



# EcolSciences, Inc.

Environmental Management & Regulatory Compliance

**ENVIRONMENTAL ASSESSMENT  
FOR  
PROPOSED WAREHOUSE DEVELOPMENT  
BLOCK 502.02, LOTS 37.01 & 38.01  
TOWNSHIP OF FRANKLIN  
SOMERSET COUNTY, NEW JERSEY**

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## **I. EXECUTIVE SUMMARY**

IDIL Davidson, LLC of Atlanta, Georgia is proposing a warehouse development project within a 13.04± acre site known as Block 502.02, Lots 37.01 and 38.01 in the Township of Franklin, Somerset County, New Jersey. The majority of the site is occupied by inactive commercial and industrial development and associated parking lots and access drives. The undeveloped portions of the site are characterized by upland woodland, upland successional old field, and palustrine wetland. The site is bordered to the north, south and west by commercial development and to the east by Davidson Avenue.

The project consists of the construction of one proposed warehouse. The proposed warehouse would occupy approximately 201,610 square feet with 30 loading docks. In addition, 134 car parking spaces and 12 trailer parking spaces are proposed. The project will be accessed by two proposed driveways off Davidson Avenue.

The principal impacts of the proposed project are those associated with a change in land use from an inactive commercial and industrial development, and the conversion of the undeveloped portions of the site characterized by upland woodland, upland successional old field, and palustrine wetland to warehouse development. Long-term impacts to the site include an increase in impervious surfaces and the loss of natural habitats. Temporary impacts will occur during the construction phase of the project and include soil loss, and increased noise and dust levels. All impacts will be minimized through appropriate mitigation procedures and best management practices.

This Environmental Assessment (EA) has been prepared by EcolSciences, Inc. of Rockaway, New Jersey in accordance with Township of Franklin's Land Development Ordinance §112-119 (Requirements for Environmental Assessment) and is intended to support site plans prepared by Bohler of Warren, New Jersey (2022). The following chapters provide a project description, an inventory of existing environmental conditions in and around the site, an assessment of potential impacts associated with the proposed development plan, a description of performance controls designed to mitigate adverse impacts, a discussion of alternatives, and a listing of required permits and approvals.

## II. DESCRIPTION OF DEVELOPMENT PLAN

### A. General Description

IDIL Davidson, LLC of Atlanta, Georgia is proposing a warehouse development project within a 13.04± acre site known as Block 502.02, Lots 37.01 and 38.01 in the Township of Franklin, Somerset County, New Jersey (Attachment A, Figures 1 and 2). Lot 37.01, located at 195 Davidson Avenue, consists of inactive commercial development previously occupied by a hotel and conference center, restaurant, and truck rental facility. Lot 38.01, located at 215 Davidson Avenue, consists of inactive industrial development, and was previously occupied by a plastic manufacturing company. Production at the manufacturing facility onsite has since ceased and the facility has fallen into disrepair. Undeveloped land onsite includes a small stand of upland woodland along the northwest border of Lot 37.01; an upland successional old field in the northwestern half of Lot 38.01; and a small, isolated wetland located along the northwestern boundary of both lots. The site is bordered to the north, south and west by commercial development and to the east by Davidson Avenue.

The project consists of the construction of one proposed warehouse. The proposed warehouse would occupy approximately 201,610 square-feet with 30 loading docks. In addition, 134 car parking spaces and 12 trailer parking spaces are proposed. The project will be accessed by two proposed driveways off Davidson Avenue.

The site was acquired by IDIL Davidson, LLC on July 26, 2022. For a complete project description, including the proposed demolition of existing structures and construction of the proposed warehouse and related site improvements such as parking, loading docks, access drives, lighting, landscaping, utilities, and stormwater management facilities, please refer to the site plans prepared by Bohler (2022). For the anticipated development schedule and construction phasing, please refer to Sheets “Soil Erosion and Sediment Control Plan ‘B’” (Sheet C-602) of the site plans prepared by Bohler (2022).

### B. Master Planning and Zoning

The site is located within the Business and Industry (B-I) Zone of the Township of Franklin. The purpose of the B-I Zone is “to provide sufficient space in appropriate locations for a mixture of office, laboratory, hotel, data processing and communication, light industrial, manufacturing, warehouse and other such compatible uses which provides opportunities for job creation by taking advantage of Franklin's centralized location in the tri-state area...” (Township of Franklin, 2022). Warehousing is a permitted use in the B-I Zone. The proposed project meets the bulk requirements of the B-I Zone, except for Impervious Coverage. Permitted impervious coverage for a site within the B-I Zone is 60 percent, and the project proposes 61.8 percent impervious coverage. Therefore, a

variance is required. No other variances are needed. For details, please refer to the site plans as prepared by Bohler (2022). The surrounding area has been largely developed with commercial and residential development to the north of Interstate-287 (I-287), commercial uses to the east and south, and commercial uses and a solar facility to the west.

According to the Township of Franklin's 2006 Master Plan, the site is within Planning Sector 5 (Township of Franklin, 2006). Planning Sector 5 is located in the northern portion of the Township. Residential development has gradually increased in this planning sector, which has increased demand for land uses that service residents (i.e., personal service and restaurants). Although these residential uses should be accommodated for in Planning Sector 5, the Township indicates in their 2006 Master Plan that the amount of land provided for industrial and warehousing uses should not be totally sacrificed as this area has excellent access for such development along I-287 (Township of Franklin, 2006).

C. Sanitary Sewage

Sanitary sewage service for the proposed development will be provided utilizing an existing connection toward the rear of the site. Wastewater for the project will be conveyed through the Franklin Township Sewerage Authority collection system for treatment. It is estimated that the proposed development will generate 5,050 gallons per day (gpd) of wastewater (Bohler, 2022).

D. Potable Water Supply

Potable water for the proposed development will be obtained from the Township of Franklin Water Utility Department by a connection to an existing line located along Davidson Avenue. The estimated demand for potable water for the proposed development is 5,050 gpd (Bohler, 2022).

E. Stormwater Management Facilities

Stormwater will be collected by a proposed stormwater management system. This system will consist of a series of inlets, manholes and subsurface piping that will convey stormwater to three bioretention basins proposed on the site. The stormwater management system has been designed to be in compliance with the requirements of the NJDEP's Stormwater Management Rules (N.J.A.C. 7:8) for stormwater quality, runoff volume control, groundwater recharge, and the Green Infrastructure Rule amendment. For specific details regarding the proposed stormwater management system, refer to the Stormwater Management Report prepared for the project by Bohler of Warren, New Jersey (Bohler) dated December 2022.

F. Utilities Plan

All other utilities (electricity, gas, cable television, telephone, etc.) will be provided through connections to the existing lines located along Davidson Avenue. All proposed utility connections will be located underground.

G. Solid Waste Plan

Solid waste generated by the proposed development will be collected and transported to an approved landfill for disposal. The Township of Franklin has established a program for the mandatory separation of paper products, glass, and aluminum by commercial, industrial, and institutional establishments. Specifically, this program requires that the following items be separated from waste from all commercial, industrial, institutional, government and office park properties: aluminum cans; antifreeze; computer printout/white ledger; concrete; consumer batteries; corrugated cardboard; glass containers; heavy iron; lead-acid batteries; leaves and brush; magazines and junk mail; mercury-containing devices; mixed office paper; newspaper; plastic containers (No. 1 through No. 7 plastic bottles); scrap automobiles; steel and bimetal cans; stumps, logs and tree parts; telephone books; textiles; used consumer electronics; used motor oil; white goods and light iron; and wood waste (Township of Franklin, 2022).

H. Traffic

Detailed discussions of existing traffic conditions in the vicinity of the site; traffic characteristics of the proposed project; and site access, circulation, and parking has been prepared by Dolan & Dean Consulting Engineers, LLC, dated December 21, 2022, as part of a Traffic Impact Statement and has been submitted under separate cover.

### III. INVENTORY OF EXISTING NATURAL RESOURCES

A thorough inventory of environmental conditions is a fundamental prerequisite to an understanding of a land tract's ecological and cultural history, current condition, and suitability for alternative future uses. The inventory of existing environmental conditions in this chapter is divided into systematic and logical subsections that treat each aspect of the site and vicinity in detail, and collectively define the constraints to future land use.

#### A. Geology

The portions of New Jersey that have similar sequences of rock types, geological structures, and geological history have been characterized as Physiographic Provinces - major areas of the state that have experienced specific geological histories and that have similar characteristics at present. From northwest to southeast across the State, the major physiographic provinces are: Appalachian Ridge and Valley, Highlands, Piedmont, and Coastal Plain. Each of these physiographic provinces has regional subdivisions, and each is also a continuation of larger regions in the northeastern United States (Widmer, 1964; Robichaud and Buell, 1973).

The Township of Franklin is situated within the Piedmont Province of New Jersey (NJDEP, Last Updated September 9, 2022). This province constitutes approximately 20 percent, or 1,600 square miles, of New Jersey. It is mainly underlain by slightly folded and faulted sedimentary rocks of Triassic and Jurassic age (240 to 140 million years old) and igneous rocks of Jurassic age. The Piedmont Province is predominantly characterized as a low, rolling plain divided by a series of higher ridges (Dalton, 2003).

The site's surficial geology consists of weathered shale, mudstone, and sandstone (Qws) and eolian deposits (Qe) (NJDEP, Last updated September 9, 2022). The weathered shale, mudstone, and sandstone geologic unit consists of silty sand to silty clay with shale, mudstone, or sandstone fragments; it is reddish brown, yellow, light gray; and it can be as much as 10 feet thick on shale and mudstone and 30 feet thick on sandstone (NJDEP, Last updated September 9, 2022). Eolian deposits are windblown fine sand and silt; very pale brown, yellowish brown; and as much as 15 feet thick (NJDEP, Last updated September 9, 2022).

Below the surficial deposits, the site is underlain by the Passaic Formation (JTrp), which consists of siltstone and shale (NJDEP, Last Updated September 9, 2022).



## B. Topography

The topography of a site or area is a description of the variation in elevation of the land surface with horizontal distance; topography is generally described by contour maps where points of equal elevation are connected by smooth contours. The surficial topography of a site or area reflects the underlying geology as altered by geomorphological processes; the surficial topography, in turn, directly influences the drainage patterns, watercourses, soils, and biological communities evolving on the particular site.

The site is relatively level to gently sloping with elevations ranging from 50 feet in the northwestern corner of the site, to 72 feet along the site's western boundary.

## C. Soils

Soils are formed through the interaction of a variety of physical, chemical, and biological factors that include climate, parent material, topography, biological activities, and time. The degree to which any or all of these factors affect the local soil characteristics is quite variable, generally leading to the formation of a mosaic of soil types in any particular locality. The United States Department of Agriculture (USDA) has, through the Natural Resources Conservation Service (NRCS), mapped soils in detail; for New Jersey, the results of these soil surveys are issued for each county.

According to the USDA NRCS Web Soil Survey (USDA NRCS, 2019) (Attachment A, Figure 3), three soil units representing two soil series occur on the site: Penn silt loam, 2 to 6 percent slopes (PenB); Penn silt loam, 6 to 12 percent slopes (PenC); and Reaville silt loam, 0 to 2 percent slopes (RehA). Table 1 lists the soil characteristics, limitations, and suitability. A brief description of each soil series per the USDA NRCS is provided as follows:

Penn (PenB, PenC) – These moderately deep, well-drained soil units consist of fine-loamy residuum weathered from noncalcareous reddish shale, siltstone, and fine-grained sandstone on hills. They are strongly sloped with slopes ranging from 0 to 60 percent. The depth to the seasonal high-water table is greater than 80 inches. The depth to the bedrock ranges from 20 to 40 inches. The Penn series is not listed in a hydric soil group by the Soil Conservation Service (SCS) as a hydric soil (Tiner, 1985).

Reaville (RehA) – This moderately well and somewhat poorly drained soil series is formed in residuum weathered from red Triassic, interbedded shale, siltstone, and fine-grained sandstone. It is nearly level with slopes ranging from 0 to 15 percent. The depth to the seasonal high-water table ranges from 12 to 24 inches. The depth to the bedrock ranges from 20 to 40 inches. The Reaville series is not listed in a hydric soil group by the SCS (Tiner, 1985).

**Table 1:  
Soil Characteristics, Limitations, and Suitabilities**

<b>Parameter</b>	<b>Penn silt loam, 2 to 6 percent slopes (PenB)</b>	<b>Penn silt loam, 6 to 12 percent slopes (PenC)</b>	<b>Reaville silt loam, 0 to 2 percent slopes (RehA)</b>
Texture	Silt loam	Silt loam	Silt loam
Slope (%)	2 – 6	6 – 12	0 – 2
Depth to Bedrock (cm.)	76	61	71
Depth to Seasonal High-Water Table (cm.)	>200	>200	46
Capacity of Most Limiting Layer to Transmit Water (Ksat) (microm/sec)*	7.5495	23.29	3.8249
Available Water Capacity (cm. water/cm. soil)*	0.11	0.15	0.13
pH*	4.9	4.9	5.8
Erosion Hazard (K Factor)*	0.37	0.49	0.37
Limitations for Small Commercial Buildings	Somewhat limited – Depth to hard bedrock, slope	Very limited – Slope, depth to hard bedrock	Somewhat limited – Depth to saturated zone, depth to hard bedrock, slope, depth to thin cemented pan, depth to thick cemented pan, depth to saturated zone

\*Weighted average of all soil layers

Source: USDA, NRCS, 2019

#### D. Ground Water Quantity and Quality

Ground water is all water within the soil and subsurface strata that is not at the surface of the land. It includes water that is within the earth that supplies wells and springs. Ground water resources are often functionally linked to overlying land areas and surface water bodies; ground water is often recharged through "outcrop" areas at the land surface and ground water discharges ("seeps") may contribute to base flows of streams and rivers.

The ground water yields of any particular geological formation are a function of the porosity and permeability of the material comprising the formation (consolidated rock or unconsolidated deposits). Porosity describes the water-containing spaces between individual mineral grains, while permeability is the ease or difficulty with which water is transmitted through interconnecting spaces in the formation. Formations lacking open spaces between the mineral grains have both low porosity and low permeability. Weathering and cracking of the parent bedrock can induce secondary porosity in the formation; water can accumulate and move through these fractures in the primary rock formation.

The site is underlain by the Brunswick aquifer system (NJDEP, Last Updated September 9, 2022). The Brunswick aquifer system consists of sandstone, siltstone, and shale of the Passaic, Towaco, Feltville, and Boonton Formations. Ground water is stored and transmitted in fractures. Water is normally fresh, slightly alkaline, non-corrosive and hard. Calcium-bicarbonate type waters dominate. Subordinate calcium-sulfate waters are associated with high total dissolved solids. This aquifer includes conglomerate facies along the northwest margin of the basin (G.C. Herman *et al.*, 1998). The Brunswick aquifer system is given an aquifer rank of C, where ground water wells provide a median yield from greater than 100 to 250 gallons per minute (NJDEP, Last Updated September 9, 2022).

The NJDEP, NJGS, Bureau of Water Resources (BWR) in conjunction with Mark A. French prepared a GIS layer of "Aquifer Recharge Potential." The aquifer recharge potential was not calculated in areas of wetlands and open waters, or areas of hydric soils (NJDEP, NJGS, BWR, Mark French, 2005). The majority of the site is mapped as Rank D Ground Water Recharge Rank (1 to 8 inches per year) and Rank C Water-Table Aquifer Rank (100 to 250 gallons per minute). A small portion of the site along the northwest boundary is mapped as Rank B Ground Water Recharge Rank (12 to 16 inches per year) and Rank C Water-Table Aquifer Rank. Rank A is the highest rank and Rank E is the lowest rank (NJDEP, NJGS, BWR, Mark French, 2005).

The NJDEP has mapped well head protection areas for public community and non-community supply wells in New Jersey. Well head protection areas are modeled around a well and delineate the horizontal extent of groundwater captured by the well pumping at a rate over a certain period of time (NJDEP, Last Updated September 9, 2022). Based on review of NJ-GeoWeb, there are no community or non-community well head protection areas mapped on or in the vicinity of the site.

E. Surface Water Quantity and Quality

Surface waters include lakes, rivers, ponds, and streams - water bodies at the surface of the land. These waters serve as valuable habitats for aquatic organisms; collect, store, and distribute water from rainfall; and serve as important aesthetic and recreational features.

Based on review of NJ-GeoWeb, there are no mapped surface waters on the site (NJDEP, Last Updated September 9, 2022). Overland runoff from the site is generally directed northwest towards an off-site Raritan River tributary, which is mapped approximately 260 feet to the northwest of the site. This Raritan River tributary has been classified by the NJDEP as FW2-NT (non-trout) water (NJDEP, April 6, 2020). By definition, FW-2 waters are suitable for public potable water supply after required treatment. This classification requires that waters be acceptable for primary contact recreation, industrial and agricultural use, and maintenance and migration of the established biota. The Non-Trout (NT) suffix indicates that the waters do not possess the properties suitable for the maintenance of trout species, i.e., high dissolved oxygen levels, relatively low summer temperatures, and low pollutant loadings. However, more tolerant fish species, particularly warm-water species, may flourish in such waters (NJDEP, April 6, 2020).

The NJDEP (June 24, 2021) published a “DRAFT 2018/2020 New Jersey Integrated Water Quality Assessment Report (Integrated Report)”, which is intended to provide an effective tool for maintaining high quality waters and improving the quality of waters that do not attain their designated uses. The Integrated Report describes attainment of the designated uses specified in New Jersey's Surface Water Quality Standards (N.J.A.C. 7:9B), which include: aquatic life (general), aquatic life (trout), recreation, public water supply, fish consumption, and shellfish consumption (NJDEP, June 24, 2021). The Integrated Report includes management strategies, including Total Maximum Daily Loads (TMDLs), under development to achieve surface water quality standards and attain the designated uses of the waters (NJDEP, June 24, 2021). TMDLs represent the assimilative or carrying capacity of the receiving water taking into consideration point and nonpoint sources of pollution, natural background, and surface water withdrawals (NJDEP, June 24, 2021).

The NJDEP assesses each applicable designated use for all of the State’s 293 subwatersheds (assessment units), to determine whether each subwatershed is “fully supporting” the use, “not supporting” the use, or if insufficient information is available to assess the use. A subwatershed is “fully supporting” a designated use only if data for the minimum suite of parameters are available and there are no exceedances of the applicable criteria for each parameter in the suite. If data are available for only some of the minimum suite of parameters, the use is not assessed due to insufficient information. If any one parameter associated with a designated use exceeds the applicable criteria, then the subwatershed is “not supporting” for the designated use.

The site is within the Raritan R Lwr (I-287 Piscatway-Millstone) assessment unit (NJDEP, June 24, 2021). This assessment unit was “not supporting” for Aquatic Life (General), Fish Consumption, Water Supply, and Primary Recreation for “non-attainment” of pH, total phosphorous, and total suspended solids; fish mercury and fish PCB; arsenic and benzene; and *Escherichia coli* (*E. coli*), respectively (NJDEP, June 24, 2021).

#### F. Vegetation

Vegetation is the plant life or the total plant cover that is found in a specific area, whether indigenous or introduced by humans. The Piedmont Physiographic Province of New Jersey is characterized by broad areas of relatively uniform elevation, with only occasional topographic relief (Robichaud and Buell, 1973). This low degree of habitat diversity results in broad distributions of a limited number of major vegetative communities, rather unlike the fine-scale heterogeneity found in the more topographically diverse physiographic provinces in northern New Jersey.

The Natural Heritage Program (NHP) of the NJDEP Office of Natural Lands Management identifies the state's most significant natural areas through a comprehensive inventory of rare plant and animal species and representative ecological communities (NHP, 2021). Through this program, Natural Heritage Priority Sites were identified which include critically important areas to conserve New Jersey’s biological diversity, with particular emphasis on rare plant species and ecological communities. Based on review of NJ-GeoWeb, there are no Natural Heritage Priority Sites on, or within the vicinity of the site. The nearest Natural Heritage Priority Site, the Chimney Rock Site, is located approximately 3.1 miles northwest of the site (NJDEP, Last Updated September 9, 2022).

In addition to Natural Heritage Priority Sites, the NHP Database includes Natural Heritage Grid Maps, which provide a general portrayal of the geographic location of rare plant species and rare ecological communities for New Jersey, without providing sensitive detailed location information. Each grid that is mapped is classified into one of three categories: ‘S’, which indicates the location of

the rare plant and/or ecological community is precisely known within the grid; ‘M’, which indicates the location of the rare plant and/or ecological community is only known to within 1.5 miles; or ‘BOTH’, which indicates the grid includes locations of rare plants and/or ecological communities that are precisely known and less precise occurrences are found (NJDEP, Last Updated September 9, 2022). Based on review of NJ-GeoWeb, the site is not located within or adjacent to a Natural Heritage Grid Map. The nearest Natural Heritage Grid Map is located approximately 1.7 miles northwest of the site (NJDEP, Last Updated September 9, 2022).

EcolSciences performed a field delineation effort in August and September of 2022 to determine the extent of wetlands and document vegetation communities on the site. Based upon species composition, soils, and apparent hydrology noted during EcolSciences’ field investigations, four vegetative communities were identified within the site: upland woodland, upland successional old field, maintained lawn, and palustrine forested deciduous / emergent wetland (PFO1/PEM). Each community is briefly described below.

Upland Woodland – This community is located along the site’s northwest boundary. Canopy vegetation consists of Callery pear, pin oak, and white ash.

Upland Successional Old Field – This community is located within the southwestern portion of the site. Canopy vegetation is sparse and dominated by black cherry, eastern red cedar, and white ash. The woody understory includes Allegheny blackberry, Callery pear, and rambler rose. Groundcover consists of Kentucky bluegrass, late-flowering thoroughwort, common yarrow, common wormwood, white oldfield American-aster, and crownvetch.

Maintained Lawn – This community is located adjacent to the commercial buildings in the eastern and northeastern portions of the site. The community is dominated by turf grass and planted pin oak trees.

Palustrine Forested Deciduous / Emergent Wetland (PFO1/PEM) – This community is restricted to small, isolated pocket in the western portion of the property. Within the PFO1 component of the wetland, dominant canopy vegetation consists of green ash, ash-leaf maple, and American elm. The woody understory includes American elm, green ash, and pin oak. Common herbs include common reed, Japanese stiltgrass, eastern poison ivy, mild water-pepper, and green ash. Within the PEM component of the wetland, common herbs include cottongrass bulrush, path rush, and Japanese stiltgrass.

#### G. Wildlife

The utility of an area as wildlife habitat depends on many factors. All wildlife species require food, water, cover, and space. The relative abundance or lack of these resources in relation to each

species' particular requirements will, in part, determine the species composition and distribution of a particular area. In addition, the types of vegetative communities present, the size, shape, and complexity of the habitat(s), and the surrounding land uses will further interact to determine the success of various wildlife species at the location being considered. Some wildlife species have demonstrated great adaptability and tolerance to the human presence; others are less able to tolerate such activities and are displaced to more suitable habitats, if such are available and accessible.

Starting in July 2002, the NHP of the NJDEP Office of Natural Lands Management adopted use of the Landscape Project to supplement threatened and endangered species data requests. The Landscape Project was developed by the NJDEP, Division of Fish & Wildlife, Endangered & Nongame Species Program (ENSP). It is a wildlife habitat-mapping program that is used to identify and map critical habitats for endangered, threatened, and special concern species. This approach takes documented records of threatened and endangered wildlife and, based on a species-specific model or “occurrence area”, maps areas of suitable habitat contiguous to the record as critical wildlife habitat. Each critical habitat patch appears as a shaded color from light to dark (5 Ranks) indicating its relative priority ranking. Rank 1 is the lowest priority ranking, while Rank 5 is the highest priority ranking. Rank 1 meets the minimum area requirement, but no data exists for the presence of priority species (New Jersey Division of Fish and Wildlife, 2017). This is the NJDEP’s lowest priority ranking and is defined as areas meeting the minimum size requirements but with no documented sightings of threatened or endangered species. Rank 2 contains records for priority species, which are species of special concern. Ranks 3, 4, and 5 indicate that the identified land cover type has been identified as providing habitat for State threatened (Rank 3), State endangered (Rank 4), or Federally threatened or endangered (Rank 5) species.

According to the NJDEP’s Landscape Project (Version 3.3), the site is not mapped as any Rank habitats (Attachment A, Figure 4). The nearest mapped habitat within the vicinity of the site, approximately 100-feet west, is Rank 1 habitat. Further west, Rank 2 habitat is mapped adjacent to the off-site Raritan River tributary. This information corresponds to the data provided by the NHP in their response letter dated November 3, 2022 (NHP File No.: 22-4007455-26241). The NHP response letter is provided in Attachment B.

Due to the site’s largely developed condition, and proximity to existing commercial and industrial land uses and I-287, species diversity and population numbers are expected to be low. Common species adapted to urban and suburban land uses, such as white-tailed deer, raccoon, opossum, red fox, skunk, eastern gray squirrel, and eastern chipmunk as well as a number of smaller rodents (i.e., mice and voles) may be found transiently utilizing the site. The number of avian species

utilizing the site likely fluctuates throughout the year in accordance with migration, but is expected to be utilized by only common avian species not requiring large swaths of undeveloped land. During the September 2022 field investigation, the following avian species were identified: American robin, American crow, blue jay, eastern bluebird, European starling, mourning dove, and song sparrow.

#### H. Wetlands

Wetlands are lands where water saturation is the dominant factor determining the nature of soil development and the types of plants and animal communities living in the soil and on its surface. Wetlands are transitional areas between terrestrial and aquatic systems and are unique biological habitats of socioeconomic value. Wetlands moderate extremes in water flow, aid in the natural purification of water, and may be areas of groundwater recharge. According to regulations promulgated by the United States Army Corps of Engineers (COE) and the United States Environmental Protection Agency (EPA) (33 CFR Section 323.2 and 40 CFR Section 230.2, respectively) and pursuant to the New Jersey Freshwater Wetlands Protection Act (1987), wetlands are those 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 to life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

One small, palustrine wetland with emergent and forested components is located in the western portion of the site. This wetland is not part of a surface water tributary system and is therefore isolated. An application for a Letter of Interpretation (LOI): Line Verification was submitted to NJDEP on December 21, 2022 to verify the extent of the onsite wetland and its transition area. It is anticipated that the wetland will be classified as intermediate resource value with an associated 50-foot transition area. The wetland boundary line and transition area, to be verified by NJDEP, is shown on the site plans prepared by Bohler (2022).

#### I. Floodways and Floodplains

The area inundated by the floodwaters of a river or stream is termed the floodplain. Within the floodplain can be found several subdivisions: the channel, where normal, non-floodplain flow is confined; the floodway, or terrestrial areas on the margins of the channel that show permanent terracing effects of repeated flooding; and the flood fringe, or areas landward of the floodway that may be inundated during more severe (and less frequent) storms. Taken together, these areas constitute the flood hazard area around a river or stream.



As discussed in Section III.E, overland runoff from the site is generally directed northwest towards an off-site Raritan River tributary, which is mapped approximately 260 feet to the northwest of the site. According to FEMA mapping (Community Panel No. 34035C0167E, effective September 28, 2007) (Attachment A), the site is not mapped within any flood hazard areas.

In addition to regulating activities within floodways and floodplains, the Flood Hazard Area (FHA) Control Act Rules (N.J.A.C. 7:13 et seq.) also protect a riparian zone adjacent to all regulated waters. The riparian zones are 50, 150 or 300 feet in width along each side of regulated surface waters throughout the State. The riparian zone width depends on the environmental resources being protected, with the most protective 300-ft riparian zone applicable to waters designated as Category 1 (C1) and certain upstream tributaries. Waters supporting trout, or habitats of threatened or endangered species critically dependent on regulated waters for survival receive a 150-ft riparian zone. Regulated waters not identified above would have a 50-foot riparian zone.

Based on review of NJ-GeoWeb, the Raritan River tributary and its upstream portions are anticipated to receive a 50-ft riparian zone due to its classification as a FW2-NT stream. Therefore, no riparian zones as regulated under the FHA Control Act Rules are located on the site.

Although no riparian zones as regulated under the FHA Control Act Rules are located on the site, one stream corridor, as regulated by the Delaware and Raritan Canal Commission (DRCC) is located on site. Based on review of NJ-GeoWeb, the site is within the DRCC Review Zone (NJDEP, Last Updated September 9, 2020). The DRCC “Review Zone” is the region appertaining to and including the Delaware and Raritan Canal State Park (the Park) designated by the DRCC in which proposed projects may cause adverse drainage, aesthetic, or other ecological impacts on the Park (DRCC, 2009). The Review Zone is further divided into two subzones A and B as follows:

- Zone A is typically the area within 1,000 feet on either side of the center line of the Delaware and Raritan Canal.
- Zone B is the balance of the overall Review Zone, which is based upon sub-watersheds located in central New Jersey that impact the Delaware and Raritan Canal (DRCC, 2009).

For any water course and its tributaries that discharge into the Delaware and Raritan Canal, the regulated stream corridor includes the water course and its tributaries, and either the 100-year floodplain associated with the water course and its tributaries and a 100 foot buffer adjacent to the 100- year flood line, or 300 feet along both sides of the water course or tributary, measured from the top of the water course’s banks, whichever is greater (DRCC, 2009). Based on the width of its

mapped 100-year floodplain (FEMA mapping Community Panel No. 34035C0167E, effective September 28, 2007, Attachment A), the Raritan River UNT is anticipated to have a 300-foot stream corridor regulated by the DRCC. The northern-most corner of the site falls within this DRCC-regulated 300-foot stream corridor.

#### J. Air Quality

The Federal and State environmental regulatory agencies have established permissible concentrations, termed the National Ambient Air Quality Standards (NAAQS), for six principal pollutants including carbon monoxide, lead, nitrogen dioxide, ozone, particle pollution, and sulfur dioxide. These standards have been shown to reduce to an acceptable level the risk of health effects to vulnerable human populations, primarily the young, the elderly, and those with respiratory ailments. Primary standards define air quality levels intended to protect the public health including “sensitive” populations such as asthmatics, children, and the elderly. The secondary standards define levels of air quality intended to protect the public welfare including protection against decreased visibility and damage to animals, crops, vegetation, and buildings (EPA, 2021).

The NJDEP annual air quality reports summarize the air quality monitoring data for that particular year in New Jersey. The State of New Jersey has been monitoring air quality since 1965. The most recent NJDEP Air Quality Summary Report available is for the year 2021. Based on the 2021 annual air quality report, the entire state of New Jersey is in non-attainment for the ozone NAAQS. New Jersey’s northern non-attainment area is classified as “moderate” for the 0.08 parts per million (ppm) and 0.07 ppm 8-hour ozone standards and “serious” for the 0.075 ppm 8-hour ozone standard (NJDEP, September 2022). A “serious” area has a design value of 0.093 up to but not including 0.105 ppm (EPA, 2018).

There were two exceedances of the fine particle (PM<sub>2.5</sub>) level 24-hour NAAQS (35 µg/m<sup>3</sup>) at two sites in New Jersey (NJDEP, September 2022). These exceedances are attributable to a wildfire in western U.S. and Canada that caused an exceedance event in the northeast U.S. (NJDEP, September 2022). New Jersey was in attainment in 2021 for the remaining four principal pollutants including nitrogen dioxide, sulfur dioxide, carbon monoxide, and lead (NJDEP, September 2022).

The Air Quality Index (AQI) is a national air quality rating system based on the NAAQS. An index value of 100 is equal to the primary, or health-based, NAAQS for each pollutant. This allows for a comparison of each of the pollutants used in the AQI. These pollutants are ozone, particulate matter, carbon monoxide, sulfur dioxide, and nitrogen dioxide. In the vicinity of the site, the Rutgers University station had five days in 2021 where the AQI reached the “Unhealthy for Sensitive Groups”

(“USG”) threshold. Three days were due to ozone and two days were due to fine particles (PM<sub>2.5</sub>) (NJDEP, September 2022). In 2021, only one station for one day in New Jersey had a AQI that reached “Unhealthy” (“U”). The Monmouth University station reached the U threshold due to ozone for one day (NJDEP, September 2022). The USG threshold means that members of sensitive groups may experience health effects and that the general public is not likely to be affected. The U threshold means that everyone may begin to experience health effects and that members of sensitive groups may experience more serious health effects (NJDEP, September 2022).

The NJDEP annual air quality reports also provide information on longer-term trends in the state, providing summary data for all monitoring locations from 1965 to the latest year reported. Examination of those data indicates that New Jersey has shown a somewhat erratic downward trend in the ozone standard and is getting close to meeting the ozone NAAQS. There has been a steady decline in overall particulate matter (PM)<sub>2.5</sub>, which is now in compliance with the NAAQS. A sharp increase and subsequent decrease in sulfur dioxide concentrations in New Jersey occurred in 2013 as a result of a coal-burning facility across the Delaware River in Pennsylvania. The facility has since ceased operations under a court agreement, and sulfur dioxide levels in New Jersey have returned to meeting the NAAQS for sulfur dioxide. The State of New Jersey has long been in compliance with the NAAQS for the remaining three principal pollutants including nitrogen dioxide, carbon monoxide, and lead (NJDEP, September 2022).

These positive trends in air quality have been occurring despite significant population increases in the central and southern regions of the state, and the concomitant increase in vehicular traffic associated with population growth. These countervailing trends appear to be the result of more effective emissions controls on vehicle exhausts and on industrial emissions, the net result of which is a decline in overall air loadings since air monitoring began in 1965 as summarized in the NJDEP report for 2021.

#### K. Land Use

The development of a site is in many cases a major alteration of the features of a property. The extent to which such change in land use is significant depends in part on the existing land use(s) on the site and in surrounding areas, and on the zoning constraints selected for the land by the governing municipality.

The majority of the site is occupied by inactive commercial and industrial development and associated parking lots and access drives. The undeveloped portions of the site are characterized by upland woodland, upland successional old field, and palustrine wetland. The site is bordered to the

north, south and west by commercial development and to the east by Davidson Avenue. The surrounding area has been largely developed with commercial and residential development to the north of Interstate-287 (I-287), commercial uses to the east and south, and commercial uses and a solar facility to the west.

L. Aesthetics

The aesthetic quality of a particular area is a general representation of how the area is perceived by humans. Literally, it is how the sensory information provided by an area is interpreted. Pleasing visual, auditory, and olfactory stimuli will combine to provide a perception of high aesthetic appeal. Offensive sights, sounds or odors will yield the opposite impression. Aesthetics, of course, vary from observer to observer; generally, though, rural and natural landscapes offer higher aesthetic appeal than do urban, highly modified landscapes.

The undeveloped portions of the site could be considered aesthetically pleasing to persons passing by along Davidson Avenue or on adjacent properties. The abandoned commercial and industrial buildings and accessory parking areas and access drives are not anticipated to be considered aesthetically pleasing.

M. Historic and Cultural Resources

Historic and cultural resources are man-made or man-modified features of the environment, including objects, structures, site, and districts deemed to be of cultural significance. Such resources may be pre-historic or historic in age and are often worthy of preservation to provide present and future generations with a sense of the peoples who once lived and worked in a particular locality.

The New Jersey and National Registers of Historic Places (NJDEP, 1995, last updated September 29, 2022) does not list any registered historic or eligible for listing resources on the site. Based on a review of the GIS layers “NJDEP Historic Districts, Properties, and Site Grid Map of New Jersey” (NJDEP, NHR, HPO, 2021), there are no historic districts, historic properties, or historic archaeological site grids on the site (Attachment A, Figure 5). The nearest historical resource is St. Andrew's Ukrainian Orthodox Memorial Church, located approximately 0.11-miles northwest of the site (NJDEP, Last Updated September 9, 2022).

N. Demography and Community Facilities

The demographic characteristics of a municipality define the characteristics of the human population living in this municipality - the population size, rate, and direction of change in size, age structure, etc. These characteristics provide a perspective for assessing the degree to which a proposed

development will affect the municipality and its community facilities including schools, police, and fire.

According to the 2020 census, the Township of Franklin had a population of 68,364 people, and an estimated population of 68,428 as of July 1, 2021 (State of New Jersey Department of Labor and Workforce Development, 2022). This translates into a 0.1% percent change in population, which is the same percent change in population as Somerset County (State of New Jersey Department of Labor and Workforce Development, 2022).

The Township of Franklin's Administrative Offices, Police Department, and Public Library are all located in the municipal complex on DeMott Lane. The Department of Health, Department of Social Services/Welfare, and the Department of Parks and Recreation are located in the central portion of the Township, which is the most heavily populated portion of the Township. The Township is served by ten volunteer fire companies administered in four fire districts. The site is located nearest to the Elizabeth Avenue Fire Company, located to the southwest of the site.

The Franklin Township Public School District is comprised of eleven schools. The site is located nearest to the Elizabeth Avenue School, which is located to the northwest of the site. The Middlesex Career Academy, a vocational school, is located adjacent to Lot 38.01.

#### IV. ASSESSMENT OF ENVIRONMENTAL IMPACT

This chapter addresses the potential impacts to the environmental resources of the site and surrounding areas that could result from the proposed development. Potential impacts are first discussed generally, then according to the specific topics set forth in the preceding chapter that inventoried environmental characteristics of the site. The incorporation of mitigation measures during construction and operational phases of the proposed project are cited here in the context of the potential impacts; reference is made again to these mitigating measures in the following chapter.

In general, the principal environmental impacts associated with the construction phase of such a project result from disturbances to soils and vegetation. In the absence of appropriate control measures, clearing of vegetated tracts of land for construction and access to construction sites could reduce the productivity of the soil and create unsightly conditions and fugitive dust. Precipitation falling on disturbed areas could tend to erode fine soil particles and, in the absence of appropriate controls, increase loadings to areas receiving stormwater runoff. As will be detailed below, these potential adverse effects will be minimized by adherence to the Soil Erosion and Sediment Control Plan, to be approved by the Somerset Union Soil Conservation District.

The principal environmental impact associated with the proposed project would be the change in land use and the direct and indirect influences on the surrounding natural communities associated with the use of the site as a warehouse development. Potential impacts on specific natural or human resources are discussed in the following sections.

##### A. Geology

Potential impacts to the project site's geological integrity are typically related to the location and extent of bedrock disturbance resulting from the construction phase. The construction of the project will occur in primarily unconsolidated sediments. Thus, no significant impacts to the site's geological integrity are anticipated from the construction of the proposed development.

##### B. Topography

Potential impacts to the topography of the site are related to the extent of excavation and/or filling required to achieve the desired topography for construction of the warehouse development. The topography within the area of proposed development is of relatively flat to gently sloping. As indicated on the grading plan, some modifications to the existing topography are proposed. Cutting and grading will be required at the proposed access driveways, building, parking areas, and stormwater management system. Throughout the site, soil erosion and sediment control measures will minimize soil loss and erosion wherever grading is proposed.

### C. Soils

In the absence of appropriate control measures, construction activities may result in both short-term and long-term impacts related to soil loss. Removal of topsoil and organic layers could reduce the productivity of the soils, remove ground cover vegetation, and create unsightly conditions. During construction, the potential for soil disturbance will be limited to the area surrounding the proposed buildings, driveways, parking areas, and stormwater management system. During the entire construction period, soil loss and associated adverse impacts will be minimized by strict adherence to the measures specified in the Soil Erosion and Sediment Control Plan, to be approved by the Somerset Union Soil Conservation District.

These soil erosion measures include the use of stabilized construction entrance made up of clean stone at the proposed driveways, installation of inlet filters, installation of tree protection fences where necessary, and installation of silt fences along the limits of disturbance. Immediately following rough grading, all disturbed soils will be protected from erosion and soil loss by temporary seeding and mulching. Permanent vegetation will be established as soon as possible after final grading, as specified in the site plans. In areas where grading is necessary, rapid stabilization of all disturbed soil areas will minimize adverse effects related to soil loss or erosion. For a complete description of the soil erosion and sediment control measures, please refer to the site plans prepared by Bohler (2022).

### D. Ground Water Quantity and Quality

Construction of the proposed development is not expected to have an adverse impact on the ground water resources of the site and surrounding area. No ground water withdrawal or wastewater disposal is proposed within the site, and no private wells will be used to supply potable water for the project. Potable water for the proposed development will be provided by the Township of Franklin Water Utility Department. The daily water demand from the development will be approximately 5,050 gpd (Bohler, 2022). There will be no need to treat or manage the water from a regulatory or public health perspective.

Wastewater generated by the development, estimated to be 5,050 gpd, will be conveyed by the Franklin Township Sewerage Authority for proper treatment (Bohler, 2022). This off-site treatment of wastewater by a regional municipal facility will eliminate the potential for contamination of ground water by wastewater effluent.

There will be an increase in impervious surfaces as a result of the proposed development. The stormwater management system has been designed to be in compliance with the requirements of the

NJDEP's Stormwater Management Rules (N.J.A.C. 7:8) for ground water recharge. Therefore, ground water recharge is provided.

As discussed in Section III.D above, there are no community or non-community well head protection areas mapped on or in the immediate vicinity of the site. Therefore, impacts to water supply wells are not anticipated.

#### E. Surface Water Quantity and Quality

The construction of the proposed warehouse development is expected to have a minimal impact to the surface water resources in the vicinity of the site. Potential short-term impacts to surface water quality are generally associated with soil loss, erosion, and sedimentation during construction activities. As previously described in Section C (Soils) of this chapter, soil disturbance will be largely confined to areas surrounding the proposed building, driveways, parking areas, and stormwater management system. Any adverse impacts will be minimized by the installation and maintenance of proven soil erosion and sediment control measures presented in the plans. These measures will retain disturbed soil sediment within the areas of construction and will mitigate the potential for sediment being transported off-site.

Stormwater will be collected by a proposed stormwater management system. This system will consist of a series of inlets, manholes and subsurface piping that will convey stormwater to three bioretention basins proposed on the site. The stormwater management system has been designed to be in compliance with the requirements of the NJDEP's Stormwater Management Rules (N.J.A.C. 7:8) for stormwater quality, runoff volume control, groundwater recharge, and the Green Infrastructure Rule amendment. For specific details regarding the proposed stormwater management system, refer to the Stormwater Management Report prepared for the project by Bohler of Warren, New Jersey (Bohler) dated December 2022.

#### F. Vegetation

Construction will require removal of existing vegetation from the undeveloped portions of the site, affecting approximately 1.1± acres of upland woodland, upland successional old field, and one palustrine wetland. A landscaping plan will be implemented to enhance the aesthetic features of the development. The landscaping plan includes deciduous, evergreen, and ornamental trees. For specific details regarding the proposed landscaping, refer to the site plans prepared by Bohler (2022).

Because the proposed project requires tree removal in conjunction with a site plan approval from the Township of Franklin, a tree conservation and replacement plan is required in accordance



with § 222-5B of the Township code (Township of Franklin, 2022). A total of 272 trees are proposed to be removed to construct the warehouse. The applicant proposes to replace all 272 trees. Please refer to Sheets C-705 through C-707 of the site plans prepared by Bohler (2022) for the tree replacement details.

As discussed in Section III.F of this EA, there are no Natural Heritage Priority Sites or Natural Heritage Grid Maps on or in the immediate vicinity of the site that would suggest rare plants may occur on the site. No threatened or endangered plant species were observed during EcolSciences' field investigations in August and September 2022. Therefore, impacts to threatened or endangered plant species are not anticipated.

#### G. Wildlife

Noise, heavy equipment, and human activity during the construction phase of the project will cause most mobile wildlife species to move from the site into adjacent undeveloped areas. The project will disturb approximately 1.1± acres of the undeveloped land on the site characterized as upland woodland, upland successional old field, and palustrine wetland. These areas will be developed with a warehouse development. A landscaping plan will be implemented to maintain aesthetics and provide soil stabilization throughout the site. The landscaping plan includes a mixture of deciduous, evergreen, and ornamental trees. These landscaped areas will offer habitat to species tolerant of human disturbance.

No impacts to threatened or endangered wildlife species are anticipated. According to the documentation provided by the NHP dated November 3, 2022 (Appendix B), no rare animal species have been documented within the site. In addition, no endangered, threatened, or species of special concern were observed onsite during EcolSciences' field investigations conducted in August and September of 2022.

#### H. Wetlands

Encroachments into the on-site wetland will be required for the proposed project. Therefore, an application for a Freshwater Wetlands General Permit 6 will be submitted to the NJDEP. A General Permit 6 authorizes regulated activities in freshwater wetlands that are not part of a surface water tributary system discharging into an inland lake or pond, or a river or stream, provided the proposed activities meet the conditions applicable to all general permits and the General Permit 6 requirements. The General Permit 6 will be obtained prior to project development.

A complete list of anticipated permits and/or approvals for the project is provided in Section VII of this EA.

I. Floodways and Floodplains

No disturbances are proposed to floodways, floodplains, or riparian zones.

As discussed in Section III.I, the site falls within Review Zone B as regulated by the DRCC. In addition, the project meets the criteria to be characterized as a major project under N.J.A.C. 7:45 and will therefore be reviewed by the DRCC in its relation to impacts to the off-site Raritan River tributary 300-foot-wide stream corridor. Approval for the project from the DRCC will be obtained prior to commencement of construction.

J. Air Quality

Short-term air quality impacts during construction are related to production of fugitive dust and generation of emissions from exhausts of construction vehicles. Mitigating measures, including dust control practices and the use on construction equipment of efficient air pollution control devices meeting applicable State/Federal specifications, will minimize adverse effects on local air quality.

Long-term air quality impacts will be related primarily to vehicle exhaust emissions, primarily carbon monoxide (CO), hydrocarbons, and nitrogen oxides (NO<sub>x</sub>). However, the magnitude of the environmental effects attributable to the vehicle traffic associated with the proposed project should not affect regional air quality.

K. Land Use

The proposed development will result in the conversion of the largely developed site into warehouse development. The project as designed is in conformance with the B-I Zone of the Township of Franklin and is compatible with the surrounding commercial and industrial land uses. The proposed project does not result in the displacement of a viable farm as the site is not comprised of an active farming operation and there are no active agricultural fields located onsite.

L. Aesthetics

The portion of the site proposed for development is largely developed with abandoned commercial and industrial buildings and associated access drives and parking lots. The undeveloped portions of the site are characterized as upland woodland, upland successional old field, and wetland. A landscaping plan will be implemented to enhance the aesthetic features of the development. The landscaping plan includes a mixture of deciduous, evergreen, and ornamental trees.

M. Historic and Cultural Resources

The proposed project is not expected to adversely impact any known cultural or historical resources. There does not appear to be any historical or cultural resources mapped on the site as discussed in Section III.M of this EA.

N. Demography and Community Facilities

The proposed warehouse development should have a nominal effect on the demography of the Township of Franklin. The proposed project will contribute to temporary and permanent jobs in the Township of Franklin; however, this increase in job availability is not anticipated to have a significant impact on the Township's population or the community facilities discussed in Section III.N of this EA. In addition, the proposed project will not result in the displacement of people or business since the current development onsite is inactive.

## V. STEPS TO MINIMIZE ENVIRONMENTAL IMPACTS

A number of potential impacts associated with construction and operation of the proposed project were identified in Chapter IV. Environmental protective measures that can minimize or eliminate environmental impacts are summarized below. Some have already been included in the site plans; others will be implemented during the construction phases. Many of the measures identified below have already been discussed in the preceding chapter, in the context of the particular environmental features in which they are identified.

### A. Soils and Surface Water Resources

- Existing topography will be maintained to the greatest extent possible in the site planning to minimize the amount of grading required.
- Crushed stone-tracking pads will be installed at the site exits with Davidson Avenue to reduce tracking of sediment onto adjacent roadways during construction activities.
- Silt fences will be erected around and/or down slope of disturbed areas to prevent sediment from being transported off-site.
- Upon completion of final grading, all disturbed areas will receive a final seeding and mulching in accordance with the Soil Erosion and Sediment Control Plan.
- All side slopes shall be protected from erosion by top soiling, seeding, and mulching as soon as possible after final grading.
- All soil erosion and sediment control measures shall be kept in place until construction is complete and/or the disturbed area is stabilized.
- All work will be done in accordance with the Standards for Soil Erosion and Sediment Control in New Jersey.
- The stormwater management basins will be maintained free of debris and sediment that would interfere with the effective operation of these facilities.

### B. Air Quality

- Construction vehicles that are to operate upon the public highways of the State of New Jersey will comply with the regulations as required by N.J.A.C. 7:27-14 and 15.
- Disposal of incinerable wastes by open burning will not be permitted.
- Exhaust systems and emission control devices on all construction machinery will be maintained in good operating condition.
- Vehicles transporting fill, dirt, or other materials will be covered with canvas or similar material.

C. Sound Levels

- To minimize noise generated by construction equipment, mufflers or similar noise abatement devices will be in good operating condition on all construction machinery.
- Silencers, shields, or enclosures will be used around all stationary noise-generating equipment.
- Operation of machinery will be limited to work periods permitted by local law.

D. Public Health, Safety and Well-Being

- During construction, applicable health and safety measures will be implemented (i.e., hard hats, high visibility outerwear, materials handling protocols, etc.) to ensure the safety of both employees and the public.
- Due to the surrounding similar land uses, significant adverse health and safety impacts on the surrounding community during operations are not anticipated.

## **VI. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES**

The major irreversible and irretrievable commitment of resources will be the conversion of 1.1± acres of undeveloped land characterized as upland woodland, upland successional old field, and wetland to warehouse use, consistent with Township zoning. A discussion of a no-action alternative is provided in Section VII of this EA.

## VII. UNAVOIDABLE IMPACTS

The applicant and its engineers have proposed and planned a project that will be compatible with the surrounding land uses in the Township of Franklin. No project can be built and operated without generating some degree of adverse impact on some aspect of the natural or man-made environment. As discussed in the preceding chapters, impacts have been minimized to the extent possible by sound design decisions in the planning stages of the project. Moreover, compliance with State permit and Township ordinance conditions for regulated activities will protect the site's natural resources in the project vicinity. This chapter identifies the probable adverse environmental impacts of the proposed project. The unavoidable environmental impacts resulting from construction and operation of the proposed project are anticipated to be:

- Development of the undeveloped portions of the site characterized as upland woodland, upland successional old field, and wetland to warehouse use and the associated loss of wildlife habitat.
- Increases in impervious surfaces.
- Increases in loadings of common constituents in stormwater runoff.

In general, the principal short-term environmental impacts associated with the construction phase of such a project result from temporary disturbances to soils and from the clearing of vegetation. In the absence of appropriate control measures, clearing of vegetated tracts of land for construction and access to construction sites could reduce the productivity of the soil and create unsightly conditions and fugitive dust. Precipitation falling on disturbed areas could tend to erode fine soil particles and, in the absence of appropriate controls, increase loadings to areas receiving stormwater runoff. These potential adverse effects will be managed by adherence to the Soil Erosion and Sediment Control Plan, as approved by the Somerset Union Soil Conservation District.

The principal long-term impact associated with the project is the commitment of natural resources resulting from the change in land use. The construction of the project will convert approximately 1.1± acres of undeveloped land characterized as upland woodland, upland successional old field, and wetland to warehouse development consistent with Township zoning. The mitigating measures described in the preceding chapters will serve to minimize the potential impacts to natural resources in the site and surrounding area.

The long-term benefits of the project are related to improving the economy of the Township of Franklin through the provision of new jobs and increased tax revenues to support public services.

## VIII. PROJECT ALTERNATIVES

### A. No-Build Alternative

The no-build alternative assumes no development of the site, which would then remain in its present condition. This alternative does not satisfy the intended purpose for the site under the Township of Franklin’s Land Development Ordinance. The site is privately owned, and subject to applicable laws and regulations, and can be developed. The No-Project alternative would result in a loss in tax revenues and infrastructure improvements to the Township of Franklin. Therefore, this alternative was rejected because it does not allow a reasonable use of the site, which is currently largely occupied by vacant commercial and industrial buildings and does not contribute to temporary and permanent jobs in the Township of Franklin.

### B. Alternative Uses

The project as designed is in conformance with the B-I zoning district of the Township of Franklin. Warehousing is a permitted use in the B-I Zone. The proposed project meets the bulk requirements of the B-I Zone, with the exception of Impervious Coverage for which a variance will be requested. For details, please refer to the site plans as prepared by Bohler (2022).

The Township of Franklin’s “Reexamination of Master Plan and Development Regulations” (March 2, 2016) indicates that a land use goal of the Township is “encourage commercial and industrial development in areas with access to major regional highways (I-287) and in established areas” (Township of Franklin, 2016).

The proposed project aligns with the Township goal noted above in providing for warehouse development on a site that is in close proximity to one of the Township’s main highway corridors, I-287. The site is situated within the B-I Zone, and warehousing is a permitted use making the proposed project consistent with the Township’s Land Development Ordinance. Various concepts were evaluated; the culmination of those evaluations is the proposed development, which is consistent with the Township’s “Reexamination of Master Plan and Development Regulations” and the Township’s Land Development Ordinance.



**IX. LIST OF LICENSES, PERMITS AND OTHER APPROVALS**

The following constitutes a list of licenses, permits and approvals required for the proposed project:

**Table 2:  
List of Licenses, Permits, or Other Approvals Needed**

<b>Granting Authority</b>	<b>License, Permit, or Approval</b>	<b>Status</b>
Township of Franklin Planning Board	Preliminary & Final Major Site Plan Application	Subject of this application
Somerset County Planning Board	Preliminary & Final Major Site Plan Application	Submitted 12/28/2022
Somerset Union Soil Conservation District	Soil Erosion and Sediment Control Plan Certification	Submitted 12/28/2022
Delaware and Raritan Canal Commission	Stream Corridor Impact Certificate of Approval	Submitted 12/28/2022
NJDEP Division of Land Resource Protection	Letter of Interpretation-Line Verification	Submitted 12/21/2022 (File No. 1808-22-0014.1)
	Freshwater Wetlands General Permit 6	Submitted 12/28/2022
NJDEP Division of Water Quality	National Pollutant Discharge Elimination System (NPDES) General Permit 5G3 No. NJG0088323 Stormwater Discharge Associated with Construction Activity	To be submitted prior to construction

## X. REFERENCES

**Bohler.** 2022. Personal Communication.

**Bohler.** December 28, 2022. Preliminary & Final Major Site Plan for IDIL Davidson, LLC c/o IDI Logistics, Proposed Warehouse, Block: 502.02, Lots: 37.01 & 38.01, 195-215 Davidson Avenue, Township of Franklin, Somerset County, New Jersey, B-I Zone.

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- NJDEP.** September 2022. 2021 New Jersey Air Quality Report. <https://www.nj.gov/dep/airmon/pdf/2021-nj-aq-report.pdf>
- NJDEP.** Last Amended October 5, 2021. Flood Hazard Area Control Act Rules. N.J.A.C. 7:13.
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## REFERENCES (continued)

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# ATTACHMENT A

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## Figures

Figure 1: USGS Site Location

Figure 2: 2020 Aerial Imagery

Figure 3: SCS Soils Mapping

Figure 4: Landscape Project

Figure 5: Historic Resources

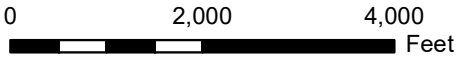
FIRM-Flood Insurance Rate Map

**EcolSciences, Inc.**

Environmental Management & Regulatory Compliance



**Approximate Site Boundary**



**SITE LOCATION**

State Plane Coordinates (New Jersey NAD 83)  
485,172' E; 621,042' N

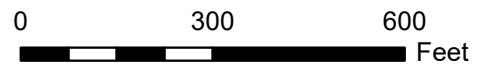
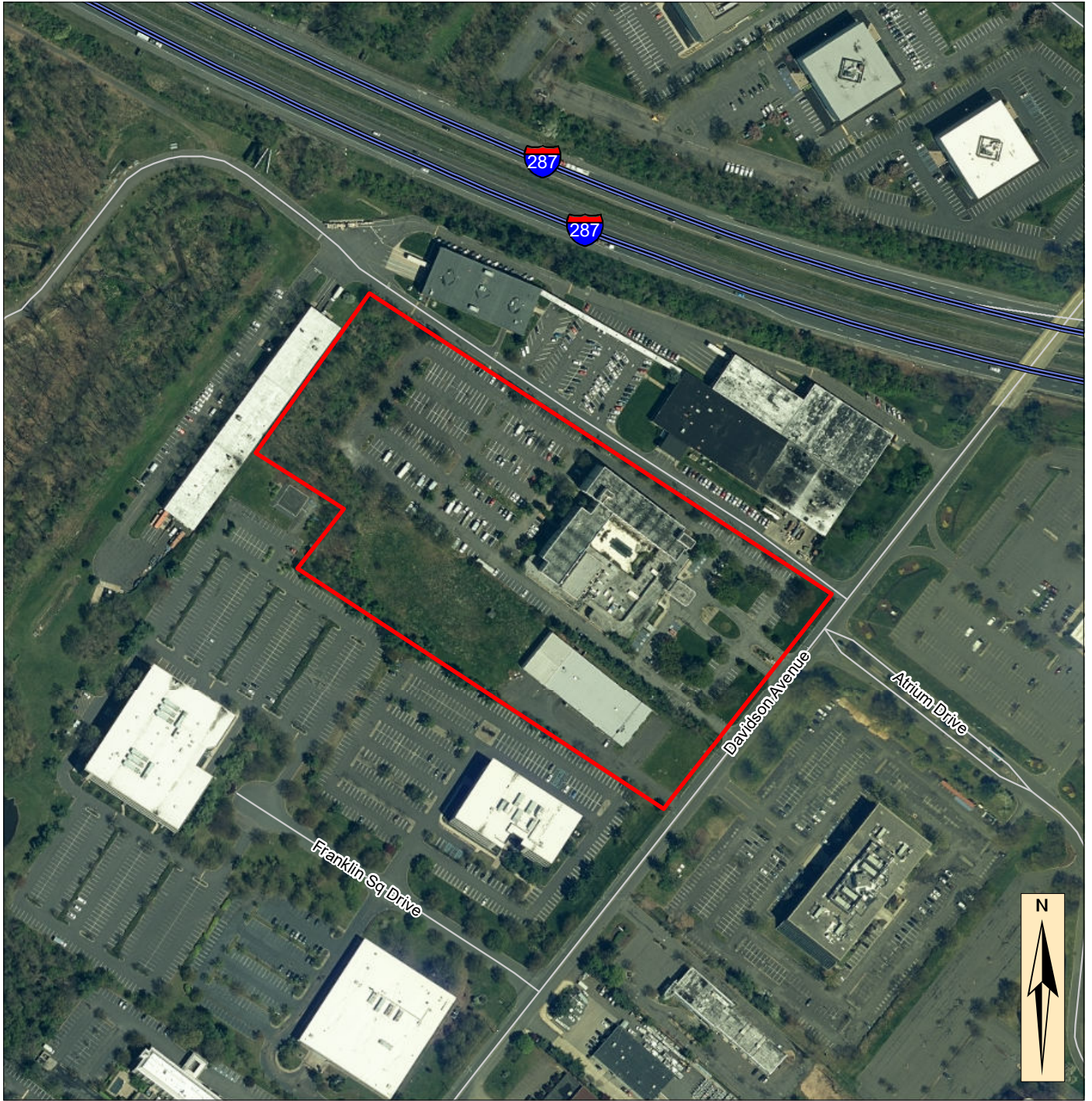
**FIGURE 1: USGS SITE LOCATION**

Block 502.02, Lots 37.01 & 38.01  
Township of Franklin  
Somerset County, New Jersey


USGS The National Map, Bound Brook, NJ Quadrangle, 2022

**EcolSciences, Inc.**  
Environmental Management & Regulatory Compliance

Date: 10/24/2022  
Scale 1:24,000



**Legend**

 Approximate Site Boundary

**FIGURE 2: 2020 AERIAL IMAGERY**

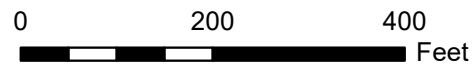
Block 502.02, Lots 37.01 & 38.01  
 Township of Franklin  
 Somerset County, New Jersey

Source: NJOIT, OGIS. 2021. NJ 2020 High Resolution Orthophotography.

**EcolSciences, Inc.**  
 Environmental Management & Regulatory Compliance

Date: 12/27/2022

Scale 1:3,600



**Legend**

- Approximate Site Boundary
- Soil Boundary

**FIGURE 3: SOILS MAP**

Block 502.02, Lots 37.01 & 38.01  
 Township of Franklin  
 Somerset County, New Jersey

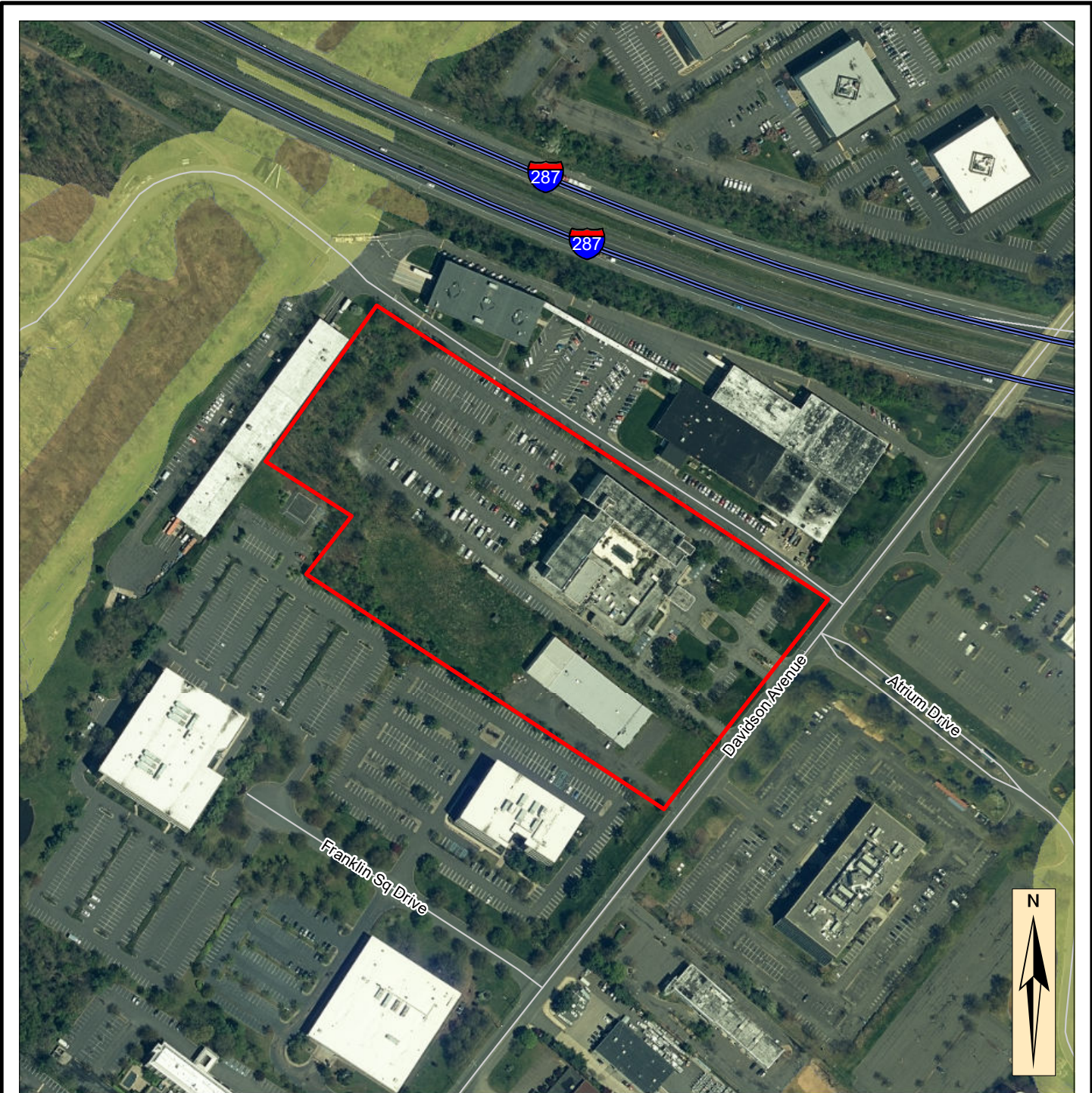
Source: NJOIT, OGIS. 2016. NJ 2015 High Resolution Orthophotography.

**EcolSciences, Inc.**  
 Environmental Management & Regulatory Compliance

Date: 12/19/22

Scale 1:2,400





**Legend**

Approximate Site Boundary

**Species-Based Habitat - Piedmont**

**RANK**

- Rank 1 - Habitat specific requirements
- Rank 2 - Special Concern
- Rank 3 - State Threatened
- Rank 4 - State Endangered
- Rank 5 - Federal Listed

**Vernal Pools**

**VERNAL POOL STATUS**

- Vernal pool location
- Potential vernal pool location

**Vernal Habitat**

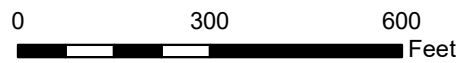
**VERNAL HABITAT TYPE**

- Potential vernal habitat area
- Vernal habitat area

**Freshwater Mussel Habitat**

**RANK**

- Rank 2 - Special Concern
- Rank 3 - State Threatened
- Rank 4 - State Endangered
- Rank 5 - Federal Listed



**FIGURE 4: LANDSCAPE PROJECT**

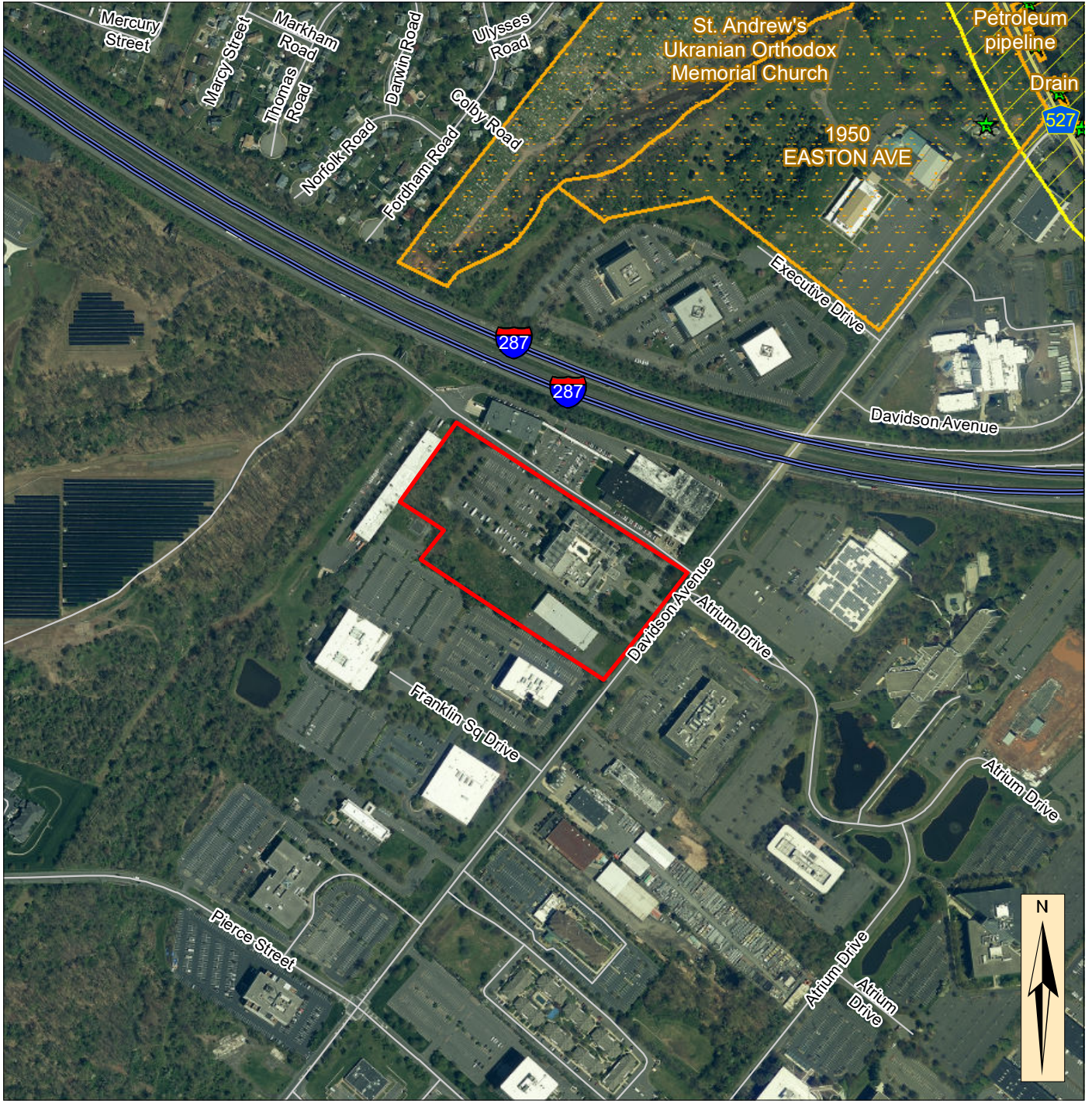
Block 502.02, Lots 37.01 & 38.01  
Township of Franklin  
Somerset County, New Jersey

Sources:  
NJDEP, DFW, ENSP. 2017. New Jersey's Landscape Project (Version 3.3).  
NJOTI, OGIS. 2021. NJ 2020 High Resolution Orthophotography.

**EcolSciences, Inc.**  
Environmental Management & Regulatory Compliance

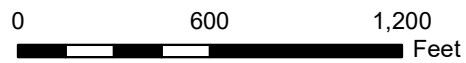
Date: 11/17/2022

Scale 1:3,600



**Legend**

-  Approximate Site Boundary
-  Historic Property Features
-  Historic Properties
-  Historic Districts
-  Archaeological Site Grid



**FIGURE 5: HISTORIC RESOURCES**

Block 502.02, Lots 37.01 & 38.01  
 Township of Franklin  
 Somersset County, New Jersey

Sources:  
 NJDEP, NHR, HPO. 2022. NJDEP Historic Property Features, Properties, Districts, and Site Grid Map of NJ.  
 NJOIT, OGIS. 2021. NJ 2020 High Resolution Orthophotography.

**EcolSciences, Inc.**  
 Environmental Management & Regulatory Compliance

Date: 11/17/2022

Scale 1:7,200

**NOTES TO USERS**

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources, of limited size. **Users may repository should be consulted for possible updates or additional flood hazard information.**

To obtain more detailed information in areas where **Base Flood Elevations (BFEs)** and/or **Floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Substrate Locations notes contained within the Flood Insurance Study (FIS) report that accompanies this FIS. Users should be aware that BFEs shown on the FIS represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be limited in conjunction with the FEMA for purposes of construction and/or floodplain management.

**Coastal Base Flood Elevations** shown on this map apply only to landward of 0.9 North American Vertical Datum of 1988 (NAVD) 88). Users of this FIS should be aware that coastal flood elevations are also provided in the Summary of Substrate Elevations table in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Substrate Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIS.

Boundaries of the **Floodways** were computed at cross sections and interpolated between cross sections. The Floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **Flood Control Structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on Flood Control Structures in this jurisdiction.

The **projection** used in the preparation of this map was New Jersey State Plane, FIPS ZONE 1800. The **horizontal datum** was NAD 83, GRS80 spheroid. Differences in relation, spherical projection or State Plane zones used in the production of maps for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIS.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. For information regarding conversion between the National Geodetic Vertical Datum of 1956 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at [www.ngs.noaa.gov](http://www.ngs.noaa.gov) or contact the National Geodetic Survey at the following address:

NDS Information Services  
NDAIA NUMBER  
National Geodetic Survey  
SSMC # 40202  
1315 East-West Highway  
Silver Spring, Maryland 20910-4242  
(301) 715-3042

To obtain current elevation description and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at (301) 715-3242, or visit their website at [www.ngs.noaa.gov](http://www.ngs.noaa.gov).

**Base map** information shown on this FIS was derived from digital orthorectification provided by the Somerset County GIS Department. This information was produced at a scale of 1:2,400 from aerial photography dated March 2000.

Based on updated topographic information, this map reflects more detailed and up-to-date **stream channel configurations and floodplain delineations** than those shown on the previous FIS. In this jurisdiction, as a result, the Flood Profiles and Floodway Data tables in the Flood Insurance Study report, which contain authoritative hydraulic data, may reflect stream channel alterations that differ from what is shown on this map. Also, the relationship between stream channel configurations and floodplains may differ from what is shown on previous maps.

**Corporate Limits** shown on this map are based on the best data available at the time of publication. Because changes due to annexations or disannexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **map index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a listing of Communities with National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

Contact the **FEMA Map Service Center** at 1-800-358-9600 for information on available products associated with the FIS. Available products may include previously issued Letters of Map Change, a Flood Insurance Study report, and/or digital versions of this map. The FEMA Map Service Center may also be reached by Fax at 1-800-358-9620 and its website at <http://www.fema.gov>. If you have **questions about this map** or questions concerning the National Flood Insurance Program in general, please call 1-877-FEMA MAP (1-877-362-2027) or visit the FEMA website at <http://www.fema.gov>.

If you have **questions about this map** or questions concerning the National Flood Insurance Program in general, please call 1-877-FEMA MAP (1-877-362-2027) or visit the FEMA website at <http://www.fema.gov>.

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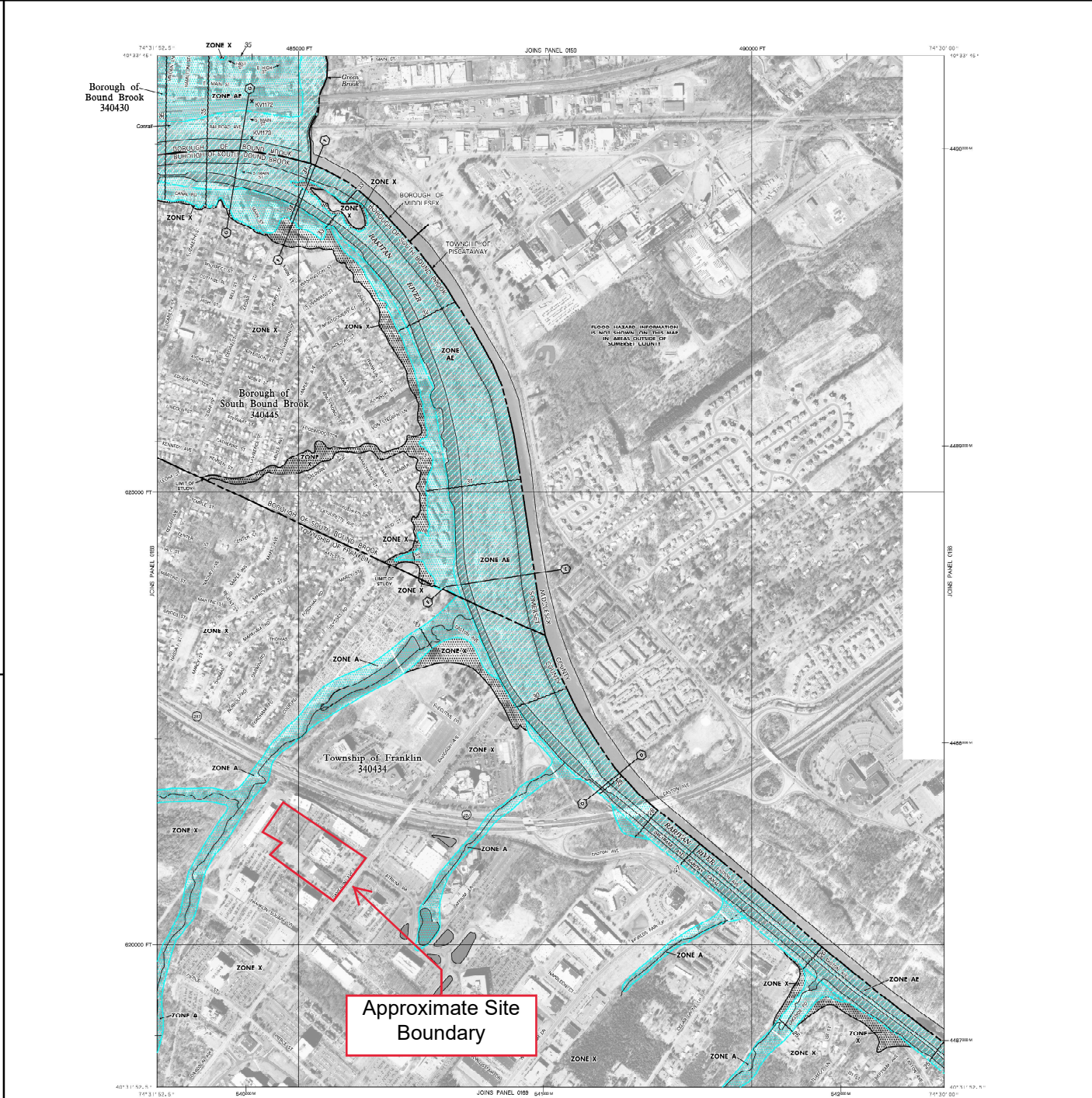
If you have **questions about this map** or questions concerning the National Flood Insurance Program in general, please call 1-877-FEMA MAP (1-877-362-2027) or visit the FEMA website at <http://www.fema.gov>.

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**LEGEND**

**SPECIAL FLOOD HAZARD AREAS SUBJECT TO FLOODING BY THE 1% ANNUAL CHANCE FLOOD**

The 1% annual chance flood (500 year flood) also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Areas are subject to flooding from the 1% annual chance flood. The base flood elevation is the water surface elevation of the 1% annual chance flood.

**ZONE A** No base flood elevations determined.  
**ZONE AE** Base Flood Elevations determined.  
**ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.  
**ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depth determined. For areas of altered flow (flooding, velocities) also determined.  
**ZONE AR** Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was adequately described. Zone AR indicates that the former flood control system is being removed to provide protection from the 1% annual chance of the greater flood.  
**ZONE A99** Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.  
**ZONE V** Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.  
**ZONE VE** Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

**FLOODWAY AREAS IN ZONE AE**

The floodway is the channel of a stream plus an adjacent floodplain area that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

**OTHER FLOOD AREAS**

**ZONE X** Areas of 0.2% annual chance flood, areas of 1% annual chance flood with average depths of less than 1 foot, or with drainage areas less than 1 square mile, and areas protected by levees from 1% annual chance flood.  
**ZONE Y** Other Areas  
**ZONE D** Areas in which flood hazards are unassessable but possible.  
**COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS**  
 CBRS areas and CBRS are normally located adjacent to Special Flood Hazard Areas.

**1%** annual chance floodplain boundary  
**0.2%** annual chance floodplain boundary  
 Floodway boundary  
 Zone D boundary  
 CBRS and CBRS boundary  
 Boundary dividing Special Flood Hazard Area Zones and floodway areas  
 Base Flood Elevation line and value; elevation in feet\*  
 Base Flood Elevation value which uniform within zone; elevation in feet  
 (NAD 1983)  
 \*Referenced to the North American Vertical Datum of 1988

**TRANSVERSE LINE**  
 Transverse line  
 Geographic coordinates referenced to the North American Vertical Datum of 1988  
 1000 meter Universal Transverse Mercator grid; UTM zone 18  
 5000-foot grid values; New Jersey State Plane coordinate system; EPSG:3143; UTM Transverse Mercator projection  
**DIGGDS** Bench mark use explanation in Notes to Users section of the FIS report  
 River Mile  
**MAP REPOSITORY**  
 Name to bring to Map Repository on Map Index  
**EFFECTIVE DATE OF COUNTY-WIDE FLOOD INSURANCE RATE MAP**  
 SEPTEMBER 28, 2007  
**EFFECTIVE DATES OF FLOODING IN THIS PANEL**

**NFIP PANEL 0167E**

**FIRM FLOOD INSURANCE RATE MAP**  
**SOMERSET COUNTY, NEW JERSEY (ALL JURISDICTIONS)**

**PANEL 167 OF 301**  
 (SEE MAP INDEX FOR FIRM PANEL LAYOUT)

JURISDICTION	COMMUNITY	NUMBER	PANEL	SUFFIX
SOMERSET COUNTY	BOUND BROOK	340430	0167	F
	FRANKLIN TOWNSHIP	340434	0167	E
	SOUTH BOUND BROOK	340445	0167	E

**Notes to User:** The Map Number shown below should be used when placing map orders. The Community Number shown above should be used on insurance applications for the subject community.

**MAP NUMBER 34033C0167E**  
**EFFECTIVE DATE SEPTEMBER 28, 2007**

Federal Emergency Management Agency

# **ATTACHMENT B**

---

Pertinent Correspondence

**EcolSciences, Inc.**

Environmental Management & Regulatory Compliance



## State of New Jersey

MAIL CODE 501-04

### DEPARTMENT OF ENVIRONMENTAL PROTECTION

STATE PARKS, FORESTS & HISTORIC SITES  
OFFICE OF NATURAL LANDS MANAGEMENT

501 East State Street  
P.O. Box 420, Mail Code 501-04

Trenton, NJ 08625-0420  
Tel. (609) 984-1339 • Fax (609) 984-0427

PHILIP D. MURPHY  
*Governor*

SHEILA Y. OLIVER  
*Lt. Governor*

SHAWN M. LATOURETTE  
*Commissioner*

November 3, 2022

Elizabeth Muller  
EcolSciences, Inc.  
75 Fleetwood Drive, Suite 250  
Rockaway, NJ 07866

Re: 195 & 215 Davidson Avenue  
Block(s) - 502.02, Lot(s) - 37.01 and 38.01  
Franklin Township, Somerset County

Dear Ms. Muller:

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

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

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

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

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

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

Status and rank codes used in the tables and lists are defined in EXPLANATION OF CODES USED IN NATURAL HERITAGE REPORTS, which can be downloaded from [https://nj.gov/dep/parksandforests/natural/docs/nhpcodes\\_2010.pdf](https://nj.gov/dep/parksandforests/natural/docs/nhpcodes_2010.pdf).

Beginning May 9, 2017, the Natural Heritage Program reports for wildlife species will utilize data from Landscape Project Version 3.3. If you have questions concerning the wildlife records or wildlife species mentioned in this response, we recommend that you visit the interactive web application at the following URL,

NHP File No. 22-4007455-26241

<https://njdep.maps.arcgis.com/apps/webappviewer/index.html?id=0e6a44098c524ed99bf739953cb4d4c7>, or contact the Division of Fish and Wildlife, Endangered and Nongame Species Program at (609) 292-9400.

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

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

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

Sincerely,



Robert J. Cartica  
Administrator

c: NHP File No. 22-4007455-26241

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

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

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

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

*Invertebrate Animals*

Metarranthis pilosaria	Coastal Bog Metarranthis			G3G4	S3S4
------------------------	--------------------------	--	--	------	------

Total number of records: 1



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

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

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

<b>Class</b>	<b>Common Name</b>	<b>Scientific Name</b>	<b>Feature Type</b>	<b>Rank</b>	<b>Federal Protection Status</b>	<b>State Protection Status</b>	<b>Grank</b>	<b>Srank</b>
<i>Aves</i>	Great Blue Heron	Ardea herodias	Foraging	2	NA	Special Concern	G5	S3B,S4N

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

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

*Invertebrate Animals*

Metarranthis pilosaria	Coastal Bog Metarranthis			G3G4	S3S4
------------------------	--------------------------	--	--	------	------

Total number of records: 1

# ATTACHMENT C

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Qualifications of Preparers

**EcolSciences, Inc.**

Environmental Management & Regulatory Compliance

## DAVID P. MOSKOWITZ, Ph.D., SPWS

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### EDUCATION:

Ph.D. 2016 -Entomology  
Rutgers University, New Brunswick, N.J.

M.S. 2000 -Environmental Policy Studies  
New Jersey Institute of Technology, Newark, N.J.

B.A. 1984 -Environmental Studies  
George Washington University, Washington, D.C.

### PROFESSIONAL AFFILIATIONS:

Society of Wetland Scientists  
Entomological Society of America  
American Entomological Society  
Lepidopterists' Society

### PROFESSIONAL CERTIFICATIONS:

Senior Professional Wetland Scientist -SWS  
Certified Wetland Delineator -Corps of Engineers  
USEPA Wetland Delineation -WTI  
Qualified Ornithologist -NJDEP  
Qualified Bog Turtle Surveyor – USFWS

### EXPERIENCE:

Dr. Moskowitz is a Senior Vice President with EcolSciences, Inc. During the past 37 years, Dr. Moskowitz has conducted more than 7,500 environmental studies for a wide range of clients including government agencies, and the development, legal, engineering and financial professions. These studies have focused on wetland and wildlife issues including delineations, field surveys, mitigation and regulatory compliance as well as Phase I, Phase II and Brownfields Redevelopment. Dr. Moskowitz has also provided expert testimony before numerous municipal boards and the New Jersey Meadowlands Commission and has been qualified as an expert in Superior Court of New Jersey, New Jersey Office of Administrative Law, New Jersey Condemnation Commission, and the Morris County Board of Taxation.

### Publications/Articles

- Moskowitz, D.P., 1996. Swamp Pink: A Federally-Listed Threatened Species. *Wetland Journal* 8(3): 14-16.
- Moskowitz, D., Auffenorde, T. and M. Kovacs, (1997). Vegetation and Surrounding Landscape Characteristics of Long-Eared Owl (*Asio otus*) Winter Roosts in Central New Jersey. *Records of New Jersey Birds*. (23)1: 2-6.
- Moskowitz, D.P., 1997. Wetland Restoration Using Non-Contact Cooling Water and Stormwater Runoff as a Supplemental Hydrologic Source. *Wetland Journal*. 9(1): 17-20.
- Moskowitz, D.P., 1997. Hine's Emerald Dragonfly (*Somatochlora hineana*): The First Federally Endangered Dragonfly. *Wetland Journal*. (9)3: 12-14.
- Moskowitz, D.P., 1997/98. Fall Migrant Landbird Observations at Sea. *Records of New Jersey Birds*. (23)4: 95.
- Moskowitz, D.P., 1998. Build a Wetland Garden. *Water Gardening Magazine*.(2)6: 58-60.
- Moskowitz, D.P., 1998. Tips Offered on Negotiating N.J.'s Mining, Dredging Rules. *Mine Regulation Reporter*. 11(4): 86-87.
- Moskowitz, D.P., 1998. Vegetation Change in a Forested Wetland after a Bird Roost. *Northeastern Naturalist*. 5(1): 61-66.



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Moskowitz, D.P., 2000. A Comparison of Field-Delineated Wetlands to the New Jersey Freshwater Wetland Maps. M.S. Thesis -New Jersey Institute of Technology.

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Moskowitz, D.P. and T.A. Auffenorde., 2000. Persistence of Skunk Cabbage (*Symplocarpus foetidus* [L.] Nutt.) in a Drained Wetland. Wetland Journal 12(3): 23-29.

Moskowitz, D.P., 2000. A New County Record for Archilestes Grandis in New York with Notes on Habitat and Water Quality. ARGIA 12(4): 7-8.

Moskowitz, D.P., 2000. Habitat Notes on a Winter Saw-whet Owl (*Aegolius acadicus*) Roost in Central New Jersey. Records of New Jersey Birds. 26(4): 138-139.

Moskowitz, D.P., 2000. Book Review: Dragonflies through Binoculars -A Field Guide to Dragonflies of North America. Wetland Journal. 12(4): 41. Poricy Park Citizens Committee. 2001. A Checklist and Guide to the Butterflies of Poricy Park. Pamphlet.

Moskowitz, D. P. 2001. First Record of the Queen Butterfly (*Danaus gilippus* Cramer) in New Jersey. News of the Lepidopterists' Society. 43(3): 72, 74.

Moskowitz, D., J. Moskowitz, S. Moskowitz and H. Moskowitz. 2001. Notes on a large dragonfly and butterfly migration in New Jersey. Northeastern Naturalist. 8(4): 483-490.

Moskowitz, D. P. 2002. An unusual interaction between a banded hairstreak butterfly (*Satyrrium calanus*) Lycaenidae and a stink bug (*Banasa dimidiata*) Pentatomidae. Entomological News. 113:(3) 183-186.

Moskowitz, D. P. 2002. Was there an invasion of the Queen butterfly (*Danaus gilippus* Cramer) in the northeastern United States in 2001? News of the Lepidopterists' Society. 44(2): 66-67.

Newgard, L. and D. Moskowitz. Bog turtle: It's small, secretive, rare, and it's in our hiking region Trailwalker. 29(4): p. 5.

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Moskowitz, D. P. and T. M. Auffenorde. 2003. Bird Use at Two Simulated-Tree Cellular Towers in New Jersey. Records of New Jersey Birds. 28(4): p. 88-91.

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Moskowitz, D.P. 2004. The Queen (*Danaus gilippus* Cramer) Dilemma in the Northeastern United States. News of the Lepidopterist's Society. 45(2): 62-63.

Moskowitz, D.P. 2004. A new late flight record for *Lestes congener* in North America. ARGIA 15(4):22-23.

Wikelski, M., Moskowitz, D., et al. 2006. Simple Rules Guide Dragonfly Migration. Biology Letters. 2: 325-329.

Moskowitz, D. 2007. The Spring Peeper – The Tiny Frog with the Loud Voice. NJ\NY Trailwalker. March/April. p.7.

Moskowitz, D. 2007. Butterflies Along The Appalachian Trail. NJ\NY Trailwalker. May/June p.7.

Wikelski, M., Moxley, C. Eaton-Mordas, J., Lopez-Uribe, A. Margarita M., Holland, R., Moskowitz, D., Roubik, Ward, D. and R. Kays. 2010. Large-range movements of neotropical orchid bees observed via radio telemetry. PloSOne 5(5). e10738. doi:10.1371/journal.pone.0010738.

Moskowitz, D. 2010. First Record of the Ectoparasitic Beaver beetle (*Platypsyllus castoris* Ritsema) in New Jersey (Coleoptera: Leiodidae: Platypsyllinae). Coleopterist's Bulletin. 65(1): 84-85.



Moskowitz, D. and D. Golden. 2011. First Record of the Green Lacewing *Leucochrysa pavida* (Hagen) in New Jersey (Neuroptera: Leucochrysa: Chrysopidae). *Entomological News*. 122(1): 55-58.

McDonnell, S. and D. Moskowitz. 2012. First Report of Mating in New Jersey of the Cicada *Okanagana rimosa* (Say) (Homoptera: Cicadidae, Tibicininae). *Northeastern Naturalist*. 19: 140–142.

Moskowitz, D. and L. Haramaty. 2012. A Note on the Agreeable Tiger Moth (*Spilosma congrua*) feeding on the fungus *Trichaptum bifforme*. *Journal of the Lepidopterist's Society*. 66(4): p. 230

Moskowitz, D. and L. Haramaty. 2013. National Moth Week – A New Global Citizen Science Project. *Terrestrial Arthropod Reviews*. pp. 1-16.

Moskowitz, D. and L. Haramaty. 2016. Got Moths? Celebrate National Moth Week and Global Citizen Science. *Entomology Today*. Published Online July 26, 2016 - <https://entomologytoday.org/2016/07/26/got-moths-celebrate-national-moth-week-and-globalcitizen-science/>

Moskowitz, D. 2016. Life History, Behavior and Conservation of the Tiger Spiketail Dragonfly (*Cordulegaster erronea* Hagen) in New Jersey. Ph.D. Dissertation. Rutgers University.

Moskowitz, D. 2017. Caterpillar hunting with a UV flashlight. *News of the Lepidopterists Society*. 59(1): 40-42.

Moskowitz, D. 2017. Adult Tiger Spiketail (*Cordulegaster erronea* Hagen) Habitat Use and Home Range Observed Via Radio-Telemetry, with Conservation Recommendations. *Journal of Insect Conservation*. 21(5-6): 885-895.

Moskowitz, D. and G. Paulson. 2018. First Report of the Hyperparasite *Taeniogonalos gundlachi* (Hymenoptera) from the Cecropia Moth (*Hyalophora cecropia*: Lepidoptera). *Entomological News*. 127(5): 502-504.

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Moskowitz, D. 2019. A second Alaska record for *Polix coloradella* (Walsingham, 1888) (Lepidoptera: Gelechioidea: Oecophoridae), the “Skunk Moth”. *Newsletter of the Alaska Entomologists Society*. 12(1): 5-8.

Moskowitz, D. 2019. The History of the Rutgers Insect Collection – A New Jersey Treasure Saved Twice (1888-2019). *New Jersey Studies*. 5(2): 185-245.

Moskowitz, D. 2019. Surveying for caterpillars of a rare butterfly using ultraviolet light: the Frosted Elfin butterfly (*Callophrys irus*) as a test case. *Journal of Insect Conservation*. Published Online: 1-6. <https://doi.org/10.1007/s10841-019-00200-7>

Moskowitz, D. 2019. The *Ailanthus* Silkmoth (*Samia cynthia*) in the New Jersey Meadowlands. *News of the Lepidopterists' Society*. 61(4): 200-204.

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Moskowitz, D. 2020. The History of the Ferryboat Mary Murray: The Staten Island Ferry That Became a NJ Turnpike Landmark. *New Jersey Studies*. 6(2): 23-55.

Moskowitz, D. and D. Grossmueller. 2021. First New Jersey Record of the Red-tailed Cuckoo Leaf-cutter Bee (*Coelioxys coturnix* Hymenoptera: Megachilidae). *Northeastern Naturalist*.

Moskowitz, D. 2021. Foiling crypsis: Surveying Lepidoptera caterpillars with UV light. *Entomologist's Monthly Magazine*, Volume 157, Number 1, 26 February 2021, pp. 9-16(8)



## JENNIFER R. ROCHE, PWS

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**EDUCATION:** *M.S., 2015 – Conservation Biology  
SUNY College of Environmental Sciences and Forestry, Syracuse, N.Y.  
Thesis: Ecological and Genetic Assessments of the Invasive Potential of  
Actinidia Arguta (Hardy Kiwi) in the Northeast United States*

*B.A., 2012 – Biological Science  
Harpur College of Arts and Sciences,  
Binghamton University, Binghamton, N.Y.*

**AREAS OF  
EXPERTISE:**

*Regulatory Assessments and Constraints Analysis  
Wetland Delineations & Regulatory Review  
Threatened & Endangered Species Surveys*

**PROFESSIONAL**

**CERTIFICATIONS:** *Professional Wetland Scientist (PWS) #3423 – Society of Wetland  
Scientists  
Wetland Delineation Certificate – Rutgers University OCPE  
OSHA 1910.120 40-hour HAZWOPER Training*

**PROFESSIONAL  
ASSOCIATIONS:**

*Member of the Society of Wetland Scientists*

**EXPERIENCE:**

Ms. Roche is a Senior Project Manager with EcolSciences, Inc. and has 8 years of environmental experience. She has professional experience in wetland and stream delineations; threatened & endangered species surveys; environmental permitting, planning, and monitoring; and constraints analyses with a focus on renewable energy, electric generation, and natural gas projects. Additional experience includes construction oversight to ensure compliance with permit conditions, preparation of permit applications and GIS mapping. Ms. Roche has extensive experience with power utility clients and has expertise in local and state regulations in NY and NJ as well as federal regulations as they apply to electric generation and transmission projects.

Prior to joining EcolSciences, Inc., Ms. Roche was the technical project manager and point of contact for a utility client at an engineering and environmental consulting firm where she was responsible for assisting in the growth of the Siting, Licensing, and Permitting program. As a technical project manager, Ms. Roche was responsible for the development of ecology-related project scopes, schedules, budgets, and overall project direction to ensure successful environmental compliance. A summary of Ms. Roche' relevant experience includes:



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### **Wetland Delineations and Regulatory Compliance**

- Conducted numerous wetland delineations based on the Federal Manual three-parameter approach using indicators of hydrophytic vegetation, hydric soils, and wetland hydrology.
- Preparation of Environmental Impact Statements, Letters of Interpretation, Transition Area Waivers, General / Individual Permits, CAFRA / Waterfront Development Permits, as various U.S. Army Corps permits for both development and utility projects throughout NJ.
- Preparation of Article VII and Article 10 applications for major utility projects, Freshwater Wetlands Permit (Article 24) and Protection of Waters Permit (Article 15) applications, and State Environmental Quality Review (SEQR) compliance for both development and utility projects throughout NY.

### **Threatened and Endangered Wildlife and Plant Species**

- **Bat Studies:** Experience deploying long term acoustic equipment to determine the presence/absence of rare bat species, analyzing acoustic data with Kaleidoscope Pro software, and conducting emergence surveys.
- **Turtle Studies:** Assisted in Phase I and Phase II surveys for the Federally threatened and New Jersey State-endangered bog turtle (*Glyptemys muhlenbergii*). Assisted in radio telemetry for bog turtle.
- **Avian Studies:** Performs avian habitat evaluations and/or species presence/absence surveys for the New Jersey State-threatened barred owl (*Strix varia*) and the New Jersey State-endangered, red-shouldered hawk (*Buteo lineatus*) along utility rights-of-way. Avian surveys included performing call surveys, nest searches, and assessing suitability of habitat for nesting and/or foraging.
- **Vernal Habitats:** Conducted day and night surveys of vernal pools for an annual monitoring effort following installation of an underground gas line. Assessed for the presence of vernal-dependent species.
- **Rare Plant Studies:** Assisted in rare plant surveys for the Federally threatened and New Jersey State-threatened swamp pink (*Helonias bullata*) along utility rights-of-way.

### **Construction/ROW Maintenance Monitoring**

- Monitoring of construction and/or maintenance activities within environmentally sensitive areas along various overhead electric line ROWs to ensure compliance with permit conditions.



- Monitoring regulated activities within environmentally sensitive areas for the purposes of natural resources protection (wetlands, waters, and threatened and endangered species), soil and sediment erosion control, access road maintenance & repair, and ROW vegetation maintenance, including spraying, mowing, hand-cutting, and tree-cutting.

### **Geographic Information Systems**

- Evaluates potential environmental constraints using land use/land cover, wetlands, vernal habitat, riparian zones, flood hazard area information, and NJDEP Landscape Project mapping for both development and utility projects.



## ELIZABETH MULLER

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**EDUCATION:** *B.S., 2019 – Ecology, Evolution, and Natural Resource Management  
School of Environmental and Biological Science  
Rutgers University, New Brunswick, N.J.*

**AREAS OF EXPERTISE:** *Wetland Delineations & Regulatory Review  
Wetland and Riparian Zone Mitigation  
Threatened & Endangered Species Surveys*

**PROFESSIONAL CERTIFICATIONS:** *Wetland Delineation Certificate – Rutgers University OCPE  
Geomatics Certificate (ArcGIS) – Rutgers University  
Adult First Aid/CPR – American Red Cross  
Qualified Small Whorled Pogonia Surveyor – USFWS-PAFO  
40-hour HAZWOPER Training – OSHA  
8-hour HAZWOPER Refresher Training – OSHA  
Certified Arborist (NJ-1292A) & TRAQ Certified – ISA  
Bats and Bridges Survey Techniques Training – USFWS-NJFO  
Bat Emergence Surveys at Structures – USFWS-NJFO  
Approved Wood Turtle Monitor – NJDEP*

### EXPERIENCE:

Ms. Muller has over 6 years of combined fulltime and part time experience delineating wetlands in accordance with the Federal Manual for Identifying and Delineating Wetlands (1989), the Corps of Engineers Wetlands Delineation Manual (1987), and the New Jersey Pinelands Commission Manual for Identifying and Delineating Pinelands Area Wetlands (1991). She has also conducted numerous preliminary wetland investigations, habitat assessments, tree surveys, wetland mitigation monitoring, and rare species surveys primarily throughout the State of New Jersey with some experience in New York, Pennsylvania, Delaware, Connecticut, and Virginia. She has conducted surveys for amphibians, insects, mammals, plants, reptiles, and vernal habitat, including federally listed species such as American chaffseed (*Schwalbea americana*), bog turtle (*Glyptemys muhlenbergii*), northeastern bulrush (*Scirpus ancistrochaetus*), and small whorled pogonia (*Isotria medeoloides*). She has assisted in the preparation of various approvals for all types of freshwater wetlands, flood hazard area, and coastal zone management permits (letters of interpretation, general permits, individual permits, permit extensions, permit modifications) in New Jersey. She has prepared NEPA Categorical Exclusions and environmental impact statements (EIS) on the municipal, county, and state level in New Jersey and New York. A summary of Ms. Mullers' relevant experience includes:



### **Wetland Delineations and Regulatory Compliance**

- Conduct wetland delineations based on the Federal Manual for Identifying and Delineating Jurisdictional Wetlands (1989), Corps of Engineers Wetlands Delineation Manual (1987), and Manual for Identifying and Delineating Pinelands Area Wetlands using indicators of hydrophytic vegetation, hydric soils, and wetland hydrology.
- Assist in the preparation of Environmental Impact Statements, Letters of Interpretation, General / Individual Permits, Waterfront Development, as various U.S. Army Corps permits for both development and utility projects.
- Prepare National Environmental Policy Act (NEPA) Categorical Exclusions.

### **Wetland and Riparian Zone Mitigation**

- Assist in the preparation of wetland mitigation bank prospectus reports.
- Conduct yearly wetland mitigation monitoring and prepared wetland mitigation monitoring reports.
- Prepare an existing conditions natural resources report for use in determining appropriate mitigation measures for proposed activities onsite.

### **Bat Studies**

- Attend the United States Fish and Wildlife Service (USFWS) New Jersey Field Office (NJFO) Bats and Bridges Survey Techniques Training and Bat Emergence Surveys at Structures training.
- Conduct site reconnaissance and preliminary bat assessments for bridge and culvert structures throughout New Jersey.
- Conduct bat emergence surveys at bridge structures and trees throughout New Jersey.

### **Vernal Habitats**

- Conducted vernal habitat surveys in accordance with survey protocols developed by the New Jersey Department of Environmental Protection (NJDEP). Pertinent information was gathered on hydrology, vegetation, observed reptile and amphibian species, and weather conditions.

### **Avian Studies**

- Conducted construction monitoring for nesting peregrine falcons, ospreys, piping plovers, red-knots, least terns, common terns, and American oystercatchers.
- Conducted callback surveys for red-shouldered hawks and barred owls.
- Conducted point-count surveys for woodland and grassland passerine species including grasshopper sparrow and bobolink.



### **Snake Studies**

- Conduct visual assessments for venomous and non-venomous snakes.
- Conduct critical habitat assessments for early basking, gestation, and birthing sites for venomous snakes.
- Provide venomous snake response removal in northern New Jersey.
- Participate in studies to create and assess the use of basking habitat for venomous snakes using trail cameras and radio-telemetry studies for pine snakes and timber rattlesnakes.
- Participate in studies to capture, rehabilitate, and release venomous and non-venomous snakes affected by snake fungal disease (*Ophidiomyces ophidiicola*) to better understand the distribution of the disease.

### **Amphibian Studies**

- Conduct amphibian crossing studies throughout northern New Jersey.

### **Turtle Studies**

- Assist in Phase I and Phase II Surveys for Federally threatened and State-endangered bog turtle.
- Conduct vegetation plot monitoring in occupied bog turtle habitat.
- Conduct construction monitoring for State-endangered wood turtle.
- Conduct volunteer surveys for eastern box turtles as part of the Northeast Eastern Box Turtle Working Group.

### **Rare Plant Studies**

- Technical identification of trees, shrubs, woody vines, and herbaceous species using dissecting microscopes and technical manuals including Gleason & Cronquist (1991) and Rhoads & Block (2007).
- Assisted in rare plant surveys for Federally and State listed species including American chaffseed (*Schwalbea americana*), northeastern bulrush (*Scirpus ancistrochaetus*), small whorled pogonia (*Isotria medeoloides*), and swamp pink (*Helonias bullata*).
- Conducted bi-weekly rare plant surveys for State listed species in New Jersey in accordance with the New Jersey Department of Environmental Protection, Office of Natural Lands Management “Recommended Rare Plant Species and Ecological Community Survey Protocols to Ensure Adequate Baseline Data Prior to Habitat Disturbance or Management.”

