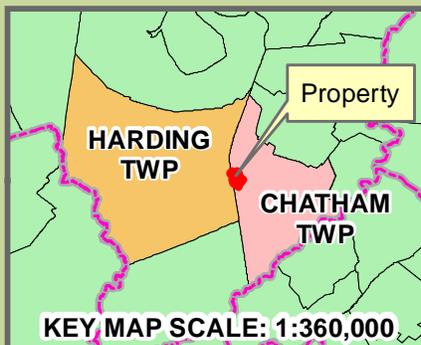
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 Block 12.01, Lots 3 & 4
 Township of Harding
 Morris County, New Jersey
 (Y): 622,910 (X): 505,780

FIGURE 10: BEDROCK GEOLOGY (USGS)



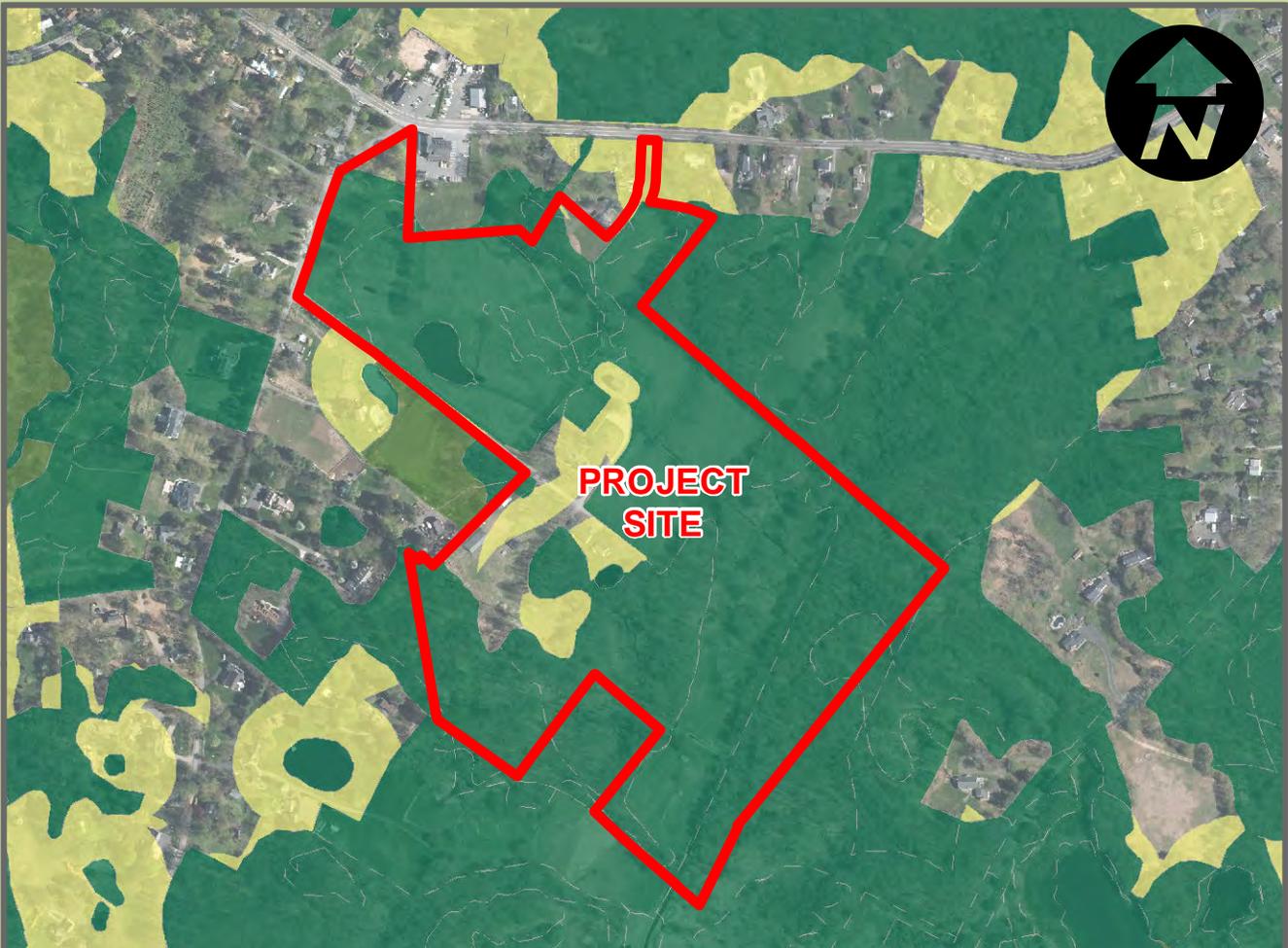
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Township of Harding
Morris County, New Jersey
(Y): 622,910 (X): 505,780

FIGURE 11: LANDSCAPE PROJECT v3.3 (NJDEP)



MAP SCALE: 1" = 600'

Legend

 Subject Property

Land Rank

 Rank 1 - Habitat Specific

 Rank 3 - State Threatened

 Rank 4 - State Endangered

 Rank 5 - Federal Listed

Landscape Project v3.1 Records On-site: Rank 3 or Higher

Barred Owl (*Strix varia*) - State Threatened, Rank 3

Wood Turtle (*Glyptemys insculpta*) - State Threatened, Rank 3

Blue-spotted Salamander (*Ambystoma laterale*) - State Endangered, Rank 4

Red-shouldered Hawk (*Buteo lineatus*) - State Endangered, Rank 4

Sedge Wren (*Cistothorus platensis*) - State Endangered, Rank 4

Bog Turtle (*Glyptemys muhlenbergii*) - Federally Endangered, Rank 5

Indiana Bat (*Myotis sodalis*) - Federally Endangered, Rank 5

DW SMITH ASSOCIATES, LLC

1450 State Route 34

Wall, NJ 07753

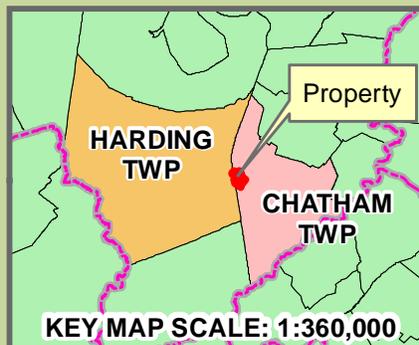
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180 & 182

Township of Chatham

Block 12.01, Lots 3 & 4

Township of Harding

Morris County, New Jersey

(Y): 622,910 (X): 505,780



State of New Jersey

MAIL CODE 501-04

DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF PARKS & FORESTRY

NEW JERSEY FOREST SERVICE

OFFICE OF NATURAL LANDS MANAGEMENT

P.O. BOX 420

TRENTON, NJ 08625-0420

Tel. (609) 984-1339 Fax (609) 984-0427

PHILIP D. MURPHY

Governor

SHEILA Y. OLIVER

Lt. Governor

CATHERINE R. McCABE

Commissioner

September 4, 2019

Evie McMenamin
EcolSciences, Inc.
75 Fleetwood Drive, Suite 250
Rockaway, NJ 07866

Re: EN17-054B Ferber Farm
Chatham and Harding Townships, Morris County

Dear Ms. McMenamin:

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 topographic map(s) submitted with the Natural Heritage Data Request Form into our Geographic Information System. 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 are 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

NHP File No. 19-4007464-17440

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 <http://www.state.nj.us/dep/parksandforests/natural/heritage/countylist.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 http://www.state.nj.us/dep/parksandforests/natural/heritage/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>.

PLEASE SEE 'CAUTIONS AND RESTRICTIONS ON NHP DATA', which can be downloaded from <http://www.state.nj.us/dep/parksandforests/natural/heritage/newcaution2008.pdf>.

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. 19-4007464-17440

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

<u>Report Name</u>	<u>Included</u>	<u>Number of Pages</u>
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	2 page(s) included
4. Vernal Pool Habitat on the Project Site Based on Search of Landscape Project 3.3	Yes	1 page(s) 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	Yes	1 page(s) 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	Strank
Amphibia								
	Blue-spotted Salamander	Ambystoma laterale	Occupied Habitat	4	NA	State Endangered	G5	S1
Aves								
	Barred Owl	Strix varia	Breeding Sighting	3	NA	State Threatened	G5	S2B,\$2N
	Barred Owl	Strix varia	Non-breeding Sighting	3	NA	State Threatened	G5	S2B,\$2N
	Cooper's Hawk	Accipiter cooperii	Breeding Sighting	2	NA	Special Concern	G5	S3B,\$4N
	Great Blue Heron	Ardea herodias	Foraging	2	NA	Special Concern	G5	S3B,\$4N
	Red-shouldered Hawk	Buteo lineatus	Breeding Sighting	4	NA	State Endangered	G5	S1B,\$3N
	Red-shouldered Hawk	Buteo lineatus	Non-breeding Sighting	2	NA	Special Concern	G5	S1B,\$3N
Mammalia								
	Indiana Bat	Myotis sodalis	Active Season Sighting	5	Federally Listed Endangered	State Endangered	G2	S1
	Indiana Bat	Myotis sodalis	Maternity Colony	5	Federally Listed Endangered	State Endangered	G2	S1
	Indiana Bat	Myotis sodalis	Roost Site	5	Federally Listed Endangered	State Endangered	G2	S1
	Northern Myotis	Myotis septentrionalis	Active Season Sighting	5	Federally Listed Threatened	NA	G1G2	S1

Reptilia

**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
	Bog Turtle	Glyptemys muhlenbergii	Occupied Habitat	5	Federally Listed Threatened	State Endangered	G3	S1
	Wood Turtle	Glyptemys insculpta	Occupied Habitat	3	NA	State Threatened	G3	S2

**Vernal Pool Habitat on the
Project Site Based on Search of
Landscape Project 3.3**

Vernal Pool Habitat Type

Vernal Pool Habitat ID

Vernal habitat area

2929

Total number of records:

1

**Other Animal Species
On the Project Site Based on
Additional Species Tracked by
Endangered and Nongame Species Program**

Scientific Name	Common Name	Federal Protection Status	Grank	Srank
-----------------	-------------	---------------------------	-------	-------

Invertebrate Animals

Polites mystic	Long Dash		G5	S3?
----------------	-----------	--	----	-----

Total number of records: 1

Vertebrate Animals

Epiesicus fuscus	Big Brown Bat		G5	S3
Myotis lucifugus	Little Brown Bat		G3	S1

Total number of records: 2

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

<u>Report Name</u>	<u>Included</u>	<u>Number of Pages</u>
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	2 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	Yes	1 page(s) 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	Strank
<i>Amphibia</i>								
	Blue-spotted Salamander	Ambystoma laterale	Occupied Habitat	4	NA	State Endangered	G5	S1
<i>Aves</i>								
	American Bittern	Botaurus lentiginosus	Breeding Sighting-Confirmed	4	NA	State Endangered	G5	S1B,S3N
	Bald Eagle	Haliaeetus leucocephalus	Foraging	4	NA	State Endangered	G5	S1B,S2N
	Barred Owl	Strix varia	Breeding Sighting	3	NA	State Threatened	G5	S2B,S2N
	Barred Owl	Strix varia	Non-breeding Sighting	3	NA	State Threatened	G5	S2B,S2N
	Cooper's Hawk	Accipiter cooperii	Breeding Sighting	2	NA	Special Concern	G5	S3B,S4N
	Great Blue Heron	Ardea herodias	Foraging	2	NA	Special Concern	G5	S3B,S4N
	Red-shouldered Hawk	Buteo lineatus	Breeding Sighting	4	NA	State Endangered	G5	S1B,S3N
	Red-shouldered Hawk	Buteo lineatus	Non-breeding Sighting	2	NA	Special Concern	G5	S1B,S3N
<i>Mammalia</i>								
	Wood Thrush	Hylocichla mustelina	Breeding Sighting	2	NA	Special Concern	G4	S3B,S4N
	Indiana Bat	Myotis sodalis	Active Season Sighting	5	Federally Listed Endangered	State Endangered	G2	S1

**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	
	Indiana Bat	Myotis sodalis	Maternity Colony	5	Federally Listed Endangered	State Endangered	G2	S1	
	Indiana Bat	Myotis sodalis	Roost Site	5	Federally Listed Endangered	State Endangered	G2	S1	
	Northern Myotis	Myotis septentrionalis	Active Season Sighting	5	Federally Listed Threatened	NA	G1G2	S1	
<i>Reptilia</i>									
	Bog Turtle	Glyptemys muhlbergii	Occupied Habitat	5	Federally Listed Threatened	State Endangered	G3	S1	
	Wood Turtle	Glyptemys insculpta	Occupied Habitat	3	NA	State Threatened	G3	S2	

**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

2929

Total number of records: 1

**Other Animal Species
In the Immediate Vicinity of the Project Site Based on
Additional Species Tracked by
Endangered and Nongame Species Program**

Scientific Name	Common Name	Federal Protection Status	State Protection Status	Grank	Srank
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Invertebrate Animals

Polites mystic

Long Dash

G5

S3?

Total number of records: 1

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

<u>Report Name</u>	<u>Included</u>	<u>Number of Pages</u>
1. Rare Plant Species Occurrences for Riparian Zone Width Determination (Flood Hazard Area Control Act Rule Application) - 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	3 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	Yes	1 page(s) 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	Strank
<i>Amphibia</i>	Blue-spotted Salamander	Ambystoma laterale	Occupied Habitat	4	NA	State Endangered	G5	S1
	American Bittern	Botaurus lentiginosus	Breeding Sighting-Confirmed	4	NA	State Endangered	G5	S1B,S3N
<i>Aves</i>	Bald Eagle	Haliaeetus leucocephalus	Foraging	4	NA	State Endangered	G5	S1B,S2N
	Barred Owl	Strix varia	Breeding Sighting	3	NA	State Threatened	G5	S2B,S2N
	Barred Owl	Strix varia	Non-breeding Sighting	3	NA	State Threatened	G5	S2B,S2N
	Brown Thrasher	Toxostoma rufum	Breeding Sighting	2	NA	Special Concern	G5	S3B,S4N
	Cooper's Hawk	Accipiter cooperii	Breeding Sighting	2	NA	Special Concern	G5	S3B,S4N
	Great Blue Heron	Ardea herodias	Foraging	2	NA	Special Concern	G5	S3B,S4N
	Great Blue Heron	Ardea herodias	Nesting Colony	2	NA	Special Concern	G5	S3B,S4N
	Red-shouldered Hawk	Buteo lineatus	Breeding Sighting	4	NA	State Endangered	G5	S1B,S3N

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
	Red-shouldered Hawk	Buteo lineatus	Nest	4	NA	State Endangered	G5	S1B,S3N
	Red-shouldered Hawk	Buteo lineatus	Non-breeding Sighting	2	NA	Special Concern	G5	S1B,S3N
	Sedge Wren	Cistothorus platensis	Breeding Sighting	4	NA	State Endangered	G5	S1B,S1N
	Veery	Catharus fuscescens	Breeding Sighting	2	NA	Special Concern	G5	S3B,S4N
	Wood Thrush	Hylocichla mustelina	Breeding Sighting	2	NA	Special Concern	G4	S3B,S4N
Mammalia								
	Indiana Bat	Myotis sodalis	Active Season Sighting	5	Federally Listed Endangered	State Endangered	G2	S1
	Indiana Bat	Myotis sodalis	Maternity Colony	5	Federally Listed Endangered	State Endangered	G2	S1
	Indiana Bat	Myotis sodalis	Roost Site	5	Federally Listed Endangered	State Endangered	G2	S1
	Northern Myotis	Myotis septentrionalis	Active Season Sighting	5	Federally Listed Threatened	NA	G1 G2	S1
Reptilia								
	Bog Turtle	Glyptemys muhlenbergii	Occupied Habitat	5	Federally Listed Threatened	State Endangered	G3	S1

**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
	Spotted Turtle	<i>Clemmys guttata</i>	Occupied Habitat	2	NA	Special Concern	G5	S3
	Wood Turtle	<i>Glyptemys insculpta</i>	Occupied Habitat	3	NA	State Threatened	G3	S2

**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	2929
Potential vernal habitat area	1967
Potential vernal habitat area	1983
Total number of records:	3

**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**

Scientific Name	Common Name	Federal Protection Status	State Protection Status	Grank	Srank
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Invertebrate Animals

Polites mystic	Long Dash			G5	S3?
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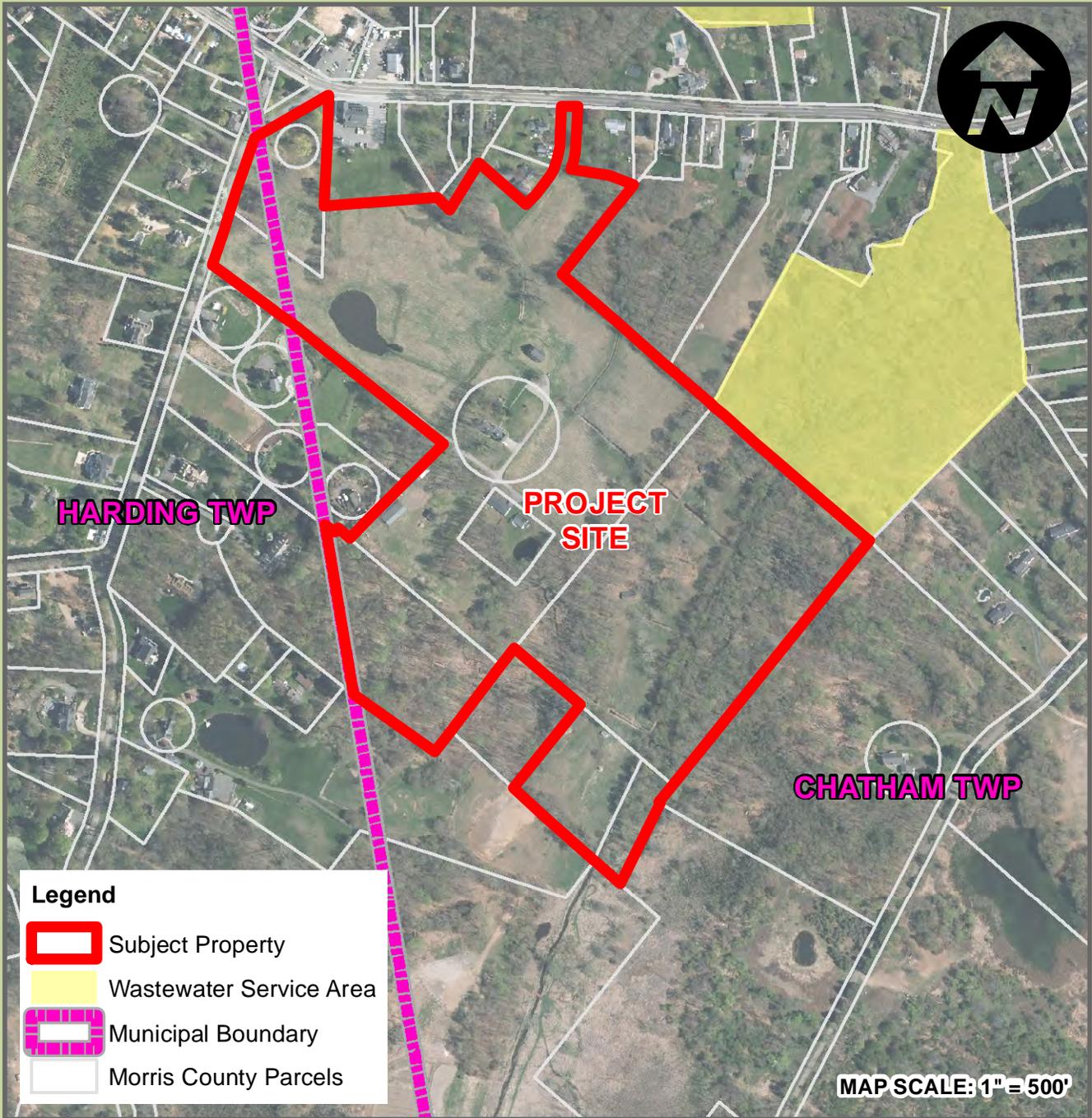
Total number of records: 1

Vertebrate Animals

Eptesicus fuscus	Big Brown Bat			G5	S3
Porzana carolina	Sora			G5	S3B,S3N
Rallus limicola	Virginia Rail			G5	S3B,S4N

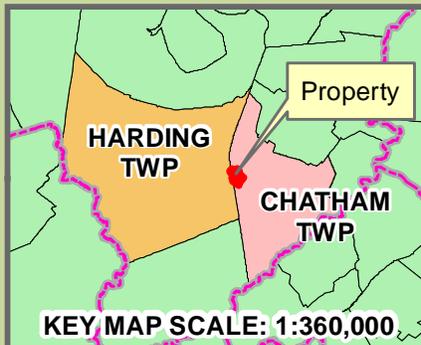
Total number of records: 3

FIGURE 12: SEWER SERVICE AREA MAP (NJDEP)



DW SMITH ASSOCIATES, LLC
 1450 State Route 34
 Wall, NJ 07753
 P. 732-363-5850
 F. 732-905-8669
 ngingther@dwsmith.com

Date: October 15, 2019
 Job Number: 19-340 T21



Ferber Farm Laydown
 Block 48.20, Lots 185 & 187
 Block 48.21, Lots 174, 174.01,
 180 & 182
 Township of Chatham
 Block 12.01, Lots 3 & 4
 Township of Harding
 Morris County, New Jersey
 (Y): 622,910 (X): 505,780