

**NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION  
LAND USE REGULATION PROGRAM**

**Statement of Compliance  
Freshwater Wetlands General Permit #1, 6, 6A, 10 and 11**

*for:*

**Proposed Continuing Care Retirement Community**

*Prepared for:*

**Redwood-ERC New Providence, LLC**

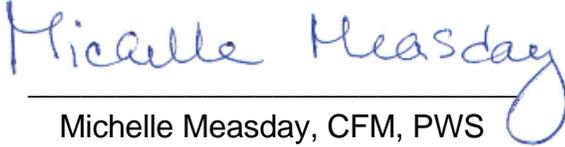
Block 320, Lots 18.01, 15 and 17  
575 Mountain Avenue  
Borough of New Providence  
Union County, New Jersey

*Prepared by:*

**BOHLER //**

NJ. Cert. of Authorization No. 24GA28161700

35 Technology Drive  
Warren, NJ 07059  
908-668-8300

  
Michelle Measday, CFM, PWS

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## 1.0 INTRODUCTION

### 1.1 Project Location

The site is located in the Borough of New Providence, Union County, New Jersey and is formally identified as Block 320, Lots 18.01, 15 and 17. The site is approximately 24.62 acres in area and is located along the northern side of Mountain Avenue near Southgate Road. Refer to Appendix A for site location maps and Appendix B for site photos.

The 24.62-acre project area is currently occupied by a vacant commercial/office building. The site is bordered to the north by residential properties, Southgate Road to the west with residential properties beyond, Mountain Avenue to the south with commercial/office properties beyond and Lantern Hill retirement community to the east

Property boundaries are shown on the USGS Chatham Quadrangle. The state plane coordinates are 518,869-ft east; 675,289-ft north. Please refer to the site location maps for more information.

### 1.2 Project Description

The applicant proposes the demolition of existing structures onsite and construction of a continuing care retirement community, an extension to the existing Lantern Hill facility to the east. Related improvements include, stormwater management, parking garages, parking lots, access drives, landscaping, lighting and utility improvements also installed as part of the project.

As part of this project, an existing stormwater management basin will be maintained under a Freshwater Wetland General Permit (GP) 1, a non-tributary wetland will be impacted as part of a GP 6, a non-tributary wetland transition area will be impacted as part of a GP 6A, wetland impacts associated with the perimeter drive under a GP 10B and a GP 11 for modifications to existing stormwater outfall structures.

<b>Wetland Disturbance Summary</b>			
<b>Permit</b>	<b>Total Impact Area</b>	<b>Allowable Disturbance</b>	<b>Compliant</b>
General Permit 1	1.011 Acres	No expansion of existing feature	Yes
General Permit 6	0.037 Acres	1.0 Acre (cannot exceed 1-Ac combined with other GP's)	Yes
General Permit 6A	0.059 Acres of Transition Area	0.50 Acres	Yes
General Permit 10B	0.141 Acres	0.25 Acres	Yes
General Permit 11	0.0421 Acres	0.25 Acres	Yes

A Letter of Interpretation Line Verification has not been issued for the site. A wetland delineation was performed on the site with flagging placed and surveyed to define wetland limits in order to assess impacts. Wetland soil borings are provided in Appendix C of this permit application report.

## **2.0 FRESHWATER WETLANDS GENERAL PERMIT COMPLIANCE**

Approximately 9,559-SF (0.219-Acres) of wetlands will be impacted under the GP6, 10B and 11. Approximately 44,038-SF-SF (1.011-Acres) of the disturbance for the maintenance of the existing stormwater basin. Approximately 2,552-SF (0.059-Acres) of transition area of a non-tributary wetland will be impacted adjacent to the proposed access road and stormwater basin maintenance. According to N.J.A.C. 7:7A-5.7(a), a person acting under the authority of a general permit-by-certification or general permit shall comply with:

1. The conditions listed under the general permit-by-certification or general permit itself;
2. The standard conditions for all general permits-by-certification or general permits set forth at N.J.A.C. 7:7A-5.7(b);
3. The conditions for all permits at N.J.A.C. 7:7A-20.2;
4. The limits on the use of multiple general permits-by-certification or general permits in N.J.A.C. 7:7A- 5.4; and
5. If required under a particular general permit, mitigation pursuant to N.J.A.C. 7:7A-11; and
6. Any additional conditions imposed under N.J.A.C. 7:7A-5.7(f).

The project complies with the above conditions. The applicant will comply with all standards and conditions for all permits as listed in N.J.A.C. 7:7A-20.2 and 7:7A-5.7(b) as discussed below.

### **2.1 Conditions that Apply to All General Permit Authorizations (N.J.A.C. 7:7A-5.7)**

***Condition:*** *Activities performed under a general permit-by-certification or general permit shall be associated with a proposed project. The Department shall not authorize activities under a general permit-by-certification or general permit for the purpose of eliminating a natural resource in order to avoid regulation. For the purposes of this subsection, project shall mean the use and configuration of all buildings, pavements, roadways, storage areas and structures, and all associated activities;*

**Compliance:** The proposed project involves the construction of a continuing care retirement facility and is not proposed as a means to eliminate a natural resource to avoid regulation.

***Condition:*** *The regulated activity shall not occur in the proximity of a public water supply intake;*

**Compliance:** According to the NJ-GeoWeb mapping, the Project is not located in proximity to a water supply intake.

***Condition:*** *The activities shall not destroy, jeopardize, or adversely modify a present or documented habitat for threatened or endangered species; and shall not jeopardize the continued existence of any local population of a threatened or endangered species;*

**Compliance:** According to the NJ-GeoWeb mapping for the project and the NJDEP Natural Heritage Program response letter dated March 4, 2020, forested portions of the site have been identified as potential habitat for federally and State endangered Indiana bat. It is not anticipated that forested portions of the provide valuable habitat to the Indiana bat. The forest can be characterized as fragmented by roads and in close proximity to residential, commercial and industrial uses. Larger, more contiguous forested habitat is located within the vicinity at the Great Swamp or Watchung Reservation. Impacts are limited and along edges of actively disturbed areas and consist of evergreen and upland oak species along edges of pavement or red maple or pin oak within wetland or transition areas. Therefore, it is not anticipated that impacts to wetlands or wetland transition areas will adversely impact or jeopardize threatened or endangered species.

***Condition:*** *The activity will not occur in a component of either the Federal or State Wild and Scenic River System; nor in a river officially designated by Congress or the State Legislature as a "study river" for possible inclusion in either system while the river is in an official study status; except that the activity may occur in these waters if approved by the National Park Service in accordance with 40 CFR (233)*

**Compliance:** The Project is not located within the vicinity of any Federal or State Wild and Scenic Rivers or a "study river" as designated by Congress; therefore, in compliance with this regulation.

***Condition:*** *The activities shall not adversely affect properties which are listed or are eligible for listing on the New Jersey or National Register of Historic Places unless the applicant demonstrates to the Department that the proposed activity avoids or minimizes impacts to the maximum extent practicable or the Department determines that any impact to the affected property would not impact the property's ability to continue to meet the criteria for listing at N.J.A.C. 7:4-2.3 or otherwise negatively impact the integrity of the property or the characteristics of the property that led to the determination of listing or eligibility. The Department shall not issue a conditional permit if it finds that the mitigation proposed is inadequate to compensate for the adverse effect. Any permit for an activity which may adversely affect a property listed or eligible for listing on the New Jersey or National Register of Historic Places shall contain conditions to ensure that any impact to the property is minimized to the maximum extent practicable and any unavoidable impact is mitigated. If the permittee, before or during the work authorized, encounters a probable historic property that may be eligible for listing in the New*

*Jersey or National Register, the permittee shall immediately notify the Department and proceed as directed*

**Compliance:** According to the NJDEP – Historic Preservation Office list of New Jersey and National Registers of Historic Places dated 3/17/2020, no historic or eligible for listing resources are located on or immediately adjacent to the site. According to the NJ-GeoWeb mapping for the site, no historic resources are mapped on or immediately adjacent to the site.

***Condition:*** *Any discharge of dredged or fill material shall consist of clean, suitable material free from toxic pollutants (see 40 CFR 401) in toxic amounts, and shall comply with all applicable Department rules and specifications regarding use of dredged or fill material;*

**Compliance:** Fill material used for the proposed activities will consist of either onsite native soils or certified clean fill material (if imported to the site). The Project does not propose dredging. The Project follows compliance with this regulation.

***Condition:*** *Any structure or fill authorized shall be maintained as specified in the construction plans;*

**Compliance:** All structures and proposed fill are detailed on the Site Plans included within the application package.

***Condition:*** *The activity will not result in a violation of the Flood Hazard Area Control Act, N.J.S.A. 58:16A-50 or implementing rules at N.J.A.C. 7:13;*

**Compliance:** No streams or tributaries are located on or adjacent to the site. The site and project area are located outside the regulated flood hazard area and riparian zone.

***Condition:*** *If activities under the general permit meet the definition of “major development” at N.J.A.C. 7:8-1.2, then the project of which the activities are a part shall comply in its entirety with the Stormwater Management Rules at N.J.A.C. 7:8.*

**Compliance:** The project qualifies a “major development” based upon the increase in impervious surfaces, therefore subject to Stormwater Management review under N.J.A.C. 7:8. A detailed Stormwater Management Report and supporting documents have been prepared and submitted as part of this permit application.

***Condition:*** *If activities under the general permit-by-certification or general permit involve excavation or dredging, the applicant shall use an acceptable disposal site for the excavated or dredged material. No material shall be deposited or dewatered in freshwater wetlands, transition areas, State open waters or other environmentally sensitive areas. The Department may require testing of dredged material if there is reason to suspect that the material is contaminated. If any dredged material is contaminated with toxic substances, the dredged material shall be removed and disposed of in accordance with Department-approved procedures;*

**Compliance:** No dredging is proposed. Excavation will be required during maintenance of the stormwater basin and for the installation of proposed stormwater conveyance pipes and utilities. No excavated material will be deposited in wetlands or other environmentally sensitive areas.

***Condition:*** *The amount of rip-rap or other energy dissipating material shall not exceed the minimum necessary to prevent erosion, as calculated under the Standards for Soil Erosion and Sediment Control in New Jersey at N.J.A.C. 2:90;*

**Compliance:** Modifications to existing stormwater outfall structures include installation of scour holes to dissipate flow velocity at discharge points into the maintained stormwater basin. The amount of material proposed is in compliance with *Standards for Soil Erosion and Sediment Control in New Jersey at N.J.A.C. 2:90.*

***Condition:*** *Best management practices shall be followed whenever applicable;*

**Compliance:** Adherence to proper engineering and construction measures, compliance with the Stormwater Management Rules at N.J.A.C. 7:8, and compliance with the Soil Erosion and Sediment Control Standards are being implemented as best management practices.

***Condition:*** *If the general permit activities are subject to the Department's Water Quality Management Planning rules at N.J.A.C. 7:15, the activities shall be consistent with those rules and with the applicable approved Water Quality Management Plan (208 Plan) adopted under the New Jersey Water Quality Planning Act, N.J.S.A. 58:11A-1 et seq.;*

**Compliance:** The project is consistent with the Water Quality Management Plan.

***Condition:*** *The timing requirements shall be met. In order to protect the fishery resources and/or the spawning of the fish population, any activity which may introduce sediment into a stream or cause a stream to become turbid shall not be performed during the time periods listed in N.J.A.C. 7:7A-5.7(b)15, (c) and (d).*

**Compliance:** No fishery resources are located within the project area to warrant timing restrictions.

***Condition:*** *If an activity will take place in a non-delegable water, and the activity requires approval from the USACOE under the Federal 404 program, the activities authorized under the general or general permit-by-certification shall not begin until the permittee obtains the required Federal 404 program approval.*

**Compliance:** Non-delegable waters are not present on the site.

***Condition:*** *In addition to the conditions that apply to every authorization pursuant to a general permit under (a) above, the Department shall establish additional conditions in a specific authorization pursuant to a general permit, on a case-by-by basis in accordance with N.J.A.C.*

7:7A-20.3, as required to ensure the authorized regulated activity meets all applicable requirements of this chapter and its enabling statutes.

**Compliance:** Construction within regulated areas shall comply with conditions outlined in the approved permit.

## **2.2 General permit 1 - Maintenance and repair of existing features (N.J.A.C. 7:7A-7.1)**

***Condition:*** General permit 1 authorizes activities in freshwater wetlands and State open waters, required to carry out the repair, rehabilitation, replacement, maintenance or reconstruction of a previously authorized, currently serviceable structure, fill, roadway, utility line, active irrigation or drainage ditch, or stormwater management facility lawfully existing prior to July 1, 1988 or permitted under this chapter, provided all applicable requirements at N.J.A.C. 7:7A-5.7 and 20.3 are met.

**Compliance:** The activities proposed include the repair and maintenance of a previously authorized, currently serviceable stormwater management facility. The stormwater management facility has lawfully existed prior to July 1, 1988. Aerial photos included in Appendix B document current conditions and also aerial photos from 1987 to 2015 chronicle the creation and continued existence of the stormwater facility.

The activities will comply with the conditions that apply to all general permits.

***Condition:*** The previously authorized structure, fill, roadway, utility, ditch or facility shall not have been and will not be put to any use other than as specified in any permit authorizing its original construction. The activities do not expand, widen or deepen the previously authorized feature, and shall not deviate from any plans of the original activity, except that minor deviations due to changes in materials or construction techniques and which are necessary to make repairs, rehabilitation or replacements are allowed provided such changes do not result in disturbance of additional freshwater wetlands or State open waters upon completion of the activity.

**Compliance:** The previously authorized structure will not be put to any use other than as specified for its original construction. The proposed activities will not deviate from previous plans for the original construction of the structure.

## **2.3 General Permit 6 – Non-Tributary Wetlands (N.J.A.C. 7:7A-7.6)**

***Condition:*** General permit 6 authorizes regulated activities in freshwater wetlands and/or State open waters, if the freshwater wetlands and/or State open waters are not part of a surface water tributary system discharging into an inland lake or pond, or a river or stream, provided all applicable requirements at N.J.A.C. 7:7A-5.7 and 20.3 are met and.

**Compliance:** The impacted wetland is an isolated pocket located at the northeastern corner of the property. The pocket is isolated and not connected hydrologically to a surface water system

and not located within the floodplain of a tributary. The wetlands are not part of a surface water tributary system that discharges into an inland lake or pond, or a river or stream.

**Condition:** *Activities under general permit 6 shall be limited as follows:*

1. *The activities disturb no more than one acre of a freshwater wetland and/or State open water that is not a water of the United States; and*

**Compliance:** The activities will disturb less than one acre of freshwater wetlands (1,605-SF (0.037-Ac)) or State open waters that are not considered waters of the United States.

**Condition:**

2. *The activities disturb no more than one-half acre of a freshwater wetland and/or State open water that is a water of the United States. Mitigation shall be performed for all permanent loss and/or disturbance to wetlands and/or State open water that are waters of the United States in accordance with (b) below.*

**Compliance:** There will be no disturbance to waters of the United States (WOTUS). WOTUS status to be confirmed with USEPA by NJDEP.

**Condition:**

3. *The activities do not take place in any of the following:*
  - i. *An exceptional resource value wetland, as described at N.J.A.C. 7:7A-3.2;*
  - ii. *A State open water that is a special aquatic site;*
  - iii. *USEPA priority wetlands; or*
  - iv. *A State open water that is larger than one acre.*

**Compliance:** Based upon observed site conditions, it is not anticipated wetlands would be assigned an exceptional resource value surrounded by buildings and development. Therefore, disturbance activities will not take place in an exceptional resource value wetland. Impacts will not occur in a USEPA priority wetland or State open water that has been deemed a special aquatic site or a State open water greater than one acre in size.

**Condition:** *Mitigation shall be performed for all permanent loss and/or disturbance of 0.1 acres or greater of freshwater wetlands or State open waters that are also waters of the United States. Mitigation shall be performed for permanent loss and/or disturbance of less than 0.1 acres of freshwater wetlands or State open waters that are also waters of the United States unless the applicant demonstrates to the Department that all activities have been designed to avoid and minimize impacts to wetlands. For purposes of this subsection, "minimize" means that the project is configured so that most or all of it is contained in the uplands on the site, and that the wetlands are avoided to the greatest extent possible. An applicant is not required to reduce the scope of the project or to consider offsite alternatives to comply with this requirement.*

1. *The mitigation shall meet the substantive and procedural requirements at N.J.A.C. 7:7A-11 and shall be submitted to the Department for review and approval no later than 90-calendar days prior to the initiation of regulated activities authorized by this general permit.*

**Compliance:** WOTUS will not be impacted with this project, therefore mitigation will not be required.

#### **2.4 General Permit 6A – Transition Areas Adjacent to Non-Tributary Wetlands (N.J.A.C. 7:7A-7.6A)**

***Condition:*** *General permit 6A authorizes regulated activities in transition areas adjacent to freshwater wetlands, if the freshwater wetlands are not part of a surface water tributary system discharging into an inland lake or pond, or a river or stream, provided all applicable requirements at N.J.A.C. 7:7A-5.7 and 20.3 are met and.*

**Compliance:** The transition area impacts are not associated with a wetland that is part of a surface water tributary system that discharges into an inland lake or pond, or a river or stream.

***Condition:*** *Activities under general permit 6A shall be limited as follows:*

1. *The activities disturb no more than one-half acre of transition area.*

**Compliance:** The activities will disturb less than one-half acre of transition area (2,552-SF (0.059-Ac)).

***Condition:***

2. *The activities do not take place in a transition area adjacent to the following:*
  - i. An exceptional resource value wetland, as described at N.J.A.C. 7:7A-3.2; or*
  - ii. USEPA priority wetlands; or*

**Compliance:** Disturbance activities will not take place in an exceptional resource value wetland. Impacts will not occur in a transition area adjacent to a USEPA Priority wetland.

#### **2.5 General Permit 10B – Minor Road Crossings (N.J.A.C. 7:7A-7.10B)**

The regulated activity for which the applicant is requesting a GP10B includes an access roadway from the existing Lantern Hill facility located east of the site to the project site. The access drive also provides an outer loop access around the entire proposed development. Total proposed disturbance for the roadway is 6,140-SF (0.141-Acres), which is in compliance with the 0.25-acre disturbance limit for a GP10B.

The following is a review of compliance with the standards at N.J.A.C. 7:7A-7.10B for issuance of a GP#10B for minor road crossings.

**Condition:** General permit 10B authorizes the following activities in freshwater wetlands, transition areas, and/or state open waters:

1. Construction of one or more new road crossings necessary to gain access to an otherwise inaccessible, developable, upland site, including attendant features such as shoulders, sidewalks and embankments;
2. Expansion, widening, or upgrading of one or more existing paved or unpaved roads, including attendant features such as shoulders, sidewalks and embankments; and
3. Activities necessary to reduce horizontal curves in an existing paved road to comply with New Jersey Department of Transportation safety regulations.

**Compliance:** The proposed loop road allows access around the entire facility and also connects the facility to the adjacent Lantern Hill facility.

**Condition:** The Department shall issue a general permit 10B authorization only if all applicable requirements at N.J.A.C. 7:7A-5.7 and 20.3 are met and:

1. The applicant demonstrates in accordance with (d) below that there is no alternative onsite location and/or configuration for the road crossing that would provide access to the developable upland with less adverse environmental impact; and
2. The total area of freshwater wetlands, transition areas, and/or State open waters disturbed under general permit 10B shall not exceed one-quarter of an acre.

**Compliance:** Steep topography on the site, required loop road access around the entire facility combined with connection to earlier phases of the Lantern Hill community on the parcel east of the subject property results in the location of the road and associated impacts to adjacent wetlands. The underground parking garages for the proposed building must be accessed on the northern sides (facing the basin) due to the topography of the site. The access loop road and connection to the adjacent facility prevent movement of the road to a location outside of the wetland or transition areas. Wetlands impacted with the roadway are associated with the emergent wetlands within the stormwater basin, which is being maintained as part of this application.

Total wetland impacts associated with the GP 10B is 0.141-Acres.

**Condition:** Activities under general permit 10B shall minimize environmental impact as follows:

1. The applicant shall design the crossing to ensure that fish passage is unimpeded during times when the water level is at its lowest, unless the applicant demonstrates that the water body is unsuitable for habitation by fish and will remain so for the foreseeable future. The applicant shall ensure fish passage by maintaining the existing gradient and bottom contours of the water body to the extent possible, and by using arches, culverts, or other structures that will ensure fish passage;
2. The applicant shall install cross drains or other devices to ensure that the crossing does not alter the hydrology of the freshwater wetlands and/or State open waters on either side of the crossing;
3. The amount of rip-rap or other energy dissipating material used shall be the minimum necessary to prevent erosion, and shall not exceed 200 cubic yards of fill below the top of bank or high water mark, unless a larger amount is required in order

to comply with the Standards for Soil Erosion and Sediment Control in New Jersey at N.J.A.C. 2:90; and

4. *The cartway, shoulder, and side slopes of the roadway shall be the minimum necessary for the crossing and shall not exceed the limits in the New Jersey Department of Community Affairs' Residential Site Improvement Standards at N.J.A.C. 5:21. If the project is not a residential development, the cartway, shoulder, and side slopes of the roadway shall be the minimum necessary for safety.*

**Compliance:** The impacted wetland is associated with an existing, unmaintained stormwater basin and is not known as a fishery resource. Therefore maintaining unimpeded fish passage is not necessary for the crossing. Stormwater discharge points will continue to discharge runoff to the basin, therefore hydrology will not be altered with the roadway construction. No energy dissipating materials are proposed as part of this road crossing. Wetland impacts have been minimized through the use of a retaining wall to minimize further grading into the wetland.

***Condition:*** *In evaluating whether there is an alternative onsite location and/or configuration for a road crossing under (b)1 above, the Department shall make the presumptions at (d)1 through 5 below. However, these presumptions may be rebutted based on site-specific or unusual circumstances:*

1. *Disturbance of a non-transition area upland would have less adverse environmental impact than disturbance of a transition area, State open water or freshwater wetland;*
2. *Disturbance of a transition area would have less adverse environmental impact than disturbance of a freshwater wetland or State open water;*
3. *Disturbance of a freshwater wetland would have less adverse environmental impact than disturbance of a State open water;*
4. *Expansion or upgrading of an existing and currently serviceable drive or crossing have less adverse environmental impact than placement of a new crossing; and*
5. *Placement of a new crossing in an area that is already significantly disturbed would have less adverse environmental impact than disturbance of a previously undisturbed wetland and/or State open water.*

**Compliance:** Steep topography on the site, along with the loop road access around the entire facility, combined with the required connections to earlier phases of the Lantern Hill community on the parcel east of the subject property results in the location of the road and associated impacts to adjacent wetlands. The access loop road and connections to the adjacent facility prevent movement of the road to a location outside of the wetland or transition areas. Wetlands impacted with the roadway are associated with the emergent wetlands within the stormwater basin, which is being maintained as part of this application.

1. Disturbance to adjacent non-transition area upland would disturb steep slopes and impact internal circulation of the facility and connection to the adjacent Lantern Hill facility to the east. Buildings are also connected through elevated glass enclosed tunnels that connect floors throughout all sections of the development. Movement of building locations to accommodate movement of the access loop road would impact the ability to make these connections, which is an important feature of this retirement community.
2. There is no anticipated transition area adjacent to the man-made stormwater basin. Impacts to the wetlands are proposed along the edge of the emergent wetland

associated with the basin. Seepage areas and adjacent runoff has resulted in wetlands along the side slopes of the basin.

3. No State open waters exist on site.
4. No currently serviceable road exists that would connect the existing facility to the proposed facility on the subject site without using the local roads for circulation. t
5. The majority of the site is significantly disturbed with buildings, parking lots and the stormwater basin. The stormwater basin is an actively disturbed area and is proposed for maintenance under this application. The new access road has been placed within areas of existing disturbance as much as practical.

The impacted wetland is associated with an existing, unmaintained stormwater basin. Wetland impacts have been minimized through the use of a retaining wall to minimize further grading into the wetland.

**Condition:** *Mitigation shall be performed for all permanent loss and/or disturbance of 0.1 acres or greater of freshwater wetlands or State open waters. Mitigation shall be performed for permanent loss and/or disturbance of less than 0.1 acres of freshwater wetlands or State open waters unless the applicant demonstrates to the Department that all activities have been designed to avoid and minimize impacts to wetlands. For purposes of this subsection, "minimize" means that the project is configured so that most or all of it is contained in the uplands on the site, and that the wetlands are avoided to the greatest extent possible. An applicant is not required to reduce the scope of the project or to consider offsite alternatives to comply with this requirement.*

*1. The mitigation shall meet the substantive and procedural requirements at N.J.A.C. 7:7A11 and shall be submitted to the Department for review and approval no later than 90-calendar days prior to the initiation of regulated activities authorized by this general permit.*

**Compliance:** Total wetland impacts proposed for this project include 0.141-Acres, which exceeds the 0.1-Acres threshold requiring mitigation. However, the taking into consideration minimization of the impacts with the construction of a wall, impacts are associated with an unmaintained, man-made stormwater basin and the need for roadway connection around the facility and to the adjacent facility, the project has been configured in such a way to minimize impacts to the greatest extent possible. Therefore, the applicant is requesting the mitigation requirement be waived. However, should NJDEP require mitigation, the applicant will work with the Department to fulfill those requirements.

## **2.6 General Permit 11 – Out falls and Intake Structures (N.J.A.C 7:7A-7.11)**

GP11 authorizes activities in freshwater wetlands, transition areas, and State open waters necessary for the construction of stormwater outfall structures including conveyance structures, such as pipes, headwalls, and energy dissipation structures such as rip-rap, gabion baskets and scour holes. A GP11 is being sought for the proposed stormwater outfall structures required to discharge treated stormwater from the site at two (2) separate piped discharge locations in conjunction with the proposed development. The GP11 is also being sought to upgrade the existing outlet structure for the basin that discharges into the street piping system.

**Condition:** *The Department shall issue a general permit 11 authorization only if all applicable requirements at N.J.A.C. 7:7A-5.7 and 20.3 are met and:*

1. *The activity shall disturb no more than one-quarter acre of freshwater wetlands, transition areas, and/or State open waters, including both temporary and permanent disturbance.*

**Compliance:** The modification of existing outfall structures will impact approximately 1,814-SF (0.042-Acres) of ordinary resource value wetlands associated with the existing stormwater basin. The outfall structures are being outfitted with scour hole protection at the discharge points are required by the SCD.

This is less than the 0.25-acre allowable impacts regulated under this general permit condition.

2. *The area disturbed during construction of a conveyance structure shall be no wider than is necessary to comply with the US OSHA safety standards for excavations set forth at 29 CFR Part 1926, Subpart P, and.*

**Compliance:** The width of disturbance for the proposed scour holes at two of the existing discharge points into the basin will be approximately 25-ft wide, which is the minimum necessary for installation and proper grading to tie into existing contours. The larger discharge at the western side of the stormwater basin is 26-ft wide, which is the minimum necessary for this size discharge point. The disturbance needed for the outlet structure is 8-ft wide.

3. *The amount of rip-rap or other energy dissipating material placed shall be the minimum necessary to prevent erosion and shall not exceed 10 cubic yards (CY) of fill per outfall, unless a larger amount is required in order to comply with the Standards for Soil Erosion and Sediment Control in New Jersey at N.J.A.C. 2:90.*

**Compliance:** The proposed scour hole will require the placement of approximately 53-CY of rip-rap. The rip-rap is required for the construction and function of the proposed scour holes, which has been appropriately sized for the volume of stormwater being discharged. The drainage features have been designed in compliance with NJDEP Best Management Practices and Somerset-Union Soil Conservation District (SCD) guidelines. All proposed work on site shall be approved by the Somerset-Union SCD.

**Condition:** *Intake structures shall also be designed to minimize impacts to fish and other fauna through measures to prevent entrapment, impingement, or entrainment.*

**Compliance:** No intake structures are proposed.

**Condition:** *Intake structures shall not cause freshwater wetlands to be drained.*

**Compliance:** No intake structures are proposed.

**Condition:** All activities under general permit #11 shall comply with the specifications and requirements in the Standards for Soil Erosion and Sediment Control in New Jersey at N.J.A.C. 2:90, including activities which are exempted from or not regulated by those standards.

**Compliance:** Site activities comply with the NJ Standards for Soil Erosion and Sediment Control. The limit of disturbance within the wetland area required for the proposed stormwater outfall structure will be surrounded with silt fencing during construction to prevent sedimentation and siltation. Please refer to the Site Plan drawings for the Soil Erosion and Sediment Control Plan. No activities will commence until the Somerset-Union SCD approves the plans.

**Condition:** For any excavated area in freshwater wetlands, transition areas, and/or State open waters, the following requirements apply:

1. The excavation shall be backfilled to the pre-existing elevation;
2. The uppermost 18 inches of the excavation shall be backfilled with the original topsoil material if feasible; and
3. The wetland and/or transition area above the excavation shall be replanted, in accordance with applicable BMPs, with appropriate indigenous species.

**Compliance:** Excavations required for the placement of the scour holes shall be stabilized with original soil as feasibly possible. Should additional backfill be required, it will contain clean, suitable fill material. Temporarily disturbed areas shall be seeded and stabilized. No new stormwater conveyance pipes are proposed with this project that would require excavation and backfilling.

**Condition:** Any pipes laid through wetlands, transition areas, or State open waters shall be:

1. Properly sealed so as to prevent leaking or infiltration;
2. Designed so as not to form a path for groundwater to be discharged or drained from the wetland; and
3. Placed entirely beneath the pre-existing ground elevation unless the applicant shows that placing some or all of the pipe above ground would be more environmentally beneficial.

**Compliance:** No pipes are being installed through wetlands, transition areas or State open waters. Pipes will be sealed and placed beneath the pre-existing ground elevation.

**Condition:** A swale in a wetland or transition area shall not be used as a substitute for stormwater treatment. However, a swale may be used to convey stormwater through a wetland or transition area.

**Compliance:** No swales within wetlands or transitions areas are proposed.

**Condition:** Mitigation shall be performed for all permanent loss and/or disturbance of 0.1 acres or greater of freshwater wetlands or State open waters. Mitigation shall be performed for permanent loss and/or disturbance of less than 0.1 acres of freshwater wetlands or State open waters unless the applicant demonstrates to the Department that all activities have been designed to avoid and minimize impacts to wetlands. For purposes of this subsection,

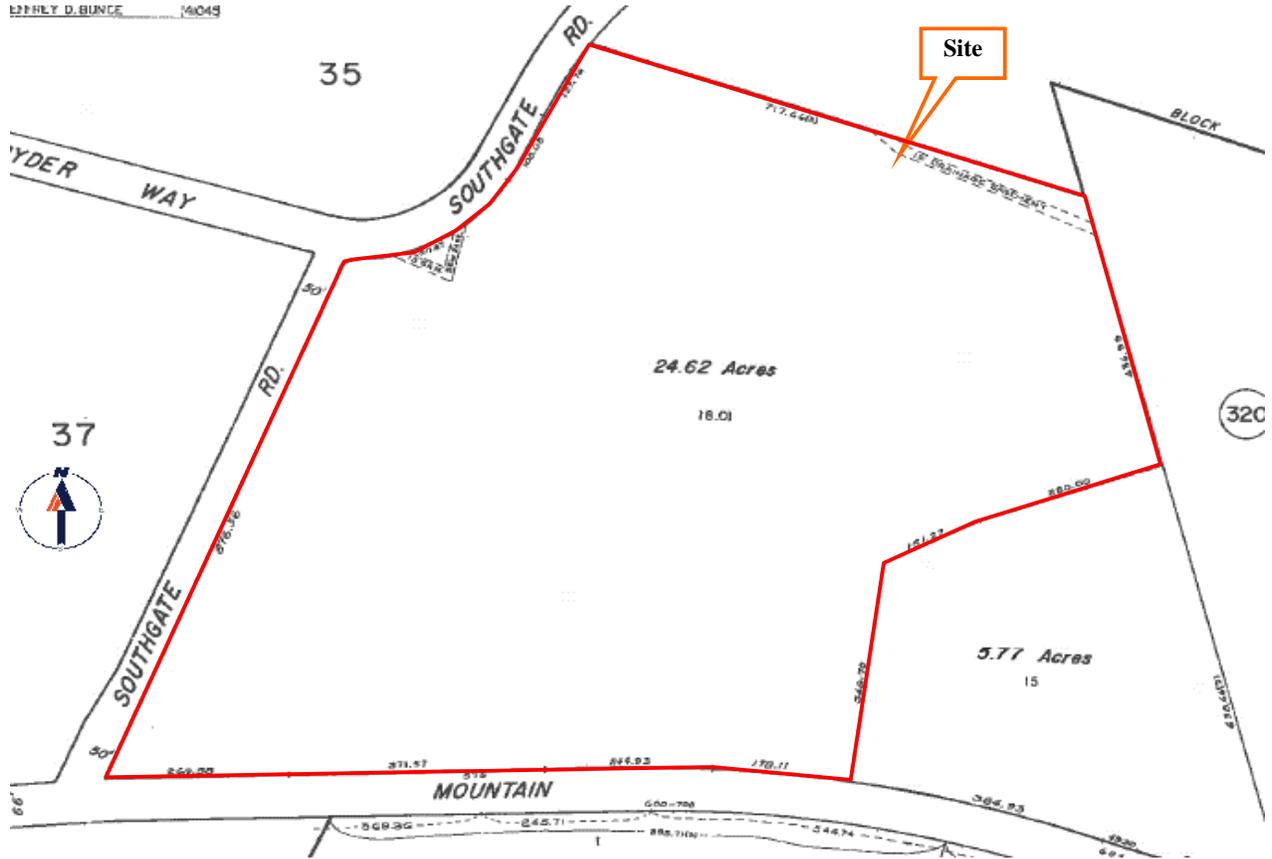
*“minimize” means that the project is configured so that most or all of it is contained in the uplands on the site, and that the wetlands are avoided to the greatest extent possible. An applicant is not required to reduce the scope of the project or to consider offsite alternatives to comply with this requirement.*

- 1. The mitigation shall meet the substantive and procedural requirements at N.J.A.C. 7:7A-11 and shall be submitted to the Department for review and approval no later than 90-Calendar days prior to the initiation of regulated activities authorized by this general permit.*

**Compliance:** Wetland impacts do not exceed 0.1-Acres. Therefore, wetland mitigation is not proposed with this impact.

**Appendix A**  
**Site Location Maps**

PHILIP D. BUNGE 1/10/19



## Tax Map

Source: Borough of New Providence Tax Map, Sheet #32

Access Date: 1/6/2020

# Redwood-ERC New Providence, LLC

575 Mountain Ave  
Block 320; Lots 18.01

Borough of New Providence, Union County, NJ

BENJ #J100690.04

Prepared by: gs

Date: 1/6/2020

Checked by: mm

Scale: NTS

# BOHLER //



**Aerial Map**

Source: NJ GeoWeb

Access Date: 1/6/2020

# Redwood-ERC New Providence, LLC

575 Mountain Ave  
Block 320; Lots 18.01

Borough of New Providence, Union County, NJ

BENJ #J100690.04

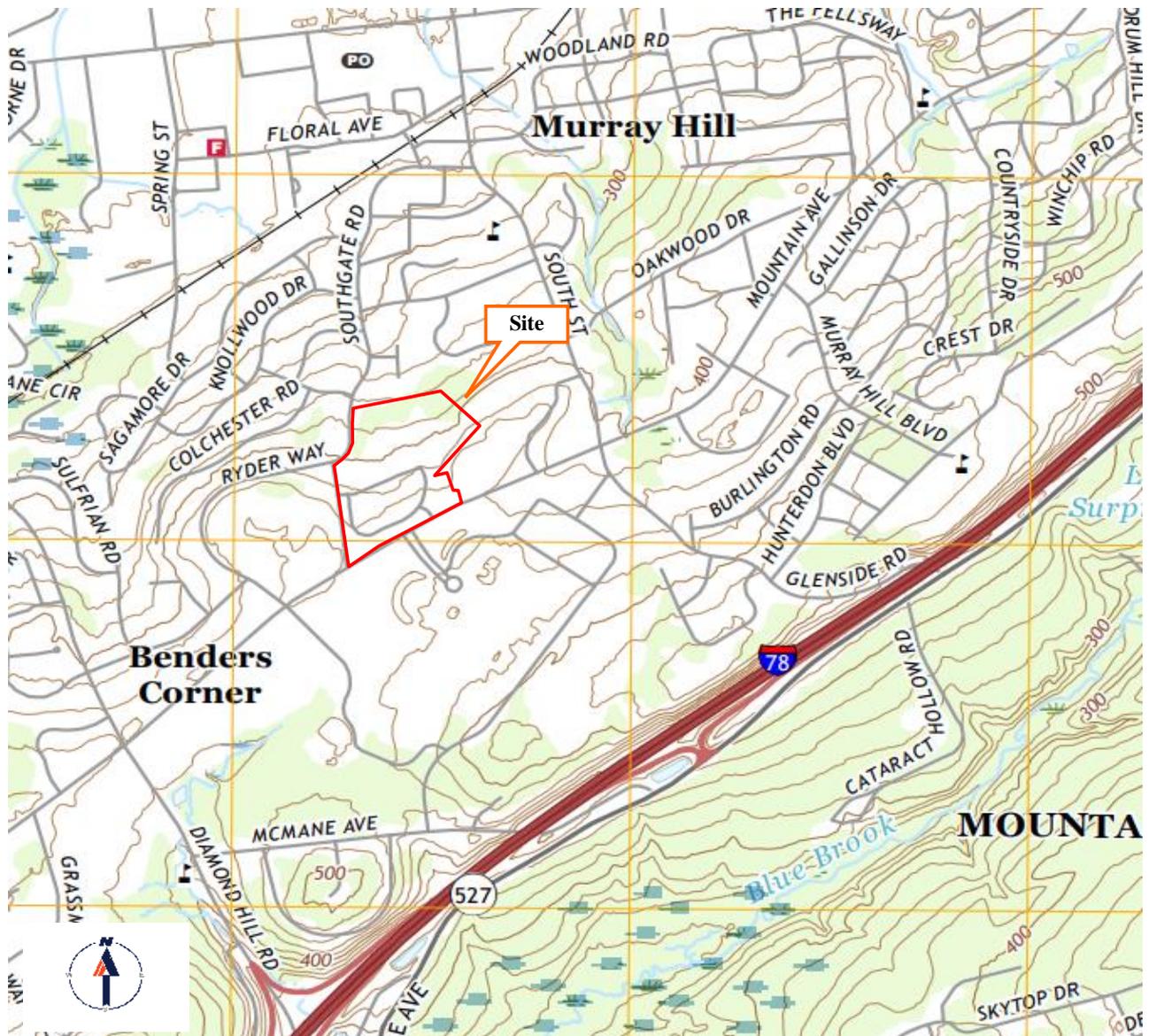
Prepared by: gs

Date: 1/6/2020

Checked by: mm

Scale: NTS

**BOHLER //**



**USGS Map**  
**518,869-ft. E; 675,289-ft. N**  
**Chatham Quadrangle**

Source: USGS, 2019

Access Date: 1/6/2020

# Redwood-ERC New Providence, LLC

575 Mountain Ave  
 Block 320; Lots 18.01

Borough of New Providence, Union County, NJ

BENJ #J100690.04

Prepared by: gs

Date: 1/6/2020

Checked by: mm

Scale: NTS





Map Unit Legend			
Union County, New Jersey (NJ039)			
Union County, New Jersey (NJ039)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
AmhB	Amwell silt loam, 2 to 6 percent slopes	5.2	21.1%
AmuB	Amwell-Urban land complex, 0 to 6 percent slopes	0.2	0.7%
HakB	Haledon loam, 3 to 8 percent slopes	8.0	32.1%
NehBc	Neshaminy silt loam, 0 to 6 percent slopes, extremely stony	1.1	4.3%
NenD	Neshaminy-Urban land complex, 12 to 18 percent slopes	2.6	10.5%
UdkttB	Udorthents, loamy substratum, 0 to 8 percent slopes	3.5	14.3%
UR	Urban land	4.2	16.9%
<b>Totals for Area of Interest</b>		<b>24.8</b>	<b>100.0%</b>

## Soils Map

Source: NRCS Web Soil Survey, 2012

Access Date: 1/6/2020

# Redwood-ERC New Providence, LLC

575 Mountain Ave  
Block 320; Lots 18.01

Borough of New Providence, Union County, NJ

BENJ #J100690.04

Prepared by: gs

Date: 1/6/2020

Checked by: mm

Scale: NTS

**BOHLER** //

**Appendix B**  
**Site Photographs**



## Photo Location Map

# Redwood-ERC New Providence, LLC

Borough of New Providence, Union County, NJ

**Block 320, Lot 18.01**

BENJ #100690.04

Prepared by: mm

Date: 1/2/2020

Checked by: gd

Scale: NTS

# BOHLER //



Photo 1



Photo 2

# Redwood-ERC New Providence, LLC

Borough of New Providence, Union County, NJ

Block 320, Lot 18.01

BENJ #100690.04

Prepared by: mm

Date: 1/2/2020

Checked by: gd

Scale: NTS

**BOHLER //**



Photo 3



Photo 4

## Redwood-ERC New Providence, LLC

575 Mountain Avenue  
Block 320, Lot 18.01

Borough of New Providence, Union County, NJ

BENJ #100690.04

Prepared by: mm

Date: 1/2/2020

Checked by: gd

Scale: NTS

**BOHLER //**



Photo 5



Photo 6

# Redwood-ERC New Providence, LLC

575 Mountain Avenue  
Block 320, Lot 18.01

Borough of New Providence, Union County, NJ

BENJ #100690.04

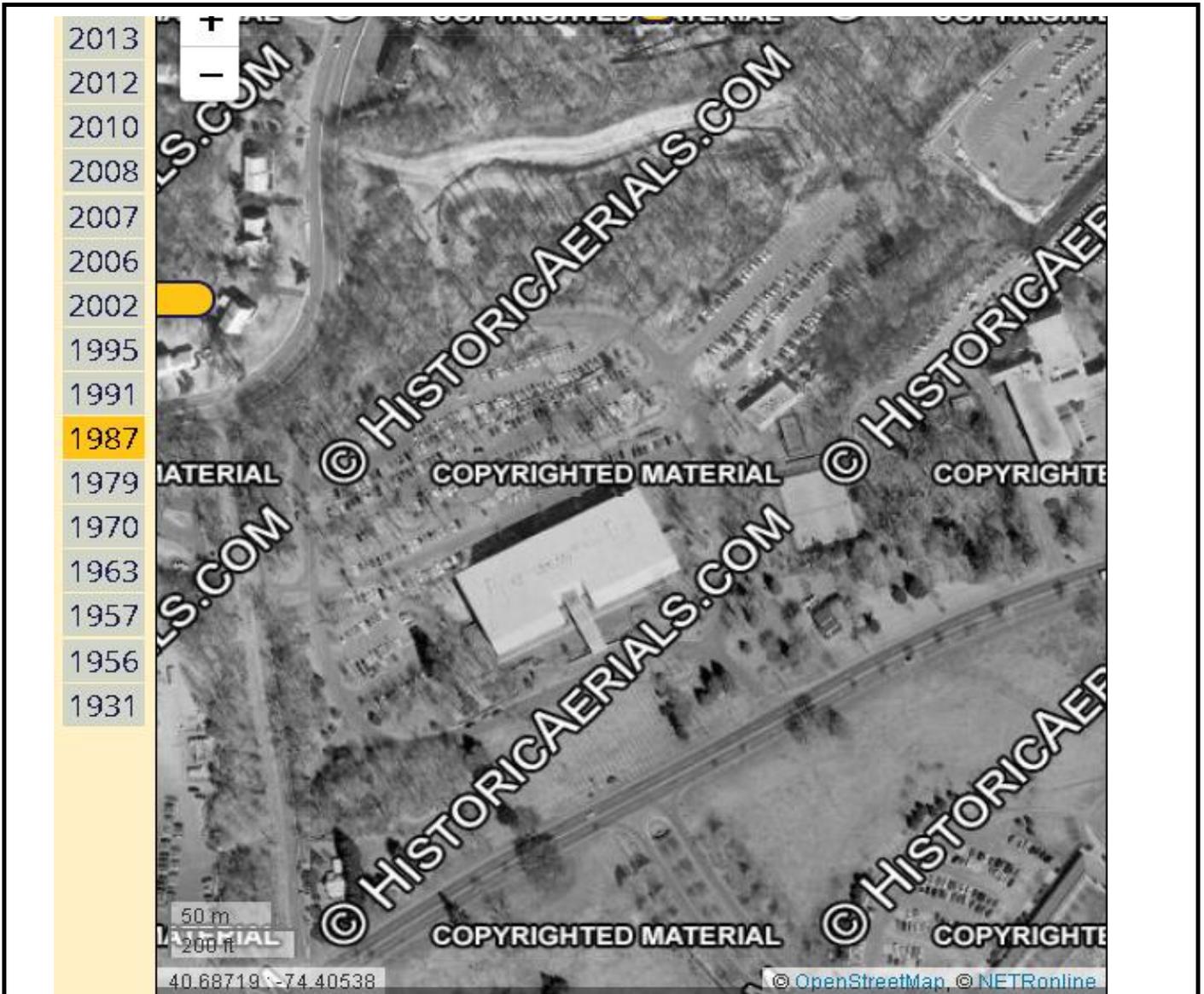
Prepared by: mm

Date: 1/2/2020

Checked by: gd

Scale: NTS

**BOHLER** //



**1987 Aerial**

<b>Redwood-ERC New Providence, LLC</b>	
<b>575 Mountain Avenue Block 320, Lot 18.01</b>	<b>Borough of New Providence, Union County, NJ</b>
BENJ #100690.04	
Prepared by: mm	Date: 1/2/2020
Checked by: gd	Scale: NTS
<b>BOHLER //</b>	



**1991 Aerial**

## Redwood-ERC New Providence, LLC

575 Mountain Avenue Block 320, Lot 18.01		Borough of New Providence, Union County, NJ			
BENJ #100690.04		<b>BOHLER</b> //			
Prepared by: mm	Date: 1/2/2020				
Checked by: gd	Scale: NTS				



**2007 Aerial**

## Redwood-ERC New Providence, LLC

**575 Mountain Avenue  
Block 320, Lot 18.01**

**Borough of New Providence, Union County, NJ**

BENJ #100690.04

Prepared by: mm

Date: 1/2/2020

Checked by: gd

Scale: NTS

**BOHLER //**



**2010 Aerial**

**Redwood-ERC New Providence, LLC**

**575 Mountain Avenue  
Block 320, Lot 18.01**

**Borough of New Providence, Union County, NJ**

BENJ #100690.04

Prepared by: mm

Date: 1/2/2020

Checked by: gd

Scale: NTS

**BOHLER //**



**2013 Aerial**

## Redwood-ERC New Providence, LLC

**575 Mountain Avenue  
Block 320, Lot 18.01**

**Borough of New Providence, Union County, NJ**

BENJ #100690.04

Prepared by: mm

Date: 1/2/2020

Checked by: gd

Scale: NTS

**BOHLER //**

**Appendix C**  
**Wetland Data Forms**

**WETLAND DELINEATION DATA FORM (1989  
METHODOLOGY)**

<b>Wetland Plot No.:</b> A-37 Up A-1 to A-38	<b>Job Number:</b> J100690.04
--	----------------------------------

Date: 8/19/2019	Client/Project Name: Redwood-ERC New Providence, LLC
Weather: Cloudy, 65	Municipality/County/State: New Providence/Union/NJ
Investigators: Michelle Measday	Block/Lot/Tract No.: Block 320/Lot 18.01, 15 and 17
Logbook Page No.'s: mm02; page 16	Nearest Waterway: Center Branch Salt Brook

DOMINANT PLANT SP	Stratum	Indicator	NON-DOMINANT PLANT SP	Stratum	Indicator
<i>Carya ovata</i>	T	FACU	<i>Ulmus Americana</i>	T	FACW
<i>Acer platanoides</i>	T	UPL			
<i>Rubus phoenicolasius</i>	Sh	FACU			
<i>Rosa multiflora</i>	Sh	FACU			
<i>Potentilla simplex</i>	H	FACU			

Remarks: Does not meet the criteria for dominance of hydrophytic vegetation

**HYDROLOGY**

Primary Wetland Indicators:	Secondary Wetland Indicators (2 or more required):
_ Surface Water (A1)	_ Surface Soil Cracks (B6)
_ High Water Table (A2)	_ Sparsely Vegetated Concave Surface (B8)
_ Saturation (A3)	_ Drainage Patterns (B10)
_ Water Marks (B1)	_ Saturation Visible on Aerial Imagery (C9)
_ Sediment (B2)	_ Stunted/Stressed Plants (D1)
_ Drift Deposits (B3)	_ Geomorphic Position (D2)
_ Water-Stained Leaves (B9)	_ Microtopographic Relief (D4)
_ Hydrogen Sulfide Odor (C1)	_ FAC-Neutral Test (D5)

Remarks: Does not meet the criteria for wetland hydrology

**SOILS**

Depth (Inches)	Matrix Color	Redox Features	Texture
0-18	5 YR 3/3	-	Fill/Silt Loam

**Hydric Soil Indicators:**

_ Histosol (A1)	_ Dark Surface (S7)
_ Histic Epipedon (A2)	_ Polyvalue Below Surface (S8)
_ Black Histic (A3)	_ Thin Dark Surface (S9)
_ Hydrogen Sulfide (A4)	_ Depleted Matrix (F3)
_ Stratified Layers (A5)	_ Redox Dark Surface (F7)
_ Depleted Below Dark Surface (A11)	_ Piedmont Floodplain Soils (19)
_ Thick Dark Surface (A12)	_ Red Parent Material (F21)

Remarks: Does not meet the hydric soil criteria.

**WETLAND DETERMINATION**

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

**WETLAND DELINEATION DATA FORM (1989  
METHODOLOGY)**

<b>Wetland Plot No.:</b> B-1 Up B-1 to B-4	<b>Job Number:</b> J100690.04
--	----------------------------------

Date: 8/19/2019	Client/Project Name: Redwood-ERC New Providence, LLC
Weather: Cloudy, 65	Municipality/County/State: New Providence/Union/NJ
Investigators: Michelle Measday	Block/Lot/Tract No.: Block 320/Lot 18.01, 15 and 17
Logbook Page No.'s: mm02; page 16	Nearest Waterway: Center Branch Salt Brook

<b>DOMINANT PLANT SP</b>	<b>Stratum</b>	<b>Indicator</b>	<b>NON-DOMINANT PLANT SP</b>	<b>Stratum</b>	<b>Indicator</b>
<i>Quercus rubra</i>	T	FACU			
<i>Acer platanoides</i>	T	FACU			
<i>Rubus phoenicolasius</i>	Sh	FACU			
<i>Rosa multiflora</i>	Sh	FACU			
<i>Potentilla simplex</i>	H	FACU			

Remarks: Does not meet the criteria for dominance by hydrophytic vegetation

**HYDROLOGY**

<b>Primary Wetland Indicators:</b>	<b>Secondary Wetland Indicators (2 or more required):</b>
_ Surface Water (A1)	_ Surface Soil Cracks (B6)
_ High Water Table (A2)	_ Sparsely Vegetated Concave Surface (B8)
_ Saturation (A3)	_ Drainage Patterns (B10)
_ Water Marks (B1)	_ Saturation Visible on Aerial Imagery (C9)
_ Sediment (B2)	_ Stunted/Stressed Plants (D1)
_ Drift Deposits (B3)	_ Geomorphic Position (D2)
_ Water-Stained Leaves (B9)	_ Microtopographic Relief (D4)
_ Hydrogen Sulfide Odor (C1)	_ FAC-Neutral Test (D5)

Remarks: Does not meet the criteria for wetland hydrology

**SOILS**

Depth Inches)	Matrix Color	Redox Features	Texture
0-18	10 YR 3/3	-	Silt loam

**Hydric Soil Indicators:**

_ Histosol (A1)	_ Dark Surface (S7)
_ Histic Epipedon (A2)	_ Polyvalue Below Surface (S8)
_ Black Histic (A3)	_ Thin Dark Surface (S9)
_ Hydrogen Sulfide (A4)	_ Depleted Matrix (F3)
_ Stratified Layers (A5)	_ Redox Dark Surface (F7)
_ Depleted Below Dark Surface (A11)	_ Redox Depressions (F8)
_ Thick Dark Surface (A12)	_ Red Parent Material (F21)

Remarks: Does not meet the criteria for hydric soil

**WETLAND DETERMINATION**

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

**WETLAND DELINEATION DATA FORM (1989  
METHODOLOGY)**

Wetland Plot No.: C-13 Wet C-1 to C-13	Job Number: J100690.04
--	---------------------------

Date: 8/19/2019	Client/Project Name: Redwood-ERC New Providence, LLC
Weather: Cloudy, 65	Municipality/County/State: New Providence/Union/NJ
Investigators: Michelle Measday	Block/Lot/Tract No.: Block 320/Lot 18.01, 15 and 17
Logbook Page No.'s: mm02; page 16	Nearest Waterway: Center Branch Salt Brook

DOMINANT PLANT SP	Stratum	Indicator	NON-DOMINANT PLANT SP	Stratum	Indicator
<i>Acer rubrum</i>	T	FAC			
<i>Carpinus caroliniana</i>	T	FACU			
<i>Fagus grandifolia</i>	T	FACU			
<i>Onoclea sensibilis</i>	H	FACW			
<i>Viburnum lentago</i>	Sh	FAC			

Remarks: Meets the criteria for dominance of hydrophytic vegetation

**HYDROLOGY**

Primary Wetland Indicators:	Secondary Wetland Indicators (2 or more required):
_ Surface Water (A1)	_ Surface Soil Cracks (B6)
_ High Water Table (A2)	_ Sparsely Vegetated Concave Surface (B8)
_ Saturation (A3)	_ Drainage Patterns (B10)
_ Water Marks (B1)	_ Saturation Visible on Aerial Imagery (C9)
_ Sediment (B2)	_ Stunted/Stressed Plants (D1)
_ Drift Deposits (B3)	_ Geomorphic Position (D2)
_ Water-Stained Leaves (B9)	_ Microtopographic Relief (D4)
_ Hydrogen Sulfide Odor (C1)	_ FAC-Neutral Test (D5)

Remarks: Meets the criteria for wetland hydrology

**SOILS**

Depth (Inches)	Matrix Color	Redox Features	Texture
0-6	10 YR 3/2	10 YR 5/6	Silt Loam
6-18	10 YR 5/2	10 YR 5/6	Silt Loam

**Hydric Soil Indicators:**

_ Histosol (A1)	_ Dark Surface (S7)
_ Histic Epipedon (A2)	_ Polyvalue Below Surface (S8)
_ Black Histic (A3)	_ Thin Dark Surface (S9)
_ Hydrogen Sulfide (A4)	_ Depleted Matrix (F3)
_ Stratified Layers (A5)	_ Redox Dark Surface (F7)
_ Depleted Below Dark Surface (A11)	_ Piedmont Floodplain Soils (19)
_ Thick Dark Surface (A12)	_ Red Parent Material (F21)

Remarks: Does not meet the hydric soil criteria.

**WETLAND DETERMINATION**

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

**WETLAND DELINEATION DATA FORM (1989  
METHODOLOGY)**

<b>Wetland Plot No.:</b> D-3 Up D-1 to D-4	<b>Job Number:</b> J100690.04
--	----------------------------------

Date: 8/19/2019	Client/Project Name: Redwood-ERC New Providence, LLC
Weather: Cloudy, 65	Municipality/County/State: New Providence/Union/NJ
Investigators: Michelle Measday	Block/Lot/Tract No.: Block 320/Lot 18.01, 15 and 17
Logbook Page No.'s: mm02; page 16	Nearest Waterway: Center Branch Salt Brook

<b>DOMINANT PLANT SP</b>	<b>Stratum</b>	<b>Indicator</b>	<b>NON-DOMINANT PLANT SP</b>	<b>Stratum</b>	<b>Indicator</b>
<i>Fagus grandifolia</i>	T	FACU			
<i>Carpinus caroliniana</i>	Sh	FACU			

Remarks: Does not meet the criteria for dominance by hydrophytic vegetation

**HYDROLOGY**

<b>Primary Wetland Indicators:</b>	<b>Secondary Wetland Indicators (2 or more required):</b>
_ Surface Water (A1)	_ Surface Soil Cracks (B6)
_ High Water Table (A2)	_ Sparsely Vegetated Concave Surface (B8)
_ Saturation (A3)	_ Drainage Patterns (B10)
_ Water Marks (B1)	_ Saturation Visible on Aerial Imagery (C9)
_ Sediment (B2)	_ Stunted/Stressed Plants (D1)
_ Drift Deposits (B3)	_ Geomorphic Position (D2)
_ Water-Stained Leaves (B9)	_ Microtopographic Relief (D4)
_ Hydrogen Sulfide Odor (C1)	_ FAC-Neutral Test (D5)

Remarks: Does not meet the criteria for wetland hydrology

**SOILS**

Depth Inches)	Matrix Color	Redox Features	Texture
0-18	10 YR 4/4	-	Silt loam

**Hydric Soil Indicators:**

_ Histosol (A1)	_ Dark Surface (S7)
_ Histic Epipedon (A2)	_ Polyvalue Below Surface (S8)
_ Black Histic (A3)	_ Thin Dark Surface (S9)
_ Hydrogen Sulfide (A4)	_ Depleted Matrix (F3)
_ Stratified Layers (A5)	_ Redox Dark Surface (F7)
_ Depleted Below Dark Surface (A11)	_ Redox Depressions (F8)
_ Thick Dark Surface (A12)	_ Red Parent Material (F21)

Remarks: Does not meet the criteria for hydric soil

**WETLAND DETERMINATION**

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

**Appendix D**  
**Natural Heritage Response Letter**



## State of New Jersey

MAIL CODE 501-04

DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF PARKS & FORESTRY

NEW JERSEY FOREST SERVICE

OFFICE OF NATURAL LANDS MANAGEMENT

P.O. BOX 420

TRENTON, NJ 08625-0420

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

PHILIP D. MURPHY

*Governor*

SHEILA Y. OLIVER

*Lt. Governor*

CATHERINE R. McCABE

*Commissioner*

March 4, 2020

Michelle Measday  
Bohler Engineering, P.C.  
35 Technology Drive  
Warren, NJ 07059

Re: Redwood-ERC New Providence  
New Providence Borough, Union County

Dear Ms. Measday:

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

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

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

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

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

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

provided for each category coded as 'Yes' in Table 3. These reports may include species that have also been documented on, or in the immediate vicinity of, the project site.

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

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

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

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

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

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

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

Sincerely,



Robert J. Cartica  
Administrator

c: NHP File No. 20-4007464-18847

Mail Code 501-04  
 Department of Environmental Protection  
 New Jersey Forest Service  
 Office of Natural Lands Management  
 P.O. Box 420 Trenton, New Jersey 08625-0420  
 Tel. (609) 984-1339 Fax. (609) 984-1427

# ***Invoice***

	Date	Invoice #
	3/4/2020	18847

Bill to: Bohler Engineering, P.C. 35 Technology Drive Warren, NJ 07059	Make check payable to: <b><i>DEP - Office of Natural Lands Management</i></b>  <b><u>Forward with a copy of this statement to:</u></b> <b>Mail Code 501-04</b> <b>Office of Natural Lands Management</b> <b>P.O. Box 420 Trenton, New Jersey 08625-0420</b>
---	---

Quantity (hrs.)	Description	Rate (per hr.)	Amount
1	Natural Heritage Database search for locational information of rare species and ecological communities. Project: 20-4007464-18847	\$ 70.00	\$ 70.00
Michelle Measday Project Name: Redwood-ERC New Providence		<b>Total</b>	\$ 70.00

**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	Yes	1 page(s) included
4. Vernal Pool Habitat on the Project Site Based on Search of Landscape Project 3.3	No	0 pages included
5. Rare Wildlife Species or Wildlife Habitat on the Project Site Based on Search of Landscape Project 3.3 Stream Habitat File	No	0 pages included
6. Other Animal Species On the Project Site Based on Additional Species Tracked by Endangered and Nongame Species Program	No	0 pages included

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

<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>Mammalia</i>								
	Indiana Bat	Myotis sodalis	Active Season Sighting	5	Federally Listed Endangered	State Endangered	G2	S1
	Indiana Bat	Myotis sodalis	Maternity Colony	5	Federally Listed Endangered	State Endangered	G2	S1

**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**

Class	Common Name	Scientific Name	Feature Type	Rank	Federal Protection Status	State Protection Status	Grank	Srank
<i>Aves</i>								
	Barred Owl	Strix varia	Non-breeding Sighting	3	NA	State Threatened	G5	S2B,S2N
	Great Blue Heron	Ardea herodias	Foraging	2	NA	Special Concern	G5	S3B,S4N
<i>Mammalia</i>								
	Indiana Bat	Myotis sodalis	Active Season Sighting	5	Federally Listed Endangered	State Endangered	G2	S1
	Indiana Bat	Myotis sodalis	Maternity Colony	5	Federally Listed Endangered	State Endangered	G2	S1

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

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

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

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

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

<p><b>Rare Wildlife Species or Wildlife Habitat for Riparian Zone Width Determination Within One Mile of the Project Site Based on Search of Landscape Project 3.3 Species Based Patches</b></p>
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Class	Common Name	Scientific Name	Feature Type	Rank	Federal Protection Status	State Protection Status	Grank	Strank
<i>Amphibia</i>								
	Longtail Salamander	Eurycea longicauda longicauda	Occupied Habitat	3	NA	State Threatened	G5T5	S2
<i>Aves</i>								
	Barred Owl	Strix varia	Non-breeding Sighting	3	NA	State Threatened	G5	S2B,S2N
	Great Blue Heron	Ardea herodias	Foraging	2	NA	Special Concern	G5	S3B,S4N
	Wood Thrush	Hylocichla mustelina	Breeding Sighting	2	NA	Special Concern	G4	S3B,S4N
<i>Mammalia</i>								
	Indiana Bat	Myotis sodalis	Active Season Sighting	5	Federally Listed Endangered	State Endangered	G2	S1
	Indiana Bat	Myotis sodalis	Maternity Colony	5	Federally Listed Endangered	State Endangered	G2	S1
<i>Reptilia</i>								
	Bog Turtle	Glyptemys muhlenbergii	Occupied Habitat	5	Federally Listed Threatened	State Endangered	G3	S1
	Wood Turtle	Glyptemys insculpta	Occupied Habitat	3	NA	State Threatened	G3	S2

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

<b>Vernal Pool Habitat Type</b>	<b>Vernal Pool Habitat ID</b>
Potential vernal habitat area	1937
Total number of records:	1

**Other Animal Species for Riparian Zone Width Determination  
 Within One Mile of the Project Site  
 Based on Additional Species Tracked by  
 Endangered and Nongame Species Program**

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

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

**Appendix E**  
**Professional Qualifications**

# Michelle Measday, CFM, PWS

## Senior Environmental Specialist

[MMEASDAY@BOHLERENG.COM](mailto:MMEASDAY@BOHLERENG.COM)

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### EDUCATION

M.A. Environmental Management,  
Montclair State University, 1993

B.A. Geology, Concentration in  
Chemistry, Rutgers University,  
1985

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### PROFESSIONAL LICENSES

Professional Wetland Scientist

Certified Floodplain Manager: US

USACE Wetland  
Delineator Certified

Hazardous Waste Operations  
Training, 40-Hour, OSHA:  
US; Annual Refreshers

Construction Safety Training,  
10-Hour, OSHA: US

Advanced Hydric Soils Training

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### PROFESSIONAL AFFILIATIONS

National Association of  
Environmental Professionals

Society of Wetlands Scientists

Ms. Measday has been an Environmental Consultant for over 20 years performing wetland delineations and evaluations on thousands of acres of land through New York, New Jersey and Pennsylvania. Located in Bohler's New Jersey branch offices, she provides support on a variety of environmental projects including industrial, commercial and residential developments.

Ms. Measday has performed numerous habitat assessments for threatened and endangered species targeting herptile, avian and mammalian species. Her experience in threatened and endangered species specific surveys include: call surveys for the Pine Barrens treefrog (*Hyla andersonii*), Barred Owl (*Strix varia*), Red-Shouldered Hawk (*Buteo lineatus*), Red-headed woodpecker (*Melanerpes erythrocephalus*), Red-Cockaded Woodpecker (*Leuconotopicus borealis*) and Cooper's Hawk (*Accipiter cooperii*). She has also worked closely in the field under the direct supervision of the New Jersey Department of Environmental Protection monitoring the nesting of the Bald Eagle (*Haliaeetus leucocephalus*), Osprey (*Pandion haliaetus*), Northern Harrier (*Circus cyaneus*) and colonial water bird sites in the Barnegat Bay and Delaware Bayshore area during Sandy Debris cleanup efforts.

Ms. Measday has coordinated hundreds of environmental projects and regulatory agency permitting applications for various commercial, industrial, and residential projects. She has also authored numerous comprehensive environmental impact and inventory reports.