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# Wetland Delineation Report

Hightstown Redevelopment

Block 8, Lot 12;

Block 21, Lots 1 – 14, 20 and 26;

Block 30, Lots 1-13

Borough of Hightstown, Mercer County, New Jersey

January 2020

*Prepared For*

3 PRC LLC

40 Monmouth Park Highway

West Long Branch, NJ 07764

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MC Project Number 16001094B





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## 1.0 PROJECT INFORMATION

<b>Tax Parcels (Blocks &amp; Lots)</b>	Block 8, Lot 12; Block 21, Lots 1-14, 20 and 26; Block 30, Lots 1-13
<b>Municipality</b>	Hightstown Borough
<b>County</b>	Mercer County
<b>State</b>	New Jersey
<b>NJ State Plane Coordinates</b>	Northing: 523,855 Easting: 485,354
<b>U.S.G.S. Quadrangle</b>	Hightstown, NJ
<b>Total Property Area (acres)</b>	10.8 acres
<b>Nearest Stream (on-site/off-site)</b>	Rocky Brook (on-site)
<b>Watershed</b>	Millstone
<b>Drainage Basin</b>	Delaware River Drainage Basin

## 2.0 INTRODUCTION

A 10.8± acre tract of land located in the Borough of Hightstown, Mercer County, New Jersey was investigated to determine whether the property contained any wetlands or waters subject to Federal or State regulatory jurisdiction. According to the U.S. Army Corps of Engineers (USACE) and U.S. Environmental Protection Agency (USEPA) regulations described in Section 404 of the Clean Water Act (33 CFR Section 328.3 and 40 CFR Section 230.3) respectively, wetlands are "...areas that are inundated or saturated with surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions."

Currently within the State of New Jersey, the New Jersey Department of Environmental Protection (NJDEP), Division of Land Use Regulation (DLUR) is the lead agency responsible for verifying the accuracy of freshwater wetland delineations and authorizing encroachments into freshwater wetlands. The DLUR verifies the accuracy of freshwater wetland delineations through the issuance of a Letter of Interpretation (LOI). This report was prepared for the purpose of submitting an application for a LOI to the DLUR.



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### **3.0 PROPERTY DESCRIPTION**

The subject property, consisting of approximately 10.8 acres, is located in the Borough of Hightstown, Mercer County, New Jersey and is referred to as Block 8, Lot 12; Block 21, Lots 1-14, 20 and 26; Block 30, Lots 1-13. The property in question is bounded by N. Academy Street, Bank Street and N. Main Street. The current use consists primarily of dilapidated warehouse structures (RTL Merchandising, Moving, Storage and Decorations) and a former residential lot.

### **4.0 BACKGROUND INFORMATION**

Prior to performing our site inspection, several sources of information were reviewed to determine the likelihood of freshwater wetlands/waters occurring on the subject property. These sources include the U.S. Geological Survey map, the County Soil Survey and State wetlands data. A LOI was issued for a portion of the project site (all blocks and lots with the exception of block 8, lot 12) in March 2005, File No. 1104-04-0002.1, which classified the feature on site as a State open water (Appendix D).

#### ***4.1 U.S. Geological Survey Map***

The subject property appears on the Hightstown, NJ Quadrangle of the U.S. Geological Survey (USGS) Map (Appendix A). The USGS Map depicts the property as developed with structures. No wetlands are depicted on the property. A blue lined stream, Rocky Brook, is depicted traversing the site.

#### ***4.2 Soil Survey***

The National Cooperative Soil Survey, consisting of the U.S. Department of Agriculture (USDA) and other federal, state, and local agencies published soil surveys for the majority of the New Jersey counties. These soil surveys contain information on soil types and their properties that can be used in land planning. Specifically, we reviewed the USDA NRCS Web Soil Survey. Based on the web site data, the site is underlain by the following soil types:

#### **SOIL NAME**

FodC – Fort Mott, loamy, 0 to 3% slopes



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OthA – Othello silt loams, 0 to 2% slopes

SacB – Sassafras sandy loam, 2 to 5% slopes

SacC – Sassafras sandy loam, 5 to 10% slopes

The majority of the soils on site have been disturbed by past industrial and warehousing facilities and/or residential uses.

#### **4.3 State Wetland Maps**

The NJ-GeoWeb 2012 Wetlands Data Layer (NJDEP 2016) (Appendix A) does not identify wetlands on the property.

### **5.0 WETLAND DELINEATION METHODOLOGY**

The wetland delineation methodologies developed by the U.S. Army Corps of Engineers (USACE) and the U.S. Environmental Protection Agency (USEPA) as described in the Federal Manual for Identifying and Delineating Jurisdictional Wetlands were used during this investigation. These methodologies generally involve the review of three parameters (vegetation, soils, hydrology) when making a wetland or non-wetland determination.

On August 23, 2019, a representative from Maser Consulting performed site reconnaissance to delineate freshwater wetlands on the subject property. The property was walked, community types were characterized, and preliminary wetlands/waters boundaries were established on the property. Sample stations were then established along the preliminary wetlands/waters boundaries to examine vegetation, soils, and hydrology. Using this data, final wetlands/waters boundaries were established at the sample stations, from which obvious changes in vegetation, soils, and/or hydrology was used to extend the wetlands/waters boundaries to the next sample station and/or the property boundary.

Two (2) representative sample stations were established where vegetation, soils, and hydrology were observed according to the above-referenced methodologies.



## 6.0 WETLAND DELINEATION PARAMETERS

### 6.1 Vegetation

The USACE defines hydrophytic vegetation as the sum total of macrophytic plant life that occurs in areas where the frequency and duration of inundation or soil saturation produce permanently or periodically saturated soils of sufficient duration to exert a controlling influence on the plant species present (Environmental Laboratory 1987). Generally speaking, the hydrophytic vegetation parameter is satisfied when more than 50 percent of the dominant species are OBL, FACW or FAC (Table 1) on the list of plant species that occur in wetlands, which was prepared by the U.S. Fish and Wildlife Service. The National Wetland Indicator Status for plant species observed within plant communities along representative portions of the delineated wetland boundaries are included on the Wetland Determination Data Forms (Appendix B).

**Table 1. Plant Indicator Status Categories\***

<u>Indicator Category</u>	<u>Indicator Symbol</u>	<u>Definition</u>
Obligate Wetland Plants	OBL	Plants that occur almost always (estimated probability >99%) in wetlands under natural conditions, but which may also occur rarely (estimated probability <1%) in nonwetlands.
Facultative Wetland Plants	FACW	Plants that occur usually (estimated probability >67% to 99%) in wetlands, but also occur (estimated probability 1% to 33%) in nonwetlands.
Facultative Plants	FAC	Plants with a similar likelihood (estimated probability 33% to 67%) of occurring in both wetlands and nonwetlands.
Facultative Wetland Plants	FACU	Plants that occur almost always (estimated probability 1% to <33%) in wetlands, but occur more often (estimated probability >67% to 99%) in nonwetlands.
Obligate Upland Plants	UPL	Plants that occur rarely (estimated probability <1%) in wetlands under natural conditions but occur almost always (estimated probability >99%) in nonwetlands.

\* Categories were originally developed and defined by the USFWS National Wetlands Inventory and subsequently modified by the National Plant List Panel. The three facultative categories have been subdivided by (+) and (-) modifiers. FAC+ species are considered to be wetter (i.e. have a greater estimated probability of occurring in wetlands) than FAC species, while FAC- species are considered to be drier (i.e. have a lesser estimated probability of occurring in wetlands) than FAC species.

The following is a list of species typically observed within each wetland and upland plant community identified on the subject property. Freshwater wetland plant communities were described in accordance with Cowardin (1979):



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### 6.1.1 Wetland Plant Communities

No wetland communities identified adjacent to Rocky Brook a State open water.

### 6.1.2 Upland Plant Communities

#### a. Disturbed uplands

- Tree of Heaven (*Ailanthus altissima*)
- Norway maple (*Acer platanoides*)
- Catalpa (*Catalpa bignonioides*)
- Black cherry (*Prunus serotina*)
- Box Elder (*Acer negundo*)
- Sweet cherry (*Prunus avium*)
- Wineberry (*Rubus phoenicolasius*)
- Japanese honeysuckle (*Lonicera japonica*)
- Red oak (*Quercus rubra*)
- Pin Oak (*Quercus paulustris*)
- Multiflora rose (*Rosa multiflora*)
- Roundleaf greenbrier (*Smilax rotundifolia*)
- Japanese stiltgrass (*Microstegium vimineum*)
- Foxgrape (*Vitis labrusca*)

## 6.2 Soils

Hydric soils are defined as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part of the soil (USDA 2003).

Generally, soils encountered were disturbed fill materials in the uplands. Soil descriptions within representative wetland and upland areas are contained within the Wetland Determination Data Forms (Appendix B).

## 6.3 Hydrology

The project site is located in the Delaware River Drainage Basin. Hydrology indicators on the property included Rocky Brook which traverses the site. The drainage feature exhibited inundated soils and standing water.



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## **7.0 WETLAND DELINEATION SUMMARY**

Freshwater wetlands consisting of State open waters were delineated on the subject property. Photographs of representative wetland and upland areas are in Appendix C. A LOI was issued for the majority of the project site in March 2005, File No. 1104-04-0002.1, which classified the feature on site as a State open water.

Freshwater wetlands/waters were delineated using the methodologies outlined in the Federal Manual for Identifying and Delineating Jurisdictional Wetlands. To obtain formal verification of the boundary and jurisdictional status of freshwater wetlands, State open waters and transition areas on the subject property, this Wetland Delineation Report will accompany an application for a Letter of Interpretation to the New Jersey Department of Environmental Protection, Division of Land Use Regulation.





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## 8.0 LITERATURE CITED

Cowardin, L.M., V. Carter, F.C. Golet, E.T. LaRoe. 1979. Classification of wetlands and deepwater habitats of the United States. U.S. Department of the Interior, Fish and Wildlife Service, Washington D.C. Jamestown, ND: Northern Prairie Wildlife Research Center Online. <http://www.npwrc.usgs.gov/resource/wetlands/classwet/index.htm> (Version 04DEC1998).

Environmental Laboratory. 1987. "Corps of Engineers Wetlands Delineation Manual" Technical Report Y-87-1, US Army Engineer Waterways Experiment Station, Vicksburg, Miss.

Federal Interagency Committee for Wetland Delineation. 1989. Federal Manual for Identifying and Delineation Jurisdictional Wetlands. U.S. Army Corps of Engineers, U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service, and U.S.D.A. Soil Conservation Service, Washington D.C. Cooperative technical publication. 76 pp. plus appendices.

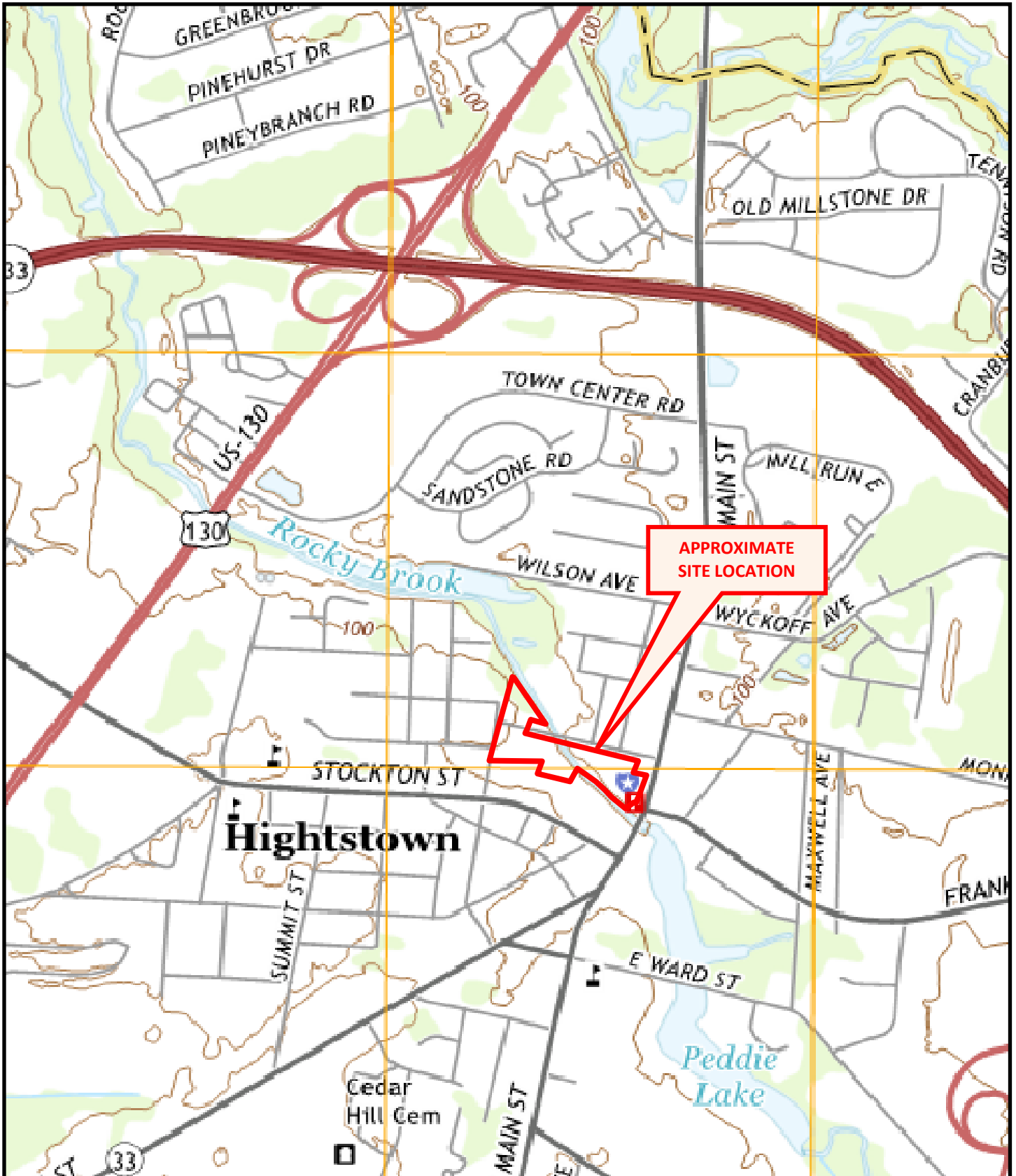
NJDEP 2010. <http://www.nj.gov/dep/gis/geoweb splash.htm>. Website accessed February 2018.

Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Available online at <http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm>. Accessed February 2018.

USDA, NRCS. 2003. Field Indicators of Hydric Soils in the United States, Version 5.01, G.W. Hurt, P.M. Whited, and R.F. Pringle (eds.). USDA, NRCS in cooperation with the National Technical Committee for Hydric Soils, Fort Worth, TX.



**APPENDIX A**  
**REPORT FIGURES**



**APPROXIMATE  
SITE LOCATION**

**Hightstown**



Corporate Headquarters  
331 Newman Springs Road  
Suite 203  
Red Bank, NJ 07701  
T: 732.383.1950  
F: 732.383.1984  
www.maserconsulting.com

**Figure 1. USGS Map**

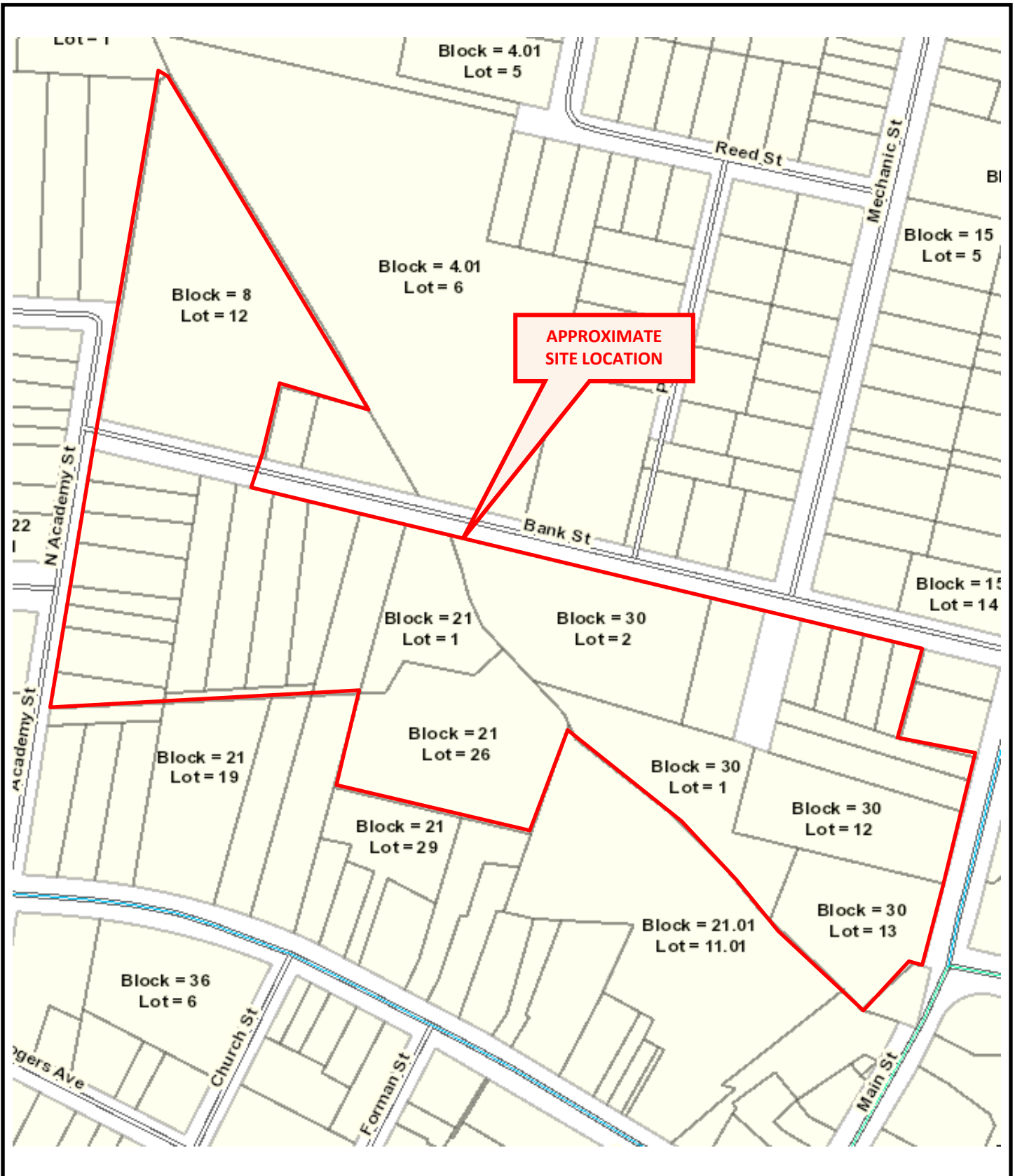
Hightstown Redevelopment  
Hightstown, New Jersey

Source: Hightstown NJ Quadrangle

Scale: Not to Scale

Date: January 14, 2020

MC Project No. 16001094A



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 331 Newman Springs Road  
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[www.maserconsulting.com](http://www.maserconsulting.com)

## Figure 2. Tax Map

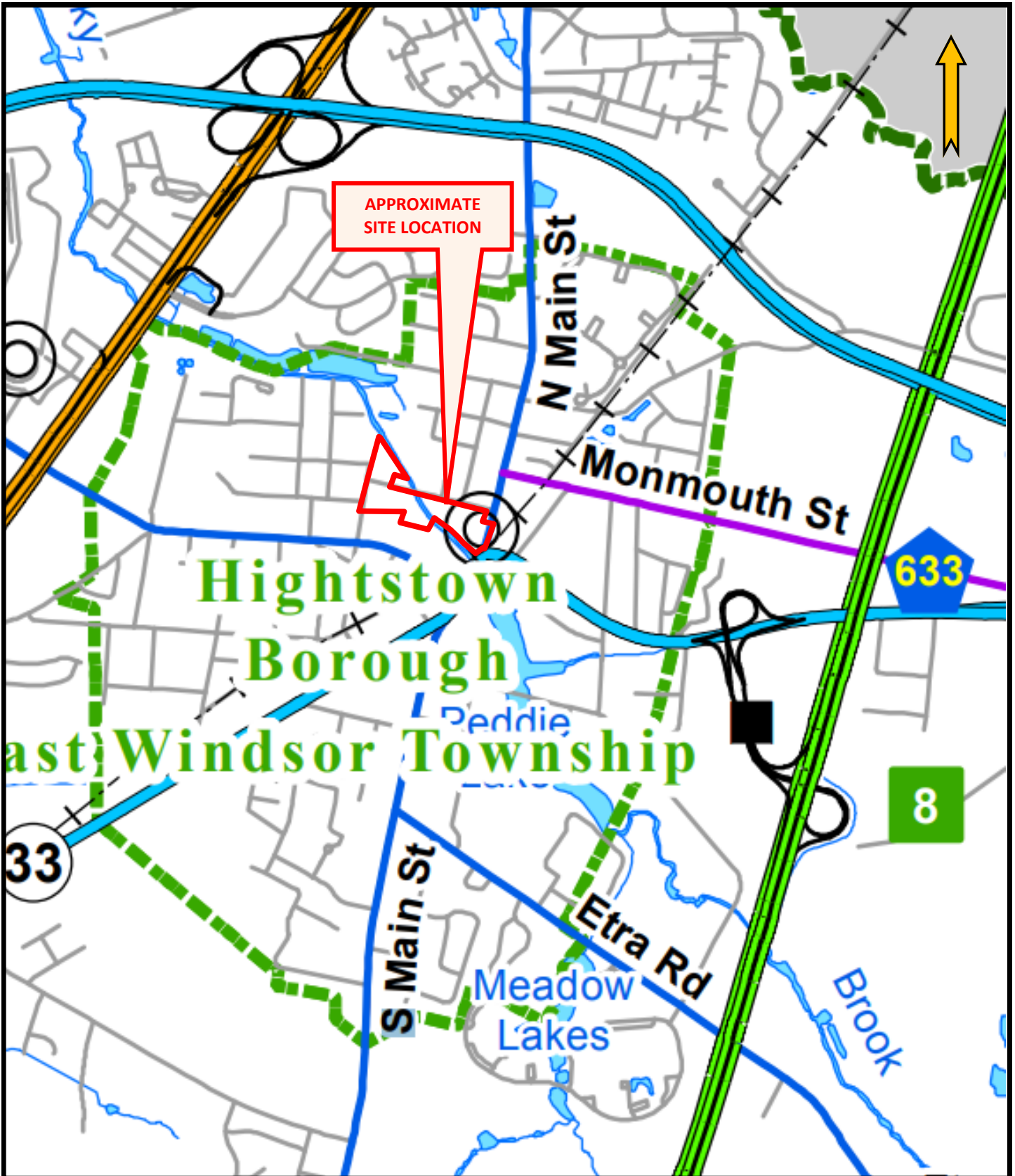
Hightstown Redevelopment  
 Hightstown, New Jersey

Source: NJ-GeoWeb

Scale: Not to Scale

Date: January 14, 2020

MC Project No. 16001094A



APPROXIMATE  
SITE LOCATION

Hightstown  
Borough

East Windsor Township

33

633

8

N Main St

Monmouth St

S Main St

Etra Rd

Meadow  
Lakes

Brook



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**Figure 3. County Road Map**

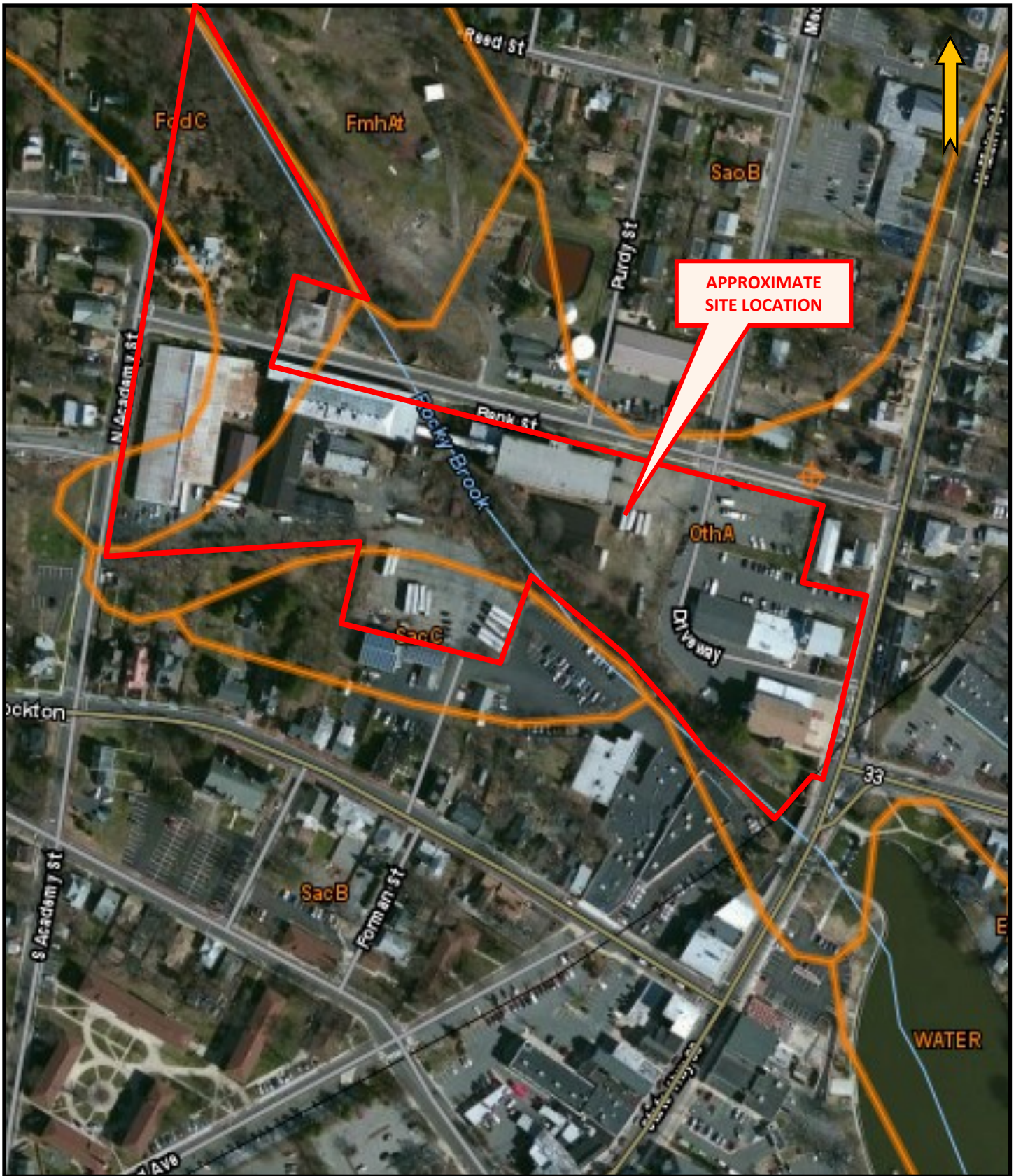
Hightstown Redevelopment  
Hightstown, New Jersey

Source: NJDOT—Mercer County

Scale: Not to Scale

Date: January 14, 2020

MC Project No. 16001094A



**APPROXIMATE  
SITE LOCATION**



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 331 Newman Springs Road  
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 F: 732.383.1984  
[www.maserconsulting.com](http://www.maserconsulting.com)

**Figure 4. Soil Map**  
 Hightstown Redevelopment  
 Hightstown, New Jersey

Source: NRCS Web Soil Survey, 2018

Scale: Not to Scale

Date: January 14, 2020

MC Project No. 16001094A



**APPENDIX B**

**WETLAND DETERMINATION DATA FORMS**

**DATA FORM  
ROUTINE WETLAND DETERMINATION  
(1987 COE Wetland Delineation Manual)**

Project/Site: <u>Hightstown Redevelopment</u>	Date: <u>August 16, 2019</u>
Applicant/Owner: <u>40 Monmouth Park Highway</u>	County: <u>Mercer</u>
Investigator: <u>Joseph P Layton</u>	State: <u>NJ</u>
Do Normal Circumstances exist on the site? <span style="float:right;"><input checked="" type="radio"/> Yes <input type="radio"/> No</span>	Community ID: <u>Wetland</u>
Is the site significantly disturbed (Atypical Situation)? <span style="float:right;"><input type="radio"/> Yes <input type="radio"/> No</span>	
Is the area a potential Problem Area? <span style="float:right;"><input type="radio"/> Yes <input type="radio"/> No</span> (If needed, explain in the Wetland Determination remarks section.)	
Transect ID: <u>OW-4</u>	
Plot ID: <u>#1</u>	

**VEGETATION**

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <i>None</i>			9.		
2.			10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC<sup>-</sup>): 100

Remarks:  
Non-dominant species: N/A Rocky Brook is the regulated feature within a former industrial complex

**HYDROLOGY**

<p><input type="checkbox"/> Recorded Data (Describe in Remarks):</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Stream, Lake, or Tide Gauge</li> <li><input type="checkbox"/> Aerial Photographs</li> <li><input type="checkbox"/> Other</li> </ul> <p><input checked="" type="checkbox"/> No Recorded Data Available</p> <p>Field Observations:</p> <p>Depth of Surface Water: <input style="width: 40px; text-align: center;" type="text" value="0-10"/> inches</p> <p>Depth to Free Water in Pit: <input style="width: 40px; text-align: center;" type="text" value="N/A"/> inches</p> <p>Depth to Saturated Soil: <input style="width: 40px; text-align: center;" type="text" value="N/A"/> inches</p>	<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Inundated</li> <li><input type="checkbox"/> Saturated in Upper 12 inches</li> <li><input type="checkbox"/> Water Marks</li> <li><input type="checkbox"/> Drift Lines</li> <li><input type="checkbox"/> Sediment Deposits</li> <li><input checked="" type="checkbox"/> Drainage Patterns in Wetlands</li> </ul> <p>Secondary Indicators (2 or more required):</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Oxidized Root Channels in Upper 12inches</li> <li><input type="checkbox"/> Water-Stained Leaves</li> <li><input type="checkbox"/> Local Soil Survey Data</li> <li><input type="checkbox"/> FAC-Neutral Test</li> <li><input type="checkbox"/> Other (Explain in Remarks)</li> </ul>
Remarks:  Rocky Brook	





**DATA FORM  
ROUTINE WETLAND DETERMINATION  
(1987 COE Wetland Delineation Manual)**

Project/Site: <u>Hightstown Redevelopment</u> Applicant/Owner: <u>40 Monmouth Park Highway</u> Investigator: <u>Joseph P Layton</u>	Date: <u>August 16, 2019</u> County: <u>Mercer</u> State: <u>NJ</u>
Do Normal Circumstances exist on the site? <span style="float: right;"><input checked="" type="radio"/> Yes <input type="radio"/> No</span> Is the site significantly disturbed (Atypical Situation)? <span style="float: right;"><input type="radio"/> Yes <input type="radio"/> No</span> Is the area a potential Problem Area? <span style="float: right;"><input type="radio"/> Yes <input type="radio"/> No</span> (If needed, explain in the Wetland Determination remarks section.)	Community ID: <u>Upland</u> Transect ID: <u>OW-4</u> Plot ID: <u>#2</u>

**VEGETATION**

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <i>Ailanthus altissima</i>	Tree	NI	9.		
2. <i>Artemisia vulgaris</i>	Herb	NI	10.		
3. <i>Acer platanoides</i>	Tree	NI	11.		
4. <i>Catalpa bignonioides</i>	Tree	FACU	12.		
5. <i>Lonicera japonica</i>	Vine	FACU	13.		
6. <i>Quercus paulustris</i>	Tree	FACW	14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC<sup>-</sup>): 0

Remarks:  
Non-dominant species: 25%

**HYDROLOGY**

<p><input type="checkbox"/> Recorded Data (Describe in Remarks):</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Stream, Lake, or Tide Gauge</li> <li><input type="checkbox"/> Aerial Photographs</li> <li><input type="checkbox"/> Other</li> </ul> <p><input checked="" type="checkbox"/> No Recorded Data Available</p> <p>Field Observations:</p> <p>Depth of Surface Water: <input type="text" value="N/A"/> inches</p> <p>Depth to Free Water in Pit: <input type="text" value="N/A"/> inches</p> <p>Depth to Saturated Soil: <input type="text" value="N/A"/> inches</p>	<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Inundated</li> <li><input type="checkbox"/> Saturated in Upper 12 inches</li> <li><input type="checkbox"/> Water Marks</li> <li><input type="checkbox"/> Drift Lines</li> <li><input type="checkbox"/> Sediment Deposits</li> <li><input type="checkbox"/> Drainage Patterns in Wetlands</li> </ul> <p>Secondary Indicators (2 or more required):</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Oxidized Root Channels in Upper 12 inches</li> <li><input type="checkbox"/> Water-Stained Leaves</li> <li><input type="checkbox"/> Local Soil Survey Data</li> <li><input type="checkbox"/> FAC-Neutral Test</li> <li><input type="checkbox"/> Other (Explain in Remarks)</li> </ul>
<p>Remarks:</p> <p>No evidence of wetland hydrology</p>	

**SOILS**

Map Unit Name(Series and Phase): NA			Drainage Class:				
Soil Taxonomy (Subgroup):			Field Observations: Confirm Mapped Type?				
Profile Description:							
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.		
0-6		10YR 3/8			Fill material		
<p>Hydric Soil Indicators:</p> <table style="width:100%; border:none;"> <tr> <td style="width:50%; border:none;"> <input type="checkbox"/> Histosol  <input type="checkbox"/> Histic Epipedon  <input type="checkbox"/> Sulfidic Odor  <input type="checkbox"/> Aquic Moisture Regime  <input type="checkbox"/> Reducing Conditions  <input type="checkbox"/> Gleyed or Low-Chroma Colors                 </td> <td style="width:50%; border:none;"> <input type="checkbox"/> Concretions  <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils  <input type="checkbox"/> Organic Streaking in Sandy Soils  <input type="checkbox"/> Listed on Local Hydric Soils List  <input type="checkbox"/> Listed on National Hydric Soils List  <input type="checkbox"/> Other (Explain in Remarks)                 </td> </tr> </table>						<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Reducing Conditions <input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Concretions <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Reducing Conditions <input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Concretions <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Other (Explain in Remarks)						
<p>Remarks:</p> <p>Soils appear to be non-indigenous fill material. Refusal at 6"</p>							

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present?    Yes <input type="radio"/> No Wetland Hydrology Present?        Yes <input type="radio"/> No Hydric Soils Present?                Yes <input type="radio"/> No	Is this Sampling Point Within a Wetland?    Yes <input type="radio"/> No
Remarks:	

**DATA FORM  
ROUTINE WETLAND DETERMINATION  
(1987 COE Wetland Delineation Manual)**

Project/Site: <u>Hightstown Redevelopment</u> Applicant/Owner: <u>40 Monmouth Park Highway</u> Investigator: <u>Joseph P Layton</u>	Date: <u>August 16, 2019</u> County: <u>Mercer</u> State: <u>NJ</u>
Do Normal Circumstances exist on the site? <span style="float: right;"><input checked="" type="radio"/> Yes <input type="radio"/> No</span> Is the site significantly disturbed (Atypical Situation)? <span style="float: right;"><input type="radio"/> Yes <input type="radio"/> No</span> Is the area a potential Problem Area? <span style="float: right;"><input type="radio"/> Yes <input type="radio"/> No</span> (If needed, explain in the Wetland Determination remarks section.)	Community ID: <u>Wetland</u> Transect ID: <u>OW-12</u> Plot ID: <u>#3</u>

**VEGETATION**

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <i>None</i>			9.		
2.			10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC<sup>-</sup>): 100

Remarks:  
Non-dominant species: N/A Rocky Brook is the regulated feature within a former industrial complex

**HYDROLOGY**

<p><input type="checkbox"/> Recorded Data (Describe in Remarks):</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Stream, Lake, or Tide Gauge</li> <li><input type="checkbox"/> Aerial Photographs</li> <li><input type="checkbox"/> Other</li> </ul> <p><input checked="" type="checkbox"/> No Recorded Data Available</p> <p>Field Observations:</p> <p>Depth of Surface Water: <input style="width: 40px; text-align: center;" type="text" value="0-10"/> inches</p> <p>Depth to Free Water in Pit: <input style="width: 40px; text-align: center;" type="text" value="N/A"/> inches</p> <p>Depth to Saturated Soil: <input style="width: 40px; text-align: center;" type="text" value="N/A"/> inches</p>	<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Inundated</li> <li><input type="checkbox"/> Saturated in Upper 12 inches</li> <li><input type="checkbox"/> Water Marks</li> <li><input type="checkbox"/> Drift Lines</li> <li><input type="checkbox"/> Sediment Deposits</li> <li><input checked="" type="checkbox"/> Drainage Patterns in Wetlands</li> </ul> <p>Secondary Indicators (2 or more required):</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Oxidized Root Channels in Upper 12inches</li> <li><input type="checkbox"/> Water-Stained Leaves</li> <li><input type="checkbox"/> Local Soil Survey Data</li> <li><input type="checkbox"/> FAC-Neutral Test</li> <li><input type="checkbox"/> Other (Explain in Remarks)</li> </ul>
Remarks:  Rocky Brook	



**DATA FORM  
ROUTINE WETLAND DETERMINATION  
(1987 COE Wetland Delineation Manual)**

Project/Site: <u>Hightstown Redevelopment</u> Applicant/Owner: <u>40 Monmouth Park Highway</u> Investigator: <u>Joseph P Layton</u>	Date: <u>August 16, 2019</u> County: <u>Mercer</u> State: <u>NJ</u>
Do Normal Circumstances exist on the site? <span style="float: right;"><input checked="" type="radio"/> Yes <input type="radio"/> No</span> Is the site significantly disturbed (Atypical Situation)? <span style="float: right;"><input type="radio"/> Yes <input type="radio"/> No</span> Is the area a potential Problem Area? <span style="float: right;"><input type="radio"/> Yes <input type="radio"/> No</span> (If needed, explain in the Wetland Determination remarks section.)	Community ID: <u>Wetland</u> Transect ID: <u>OW-12</u> Plot ID: <u>#4</u>

**VEGETATION**

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <i>Ailanthus altissima</i>	Tree	NI	9.		
2. <i>Artemisia vulgaris</i>	Herb	NI	10.		
3. <i>Quercus rubra</i>	Tree	FACU	11.		
4. <i>Taraxacum officinale</i>	Herb	FACU-	12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC<sup>-</sup>): 0

Remarks:  
Non-dominant species: 0

**HYDROLOGY**

<p><input type="checkbox"/> Recorded Data (Describe in Remarks):</p> <div style="margin-left: 20px;"> <input type="checkbox"/> Stream, Lake, or Tide Gauge  <input type="checkbox"/> Aerial Photographs  <input type="checkbox"/> Other         </div> <p><input checked="" type="checkbox"/> No Recorded Data Available</p> <p>Field Observations:</p> <p style="margin-left: 20px;">Depth of Surface Water: <input type="text" value="N/A"/> inches</p> <p style="margin-left: 20px;">Depth to Free Water in Pit: <input type="text" value="N/A"/> inches</p> <p style="margin-left: 20px;">Depth to Saturated Soil: <input type="text" value="N/A"/> inches</p>	<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators:</p> <div style="margin-left: 20px;"> <input type="checkbox"/> Inundated  <input type="checkbox"/> Saturated in Upper 12 inches  <input type="checkbox"/> Water Marks  <input type="checkbox"/> Drift Lines  <input type="checkbox"/> Sediment Deposits  <input type="checkbox"/> Drainage Patterns in Wetlands         </div> <p>Secondary Indicators (2 or more required):</p> <div style="margin-left: 20px;"> <input type="checkbox"/> Oxidized Root Channels in Upper 12inches  <input type="checkbox"/> Water-Stained Leaves  <input type="checkbox"/> Local Soil Survey Data  <input type="checkbox"/> FAC-Neutral Test  <input type="checkbox"/> Other (Explain in Remarks)         </div>
Remarks:  No evidence of wetland hydrology	





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**APPENDIX C**  
**PHOTOGRAPHS**





**HIGHTSTOWN REDEVELOPMENT  
MC PROJECT NO. 16001094A**



**Characterizing the central and eastern portions of the site.**



**Characterizing the central and eastern portions of the site.**



**Characterizing the central and southern portions of the site.**



**Characterizing central and southern portions of the site.**



**Characterizing the central portion of the site, Rocky Brook and existing structures.**



**Characterizing the central portion of the site, Rocky Brook and existing structures.**



**HIGHTSTOWN REDEVELOPMENT  
MC PROJECT NO. 16001094A**



**Characterizing the western portion of the site along North Academy Street and existing structures.**



**Characterizing the southwestern portion of the site and existing structures.**



**HIGHTSTOWN REDEVELOPMENT  
MC PROJECT NO. 16001094A**



**Characterizing the central and western portions of the site.**



**Characterizing the southern portion of the site south of Rocky Brook.**



**HIGHTSTOWN REDEVELOPMENT  
MC PROJECT NO. 16001094A**



**Characterizing the southwestern portion of the site.**



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**APPENDIX D**  
**LETTER OF INTERPRETATION**



Permit, con, DAS  
JLO 04-0073A

State of New Jersey

Department of Environmental Protection

Bradley M. Campbell  
Commissioner

Richard J. Codey  
Acting Governor

Land Use Regulation Program  
P.O. Box 439, Trenton, NJ 08625-0439  
Fax # (609) 292-8115  
www.state.nj.us/dep/landuse

Michael L. Francis, Ph.D.  
Maser Consulting, P.A.  
4621 Nottingham Way  
Suite 8  
Hamilton Square, NJ 08690

MAR 14 2005

RE: Freshwater Wetlands Letter of Interpretation/Line Verification  
Program Interest No.: 1104-04-0002.1  
Activity No.: FWW-FWLI4-040001  
Applicant: John Wolfington, Greystone Capitol Partners, LLC  
Block: 21 Lots: 1-14 & 26  
Block: 30 Lots: 1-7 & 10-13  
Hightstown Borough, Mercer County

Dear Dr. Francis:

This letter is in response to your request for a Letter of Interpretation to verify the jurisdictional boundary of the freshwater wetlands and waters on the referenced property.

In accordance with agreements between the State of New Jersey Department of Environmental Protection, the U.S. Army Corps of Engineers Philadelphia and New York Districts, and the U.S. Environmental Protection Agency, the NJDEP, Land Use Regulation Program is the lead agency for establishing the extent of State and Federally regulated wetlands and waters. The USEPA and/or USACOE retain the right to reevaluate and modify the jurisdictional determination at any time should the information prove to be incomplete or inaccurate.

Based upon the information submitted, and upon a site inspection conducted on January 19, 2005, the Land Use Regulation Program has determined that the wetlands and waters boundary line(s) as shown on the plan map entitled: "ALTA/ACSM LAND TITLE SURVEY FOR GREYSTONE CAPITOL PARTNERS, LLC, LOTS 1, 2, 3, 4, 5, 6, 7, 10, 11, 12, & 13, BLOCK 30, LOTS 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, & 26, BLOCK 21, SITUATE IN BOROUGH OF HIGHTSTOWN, MERCER COUNTY, NEW JERSEY", dated September 22, 2004, last revised, December 21, 2004, and prepared by Maser Consulting P.A., is accurate as shown.

Any activities regulated under the Freshwater Wetlands Protection Act proposed within the wetlands or transition areas or the deposition of any fill material into any water area. will require a permit from this office unless exempted under the Freshwater Wetlands Protection Act, N.J.S.A. 13:9B -1 *et seq.* and implementing rules, N.J.A.C. 7:7A. A copy of this plan, together with the information upon which this boundary determination is based, has been made part of the Program's public records.



Pursuant to the Freshwater Wetlands Protection Act Rules (N.J.A.C. 7:7A-1 *et seq*), you are entitled to rely upon this jurisdictional determination for a period of five years from the date of this letter.

The freshwater wetlands and waters boundary line(s), as determined in this letter, must be shown on any future site development plans. The line(s) should be labeled with the above LURP file number and the following note:

“Freshwater Wetlands/Waters Boundary Line as verified by NJDEP PI No. 1104-04-0002.1”

In addition, the Department has identified State Open Waters on the property, they are noted on the referenced plan: WL OW1 – WL OW 8, WL OW9 – WL OW20, WL OW104 – WL OW100. It should be noted that a buffer is not required adjacent to State Open Waters under the Freshwater Wetlands Protection Act, but a 25-foot buffer is required under the Flood Hazard Control Act. This classification may affect the requirements for an Individual Wetlands Permit (see N.J.A.C. 7:7A-7), the types of Statewide General Permits available for the wetlands portion of this property (see N.J.A.C. 7:7A-5), and the modification available through a transition area waiver (see N.J.A.C. 7:7A-6). Please refer to the Freshwater Wetlands Protection Act (N.J.S.A. 13:9B-1 *et seq*) and implementing rules for additional information.

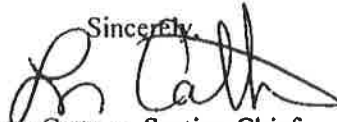
It should be noted that this determination of wetland classification is based on the best information presently available to the Department. The classification is subject to change if this information is no longer accurate, or as additional information is made available to the Department, including, but not limited to, information supplied by the applicant.

This letter in no way legalizes any fill, which may have been placed, or other regulated activities, which may have occurred on-site. Also this determination does not affect your responsibility to obtain any local, State, or Federal permits which may be required.

In accordance with N.J.A.C. 7:7A-1.7, any person who is aggrieved by this decision may request a hearing within 30 days of the decision date by writing to: New Jersey Department of Environmental Protection, Office of Legal Affairs, Attention: Adjudicatory Hearing Requests, PO Box 402, Trenton, NJ 08625-0402. This request must include a completed copy of the Administrative Hearing Request Checklist.

Please contact Courtney Levering of our staff at (609) 777-0454, should you have any questions regarding this letter. Be sure to indicate the Program's interest number in all communication.

Sincerely,

A handwritten signature in black ink, appearing to read "Lou Cattuna". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Lou Cattuna, Section Chief  
Bureau of Inland Regulation

c: Hightstown Borough Environmental Commission  
Hightstown Borough Municipal Clerk  
Hightstown Borough Municipal Construction Official



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**APPENDIX E**  
**QUALIFICATIONS OF PREPARERS**

## JOSEPH P. LAYTON

Assistant Department Manager, Ecological Services

### EDUCATION

- B.S., Environmental Planning and Natural Resource Management Rutgers University, Cook College NJ

### PROFESSIONAL AFFILIATIONS

- Certified Subsurface Evaluator, License #229606
- Ecological Society of America
- Environmental Assessment Association - Certified Environmental Specialist
- Society of Wetland Scientists
- Radon Measurement Specialist #MES11066
- 40-Hour NJ/EPA Model Lead Inspector/Risk Assessor
- 40-Hour OSHA Hazwoper Training

### PROFESSIONAL CERTIFICATIONS

- 40-Hour NJ/EPA Model Lead Inspector/Risk Assessor
- 40-Hour OSHA Hazwoper Training
- 8-Hour OSHA Hazwoper Refresher Training
- Certified Environmental Specialist
- Certified Remediation Specialist
- Professional Ski Instructor of America – Level II Certification Eastern Division

### PROFESSIONAL REGISTRATIONS

- NJDEP Certified Subsurface Evaluator, License #229606
- NJDEP Certified Underground Storage Tank Closure
- Radon Measurement Specialist #MES11066

### EXPERIENCE

Mr. Layton is an Environmental Scientist with over 19 years of experience including an extensive background and expertise in environmental sciences. His expertise includes an emphasis on wetland delineation, regulatory permitting and compliance, environmental assessment, environmental impact analysis, soil evaluation. His diversified experience also includes natural resource evaluations, ecological research, watershed management, subsurface explorations, underground storage tank exploration and removal, soil classification systems, environmental sampling design and protocol in accordance with State and Federal regulations. Geographic Information Systems (GIS) and Global Positioning Systems (GPS) is utilized in environmental sampling and studies which includes site remediation design and sampling, groundwater and surface water quality monitoring and management, as well as lake rehabilitation/restoration.

As Senior Project Manager, Mr. Layton has utilized the aforementioned experience and technical skills to successfully assist clients with litigation support, regulatory compliance and has been deemed an expert in the field by various Planning and Zoning Boards while providing testimony regarding the same.

Mr. Layton's proven dedication to client satisfaction has resulted in long standing professional relationships. His client base includes private development and redevelopment companies, municipalities, county governments, infrastructure authorities, daycare facilities, higher education institutions, financial institutions, utility companies and law firms.

### CONTINUING EDUCATION

- Methodology for Delineating Wetlands, Cook College.
- Vegetation Identification for Wetland Delineation, Cook College
- Hydrology of Wetlands, Cook College
- Endangered & Threatened Species of New Jersey , Cook College
- Lake Management, Cook College
- Soils and Site Evaluation for Septic Disposal Systems & Stormwater BMP's , Cook College
- Site Remediation Basics, Cook College
- Remedial Decision Making, Cook College
- Ecological Risk Management, Cook College

The subsequent page consists of a sampling of highlighted projects Mr. Layton has worked on. A more detailed list of projects can be provided if necessary.



JOSEPH P. LAYTON

## HIGHLIGHTED PROJECTS

### Wetland Delineation

- **Runyon Interceptor Trunk Sanitary Sewer Line Alignment  
Township of Old Bridge, NJ**

Determined alignment of 2 miles of sanitary sewer on a 400-acre+ site using aerial photography and site reconnaissance minimizing impacts to numerous wetland communities.

### Permit Allocation

- **National Lead Redevelopment  
Borough of Sayreville, NJ**

Prepared and obtained numerous Coastal and Land Use permits from the NJDEP-DLUR and USACE to effectuate remediation of the largest redevelopment project currently in the State of New Jersey.

- **Transcontinental Gas Pipeline Armoring  
Township of Hopewell, NJ**

Prepared and obtained an Individual Permit from the NJDEP-DLUR to permanently disturb a stream and its associated wetland to construct armoring to protect a Transcontinental Gas Pipeline.

### Environmental Assessments/Regulatory Compliance

- **Heavenly Farms**

- **East Brunswick, Township, NJ**

- Prepared and performed Preliminary Remedial Investigation/Action to obtain a "Letter of No Further Action" for a 230-acre farm with contaminated soils for development of recreational fields.

- **Marlboro Psychiatric State Hospital**

- **Marlboro, NJ**

- Consultant to the Township of Marlboro regarding the municipality purchasing a 411-acre State owned psychiatric hospital. Responsible for identifying areas of environmental concern, review of environmental investigation and remediation reporting generated by State contractors and making recommendations to the municipality regarding environmental concerns and purchase of the property.

- **Columbian Chemicals Mapico Iron Oxide Plant**

- **South Brunswick Township, NJ**

- Prepared and performed preliminary assessment/site investigation, remedial Investigation/Action and Baseline Ecological Evaluation to obtain a "Letter of No Further Action" from the NJDEP to develop an 86-acre former chemical plant in a residential land use. Extensive soil and groundwater contamination was remediated.

- **The Villas at Shoregate**

- **South Amboy, NJ**

- Prepared and performed Preliminary Assessment/Site investigation to obtain a "Letter of No Further Action" for a 16-acre, former dredge disposal area adjacent to the Raritan Bay.



