ENVIRONMENTAL IMPACT STATEMENT

FOR

JUMPING BROOK CORPORATE PARK

BLOCK 4006, LOT 1
TOWNSHIP OF NEPTUNE
MONMOUTH COUNTY, NEW JERSEY

DATE: JUNE 20 , 2017
REVISED AUGUST 24, 2017
REVISED MAY 20, 2019

PREPARED BY:

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Reference No. 15-736.00.00

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I ENVIRONMENTAL IMPACT STATEMENT

1.01 EXECUTIVE SUMMARY

This report has been prepared In accordance with the Township of Neptune Land Use Ordinance governing Environmental Impact Statements.

This Environmental Impact Statement (EIS) addresses potential environmental impacts associated with the proposed Jumping Brook Corporate Park. The site is known as:

Block 4006, Lot 1
Neptune Township, Monmouth County, NJ.

The applicant is:

Neptune Hotel, LLC
150 Onix Drive
Kennett Square, PA 19348

The Jumping Brook Corporate Park project has been previously approved by Neptune Township Planning Board Resolution No. 09-12, adopted May 20, 2009, #12-10 adopted 2/8/12 & #12-12 adopted 4/25/12. The Amended Site Plan seeks to provide a five-story hotel in lieu of the approved restaurant.

This Environmental Impact Statement examines existing environmental conditions of the property affected bu the proposed improvements of the project site, in addition to providing an evaluation and assessment of impacts of the proposed improvements on the ambient environment. This study further provides (a) details regarding how the project conforms to local and State laws and regulations; (b) the permits that will be required from various review agencies; (c) measures to be taken to mitigate any environmental impacts; and (d) discusses whether alternatives to the proposed project were considered during the design process.

The applicant proposes to construct a commercial development with parking, driveways, and other associated frastructure.

An adjacent lot has received a Letter of Interpretation from the N.J. Department of Environmental Protection verifying that wetlands on surrounding property and wetlands buffers have no impact on the property and that there are no wetlands on the subject site.

This environmental investigation has attempted to outline how the project will comply with local and State laws and regulations whenever encroachment upon

environmentally sensitive lands will take place. It was prepared in accordance with the Township of Neptune Master Plan, the Master Plans of adjacent communities, the Monmouth County Master Plan and the New Jersey State Development and Redevelopment Plan. Inasmuch as the laws and regulations in place were designed to provide guidelines and requirements that minimize environmental degradation, the issuance of permits and approvals will demonstrate compliance.

Based upon our analysis as outlined within this document, the following report has concluded that construction of the project as proposed will have minimal adverse environmental impacts to the site and surrounding areas.

1.02 PREPARERS OF THIS REPORT

The environmental or allied professionals who either directly contributed to or were consulted in the preparation of this Environmental Impact Statement and their specialties are listed below with detailed credentials of the author found in the Appendix.

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1.03 SITE VISITS

Site visits have been made by DWSA personnel to assess the site's development potential with regards to vegetation identification, soils investigations, and wildlife observations.

II PROJECT DESCRIPTION

2.01 SITE DESCRIPTION

Tax Map & Acreage

The subject property fronts on McNamara Way and New Jersey State Highway Route (NJSH) 66. Access will be provided to the site from McNamara Way. The site consists of approximately 4.45 acres.

Existing Land Use

The subject site is located within the Planned Commercial Development (C-1) zone and offers sufficient land, access and flat topography suitable for the proposed commercial development. The subject site contains a 109 room hotel and associated improvements and a vacant “pad” site, surrounded by supporting improvements, that had been intended for a restaurant. The proposed project is both physically suited to the site and will provide a use appropriate to the site and municipality.

The zones surrounding the subject property are also zoned C-1 and those to the east are zoned within the Planned Unit Development (PUD) and Very Low Density Single-Family Residential (R-1) zone districts.

2.02 PROPOSED PROJECT

Description

The proposed development, which is the subject of this report, is compatible with the permitted uses in the vicinity. Therefore, the proposed use is in character with the surrounding area. The applicant is proposing to construct a five-story hotel in lieu of the previously approved restaurant, along with all parking, utilities and all infrastructure.

Design

The proposed development will follow the design requirements outlined in the Neptune Township Land Use Ordinance, which will include the following:

- Amended Site Plan for 5-story hotel
- Design of associated driveways, utilities and other infrastructure
- Site grading
- Total impervious coverage: 62.30 percent
- 198 off-street parking spaces
- Landscaping and Lighting Plan
- Soil Erosion and Sediment Control Plan

The final design will take into consideration the environmental constraints of the site and regulations that govern stormwater management, soil erosion and sediment control.

III EXISTING ENVIRONMENTAL CONDITIONS

3.01 AIR QUALITY

Air Quality Overview

The NJDEP publishes a summary of New Jersey air quality data on an annual basis. Based on the indicators monitored, air quality in New Jersey has improved significantly since the passage of the original Clean Air Act. There are several air pollutants, which are used as indicators of air quality for which National Ambient Air Quality Standards (NAAQS) have been established. The following information is taken from the NJDEP Air Quality Report (2007).

A sulfur dioxide monitoring station is located in Colliers Mills. The NJDEP has established a standard of 0.5 ppm for the 3-hour maximum, which cannot be exceeded, more than once in any 12-month period for sulfur dioxide. This standard has not been exceeded for the regional area. The 12-month maximum of 0.03 ppm has also not been exceeded. Sulfur dioxide emissions primarily result from the combustion of fossil fuels containing sulfur.

The particulate concentration 12-month geometric primary standard of 75 micrograms per cubic meter has not been exceeded according to the monitoring station in Freehold. The carbon monoxide 1-hour average primary standard of 35 ppm has not been exceeded as recorded. The predominant source of CO emissions is gasoline fueled automobiles and trucks. The nitrogen dioxide standard of 0.25 ppm for the 1-hour average guideline has also not been exceeded.

No air quality violations are listed for any of the air monitoring centers in regional proximity to the site[1]. Therefore, in the absence of more specific local data, a reasonable preliminary conclusion can be drawn that overall regional air quality is good and no irreversible impacts are anticipated from construction of the proposed project.

3.02 WATER RESOURCES

Surface Waters

There are no surface waters on the site. There are no streams on the site, and the closest water body is Wells Brook, to the south. The site is located within the Jumping Brook subwatershed of the Whale Pond Brook/Shark River/Wreck Pond, Watershed Management Area 12 .

[1] Freehold, NJ; Colliers Mills, NJ; Monmouth University, Long Branch, NJ.

Wetlands

Although NJDEP geographic information systems wetlands data shows wetlands on the site, field observations indicates that the site does not contain freshwater wetlands[2].

Surface Water Quality Standards (NJAC 7:9B)

Special Water Resource Protection Areas ("SWRPA") – Are those areas within 300 feet of Category One (C-1) waters and their immediate tributaries as outlined in table one of the NJAC 7.9B-1.15. C-1 waters are waters that receive special protection because of their clarity, color, scenic setting or other characteristics of aesthetic value, exceptional ecological significance, exceptional recreational significance, exceptional water supply significance or exceptional fisheries resource(s).

In addition, the special water resource protection area is required adjacent to those waters that drain to the Category One water within the limits of the associated sub-watershed (HUC-14). The SWRPA area is intended as a buffer between development and these special waters in order to protect both water quality and the attributes for which the waters have been designated. Based on the Department's review of existing scientific literature, the NJDEP determined that 300 feet was necessary to prevent water quality degradation and to protect the attributes for which C-1 waters have been designated.

The term "HUC-14" is from the "Hydrologic Unit Code (HUC)" system developed by the United States Geological Service for delineating and identifying drainage areas. The system starts with the largest possible drainage areas and progressively smaller subdivisions of the drainage area are delineated and numbered in a nested fashion.

A drainage area with a HUC designation with 14 numbers, or HUC-14, is one of several sub-watersheds of a larger watershed with 11 numbers, or a HUC-11. There are 921 HUC-14 sub watersheds in New Jersey that range in size from 0.1 to 42 square miles. The average size of a HUC-14 is 8.5 square miles. There are 150 HUC-11 watersheds in New Jersey ranging in size from 0.1 to 143 square miles with an average size of 51.9 square miles.

[2] A NJDEP *Freshwater Wetlands Letter of Interpretation* **for other phases of the project** has been received (*NJDEP Permit No. 1334-02-0005.1*), which was approved by the Department on December 19, 2007, and expires on June 30, 2017 via the Permit Extension Act. The maps approved by this LOI indicate no wetlands on the project site.

C-1 Water / HUC-14 Findings

The New Jersey Department of Environmental Protection has provided the state's highest level of water-quality protection to C1 waterways .

The Category One (C1) status, based on exceptional water supply significance, prevents only measurable degradation of existing water quality and limits the impact of development and discharges to the streams. New Jersey's comprehensive stormwater-management regulations require 300-foot vegetative buffers around high quality C1 waterways to help filter pollutants.

Wells Brook is FW2-NT/SE1[3] and is located within the Jumping Brook subwatershed of the Whale Pond Brook/Shark River/Wreck Pond watershed. Based upon the information available from the NJDEP, **C1 waters are not located within 300 feet of the subject property.**

Aquifer and Confining Unit Ranking Chart

Aquifers in New Jersey can be ranked on their ability to yield groundwater to high-capacity wells. These wells include water supply, irrigation, and industrial-supply wells sited and tested for maximum yield. Many of the wells have boreholes exceeding the standard six-inch diameter for domestic wells. The five aquifer-rank values (A, B, C, D, and E) are based on a statistical analysis of median yields for over 8000 high-capacity wells. Median yield is the statistical value for which there are an equal number of wells yielding greater and lesser volumes of water. Each aquifer or confining unit is assigned a rank based on its median yield. More than one ranking value indicates that well-yield data were analyzed for several lithologies within a map unit and well yields may vary considerably due to lithologic and structural influences.

Aquifer Rank and Range of Average Yield of High-Capacity Wells (gallons per minute): The Aquifer rank for this site is B-A.

[A] > 500, [B] = 251 – 500, [C] = 101 – 250, [D] = 25 – 100, [E] < 25

Aquifers and Confining Units of the Coastal Plain

Surficial sediments thicker than 50 ft. overlying Coastal Plain aquifers and confining units [C] include beach, dune, deltaic, and marine sands, and recent alluvium.

[3] Freshwater, non-trout

Sediments are considered part of the underlying aquifer or a minor aquifer atop a confining unit.

The five principal Coastal Plain aquifers are the Kirkwood-Cohansey[4] aquifer system, the Atlantic City 800-foot sand, the Wenonah-Mount Laurel aquifer, the Englishtown aquifer, and the Potomac-Raritan-Magothy aquifer system. All but the Kirkwood-Cohansey are confined except where they crop out or are overlain by permeable surficial deposits. The aquifers are recharged directly by precipitation in outcrop areas, by vertical leakage through confining beds, and by seepage from surface-water bodies.

More than 75 percent of the freshwater supply in the New Jersey Coastal Plain is from groundwater. In the Coastal Plain, high-capacity production wells used for public supply commonly yield 500 to 1,000 gallons per minute (gal/min), and many exceed 1,000 gal/min. Water quality is satisfactory except for local excessive iron concentrations [as much as 460 milligrams per liter (mg/L)] in several aquifers, including the Potomac-Raritan-Magothy, and for local contamination from saltwater intrusion and waste disposal. In the unconfined Kirkwood-Cohansey aquifer system water is brackish or salty in some coastal areas. In confined aquifers, salinity generally increases with depth in the southern and southeastern parts of the Coastal Plain.

Groundwater underlying the site is located in the Kirkwood-Cohansey aquifer. It is anticipated that the project will not have any impact on aquifers in the region because no wells are proposed for the project and the stormwater will collected by the existing municipal stormwater management system. Potable water will be obtained from the available public potable water supplier.

Flood Plains

Flood plain areas are associated with stream courses and are delineated in accordance with the Flood Hazard Area Control Act Rules[5]. Any encroachments on flood plain areas require permits from the New Jersey Department of Environmental Protection.

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[4] Kirkwood-Cohansey aquifer system [B-A] - Water-table aquifer composed of sand and gravel with lenses of silt and clay. Cohansey aquifer confined in Cape May County. Underlain by confined Kirkwood aquifers (Atlantic City 800-foot sand and Rio Grande water-bearing zone). Primary intergranular porosity and permeability. Leakage to confined parts provides water. Water is fresh, acidic, highly corrosive, and is low in dissolved solids. Less corrosive water is common in confined aquifers. Iron and manganese levels are locally elevated. Salinity may be elevated in confined parts near coastal areas. Sodium chloride type water is common.

[5] N.J.A.C. 7:13-1.1 et seq.

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map, the site is not located in an area of flooding and there are no flood plains on the site.

3.03 GEOLOGY

The site is located in the Atlantic Coastal Plain Physiographic Province. Unconsolidated sediments of the Tertiary Period are the predominant underlying geologic deposits, which were deposited with the rise and fall of sea level (deltaic and marine sea level fluctuations) over a 60 million year period.

Site specific surficial geology consists of the Lower Member of the Kirkwood formation This formation consists of sand, silt and clay of Coastal Plain formations. The sand is typically fine to medium grained massive to thick bedded, locally cross-beded, light yellow to white and extensively stained by iron oxides near surface beds. Maximum thickness is about 25 feet.

The bedrock aquifer underlying the site is the Kirkwood-Cohansey aquifer system. The site is not located in a mapped outcrop of the aquifer. Although the construction of any proposed project will increase impervious surfaces in the area, based on the inventory of existing geologic characteristics, no adverse conditions exists that would prohibit or restrict the proposed development.

TABLE 1

THICKNESS, PUMPAGE AND WATER-BEARING CHARACTERISTICS OF MAJOR AQUIFERS IN MONMOUTH COUNTY

AQUIFER	THICKNESS (feet)	PUMPAGE (mgd)	WATER-BEARING CHARACTERISTICS
Navesink and Magothy Formations	25-70	12.3	Most important aquifers. Yields range from 100-1,400 gpm.
Englishtown Formation	30-50	4.0	Yields average 25 gpm. Large capacity wells average 410 gpm.
Wenonah Formation Mount Laurel Sand	30-50	0.65	Considered a single aquifer. Average yield 10 gpm, maximum.
Red Bank Sand	40	---	Yields range from 3 to 30 gpm to domestic wells.
Kirkwood Formation	0-100	--	Yields range from 10 to 1,200 gpm for domestic wells.
Cohansey Sand	250		Water table aquifer

After Jablonski (1970).

SOURCE: MONMOUTH COUNTY PLANNING BOARD

3.04 SOILS

The Soil Survey of Monmouth County, New Jersey[6] and the Natural Resource Conservation Service Web Soil Survey indicates that the soil series on the subject property is Klej loamy sand, Evesboro sand and Hammonton sandy loam (See **Figure 3, Soil Survey Map**). These are well-drained soils on uplands. Runoff potential is low and permeability is moderate or moderately rapid in the subsoil and moderately rapid in the substratum. Seasonal high water table ranges from a depth of 1.5 feet to more than 6 feet. Water and wind erosion are slight hazards. In unlimed areas, soil reaction is extremely to strongly acid.

6 USDA "Soil Survey Of Monmouth County NJ" issued April 1989

TABLE 2

CHARACTERISTICS OF THE SOILS ON PROJECT SITE

Soil Symbol	Slope Percent	Erosion Factors K	Erosion Factors T	Drainage Classification	Depth to Bedrock (inches)	Depth to Water Table (feet)	Runoff Potential	Permeability In/Hr.	Soil Reaction (pH)
Klej loamy sand	0-5%	0.17	5	MWD-SPD	60+"	1.5-2.0	B	>6.0	3.6-5.0
Evesboro sand	0-5%	0.17	5	Well Drained	60+"	6.0'+	A	6.0-20.0	3.6-5.5
Hammonton sandy loam	2-5%	0.20	4	MWD-SPD	60+"	1.5-3.0	B	6.0-20.0	3.6-5.5

SOURCE: MONMOUTH COUNTY SOIL SURVEY
SOIL CONSERVATION SERVICE, USDA, 1989
And Natural Resource Conservation Service Web Soil Survey

The Evesboro series is gently sloping, excessively drained soils on divides. These soils formed in acid, sandy, Coastal Plain sediments. Permeability is rapid in the subsoil and the substratum. The available water capacity is low. In unlimed areas reaction is strongly acid to extremely acid. Evesboro Sand is mapped in the southwestern portion of the site.

The Hammonton series consists very deep, moderately well drained soils that formed in loamy formations of the Coastal Plain. These soils are found in flat landscapes and depressional areas. The available water capacity is moderate and saturated hydraulic conductivity is moderately high or high. The natural reaction of these soils is strongly to extremely acid throughout the soil profile. Hammonton Sandy Loam is mapped through the central portion of the site.

The Klej series consists of nearly level, moderately well drained or somewhat poorly drained soils on uplands. These soils formed in acid, sandy, Coastal Plain sediments. Permeability is rapid in the subsoil and moderate in the substratum. The available water capacity is low. In unlimed areas reaction is extremely acid or very strongly acid. Klej Loamy Sand is mapped in the northwestern portion of the site.

3.05 SEWERAGE SYSTEMS

The public sanitary sewer system is owned and operated by the Neptune Township Sewerage Authority. An application for the originally proposed restaurant had been approved and facilities to convey expected discharges constructed. The proposed hotel will generate less sewage than the approved restaurant. Application will be made to Neptune Township Sewerage Authority for reallocation of capacity.

3.06 POTABLE WATER

This site is located within the N.J. American Water Company water service area, which will provide potable water. Water will be provided to the site via existing roadway infrastructure and on-site connections.

3.07 TOPOGRAPHY AND SLOPE

Neptune Township is situated within the Inner Coastal Plain at the base of the Piedmont province. The proposed project site is located in the southeastern portion of Monmouth County, in the western section of Neptune Township and within the Coastal Plain physiographic province. The highest elevations surveyed on-site are located on the northern side near State Highway 66 and Jumping Brook Road. From the highpoint of the site, contour elevations begin sloping downwards in the southerly direction. The lowest elevations are located near the southern portion of the property (See **Figure 1, USGS Topographic Map**).

3.08 NATURAL RESOURCES

Vegetation

The subject site is cleared or previously disturbed. The offside wetland boundaries were approved by the NJDEP in the enclosed LOI, File Number 1334-02-0005.1, dated August 20, 2002 and reissued December 19, 2007. These wetlands have no impact on the site and no wetlands or buffers exist on the site.

NJDEP Landscape Project Map

The NJDEP, Division of Fish, Game and Wildlife, Endangered and Non-game Species Program (ENSP) regulates Threatened and Endangered species in the area of the subject property. ENSP utilizes three components for evaluating if T&E species or the potential for T&E species are present within the project area. These components include reviewing NJDEP's Natural Heritage Database, reviewing NJDEP's Landscape Mapping, and conducting preliminary on-site assessments. In addition, the ENSP reviewed the project to determine if T&E species or supporting habitat for T&E species is present on the subject property during review of the NJDEP wetlands Letter of Interpretation applications.

NJDEP uses the Landscape Project Maps in review of applications for Letters of Interpretation, to assist in assigning the width of the wetlands transition area (buffer).

An Intermediate resource value institutes a 50-foot buffer from the approved wetland line. Likewise, an exceptional resource value institutes a 150-foot buffer from the wetland line. This buffer is used when threatened or endangered species or suitable habitats are present within the boundaries of a site.

Based on a review of these components, no T&E species or potential presence of T&E species has been identified by the NJDEP within the project area. The approved LOI designated the offsite wetland areas as intermediate resource value with a 50-foot buffer, which does not impact the site.

3.09 NOISE

Noise from development can be burdensome during construction, but disappears soon after project completion. Due to the suburban character of the area and the surrounding development, it is anticipated that the proposed development would not generate much more noise from the vehicular traffic associated with such projects above that which exists from adjacent uses.

3.10 TRAFFIC & CIRCULATION PATTERNS

As previously mentioned, the subject site maintains frontage on McNamara Way and access to the proposed project will be provided from this road.

3.11 CULTURAL, HISTORICAL & ARCHAEOLOGICAL RESOURCES

A review of New Jersey and National Registers of Historic Places, indicates that there are no historic or archaeological resources within or near the proposed project area.

IV PROJECT IMPACT

4.01 SOIL EROSION AND SEDIMENTATION

All grading will conform to a Soil Erosion and Sediment Control Plan approved by the Freehold Soil Conservation District. The project plans demonstrate the use of approved soil erosion and sediment control measures, such as silt fences, a stabilized construction entrance, inlet filters, tree protection, hay bale sediment filters and topsoil stockpile vegetative stabilization. Erosion will be minimized through the use of temporary and permanent landscaping on exposed soils.

Landscape alterations will occur primarily in the immediate vicinity of the proposed driveways, buildings and parking areas. Erosion hazard is directly related to intensity and frequency of rain and wind. Most of the soils on site have a 0 to 5 percent slope and a moderate erosion potential.

The soil erodibility factor (K) is a measure of the susceptibility of the soil to erosion by water. Soil erosion K values range from 0.17 to 0.28, with the lower values indicating low erodibility (See Table 2). The soils on the project site have medium runoff potential. All grading activities will conform to an approved Soil Erosion and Sediment Control Plan by the Freehold Soil Conservation District.

Any potential adverse impacts which could result from grading, erosion or sedimentation will be mitigated by implementation of the required soil erosion and sediment control measures reflected above.

4.02 FLOODING AND FLOODPLAIN DISRUPTION

The proposed project is not anticipated to cause any flooding. FEMA maps indicate that the site is not located within a flood zone.

4.03 DEGRADATION OF SURFACE WATER QUALITY

The existing municipal stormwater management system will collect runoff for the proposed project and is designed to handle the runoff from proposed improvements.

4.04 GROUNDWATER POLLUTION

There are no adverse impacts of the site's groundwater capabilities expected. There are no potential discharges to groundwater proposed from the site.

4.05 REDUCTION OF GROUNDWATER CAPABILITIES

The estimated potable water demand for the proposed hotel will be supplied by NJ American Water Company. There are no adverse impacts of the site's groundwater capabilities expected. Developments of this nature typically have a minimal impact on groundwater due to the collection of runoff to the existing municipal stormwater management system.

Currently, groundwater recharge is limited to soil absorption where the balance of runoff is lost to sheet flow and evaporation.

4.06 SEWAGE DISPOSAL

The project site is located within an active sewer service area which will manage sewage from the site. Due to use of the Township public sewer system, no adverse impacts associated with sewage disposal is expected. Removal of sewage from the development to municipally managed sewage treatment systems will provide chemical and biological treatment of wastes.

4.07 SOLID WASTE DISPOSAL

All solid waste generated during construction, such as lumber, cardboard, etc. will be collected in dumpsters located on the project site and disposed of in a manner consistent with the local ordinances. After construction, the development will generate typical types and volumes of commercial waste. No hazardous substances will be transported to or from the site or stored on the subject site.

For the proposed project, the construction debris will be disposed of in a manner consistent with local ordinances. Construction debris will be collected frequently to prevent any adverse impacts caused by wind blown 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 all applicable local, county, and state regulations. Furthermore, no hazardous substances will be transported to or from the site or stored on the subject

site. Therefore, as no adverse impacts are anticipated, no mitigation measures are proposed.

4.08 VEGETATION DISRUPTION

Construction of the proposed development will not disturb vegetation as the site is cleared. A complete landscaping plan has been developed for this project that includes a variety of lawn and shrub species to be planted.

4.09 WILDLIFE HABITAT DISRUPTION

In order for a particular site to provide a wildlife habitat, specific habitat requirements essential for survival must be present. These include food, cover and a water source. Various species have differing biological needs, as would be expected from the diversity of wildlife types. All of those habitat requirements - food, cover and water - exist in varying degrees on the site.

The basic levels of the ecosystem which interact with each other to produce a habitat are the nutrients, producers, consumers, decomposers and the energy of the sun. Nutrients include inorganic and organic substances, such as carbon dioxide, oxygen, nitrogen, minerals and salts, which are not part of a living organism. Producers are the green plants and bacteria that synthesize organic compounds from inorganic compounds and sunlight. Consumers utilize the material synthesized by producers, such as herbivores (plant eaters), carnivores (flesh eaters) and omnivores (consumers of plants and animals). Decomposers are the bacteria and fungi that break down organic compounds and are associated with decaying plant and animal material. The nutrient release rate produced by the decomposers is an essential link in the cycle of life because they break down complex molecules to forms which may be absorbed by green plants.

In order for a site to provide habitat to wildlife species, the ecosystem structure and dynamic relationships of the components listed above should be present. Man's alteration of the environment is evident in the portion of the site that has been cleared of vegetation, but has not limited all of the site in its ability to provide an ecosystem capable of supporting a diversity of the components necessary to sustain a wildlife population. Each soil has a suitability classification for various types of plants that can provide wildlife habitats. As has been stated elsewhere in this report, the types of soils on the site have moderate limitations that reduce the choice of types of plants existing or to be planted.
orchardgrass, reed canarygrass, clover, alfalfa, soy and kidney beans. None of these species are present on the site.

The predominant wildlife to be found are birds, squirrels, mice, chipmunk and other small mammals that may traverse the property. There may be larger mammals on the site from time to time after construction.

The following is a list of wildlife species known to exist in Monmouth County and some of these common species could be found to inhabit the surrounding area:

MAMMALS, REPTILES & AMPHIBIANS FOUND IN MONMOUTH COUNTY
(Source: Monmouth County Parks System)

MAMMALS

Opossum
Smokey Shrew
Least Shrew
Short-tail Shrew
Starnose Mole
Eastern Mole
Keen's Myotis (bat)
Little Brown Myotis
Small-footed Myotis
Silver-haired Bat
Eastern Pipistrel
Red Bat
Big Brown Bat
Hoary Bat
Raccoon
Longtail Weasel
Mink
River Otter
Striped Skunk
Red Fox
Gray Fox
Woodchuck
Eastern Chipmunk
Eastern Gray Squirrel
Red Squirrel
Southern Flying Squirrel
Beaver
White-footed Mouse
House Mouse
Norway Rat
Southern Bog Lemming
Boreal Redback Vole
Meadow Vole
Pine Vole
Muskrat
Meadow Jumping Mouse
Eastern Cottontail Rabbit
New England Cottontail
Virginia Whitetailed Deer
European Hare

REPTILES

Lizards

Northern Fence
5-Lined Skink

Turtles

Common Snapping
Wood Turtle
Musk Turtle
Bog Turtle
Spotted Turtle
Eastern Mud

Diamond-Backed Terrapin	Eastern Painted
Eastern Box	Red-Eared

Snakes

Eastern Smooth Earth	Red-Bellied
Northern Brown	Northern Water
Eastern Garter	Eastern Ribbon
Eastern Hognose	Eastern Worm
Northern Ringneck	Rough Green
Northern Black Racer	Northern Pine
Black Rat	Corn
Eastern King	Eastern Milk

AMPHIBIANS

Toads

Eastern Spadefoot	Fowlers

Tree Frogs

Spring Peeper	Gray

True Frogs

New Jersey Chorus	Carpenter
Cricket	Green
Pickerel	Wood
Northern Leopard	Bull

Although the surrounding area contains development, some of the listed species will utilize wooded areas around the site, as they are known to exist in Monmouth County.

The subject site is cleared. Populations of birds and mammals might return to the area once new vegetation is established and construction activities have ceased. Some of these species are also capable of co-existing in a man-made environment once landscaping plants are installed.

The portion of the site slated for the proposed improvements has been disturbed.

4.10 DESTRUCTION / DEGRADATION OF SCENIC / HISTORIC FEATURES

There are no scenic or historic features on or adjacent to the subject property. Thus, no adverse impacts are anticipated.

4.11 AIR QUALITY DEGRADATION

Air pollution can damage vegetation, corrode buildings and bridges, soil clothes and create health hazards to humans and animals. Air pollution is caused by industrial emissions, car and truck traffic and heating equipment. Monmouth County as a whole, including the Neptune area, meets State and Federal primary and secondary ambient air quality standards.

The nearest State air quality monitoring stations to the site are located in Freehold, Colliers Mills, and at Monmouth College. Data gathered at these stations indicates that existing regional area air quality generally falls within acceptable limits set by the NJDEP. The factor having the greatest influence on ambient air quality is vehicular emissions from prevailing traffic on area roadways. We do not anticipate that the additional traffic created by the additional transportation will be significant enough to detrimentally affect area ambient air quality.

In general, the environment contains a certain level of particulate matter, such as particulates in emissions resulting from construction activities. Particulate concentration for the region is measured at Freehold. The 12-month geometric mean primary standard of 15 micrograms per cubic meter has not been exceeded at this site, where the annual arithmetic mean is 10.9. The 24-hour average primary standard of 65 micrograms per cubic meter has not been exceeded by the 37.8 micrograms per cubic meter recorded in this urban area.

Carbon monoxide (CO) is the most widely distributed and most commonly occurring air pollutant. The majority of atmospheric CO is produced by the incomplete combustion of carbonaceous materials used for vehicle fuel, heating and burning of refuse. Major adverse effects are those of health, occurring only through prolonged and continuous exposure. Plant material is not affected by carbon monoxide. The 1-hour average primary standard is 35 ppm, and has not been exceeded by the 9.6 ppm recorded at the data collection center in Freehold. The 8-hour average of 9 ppm has likewise not been exceeded by the 4.3 ppm recorded.

Further, as carbon monoxide does not remain constant over the entire spatial extent in a given region and disperses rapidly over a short distance, the overall impact of emissions from normal traffic flow is slight and general air quality is not affected.

Nitrogen dioxide emitted by exhaust from high temperature combustion sources can affect vegetation causing acute injury to leaves, and can cause fading in synthetic

fibers and yellowing of white clothes. The recorded data for the 1-hour average guideline does not exceed the standard of .25 ppm. The human threshold for sensing nitrogen oxide in the atmosphere is approximately .12 ppm.

During the project's construction stages, local air quality may be temporarily affected by emissions from construction equipment, automobiles used by workmen, fugitive dust and delivery vehicles to the site. The effect will be minimal though as emissions will not be excessive and dispersion of carbon monoxide in the atmosphere is rapid.

Upon completion of the project, the site is expected to return to pre-development conditions.

4.12 NOISE LEVELS

Noise levels are typically controlled by a Noise Control Ordinance, which is generally enforced by the municipal Police Department. This type of ordinance generally prohibits construction between early evening and early morning hours and regulates construction site noise standards, which establish maximum levels of sound permissible at the property boundary.

Noise created by construction equipment is further controlled by Federal and State regulations on equipment noise. The Noise Control Act of 1972 places limits on manufacturers of construction equipment for decibel levels that may be produced. After construction, sound sources will consist primarily of vehicular traffic entering and exiting the site during pre-construction. Sound levels are expected to be typical of the surrounding area.

An increase in trucking activity may be anticipated upon commencement of the construction phase of the proposed project. However, significant adverse impacts would not be expected to migrate to off-site receptors as a result of proposed project, since the area is not densely populated.

The New Jersey Noise control Code[7] provides standards and guidelines applicable to potential community impacts from such projects. No noticeable offsite impacts are anticipated.

[7] N.J.A.C. 7:29-1.1 et seq.

V ENVIRONMENTAL PERFORMANCE CONTROLS

The following is a description of steps to be taken to minimize adverse environmental impacts during construction and operations.

5.01 DRAINAGE, SOIL EROSION AND SEDIMENTATION

1. New impervious surfaces on the site will be created by rooftops and pavement areas, which will create increased stormwater runoff. Runoff will be collected by the existing municipal stormwater management system and the site will meet all stormwater regulations.

2. Regrading will be necessary to implement the project design. Erosion potential increases with the length and steepness of slope. A general rule is that if the length of slope is doubled, soil loss will increase by a factor of 1.5. The relationship between degree of slope (gradient between vertical height and horizontal length of slope) and erosion potential can be specified as follows:

10 percent or greater :	highly erodible
2 to 10 percent :	moderately erodible
2 percent or less :	slightly erodible

   Erosion hazard is directly related to intensity and frequency of rain and wind.

   Most of the soils on the site have a 0 to 5 percent slope. Therefore, erosion potential is moderate for slopes less than 10 percent.

   A Soil Erosion and Sediment Control Plan approved by the Freehold Soil Conservation District will be implemented prior to and during construction. Temporary seeding of any stockpiled topsoil will stabilize cut and fill material. After construction, erosion on-site will be reduced by installation of permanent vegetation.

   Any potentially adverse impacts which could result from drainage, erosion or sedimentation will have been mitigated by the above measures.

5.02 VEGETATION AND WILDLIFE HABITAT DESTRUCTION

The site has been cleared. Once the construction phase is complete, wildlife populations of the more common species should reach a balance in the area and continue to inhabit the landscaped portions of the site. The suburban nature of the surrounding areas will continue to provide some wildlife habitat.

Wildlife Habitat Created by Landscaping– The Natural Resources Conservation Service[8] recognizes landscaped wildlife habitat as beneficial for birds, butterflies, small animals and insects. The horizontal and vertical areas that can provide habitat stretch from the soil to the treetops. Different wildlife species live in each of these zones, so numerous habitats can be provided on even a small piece of land. Many trees and shrubs are excellent food and cover sources for wildlife. Proper plant selection by the landscape designer can increase the property's use by wildlife. By adding trees, shrubs, flowers and groundcovers over time, wildlife will be attracted and habitat created. Landscaping practices that help wildlife, like reducing chemicals and using native plants, also help to improve air, water and soil quality. There are also certification programs for landscaping property to provide wildlife habitat creation[9]. Therefore, it is a premature assumption that all wildlife will permanently abandon developed properties.

5.03 AIR QUALITY DEGRADATION

Local air quality may be temporarily affected by emissions from construction vehicles and delivery trucks and construction of the proposed development. This effect will be minimal as emissions will not be excessive and dispersion of particulates is rapid over a spatial area.

To mitigate the potential of dust being raised during construction and grading activities, an approved Soil Erosion and Sediment Control Plan will be implemented. Temporary and permanent vegetative stabilization will minimize soil movement, thereby assuring the protection of air quality. Approved dust control measures will also be implemented, providing protection from off-site contamination.

An assessment that the project will not degrade ambient air quality is based upon regional data collection and the fact that the surrounding area air quality is well within Federal and State defined parameters for acceptable air quality. Some increase in carbon monoxide from vehicular emissions is unavoidable. However, due to the upgrading of emission technology, post-development air quality would be

[8] Natural Resource Conservation Service, Backyard Conservation Tip Sheet, Pages 1-8

[9] National Wildlife Federation, Certified Wildlife Habitat Program, Its So Easy to Garden for Wildlife.

expected to be as good, or better than, current air quality associated with the proposed project.

5.04 NOISE ABATEMENT

Noise levels are controlled by a Township Noise Control Ordinance, which is generally enforced by the Borough Police Department. This type of ordinance generally prohibits construction between early evening and early morning hours and regulates construction site noise standards, which establish maximum levels of sound permissible at the property boundary.

Noise created by construction equipment is further controlled by Federal and State regulations on equipment noise. The Noise Control Act of 1972 places limits on manufacturers of construction equipment for decibel levels that may be produced.

After construction, sound sources will consist of vehicular traffic consistent with the surrounding area. The project will not contravene the standards of the New Jersey Noise Control Code.

5.05 LOSS OF OPEN SPACE

Open space includes public land, private land, forests, ranches, farms and other undeveloped lands. Open space is found across the landscape in rural, suburban and urban areas. In many cases, open space is cataloged in the Natural Resource Inventory or Open Space Inventory, or Master Plan.

Landowners have many reasons for selling or developing their property. Research[10] reveals that some of the reasons include real estate and other taxes, gentrification of rural areas and corresponding rises in property values, and other landowner situations that require liquidation of assets to cover costs.

As of December 2014, New Jersey has preserved 1,272,771 acres of public open space, not including farmland. With farmland, the total of preserved open space is 1,484,900 acres[11]. Data suggests that the pace of open space and farmland preservation has accelerated in recent years. New Jersey has been a leader in purchasing open space necessary to perform vital functions, such as replenishing aquifers, protecting wildlife habitats and satisfying recreational demand. Protection of open space is usually accomplished through the purchase of development rights,

[10] USDA Forest Service, Caring for the land and serving people.

[11] NJDEP Green Acres program

by the use of government funded grants, by agricultural trusts and other non-profit conservation organizations, etc.

In much of the literature reviewed, the term “open space” is usually applied to large tracts of land[12]. The subject site is not zoned for a public use or otherwise designated for a public purpose, or contained in an open space inventory. It is not subject to a Transfer of Development Rights Ordinance or program established under N.J.S.A. 40:55D-137 et seq., or any Transfer of Development Rights Real Estate Market Analysis regulated by N.J.A.C. 5:86, and it is not the subject of any offer to purchase development rights.

Local zoning codes permit the development proposed. The proposed project will result in the loss of privately owned low-density vacant land, but the property is currently zoned to allow for the proposed development. This type of development does not use community services to the same extent that a residential development would.

[12] USDA Forest Service, various publications.

VI ALTERNATIVES

This project seeks to provide a 5-story hotel in lieu of the previously approved restaurant. In summary, the proposed use is allowed in the current zone and conforms to the development regulations in effect at the time of this submission and is part of a previously planned commercial development. The site location adjacent to major roadways is strategic for projects of this nature and the proposed improvements will minimally impact the surrounding environment.

VII UNAVOIDABLE IMPACTS

7.01 VEGETATION AND HABITAT LOSS

The site is currently cleared of vegetation. The landscape plan will provide a seeding mixture for ground cover, and provide trees and shrubs.

7.02 AIR POLLUTION

The New Jersey Department of Environmental Protection has established a standard of 0.5 ppm, which cannot be exceeded, more than once in any 12-month period for sulfur dioxide. This standard has not been exceeded for the regional area.

Particulate concentration 12-month geometric primary standard of 75 micrograms per cubic meter has not been exceeded.

The carbon monoxide 1-hour average primary standard of 35 ppm has not been exceeded, nor has the 8-hour average of 9 ppm.

The nitrogen dioxide standard of 0.25 ppm for the 1-hour average guideline has not been exceeded by the recorded data of .069 ppm.

There are two aspects of potential air quality impacts for this specific site: construction and operation. During construction, potential pollutants would be emitted by construction vehicles (carbon monoxide, hydrocarbons, nitrogen dioxide, and particulates), along with fugitive dust from the disturbed area. Fugitive dust generation will be controlled through the implementation of temporary seeding procedures on exposed soils during construction in accordance with the approved Soil Erosion and Sediment Control Plan. With respect to fuel emissions from construction vehicles, air quality impacts will be temporary, and because of good existing air quality in the area, should not cause any violation of the Ambient Air Quality Standards.

Once completed, the principal air pollutants generated by the project would be particulates, carbon monoxide, sulfur dioxide and hydrocarbons from the residences.

Based upon published regional indicators, a conclusion can be drawn that overall air quality is good and no irreversible impacts are anticipated from the proposed project.

7.03 WATER POLLUTION

The proposed project will be supplied by the potable public water and sewage system. There is no anticipated water pollution which would be generated by proposed site improvements.

7.04 GEOLOGIC FEATURES

There are no geologic features on the site that are considered to be unique. No impact is expected to important geologic features.

The proposed development will have increased impervious areas on the site. The site provides moderate groundwater recharge under existing conditions[13].

Based on the inventory of existing geologic characteristics on site, it is evident that no adverse conditions exist that prohibit or restrict development of the site as proposed. The proposed project will have no further effect on the site's geologic condition.

7.05 TOPOGRAPHIC FEATURES

Topographic elevations on the site do not exceed 10%. No steep slopes will be created by development of the site. The site will be regraded to provide positive drainage that will direct stormwater runoff to the stormwater management system. No adverse impacts are projected to occur with respect to topography.

7.06 TRAFFIC IMPACTS

The subject site is located in proximity to Jumping Brook Road and New Jersey State Highway Route (NJSH) 66. Access to the proposed project will be provided from McNamara Way.

The proposed development has been designed, located and will be operated in a manner to cause the least possible disturbance to traffic systems. During construction, the safe, orderly flow of traffic will be ensured at all times and all appropriate safety procedures, uniformed traffic directors, personnel and devices will be implemented as necessary. There will be an increase in traffic to and from

[13] NJDEP GIS data regarding groundwater recharge at the site, which is estimated to be from 8 to 23 inches per year.

the site when compared to existing conditions. However, it is anticipated that the existing roadways will adequately accommodate traffic to and from the site.

7.07 COMMUNITY IMPACT STATEMENT

The proposed project is in the Planned Commercial Development (C-1) zone and has frontage along NJSH 66. The properties to the north and south of the subject site are also zoned C-1 and those to the east are zoned within the Planned Unit Development (PUD) and Very Low Density Single-Family Residential (R-1) zone districts.

The proposed development is physically suited to the site and will provide a use appropriate to the site and municipality. The proposed site offers sufficient land, access and topography suitable for the proposed corporate park development. In addition, the proposed development is compatible with the Monmouth County Master Plan. The proposed project is also compatible with The New Jersey State Development and Redevelopment Plan (NJSDRP), as it is located within Metropolitan Planning Area, Planning Area 1 (PA1), which has a high population density and existing water and sewer systems. Therefore, no adverse impact to the surrounding community is anticipated. A separate Fiscal Impact Analysis has been provided which examines revenues and costs associated with the project.

VIII CONCLUSION

The development of the project will be accomplished according to local and State regulations governing engineering and environmental practices associated with projects of this nature. While a development design may affect environmental constraints, if the environmental constraints affected are deemed to be minor, they are regulated by local ordinances and State laws and regulations designed to insure that encroachments are carried out in accordance with the published guidelines so that there will be minimal environmental impacts. Upon issuance of the required permits and approvals, verification will be provided by the State that negative environmental impacts are minimal and allowed by the State's permitting authority.

The following permits will be required:

Table 4: Summary of Permits/Approvals Required for Project Implementation

Agency/Entity	Type
State	
NJDEP	Treatment Works Approval (TWA) - Sanitary Sewer Extension
Neptune Township	
Township of Neptune	Preliminary and Final Site Plan Approval
NJ American Water Co.	Water Approval
Neptune Township Sewer Department And Township of Neptune Sewage Authority (TNSA)	Sewer Approval
County	
Monmouth County	Planning Board Approval
Freehold Area Soil Conservation District	Plan Certification

No natural resources, such as streams, floodplains, unusual geologic or topographic features, endangered species of wildlife or unique natural vegetative associations, will be destroyed by the proposed construction. The State construction permit program will regulate the minor encroachments previously discussed.

An analysis of the project was made by comparing the site's environmental constraints with the mapped information readily available for the surrounding area.

These sources confirmed the following information about the site:

- The site is already disturbed.

- Permeability of the site's soils is from moderate to moderately rapid. Runoff from the proposed improvements will be collected by the existing municipal stormwater management system.

- Required construction permits will regulate all construction.

- According to the Standards for Soil Erosion and Sediment Control in New Jersey, a pH of 5 is acceptable for seedbed preparation. Soils having a pH of 4 or less shall be covered with a minimum of 12 inches of soil having a pH of 5 or more prior to seedbed preparation. All other mitigative measures set forth in NJDEP's Technical Manual for Stream Encroachment will be utilized to comply with regulatory requirements regarding stream encroachment structures.

- Generally, soils with a pH above 4 are not considered a hazard as long as proper soil erosion control procedures are maintained during construction. Proper procedures will be followed to reduce soil acidity if acid soils are found during construction.

- Slopes in the area of construction are generally moderate. No slopes are present in excess of 10%.

- The soils on site have a moderate potential for erosion. Erosion will be minimized through the use of temporary and permanent vegetative cover, and other soil erosion control methods as specified throughout this report and as set forth in the details on the Soil Erosion and Sediment Control Plan for the project. [14]

- The proposed floor elevations will be compatible with existing topography as much as possible. Grading will be carried out in accordance with a Soil Erosion and Sediment Control Plan approved and monitored by the Soil Conservation District.

- The project appears to be compatible with all planning documents consulted.

- There are wetlands on adjacent property which have been verified through a Letter of Interpretation, and which do not project a wetlands buffer onto the site.

No adverse impacts will affect public or private potable water or any other infrastructure, either on or off the site. No groundwater pollution is anticipated from the proposed development which will utilize the public sewage system.

[14] Monmouth County Soil Survey

An analysis of published data indicates no negative impact to air pollution or noise is expected. Additional storm water runoff will be managed in accordance with State Stormwater Management Rules and Township Ordinances. Proper soil erosion and sediment control measures will be implemented during construction.

This report has attempted to outline how the project will comply with local and State laws and regulations wherever encroachment upon environmentally sensitive lands will take place. Inasmuch as the laws and regulations were designed to provide guidelines and requirements that minimize environmental degradation, the issuance of permits and approvals will demonstrate compliance.

Therefore, the foregoing analysis has concluded that construction of the project as proposed will have minimal adverse environmental impacts to the site and surrounding areas.

IX REFERENCES

The preceding environmental analysis was prepared following review of all published information and a site visit by the preparer of this report. The following reference materials and agencies were consulted and / or utilized in conjunction with the preparation of this document.

Literature & Documents

Internet Literature Search regarding Wildlife Habitat Creation, citations noted on appropriate pages

Land Use Regulation, Neptune Township

NJDEP, A Field Guide to Salamanders, Frogs and Turtles of New Jersey's Vernal Pools. By Leo P. Kenney and Mathew R. Burne, 2004

NJDEP, Bureau of Air Monitoring. http://www.state.nj.us/dep/airmon/.

NJDEP, Current puglished Air Quality Report

NJDEP, Freshwater Wetlands Map.

NJDEP, Freshwater Wetlands Protection Act Rules, N.J.A.C. 7:7A-1.1 et seq.

NJDEP, New Jersey Geographic Information System:
- Wetlands and Wetlands Buffers
- HUC-14 Subwatersheds
- C-1 Waters
- Landscape Project Maps
- Soils (SURRGO)
- Known Contaminated Sites
- Groundwater Geology
- Surficial Geology
- Bedrock Aquifer
- Groundwater Recharge
- Physiographic Provinces
- Sewer Service Areas
- State Plan Land Use

NJDEP, Trees of New Jersey and the Mid-Atlantic States, Fifth Edition, 2003

Monmouth County 208 Water Quality Management Plan, NJDEP.

Peterson, R.T. and M. McKenney, 1968, A Field Guide to Wildflowers.

Petrides, G.A., 1972, A Field Guide to Trees and Shrubs.

Robichaud, B. and M.F. Buell, 1973, Vegetation of New Jersey, Rutgers University Press.

Subitsky, Seymour, Rutgers University Press, Geology of Selected Areas in New Jersey and Eastern Pennsylvania,

U.S. Department of Agriculture, Soil Conservation Service, 1989, Soil Survey of Monmouth County, New Jersey.

U.S. Geologic Survey Topographic Map for the site.

NJDEP Geographic Information System Interactive Mapping

Agencies / Organizations

United States Geological Survey
- Topographic Map

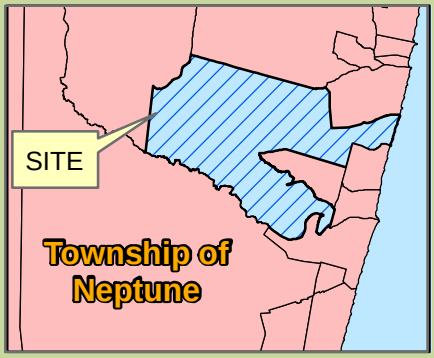
New Jersey Department of Environmental Protection, Trenton, New Jersey
- Geographic Information System Exhibits

X FIGURES

FIGURE 1: USGS TOPO MAP

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

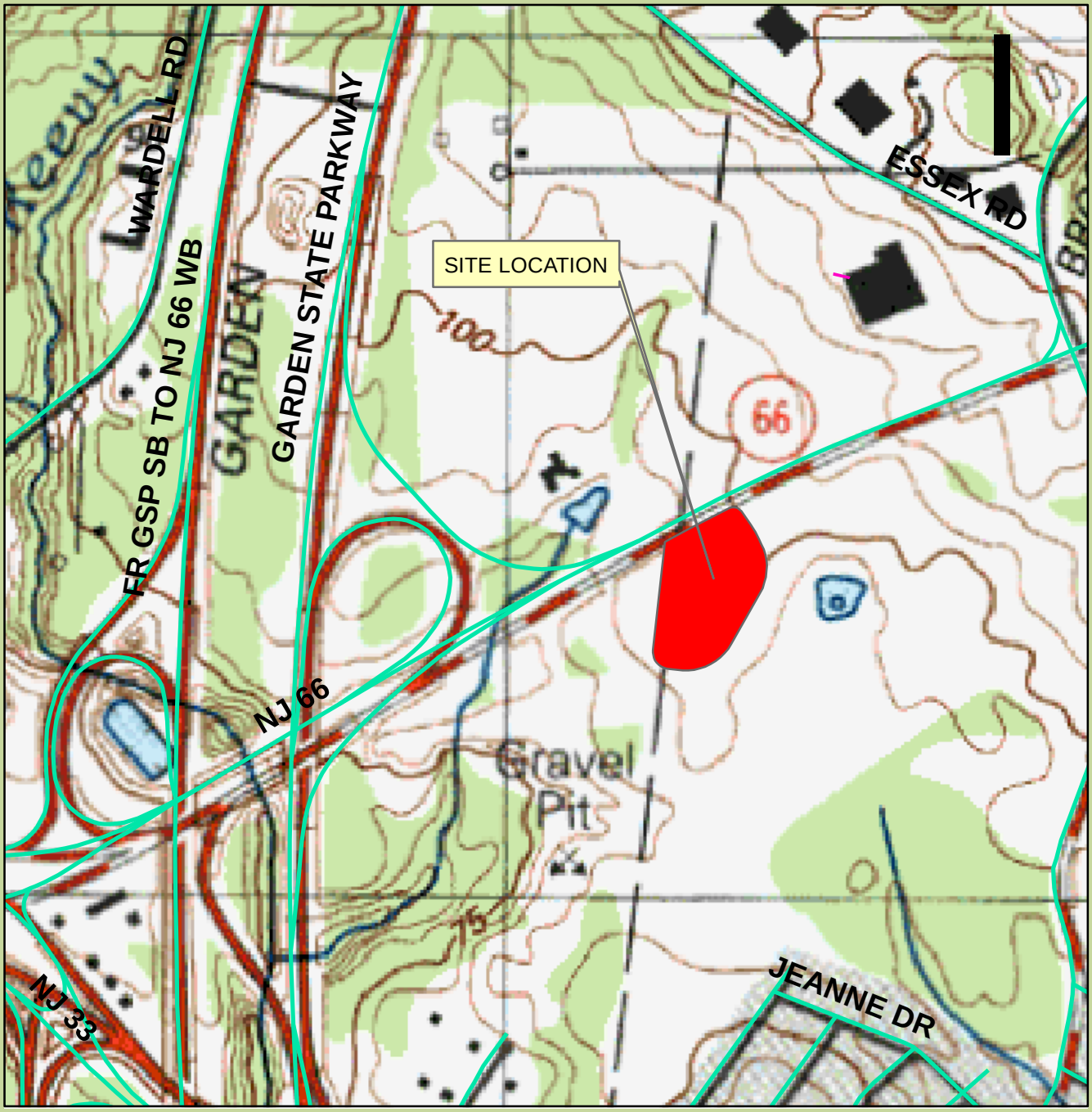
Date: August 25, 2017
Job Number: 15-736.00



Block 4006, Lot 1
Neptune Township
Monmouth County, NJ

Scale: 1" = 2000'
Northing: 505,315'
Easting: 606,122'

FIGURE 2: ROAD MAP



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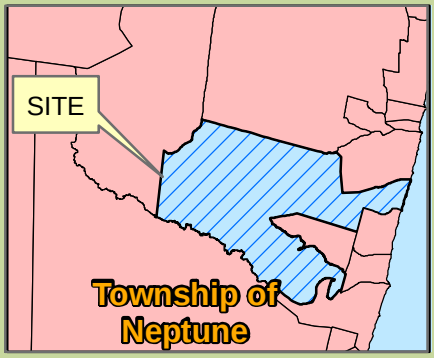
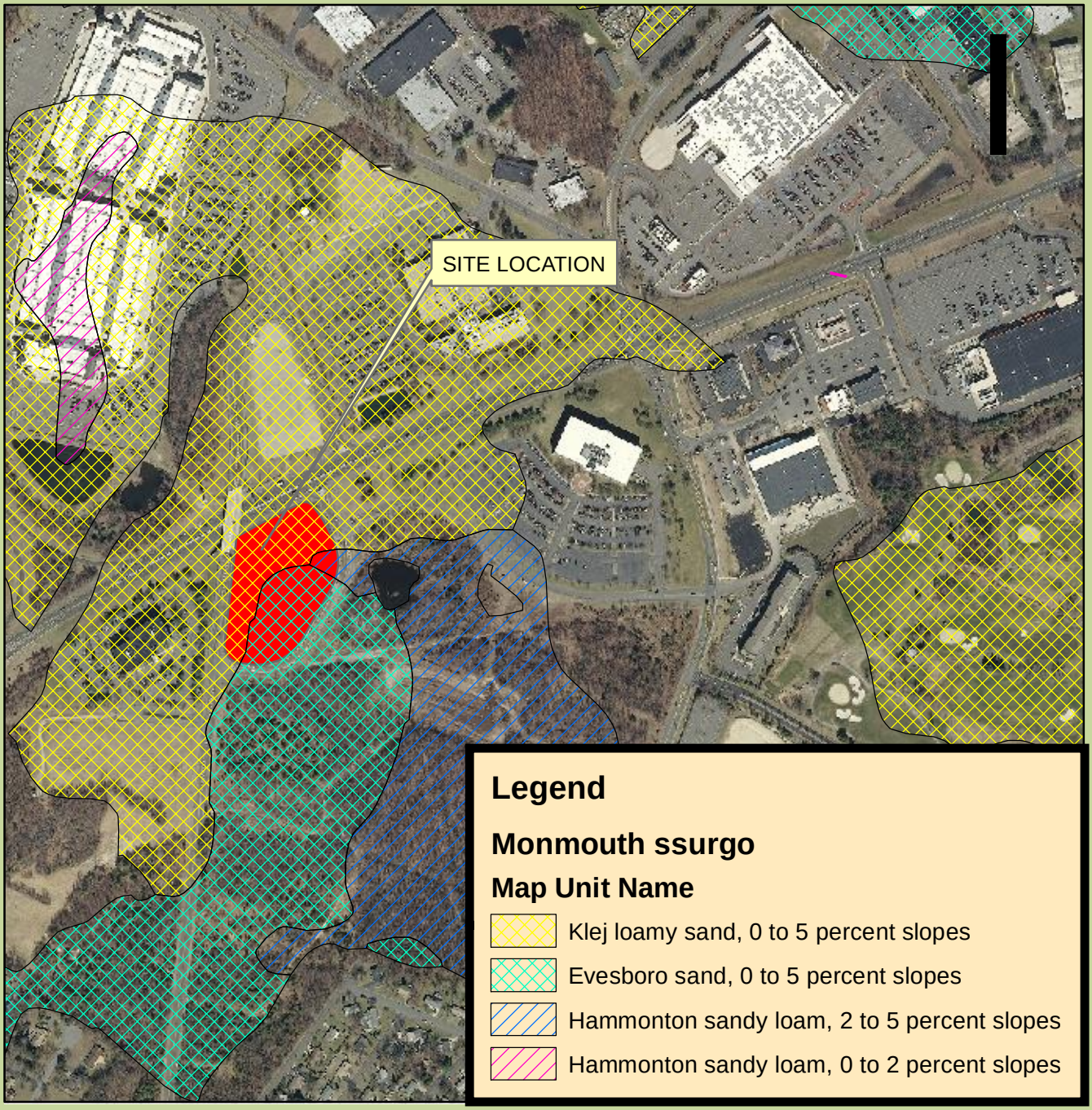


Block 4006, Lot 1
Neptune Township
Monmouth County, NJ

Scale: 1" = 600'
Northing: 505,315'
Easting: 606,122'

FIGURE 3: SOIL MAP



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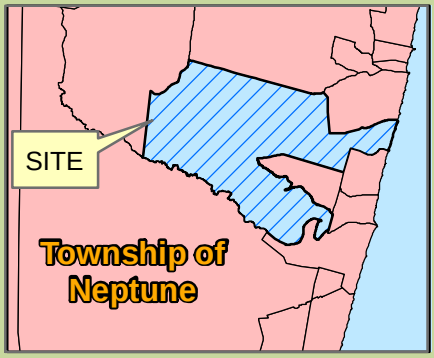

Block 4006, Lot 1
Neptune Township
Monmouth County, NJ

Scale: 1" = 600'
Northing: 505,315'
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FIGURE 4: WETLANDS MAP

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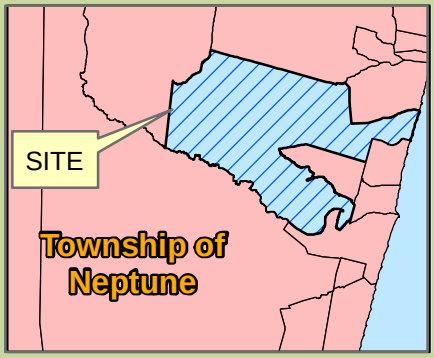

Block 4006, Lot 1
Neptune Township
Monmouth County, NJ

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XI APPENDICES

A01 WETLAND LOI APPROVAL FOR ADJACENT PROPERTY

A02 PROFESSIONAL QUALIFICATIONS

A01 WETLAND LOI APPROVAL FOR ADJACENT PROPERTY

5058100040l
LOI ext.
Commercial Realt

State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION

CORZINE
vernor

LISA P. JACKSON
Commissioner

Division of Land Use Regulation
P.O. Box 439, Trenton, New Jersey 08625
FAX # (609) 777-3656
Web Site:www.state.nj.us/dep/landuse

DEC 19 2007

Jessica Patterson
Birdsall Engineering, Inc.
611 Industrial Way
Eatontown, NJ 07724

RE: Letter of Interpretation/Line Verification Reissuance
File No.: 1334-02-0005.1
Activity No.: FWW070001
Applicant: Commercial Realty and Resource Corporation
Block: 1500; Lots: 23.02 & 23.03
Township of Neptune, Monmouth County

Dear Ms. Patterson:

The New Jersey Department of Environmental Protection issued a Letter of Interpretation (File #1334-02-0005.1 FWW020001) for the above referenced property on August 20, 2002. You have requested that the Letter of Interpretation be reissued in accordance with the requirements at N.J.A.C. 7:7A-3.7.

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, Division of Land Use Regulation 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 submittedDATE», the Division of Land Use Regulation has determined that **the wetlands and waters boundary line(s) as shown on the plan consisting of one sheet entitled: "WETLAND LOCATION PLAN LOTS 32.02 & 32.03 [*sic*] BLOCK 1500 SITUATED IN NEPTUNE TOWNSHIP, MONMOUTH COUNTY, NEW JERSEY", dated 3/20/02, not revised, and prepared by Lynch, Giuliano & Associates, Inc. is accurate as shown.**

Therefore the term of the original Letter of Interpretation is hereby extended to August 20, 2012, which is five years from the expiration of the original Letter of Interpretation.

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.

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 file number and the following note:

"Freshwater Wetlands/Waters Boundary Line as verified by NJDEP, File #1334-02-0005.1 FWW070001."

In addition, the Department has determined that the wetlands on the subject property are of Intermediate resource value and the standard transition area or buffer required adjacent to these wetlands is 50 feet. It should be noted that this determination of wetlands 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. Furthermore, this letter does not make the determination that any onsite wetlands or waters are "isolated" or "part of a surface water tributary system" as defined at N.J.A.C. 7:7A-1.4.

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 after notice of the decision is published in the DEP Bulletin (www.state.nj.us/dep/bulletin) by writing to: New Jersey Department of Environmental Protection, Office of Legal Affairs, Attention: Adjudicatory Hearing Requests, P.O. Box 402, Trenton, NJ 08625-0402. This request must include a completed copy of the Administrative Hearing Request Checklist.

Please contact Andrew Dromboski of our staff at (609) 292-8262 should you have any questions regarding this letter. Be sure to indicate the Department's file number in all communication.

Sincerely,

Ryan J. Anderson
FOR

David B. Fanz, Supervisor
Bureau of Coastal Regulation

c: Township Clerk
Township Construction Official

A02 PROFESSIONAL QUALIFICATIONS

PENELOPE A. GRIBER
SENIOR ENVIRONMENTAL PROJECT MANAGER
Phonel: 732-363-5850 • Fax: 732-905-8669
E-mail: pgriber@dwsmith.com

YEARS OF EXPERIENCE:	**D. W. SMITH ASSOCIATES, LLC**	**16.0 YEARS**
	BIRDSALL ENGINEERING, INC.	**1.6 YEARS**
	ABBINGTON ASSOCIATES, INC.	**12.6 YEARS**

EDUCATION: DEGREE/SPECIALIZATION/SCHOOL

- BA Degree, Athens State University, Athens, Ala.
- Certification in Methodology of Wetlands Delineation - 1989 Federal Manual and 1987 Army Corps of Engineers Wetlands Delineation Manual, Rutgers University, Cook College Continuing Professional Education Program – Certified in 1990 and 1995
- Proficient in use of: Geographic Information System (GIS) digital data for environmental analysis and map making (ArcView GIS)
- Trimble Differential Global Positioning System (GPS) Pathfinder ProXR Receiver and TSC1 Hand Held data collector utilizing the operating system Asset Surveyor 5.27

AFFILIATIONS

- Founding and Former Member of Bay Head, N.J., Environmental Commission (1987-1990)
- Former Co-Chair, Barnegat Bay Estuary Program (BBEP) Science & Technical Advisory Committee (1995-2003)
- Former Member Barnegat Bay Estuary Program Management Committee (1995-2003)
- Former Vice-President (1998-2001) and Former Board of Directors member (1997-2003) of Monmouth/Ocean Development Council (MODC)
- Chairperson, MODC Energy and Environment Committee (2008 to 2010)

EXPERIENCE AND QUALIFICATIONS

Ms. Griber began her environmental career in 1985. She has over 30 years of experience as an environmental consultant.

Rutgers University, Cook College, Continuing Professional Education Program:

- Soil Erosion & Sediment Control
- Basic Hydrology
- Stream Encroachment Analysis
- Hydrology of New Jersey Wetlands
- NJDEP Permits
- Groundwater Resource Management
- Hydric Soils
- Wetlands Plant Identification
- Certification in Methodology of Wetlands Delineation

- Environmental Audits and Site Assessments
- Applied Soil Science for Hazardous Materials
- Researching/Writing/Analyzing Environmental Impact Statements
- NJDEP Air Pollution Permits
- Advanced Wetlands Delineation
- Management and Regulation of Dredging Activities
- Threatened and Endangered Species in NJ: Regulations, Identification & Assessment
- Fundamentals of ArcView GIS
- Advanced Desktop Mapping using ArcView GIS
- Environmental Analysis using ArcView GIS
- Soils and Site Evaluations For Septic Disposal Systems
- Freshwater Wetlands Construction Techniques

During her professional career, she gained field knowledge of wetlands delineation, site environmental constraints and regulatory expertise through:

- Permits for various NJDEP Statewide General and Individual Wetlands Permits
- Letters of Interpretation for sites ranging from a single-family lot to a 1,000 acre tract
- Waterfront Development and CAFRA Permits
- Army Corps of Engineers Jurisdictional Determinations, Nationwide and Individual Permits
- Environmental Impact Statements for Planning Board review, New Jersey School Construction Corporation review, New Jersey Department of Environmental Protection review, and other regulatory agency review
- Phase I Environmental Site Assessments for real estate purchase and financing due diligence and Preliminary Assessments for private clients and government agency project financing
- Evaluation and classification of soils in the field, and preparation of Soil Logs for determination of suitability of a site for placement of septic disposal systems and infiltration basin design
- Designing and monitoring wetlands mitigation projects

She provides clients with design recommendations and environmental testimony for various municipal, County and State agencies (including N.J. Department of Environmental Protection and Pinelands Commission), and obtains State environmental construction permits for a wide variety of public and private clients. She is also one of the two co-founders of the Bay Head, N.J. Environmental Commission and wrote the Natural Resource Inventory for the town.

Among the hundreds of NJDEP permits she has obtained, permits for the following projects had notably ***significant environmental issues***:

- **CAFRA Permit and Freshwater Wetlands permits** for Cedarbridge Corporate Park in Lakewood, N.J., on property with potential for several Threatened and Endangered species of fauna, and contiguous to very large ***Swamp Pink*** Population. Interaction was required with U.S. Fish and Wildlife Service for permit issuance;
- **Individual Freshwater Wetlands Permit** for widening of Shafto/Wyckoff Road in Monmouth County, N.J. Wetlands Mitigation Plan approval was required from NJDEP;
- **Individual Freshwater Wetlands Permit** for widening of Mansfield Road in Mansfield Township, Burlington County, N.J., and subsequent wetlands mitigation bank contribution approval;
- **Individual Freshwater Wetlands Permit** for Marlboro Manse subdivision in Marlboro Township, N.J. Wetland Mitigation Plan approval was required from NJDEP;
- **Individual Freshwater Wetlands Permit** for last section of Leisuretowne Retirement Fellowship in Southampton Township, Burlington County on property with potential for Threatened and Endangered species and significant cultural resources;

- **Freshwater wetlands permits** for the Mansfield Farms subdivision in Mansfield Township, Burlington County on property with potential for several Threatened and Endangered species of fauna;
- **Pinelands approval** for large age-restricted residential subdivision containing the potential for several Threatened and Endangered species of flora and fauna, including Pine Barrens tree frog, Pine snake and Timber rattlesnake, adjacent to the Toms River in Manchester Township, Ocean County;
- **Individual Freshwater Wetlands Permit, U.S. Army Corps of Engineers Permits and CAFRA Permit** for widening of Hooper Avenue in Dover Township, Ocean County, N.J.;
- **Emergency CAFRA, Waterfront Development and Freshwater Wetlands Permits for Oyster Creek Nuclear Generating Plant in Lacey Township, Ocean County,** for 10 million dollar security upgrade on property with potential for several Threatened and Endangered species of flora and fauna;
- **Kozloski Road Freshwater Wetlands Mitigation Monitoring –** Approval by NJDEP of on-going monitoring of a 2.64 acre created wetlands site as mitigation for Individual Wetlands Permit, including annual reports to NJDEP demonstrating that hydric soils (proof of organic content by weight), vegetation and hydrology exist in support of 85% success rate of project;
- **Tomlin Station Road, Coastal Wetlands and Freshwater Wetlands Permits –** Coastal and Freshwater Wetlands permits for replacement of two bridges on Tomlin Station Road in Greenwich Township, Gloucester County, in an area with known endangered species;
- **Wetlands Mitigation Plan, Tomlin Station Road –** Approval of Wetlands Mitigation Plan for disturbance to coastal wetlands and mitigation of coastal wetlands disturbance for two bridge replacements on Tomlin Station Road in Greenwich Township, Gloucester County;

In 1995, the Barnegat Bay was nominated as one of 28 national estuaries by the United States Congress. In 1996 she was appointed co-chair of the Science and Technical Advisory Committee of the Barnegat Bay Estuary Program, along with co-chair Michael P. DeLuca, Senior Associate Director, Rutgers University Institute of Marine and Coastal Sciences. As a member of the Management Committee, she participated in the management of the $750,000 yearly budget for the program for eight years, and helped to shape management policies for the bay and watershed. She contributed to the preparation of the *Comprehensive Conservation Management Plan* for the Barnegat Bay estuary, a published document used to secure on-going funding for projects identified as beneficial to the estuary. She is the author of the chapters on "History", "Land Use" and "Competing Resource Uses" for the *Scientific Characterization of the Barnegat Bay*, edited by Rutgers University, Institute of Marine and Coastal Sciences (to view the document, go to www.bbep.org www.bbep.org). This document was published jointly by the New Jersey Department of Environmental Protection and the U. S. Environmental Protection Agency in 2000.

As a member of the N.J. Builder's Association Pinelands Committee, she met quarterly with the Executive Director and senior staff of the Pinelands Commission to discuss issues pertinent to the development industry in the Pinelands region of New Jersey. In 2003, she received the N. J. Builder's Association "Chairman's Award" for significant contributions to the committee on behalf of the industry.

She is currently a Senior Environmental Project Manager managing wetlands services and permits, coastal permits, and other land use environmental services for the company. D. W. Smith provides a wide variety of environmental services to assist private clients in obtaining approvals from Federal, State and local regulatory agencies:

- Planning Board and Regulatory Agency Testimony
- NJDEP Environmental Permitting
- Wetlands Delineation and Permitting
- Wetlands Mitigation Design and Monitoring
- Environmental Engineering
- Site Development and Land Planning

- Site Soil and Septic Suitability Services
- Environmental Impact Statements for Regulatory Review
- Waterfront/Coastal Development Permits
- Phase I Environmental Site Assessments for potential hazardous materials
- Phase II Site Remediation

TIMOTHY P. LURIE, PE, PP, CME
DIRECTOR OF ENGINEERING / PRINCIPAL

YEARS EXPERIENCE Total 18 This Firm 14 Other Firm 4

ACTIVE REGISTRATION	LICENSE NO.	STATE
Professional Engineer	40279	New Jersey
Professional Engineer	PE061676	Pennsylvania
Professional Engineer	081731	New York
Professional Engineer	6201051324	Michigan
Professional Engineer	69103	Ohio
Professional Engineer	0402040596	Virginia
Professional Planner	05650	New Jersey
U.S.T. Closure & Testing	19235	New Jersey

EDUCATION	DEGREE	YEAR
Stevens Institute of Technology	BE – Engineering	1990
Stevens Institute of Technology	ME – Coastal Engineering	1993

HISTORY

Mr. Lurie was employed from 1993 to 1995 by the New Jersey Department of Environmental Protection as an Environmental Engineer in charge of Permitting Solid Waste Facilities and Recycling Centers. Between 1995 and 1997, Mr. Lurie was employed by Flannery, Webb and Hansen, P.A.

Mr. Lurie began his career at D.W. Smith in 1997 as a Project Engineer involved in all aspects of civil engineering design for large tract residential subdivisions and commercial site plans. In 2001 Mr. Lurie received his Professional Planners license and expanded his role to include planning design and testimony. In 2002 Mr. Lurie was promoted to Principal and Director of Engineering in charge of the all of D.W. Smith's engineering projects and staff.

Mr. Lurie designed two (2) large tract senior projects which have been awarded the Senior Communities of the year award. Mr. Lurie became the Managing Member of the firm in 2007.

EXPERTISE

Land Development Engineering and Planning

- Single and Multi-Family Residential, Commercial and Industrial Developments
- Large Tract (1,000+ units) Active Adult Communities, Corporate Campuses, Industrial Parks, Assisted Living and Critical Care Facilities
- Municipal and Public Works Engineering and Planning for various Boroughs and Townships throughout the State of New Jersey
- All aspects of Landfill Design including Groundwater Modeling, Methane Gas Systems and Contaminated Soil Analysis
- Underground Storage Tank Removal, Installation, Subsurface, Closure & Tank Testing
- Marina Design and Breakwater Devices
- Park and Recreational Land Development
- Presentations to and Approvals from Planning and Zoning Boards
- Environmental Permitting
- Expert Testimony
- Inspection of Construction Projects
- CAFRA Designs