STORMWATER MANAGEMENT PLAN ELEMENT

TOWNSHIP OF MONTCLAIR,
ESSEX COUNTY, NEW JERSEY
205 CLAREMONT AVENUE
MONTCLAIR, NJ 07042

Adopted by the Montclair Township Planning Board on
December 14, 2020

Stormwater Management Plan Element
of the
Montclair Township Master Plan

Township of Montclair
Essex County, New Jersey

Prepared by
Township of Montclair Planning Department

The original of this report has been signed and sealed in accordance with N.J.S.A. 13:41-1.2.

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PLANNING BOARD
TOWNSHIP OF MONTCLAIR

RESOLUTION OF ADOPTION OF AN AMENDMENT TO THE STORMWATER MANAGEMENT ELEMENT OF THE MASTER PLAN OF THE TOWNSHIP OF MONTCLAIR

WHEREAS, the Municipal Land Use Law of the State of New Jersey (N.J.S.A. 40:55D-1, *et seq*.) provides, at Section -28, that the "planning board may prepare and, after public hearing, adopt or amend a master plan or component parts thereof, to guide the use of lands within the municipality in a manner which protects public health and safety and promotes the general welfare"; and

WHEREAS, the Township of Montclair ("Township") Land Use Procedures Ordinance, Article I at § 202-7A, in relevant part, provides that the Township Planning Board (the "Board") has the power and the duty--

> To make and adopt and from time to time amend a Master Plan for the physical development of the municipality, pursuant to N.J.S.A. 40:55D-28….

and at -7D requires the Board--

> To participate in the preparation and review of programs or plans required by state or federal law or regulations.

and

WHEREAS, the Township's Master Plan was adopted in or about November 1978 and, since then, has been re-examined, amended and supplemented from time to time, with the last Master Plan Reexamination Report adopted by the Board on November 21, 2016[1]; and

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[1] N.J.S.A. 40:55D-89, in relevant part, provides: "The governing body shall, at least every 10 years, provide for a general reexamination of its master plan and development regulations by the planning board, which shall prepare and adopt by resolution a report on the findings of such reexamination, a copy of which report and resolution shall be sent to the county planning board."

WHEREAS, Article 13 of the Municipal Land Use Law, at N.J.S.A. 40:55D-94, requires that "a storm water management plan shall be an integral part of any master plan" and, in accordance with -93, "Every municipality in the State shall prepare a storm water management plan and a storm water control ordinance or ordinances to implement said plan"; and

WHEREAS, the Stormwater Management Element of the Township Master Plan was originally adopted by the Board on April 11, 2005; and

WHEREAS, on March 2, 2020, amendments to the New Jersey State stormwater management regulations, found in N.J.A.C. 7:8, *et seq*. (collectively, the "Amendments"), were published by the New Jersey Department of Environmental Protection and take effect on March 2, 2021 by which date municipalities are expected to have amended their own stormwater rules in accordance, and in compliance, with the Amendments; and

WHEREAS, the Amendments may be characterized as establishing design and performance standards for stormwater management measures intended to minimize the adverse impact of stormwater runoff on water quality and water quantity and loss of groundwater recharge in receiving water bodies; and

WHEREAS, the Amendments, at N.J.A.C. 7:8-3.10(a)(2), require that

> Each municipality in the regional stormwater management planning area shall incorporate the applicable provisions of the regional stormwater management plan into a new or amended municipal stormwater management plan and ordinances.

to render its stormwater plan compliant with the Amendments, and pursuant to N.J.A.C. 7:8-4.2(c)(8), specifically to:

> Evaluate the extent to which the municipality's entire master plan (including the land use plan element), official map and development regulations (including the zoning ordinance) implement green infrastructure and the principles expressed in the nonstructural stormwater management strategies at N.J.A.C. 7:8-2.4 [i.e., Stormwater management plan requirements]. This

evaluation shall also be included (with updating as appropriate) in the reexamination report adopted under N.J.S.A. 40:55D-89.

WHEREAS, on the basis of the Amendments, the Township Planning Department prepared an (Amended) Stormwater Management Element of the Township Master Plan (the "Amended Stormwater Plan") as well as changes to relevant, related Ordinances to be recommended to the Township Council for adoption (the "Proposed Ordinances"); and

WHEREAS, the Board set December 14, 2020 as the date for its hearing with regard to a discussion of the Amendments and, specifically, to consider the Amended Stormwater Plan and the Proposed Ordinances; and

WHEREAS, in compliance with the notice and related provisions of N.J.S.A. 40:55D-10(a) and 40:55D-13, notice of the Board's hearing was (a) published in the Montclair Times at least ten days prior to the date of the hearing; (b) given to the clerk of each municipality adjoining the Township at least ten days prior to the date of the hearing by certified mail at least 10 days prior to the hearing; and (c) given by certified mail at least 10 days prior to the hearing to the Essex County Planning Board and included with the latter notice was a copy of the Amended Stormwater Plan; and

WHEREAS, all foregoing notices specified that a copy of the Amended Stormwater Plan was on file and available for public inspection at least 10 days before the date of the hearing and the same was on file and available for public inspection, and the Amended Stormwater Plan (and Proposed Ordinances) were published on the Township website; and

WHEREAS, at its December 14, 2020 hearing, the Board, through the presentation of the Township's Planning Department and the statements of its members, the Board Engineer and the public, including recommendations of members of the Township Environmental Commission, considered the Amended Stormwater Plan and Proposed Ordinances in order to develop a

document that most closely approximates the planning needs, aspirations and goals of the Township and its residents; and

WHEREAS, at its December 14, 2020 hearing, a motion was made and seconded to approve and adopt the Amended Stormwater Plan and to recommend the Proposed Ordinances to the Township Council and a (unanimous) vote in favor of same was taken by the Board.

NOW, THEREFORE:

1. The Amended Stormwater Plan, as attached, is incorporated into this Resolution in its entirety and is hereby adopted as an amendment to the Stormwater Management Element of the Township Master Plan.

2. The Board recommends to the Township Council that the Proposed Ordinances be adopted in their entirety.

3. The secretary of the Board shall give notice of the adoption of the Amended Stormwater Plan by publication once in the official newspaper of the Township in accordance with R. 4:69-6(b)(3) of the Rules Governing the Courts of the State of New Jersey.

4. The secretary of the Board is hereby directed to give notice immediately of the adoption of the Amended Stormwater Plan to the Essex County Planning Board, together with a copy of the Amended Stormwater Plan, as adopted, via personal service or certified mail. In no event, shall such notice be more than thirty (30) days after the date of the adoption of the Amended Stormwater Plan.

January 11, 2021 JOHN THOMAS WYNN, Board Chair

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INTRODUCTION

This Municipal Stormwater Management Plan (the "Plan") documents the strategy for the Township of Montclair ("the Township") to address stormwater-related impacts. The creation of this plan is required by N.J.A.C. 7:14A-25 Municipal Stormwater Regulations. This plan contains all the required elements described in N.J.A.C. 7:8 Stormwater Management Rules.

The plan addresses groundwater recharge, stormwater quantity and quality impacts by incorporating stormwater design and performance standards for new major development. These standards are intended to minimize the adverse impact of stormwater runoff on water quality and the loss of groundwater recharge that provides base flow in receiving water bodies.

The plan describes long-term operation and maintenance measures for existing and future stormwater facilities. A "build-out" analysis is not included in this plan, as there is a minimal amount of unimproved developable land in the Township. The plan addresses the review and update of existing ordinances, the Township Master Plan, and other planning documents to allow for project designs that include low impact development techniques.

The final component of this plan is a mitigation strategy for when a variance or exemption of the design and performance standards is sought. As part of the mitigation section of the stormwater plan, specific stormwater management measures are identified to lessen the impact of existing development.

GOALS

The goals of this Plan are to:

- Prevent an increase in nonpoint source pollution to the greatest extent feasible.
- Maintain the integrity of stream channels for their biological functions, as well as for drainage.
- Minimize pollutants in stormwater runoff from new and existing development.
- Reduce soil erosion from any development or construction project.
- Minimize, to the extent practical, any increase in stormwater runoff from new development.
- Reduce flood damage, including damage to life and property.

These goals are critical to the achievement of key objectives important to proper stormwater management:

- Restore, enhance, and maintain the chemical, physical, and biological integrity of the waters of the state.
- Protect public health.
- Safeguard fish and aquatic life and scenic and ecological values.
- Enhance the domestic, municipal, recreational, industrial, and other uses of water.
- Protect public safety through the proper design and operation of stormwater basins.

- Maintain and improve existing and proposed culverts and bridges, and other in-stream structures so they are adequate to provide proper flows with minimal flooding or erosion.

To achieve these goals, this plan outlines specific stormwater design and performance standards for new development. Additionally, the plan proposes stormwater management controls to address impacts from existing development. Preventative and corrective maintenance strategies are included in the plan to ensure long-term effectiveness of stormwater management facilities. The plan also outlines safety standards for stormwater infrastructure to be implemented to protect public safety.

OVERVIEW OF STORMWATER MANAGEMENT

Land development can dramatically alter the hydrologic cycle (see Figure 1) of a site and, ultimately, an entire watershed. Prior to development, native vegetation plays a key role in the cycle in two ways: directly intercepting precipitation and returning it to the atmosphere through evapotranspiration or allowing it to infiltrate the ground.

Development usually results in removal of beneficial vegetation, replacing it with lawn or impervious cover (e.g., buildings or pavement), thus reducing the site's evapotranspiration and infiltration rates. Clearing and grading a site can remove depressions that store rainfall. Construction activities may also compact the soil, diminishing its infiltration ability and causing an increase in the volume and rate of stormwater runoff from the site.

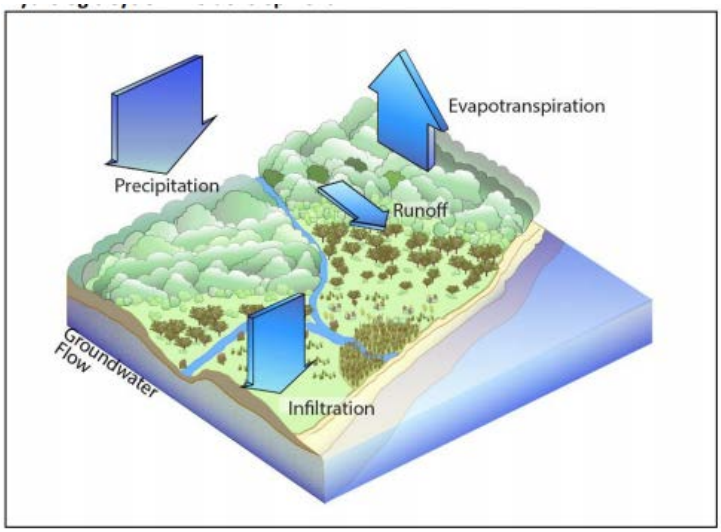

Figure 1: Hydrologic Cycle – Predevelopment Source: NJ Stormwater Best Management Practices Manual

Impervious areas that are connected to each other through gutters, channels, and storm sewers transport runoff more quickly than natural areas. This shortening of the transport or travel time quickens the rainfall-runoff response of the drainage area, causing flow in downstream waterways to peak faster and higher than in natural conditions. These increases can create new and/or aggravate existing downstream flooding and erosion problems and increase the quantity of sediment in a waterway channel. Filtration of runoff and removal of pollutants by surface and natural channel vegetation is eliminated when replaced by storm sewers that discharge runoff directly into a waterway. Increases in impervious area can also decrease opportunities for infiltration which, in turn, reduces stream base flow and groundwater recharge. Reduced base flows and increased peak flows produce greater fluctuations between normal and storm flow rates, which can

increase channel erosion. Reduced base flows can also negatively impact the hydrology of adjacent wetlands and the health of biological communities that depend on base flows. Finally, erosion and sedimentation can destroy habitat, threatening the survival of species that cannot adapt.

In addition to increases in runoff peaks, volumes, and loss of groundwater recharge, land development often results in the accumulation of pollutants on the land surface that runoff can mobilize and transport to streams. New impervious surfaces and cleared areas created by development can accumulate a variety of pollutants from the atmosphere, fertilizers, animal wastes, and leakage and wear from vehicles. Pollutants can include metals, suspended solids, hydrocarbons, pathogens, and nutrients. In addition to increased pollutant loading, land development can adversely affect water quality and stream biota in more subtle ways. For example, stormwater falling on impervious surfaces or stored in detention or retention basins can become heated and raise the temperature of the downstream waterway, adversely affecting cold water fish species, such as trout. Development can remove trees along stream banks that normally provide shading, stabilization, and leaf litter that falls into steams and becomes food for the aquatic community.

According to the NJDEP, most of the waterways monitored by the state do not meet the standards of the Federal Clean Water Act and New Jersey's Water Pollution Control Act. According to the 2016 Draft Integrated Water Quality Assessment Report:

- Only 38% of the monitored waters meet the standards for water supplies;
- Only 24% of the monitored waters meet the recreation standard;
- Only 17% of the monitored waters meet the aquatic life standard; and
- Less than 1% of the monitored waters meet the fish consumption standard.

In addition, flooding is an urgent problem for municipalities. According to the NJDEP's report *New Jersey's Scientific Report on Climate Change*, the state is experiencing significant increases in precipitation and storms resulting in extreme rain events due to climate change. The report predicts that the size and frequency of floods will increase as annual precipitation increases. This problem is exacerbated by the continued increase in impervious cover in the state.

A significant contributor of poor water quality and flooding is inadequate management of polluted stormwater runoff.

GREEN INFRASTRUCTURE

Stormwater remains an important issue in New Jersey, made increasingly worse by climate change and its weather extremes. Stormwater causes flooding and pollutes streams, lakes and rivers. By most estimates, well over 90% of New Jersey's waterways are polluted.[1]

On March 2, 2020, the New Jersey Department of Environmental Protection published changes to the stormwater rules. The new stormwater rules, which take full effect on

[1] New Jersey Future, "It's Official: NJDEP Amends State Stormwater Rules to Require Green Infrastructure, March 11, 2020.

March 2, 2021, require the use of green infrastructure. Green infrastructure refers to a set of stormwater management practices that use or mimic the natural water cycle to capture, filter, absorb and/or re-use stormwater. This rule change replaces a subjective stormwater management standard with an objective stormwater management standard that requires stormwater management features to be distributed around a site rather than centralized into one big basin. These “best management practices” (BMPs) include vegetated swales, bioretention, green roofs, cisterns, wet ponds, infiltration basins and constructed wetlands.

Specific changes to the rules include the following:

- Tables showing which green infrastructure BMPs may be used to meet certain standards, and which BMPs may be used only with a variance.
- The water quality standard has been revised to apply to “motor vehicle surface[s]” – meaning paved or unpaved roads, driveways, parking lots, etc. where vehicle travel occurs – instead of impervious surface. Consistent with current NJDEP practice, the water quality standard will not apply to impervious surfaces that are not used by vehicles.
- The definition of “major development” now includes “creation of one-quarter acre or more of “regulated motor vehicle surface.”
- Water quantity, quality, and groundwater recharge standards must be met in each drainage area on-site (unless they converge before leaving the property).
- A groundwater mounding analysis is required for all infiltration BMPs, not just for recharge.
- A deed notice for stormwater management measures, including green infrastructure, must be recorded and submitted to NJDEP before construction.

Local requirements may be stricter than the new NJDEP requirements. Municipal stormwater management ordinances may include Optional Measures (OMs) that prevent or reduce the pollution of the waters of the State. A municipality may choose these stronger or additional measures for nonresidential or mixed-use projects to address local water quality and flooding conditions as well as other environmental and community needs. For example, municipalities may choose to define “major development” with a smaller area of disturbance and/or smaller areas of regulated impervious cover or regulated motor vehicle surface; apply stormwater management requirements to both major and minor development; and/or require groundwater recharge, when feasible, in urban redevelopment areas.

ABOUT MONTCLAIR

General Information

The Township of Montclair is located just 12 miles west of Manhattan in suburban Essex County. Figure 2 is an excerpt of the US Geological Survey (USGS) map (Orange Quadrangle) showing Montclair. The Township is just over 6 square miles and has approximately 39,000 residents (2018 American Community Survey (ACS) data), an increase of 3.3% since 1990. Montclair is a well-established, primarily residential community, which traces its origins to the arrival of the first commuter railroad in the mid-

nineteenth century. With a population density that is five times the New Jersey average, Montclair has virtually no unimproved developable land remaining[2]. Recent development activities have been focused on redevelopment in the downtown and contiguous areas and subdivisions of larger lots containing one single family home into two, three, or more lots.

According to 2015 digital GIS data, the land use in Montclair is approximately 76% residential and just over 9% commercial (the remaining land use is primarily public). There are five sizable commercial areas within the Township, the largest of which is the central business district along Bloomfield Avenue. Three of the four other areas are adjacent to train stations along the NJ Transit commuter rail line at Bellevue Avenue, Watchung Avenue and Walnut/Grove Streets. The fourth is Montclair South located along Orange Road at the intersection of Washington Avenue. Current land use is shown on Figure 3.

Geology

Montclair is situated on lowlands and rolling hills abutting the ridge of First Watchung Mountain, which is located along the western boundary. At a mean elevation of 300 feet above sea level, the Township slopes downward from west to east, with steep slopes along much of the western border. The Master Plan addresses issues related to stormwater management and soil erosion prevention in these steep slope areas in a separate element, which is consistent with this Plan. Steep slope areas are shown on Figure 4.

There are two underlying bedrock formations, the first of which is the Passaic, which underlies most of the Township. This formation is predominately brown, reddish-brown, or gray mud-tone, with varying thicknesses of siltstone and sandstone. The other formation is the Orange Mountain, which are the basalt flows that form the First Mountain. Overlying both these formations is unconsolidated clay, sand and gravel, or glacial till. Geology of the Township is shown on Figure 5.

There are groundwater aquifers associated with each of the bedrock formations underlying Montclair, each of which can provide potable water supply. In 2020, it was reported that 90% of Montclair's drinking water is supplied by the North Jersey District Water Supply Commission's reservoir system. The remainder is provided by three groundwater wells within the Township.

Wellhead Protection Areas are areas designated by the NJ Department of Environmental Protection for special protection surrounding public water supply wells. The Wellhead Protection Area is where a well draws its water and is classified by certain time frames. These protection areas are based on a need to assess potential risk of contamination and to prioritize those that may pose a greater threat. Figure 6 shows locations of Montclair’s public water supply wells and associated Wellhead Protection Areas.

[2] There are 144 undeveloped parcels totaling 52.6 acres (out of approximately 4,000 total acres of land) as of October 8, 2020 according to the Township of Montclair Tax Assessor's office.

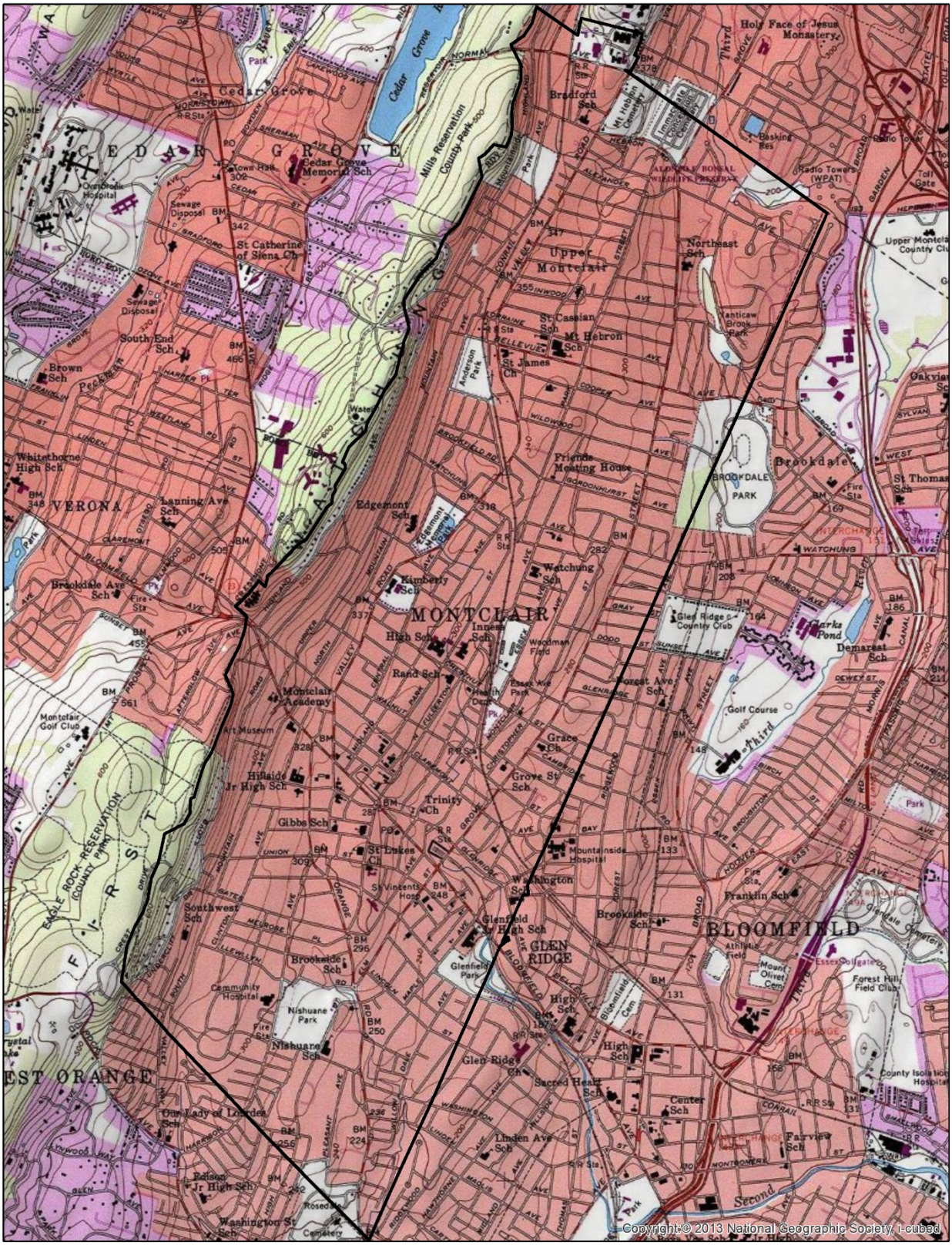

Figure 2 - USGS Topographic Map of the Township of Montclair, Prepared October 2020

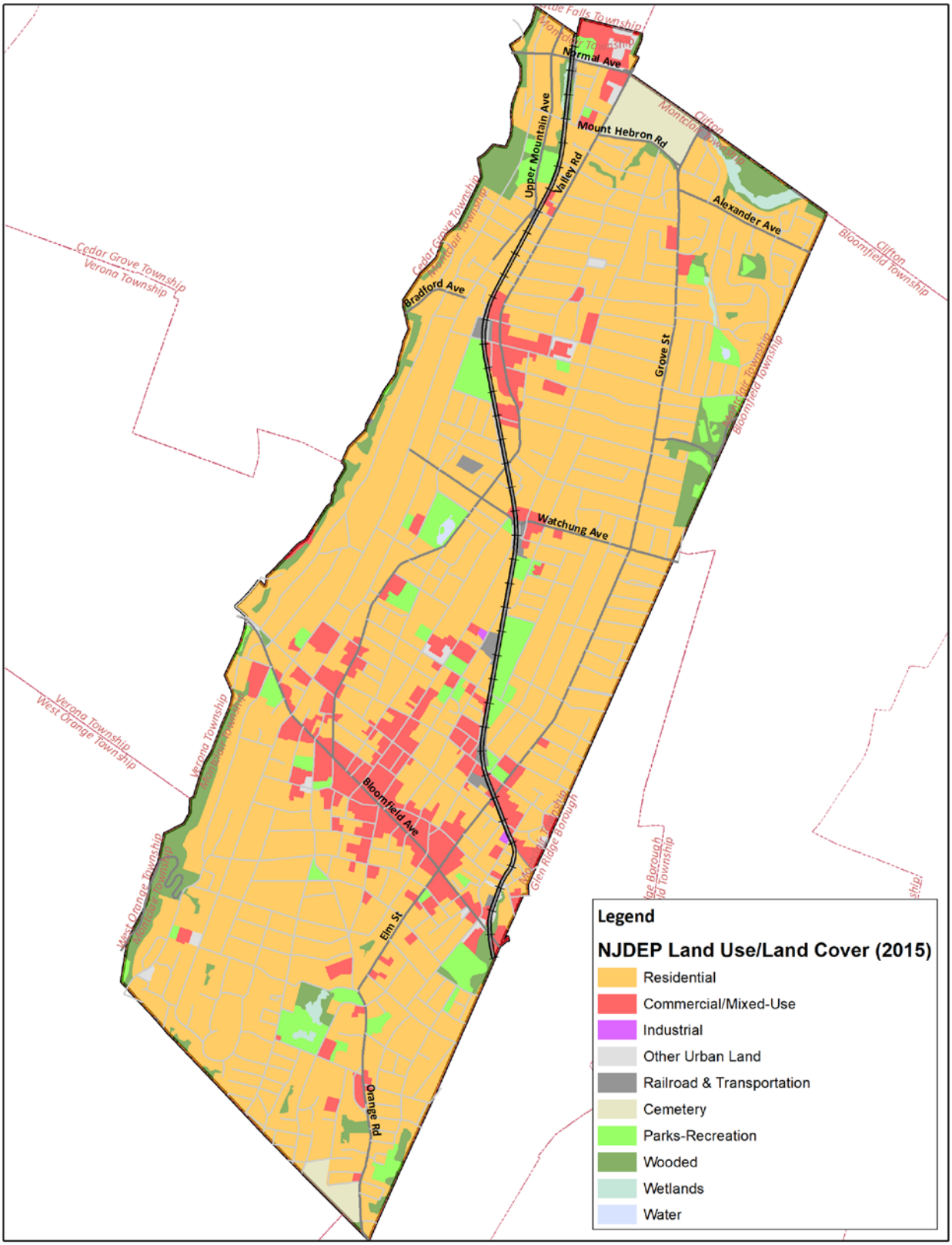

Figure 3 - Land Use/Land Cover Map of the Township of Montclair. NJDEP 2015 Land Use/Land Cover Data. Prepared October 2020

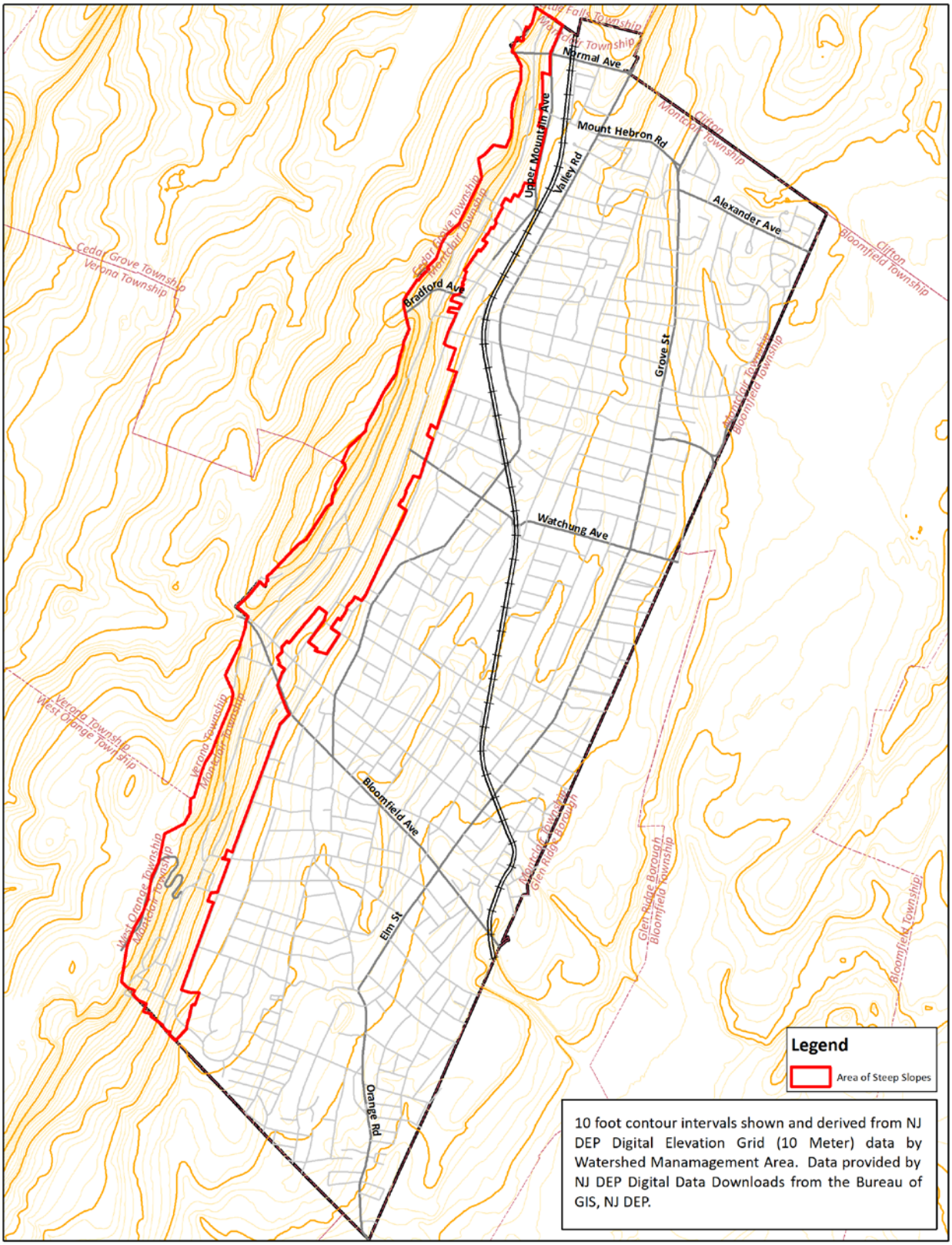

Figure 4 - Topography Map of the Township of Montclair. Elevation and Slope Data provided by NJ Digital Elevation Model data from NJ DEP. Area of Steep Slopes depicts 10% and greater slope area. Prepared October 2020

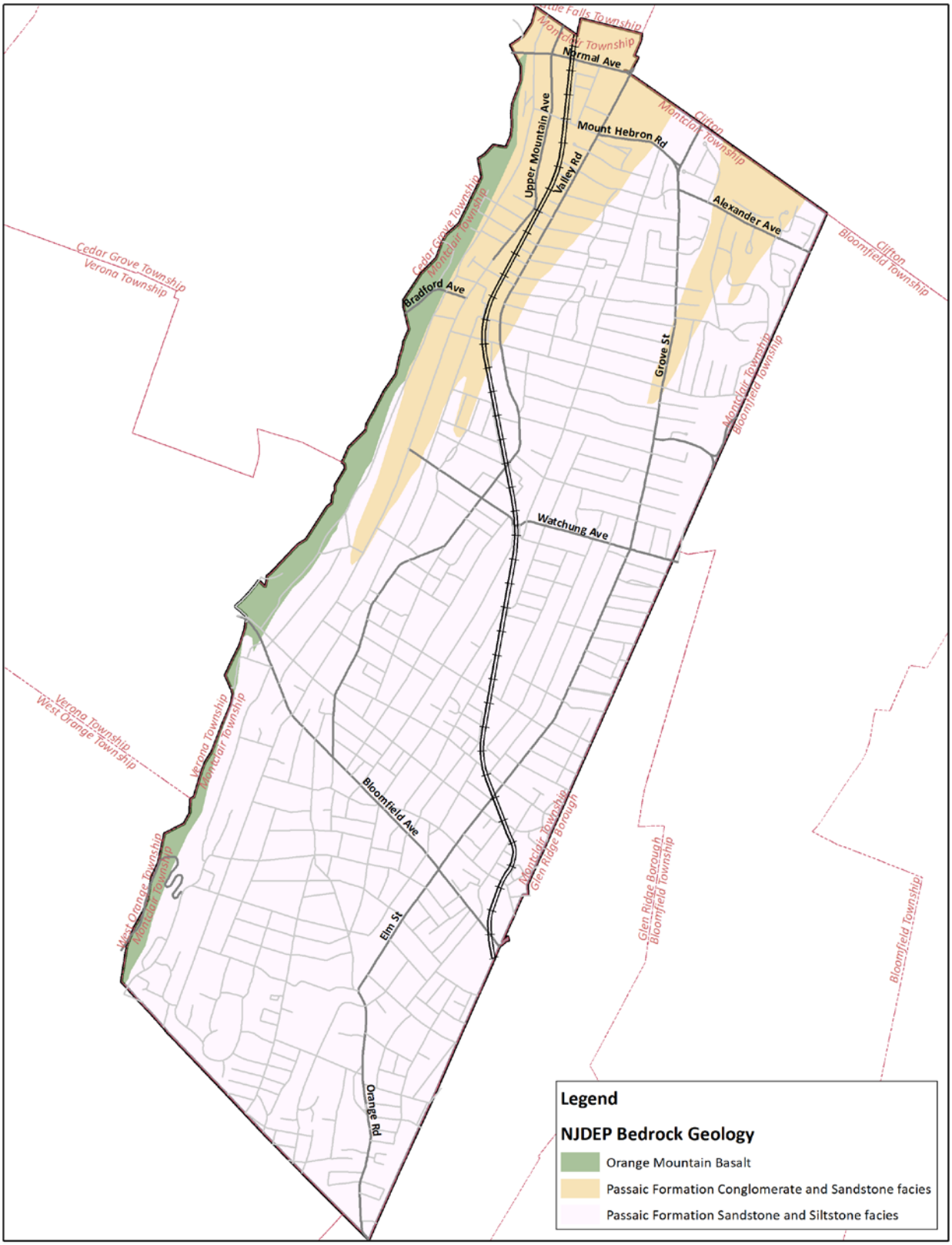

Figure 5 - Bedrock Geology Map of the Township of Montclair. Bedrock Geology Data provided by NJ DEP. Prepared October 2020.

Surface Water Resources

Montclair is within the drainage basin of the Passaic River, with several significant surface water features. There are several tributaries to the Second River (Toney's Brook, Nishuane Brook, and Crescent Brook), and two tributaries to the Third River (Yantacaw Brook and Pearl River). All the surface water bodies that are in Montclair are classified as "Freshwater – Nontrout" meaning they are not associated with trout production or trout maintenance. Locations of these features are shown on Figure 7.

The NJDEP Division of Watershed Management has designated several watershed management areas within the state of New Jersey. Montclair is located within the Lower Passaic Drainage Basin area, which is Watershed Management Area (WMA) 4. The USGS has also assigned "Hydrologic Unit Codes" (HUC) that are used to divide drainage basins into smaller study areas. Larger units are designated HUC-8, with HUC-11 and HUC-14 being smaller units within the HUC-8. There are three designated HUC-14 units in Montclair.

The New Jersey Department of Environmental Protection (NJDEP) has established an Ambient Biomonitoring Network (AMNET) to document the health of the state's waterways. There are over 800 AMNET sites throughout the state of New Jersey. These sites are sampled for benthic macroinvertebrates by NJDEP on a five-year cycle. Streams are classified as non-impaired, moderately impaired, or severely impaired based on the AMNET data. The data is used to generate a New Jersey Impairment Score (NJIS), which is based on a number of biometrics related to benthic macroinvertebrate community dynamics. There are no monitoring sites within the Township of Montclair.

Like many other northern New Jersey communities, stormwater facilities were designed for conditions that existed fifty years ago or more, with few major improvements to accommodate the growth in intervening years. The cumulative effect of continuing development and redevelopment activities have been a steady increase in peak stream flows and localized flooding (in areas called floodplains) during major storms. A floodplain is defined as the area inundated by the regulatory flood including the watercourse that creates it. Figure 8 shows floodplains within Montclair.

In general, this localized flooding is primarily attributable to undersized road culverts, which when combined with accumulated debris, cause temporary dams. These conditions have resulted in stream bank and outfall erosion, decreased infiltration, and diminished groundwater recharge.

Another contributing factor in localized flooding is the nature of the stormwater system itself. The Township's stormwater sewer system encompasses approximately 2,500 roadway inlets and 42 miles of sewer pipes, which outlet to a combination of natural streams and stabilized (man-made) waterways all leading to neighboring towns and eventually the Passaic River. These streams and stabilized waterways run through backyards and Municipal parks. A continuing issue has been the dumping of debris into these unprotected streams as they pass through private property throughout the Township.

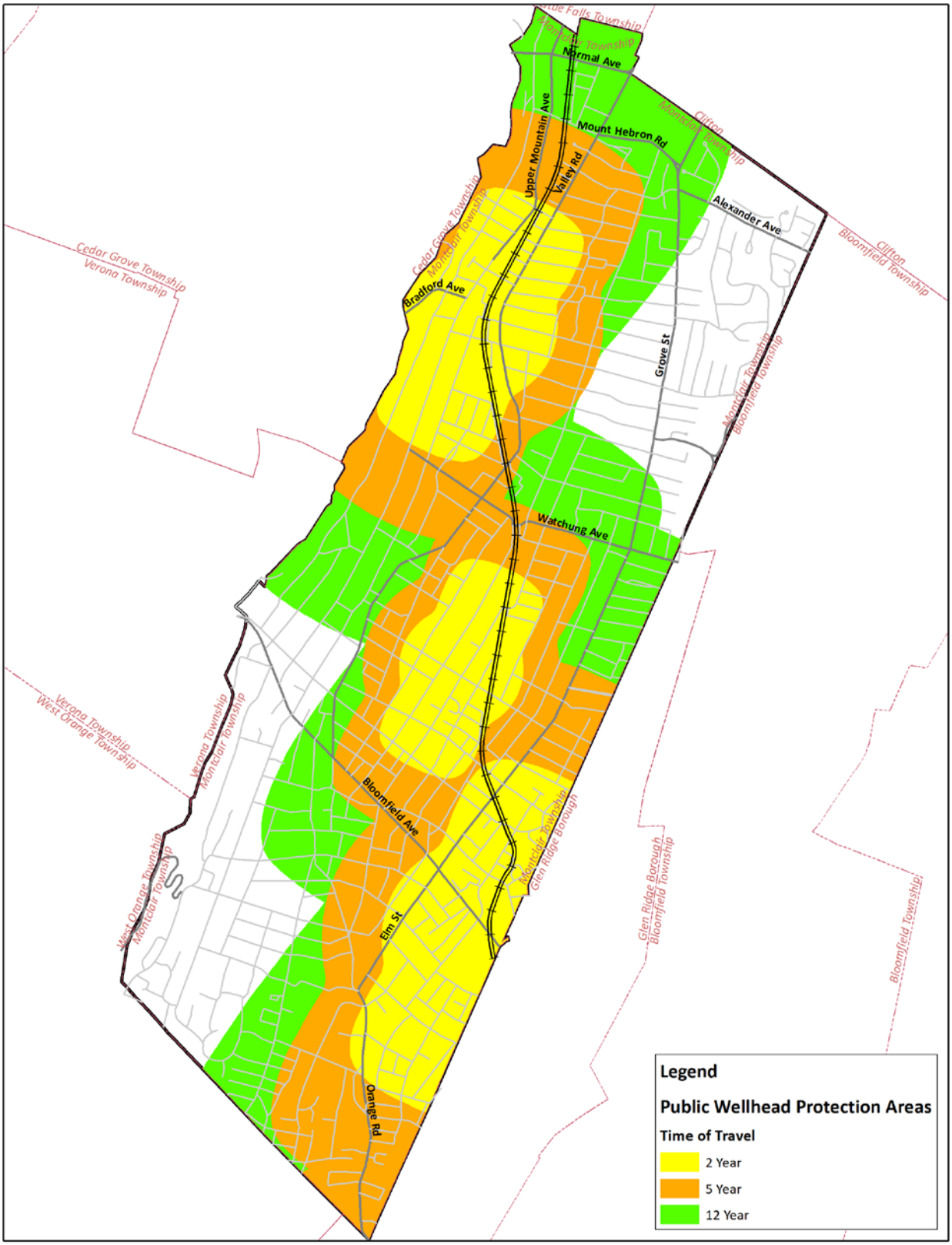

Figure 6 - Public Wellhead Protection Areas of the Township of Montclair. Data provided by the NJ DEP. Prepared October 2020

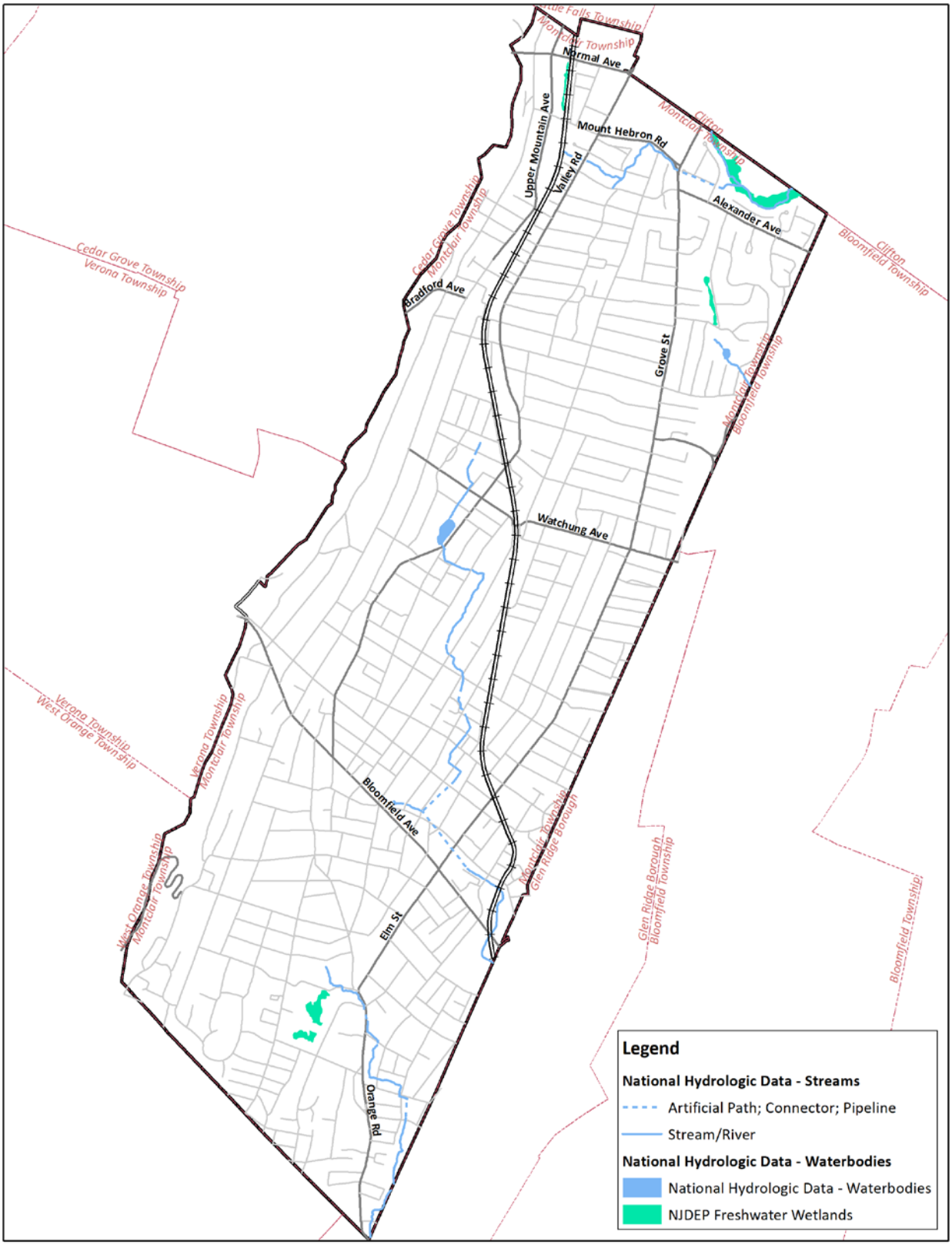

Figure 7 - Wetlands & Hydrology of the Township of Montclair. Data provided by NJ DEP and the National Hydrography Data, USGS. Prepared October 2020

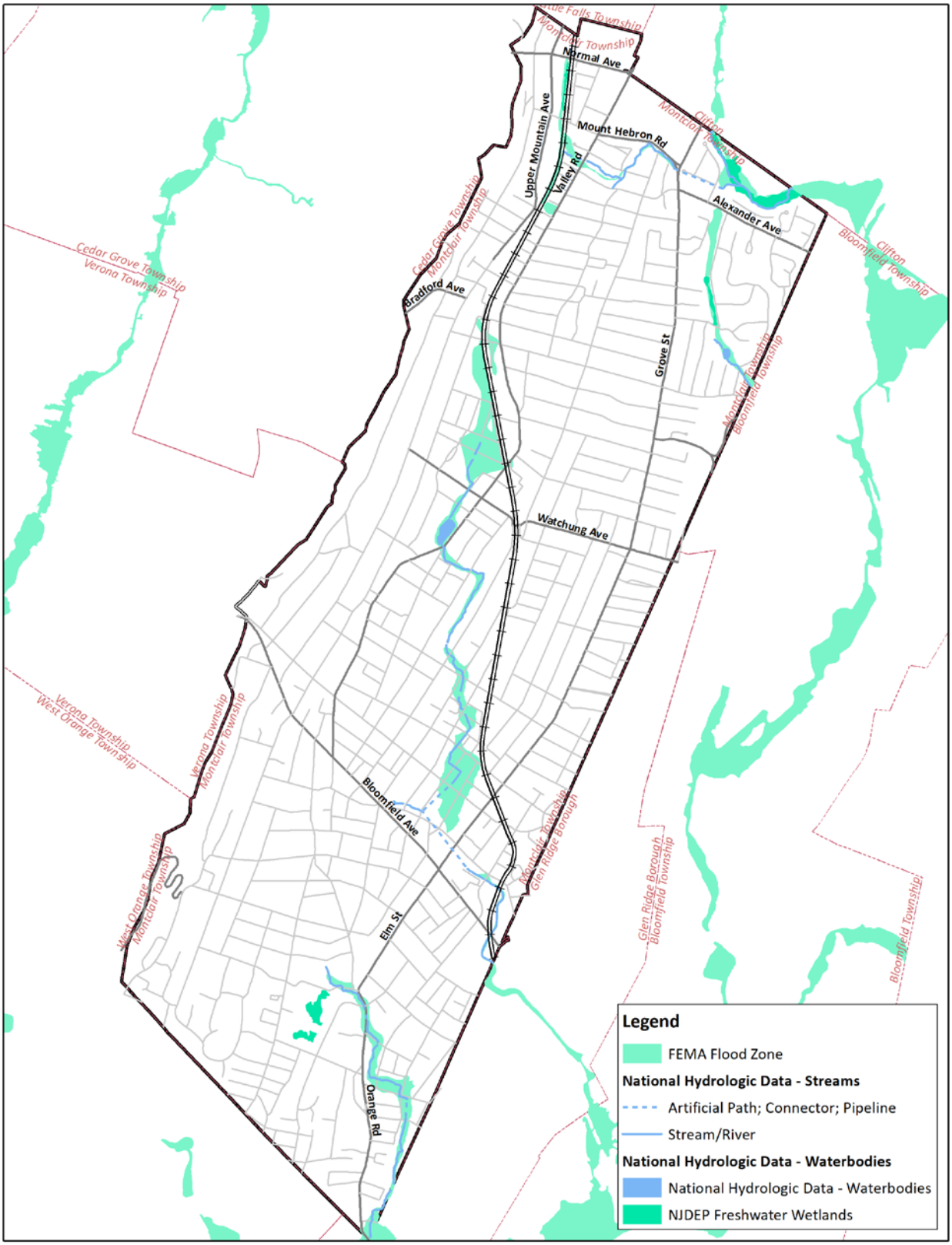

Figure 8 - Flood Zones of the Township of Montclair. Data provided by NJ DEP and FEMA. Prepared October 2020.

DESIGN AND PERFORMANCE STANDARDS

In 2006, the Township of Montclair adopted design and performance standards for stormwater management measures as presented in N.J.A.C. 7:8-5 to minimize the adverse impact of stormwater runoff on water quality and water quantity and loss of groundwater recharge in receiving water bodies. The design and performance standards included the language for maintenance of stormwater management measures consistent with the stormwater management rules at N.J.A.C. 7:8-5.8 Maintenance Requirements, and language for safety standards consistent with N.J.A.C. 7:8-6 Safety Standards for Stormwater Management Basins. The ordinances were reviewed and approved by Essex County.

During construction, the designated inspector, either the duly appointed Board (Planning or Zoning) Engineer or Township staff, observe construction of the project on behalf of the Township of Montclair to ensure that the stormwater management measures are constructed as designed and according to the approved plans.

The Township should amend Chapter 295 – Stormwater Control to reflect the changes to the NJDEP stormwater regulations. Since Montclair is a fully developed community, and flooding and water pollution continue to be a problem in much of the Township, the new regulations should include the following requirements:

- Provide a reduced threshold for major development.
- Require major developments to treat runoff from all impervious surfaces for water quality.
- Require stormwater management for minor development over 250 square feet.
- Address redevelopment.
- Require the use of Low Impact Development techniques.
- Include maintenance reporting requirements.

PLAN CONSISTENCY

The Township of Montclair is not within a Regional Stormwater Management Planning Area and no Total Maximum Daily Loads (TMDLs) have been developed for waters within the Township. Accordingly, this plan does not need to be consistent with any regional stormwater management plans (RSWMPs) or any TMDLs. If any RSWMPs or TMDLs are developed in the future, this Plan will be updated to be consistent.

This Plan is consistent with the Residential Site Improvement Standards (RSIS) at N.J.A.C. 5:21. The municipality will utilize the most current update of the RSIS in the stormwater management review of residential areas. This Plan will be updated to be consistent with any future revisions to the RSIS. The Township's Stormwater Management Ordinance requires all new development and redevelopment plans to comply with New Jersey's Soil Erosion and Sediment Control Standards. During construction, the designated inspector, either the duly appointed Board Engineer or Township staff, will observe on-site soil erosion and sediment control measures and report any inconsistencies to the local Soil Conservation District.

STORMWATER MANAGEMENT STRATEGY

The Township has reviewed the Master Plan and Ordinances and a list of the sections in the land use and zoning regulations that can be modified to include nonstructural stormwater management strategies follows. (Nonstructural stormwater management strategies focus on protection of natural systems, preserving open space, and utilizing landscaping to manage stormwater.)

Proposed Ordinance Changes

The following ordinance changes should be enacted as part of the stormwater management plan:

1. **Adopt maximum impervious surface standards for all zones**. Under the current Zoning ordinance, maximum impervious area is specified for the OR-3 Garden Apartment and Office Building (70%); OR-3 Three-Story Apartment and Office Building (70%); and N-C Neighborhood Commercial Zones (80%). It is recommended the following changes be adopted for the remaining zones:

   40% Maximum impervious surface:

   - R-O Mountainside Zone
   - R-O(a) One-Family Zone

   50% Maximum impervious surface:

   - R-1 One-Family Zone
   - R-2 Two-Family Zone

   70%: Maximum impervious surface:

   - R-3 Garden Group Zone
   - R-4 Three-Story Apartment Zone

2. **Modify Article XVII, Off-Street Parking and Loading, Section 347-102. Design of parking spaces and access.** Under the current Zoning ordinance, parking areas and spaces are required to be paved with a hard surface paving. An exception is allowed for single- and two-family dwellings which may have gravel driveways. It is recommended that this section be revised to allow for permeable or porous pavement in all zones. It is further recommended that the exception permitting use of gravel be rescinded. Gravel washes into the roadway and catch basins, obstructing flow and contributing to localized flooding.

3. **Amend Chapter 295: Stormwater Control.** The Township's Stormwater Control ordinance must be amended to incorporate the stormwater management regulations. A model ordinance has been provided by the State which should be incorporated into the Township's code. However, state regulations permit local municipalities to adopt more restrictive requirements. The proposed ordinance changes should be applicable to all residential and nonresidential major and minor developments. The following additional changes should be included in the update to §295: Stormwater Management.

A. The following definitions should be added to §295-2:

Campus Redevelopment

A redevelopment application submitted that involves multiple adjacent/ contiguous lots under common ownership or multiple structures on the same lot which already contains development, in which the applicant proposes to phase redevelopment in over a period of time. In such cases, each building or phase is not required to have individualized stormwater management so long as the overall proposal addresses stormwater management in accordance with this chapter and the stormwater management improvements are constructed in the first phase of the project.

Low Impact Development Techniques

Utilizing strategies and measures that manage stormwater runoff quantity and quality in the absence of structural stormwater measures, such as minimizing site disturbance, preserving natural vegetation and other important site features such as forests and especially core forests, reducing and disconnecting impervious cover, minimizing proposed ground slopes, utilizing native vegetation, minimizing turf grass lawns, revegetating areas, increasing time of concentration, and maintaining and enhancing natural drainage features and characteristics.

Major Development

An individual development, as well as multiple developments that individually or collectively result in:

1. The disturbance of one-half acre or more of land since February 2, 2004;
2. The creation of one-quarter acre or more of “regulated impervious surface” since February 2, 2004;
3. The creation of one-quarter or more of “regulated motor vehicle surface: since March 2, 2021; or
4. A combination of 2 and 3 above that totals one-quarter acre or more. The same surface shall not be counted twice when determining if the combination area equals one-quarter acre or more.

Major development includes all developments that are part of a common plan of development or sale (for example, phased residential development) that collectively or individually meet any one or more of paragraphs 1, 2, 3 or 4 above. Projects undertaken by any government agency that otherwise meet the definition of “major development” but which do not require approval under the Municipal Land Use Law, N.J.S.A. 40:55D-1 et seq., are also considered “major development.”

Minor Development

Any development that results in an increase in impervious surface of two hundred and fifty (250) or more square feet but does not meet the definition of Major Development. Minor development includes both private and public projects or activities.

Redevelopment

An activity that results in the creation, addition, or replacement of impervious surface area on an already developed site. Redevelopment includes, but is not limited to: the expansion of a building footprint; addition or replacement of a structure or a portion of a structure regardless of footprint; and replacement of impervious surface area that is not part of a routine maintenance activity. If a project is considered to be a redevelopment project, all new impervious cover, whether created by adding to or replacing impervious cover that was in existence before the redevelopment occurs, shall be considered in calculating the requirements for stormwater management. However, any such new impervious cover that will drain into an existing stormwater best management practice that is to remain after the redevelopment and that meets current stormwater management requirements shall be deducted from the total amount of impervious surface that must be treated by new stormwater best management practices. In the case of a redevelopment project, the pre-developed land cover shall be considered to be wooded. Routine Maintenance includes but is not limited to parking lot or driveway sealing or milling, roof repairs, replacement of a small number of boards on a deck. Routine Maintenance does not include complete replacement of deck boards or patio material.

Replacement

The removal of a substantial portion of the framing and roofing of an existing structure or the removal and substitution of a substantial portion of existing pavement or other impervious material.

Regulated Impervious Surface

Any of the following, alone or in combination:

A net increase of impervious surface.

The total area of impervious surface collected by a new stormwater conveyance system (for the purpose of this definition, an “new stormwater conveyance system” is a stormwater conveyance system that is constructed where one did not exist immediately prior to its construction or an existing system for which a new discharge location is created).

The total area of impervious surface proposed to be newly collected by an existing stormwater conveyance system.

The total area of impervious surface collected by an existing stormwater conveyance system where the capacity of that conveyance system is increased.

B. The stormwater management requirements for major development should include the following requirement:

The development design shall limit the creation of stormwater runoff through implementation of Low Impact Development Techniques to the extent technically practicable without reduction of the allowable development given the applicable zoning and other provisions of State law or regulations, or of municipal ordinance.

C. The stormwater runoff quantity standards for major development should include the following requirement:

The site shall be designed to manage through on-site retention the 95% percentile storm. The management shall be through the utilization of one or more green infrastructure techniques.

D. A new section establishing requirements for minor development should be added, as follows

§295-X: Minor Development

A. The stormwater runoff requirements applicable to minor developments are as follows:

(1) For each square foot of new impervious surface, 2 gallons of stormwater shall be managed using green infrastructure practices set out in Table 1 below or such other measures as may be required by the reviewing engineer of which the 95% percentile storm must be retained on site utilizing green infrastructure

Table 1: Minor Development BMP	
Grass Swale	Green Roof
Pervious Paving System	Small-Scale Bioretention Basin
Small-Scale Infiltration Basin	Small-Scale Sand Filter
Vegetative Filter Strip	Cistern
Dry Well*	
*The use of dry wells is allowed only where the other listed methods cannot feasibly meet the requirements of this section.	

(2) All such development shall be subject to review by the reviewing engineer to determine that all stormwater runoff created by the development is adequately controlled and does not cause an adverse impact on adjoining property owners.

(3) In such cases where it is determined that the out flow from the stormwater management system will impact an adjacent property, the out flow shall be directed to a storm sewer, gutter, swale, or other suitable stormwater runoff conveyance measure.

(4) If the reviewing engineer determines that the out flow from the stormwater management system will damage an adjoining property and the out flow cannot be safely directed to a storm sewer, gutter,

swale, or other suitable stormwater runoff conveyance measure, the stormwater runoff from the development shall be retained on-site at a rate of 3 gallons of storage for each square foot of new impervious surface using green infrastructure practices or such other measures as may be required by the municipal engineer.

(5) If the applicant cannot comply with (4) above, the proposal should be redesigned, or reduced in scope so that the stormwater management measures do not damage an adjoining property.

B. Soil testing shall be performed to confirm the permeability of the soils and the depth of the water table and the seasonal high water table. Percolation/permeability testing shall be performed in the vicinity of the proposed systems to confirm that infiltration is viable for the site. All testing results and information shall be signed, sealed and prepared by a New Jersey Licensed Professional Engineer and shall contain the following:

(1) The seasonal groundwater table shall be confirmed at an elevation two (2) feet or more below the proposed bottom of the Minor Development BMP, including any associated stone base.

(2) The tested permeability/percolation rates of the site shall be confirmed. Design percolation rates shall include a factor of safety of two, compared to the tested percolation rates, and shall be a minimum of 0.5 inches/hour.

(3) Calculations shall be provided confirming that the proposed BMP will fully drain within 72 hours.

(4) Should percolation/permeability testing yield unacceptable rates, a revised design shall be provided.

C. The stormwater management feature shall be protected from future development by conservation easement, deed restriction, or other acceptable legal measures.

D. Maintenance of the stormwater management feature shall be the responsibility of the property owner and said responsibility shall transfer over to any future property owner.

E. Variances. A variance from strict compliance with the requirement of this section may be granted for those projects where an applicant has demonstrated the inability or impracticability of strict compliance with the stormwater management requirements in that section.

LAND USE/BUILD-OUT ANALYSIS

The Township of Montclair has 52.6 acres of vacant or agricultural land as of October 8, 2020 based on information provided by the Township of Montclair Tax Assessor. This is far less than the one square mile, which would require a build-out analysis.

MITIGATION PLAN

This mitigation plan is provided for uses associated with a proposed development that is granted a variance or exemption from the stormwater management design and performance standards. The following is a hierarchy of options, listed in order of most desirable to least desirable.

Mitigation Project Criteria

1. The mitigation project must be implemented in the same drainage area as the proposed development.
2. The project must provide additional groundwater recharge benefits or protection from stormwater runoff quality and quantity from previously developed property that does not currently meet the design and performance standards outlined in the Stormwater Management Plan.
3. The developer must ensure the long-term maintenance of the project, including the maintenance requirements under Chapters 8 and 9 of the NJDEP Stormwater BMP Manual.

Proposed Mitigation Projects

The applicant can select one or more projects from the categories listed below to compensate for the deficit from the performance standards resulting from the proposed project. More detailed information on the projects can be obtained from the Township Engineer.

1. Groundwater recharge
    - Install infiltration basins
    - Replace deteriorated pavement at select locations with permeable pavement
2. Water quality
    - Install stream bank erosion controls at select locations
3. Water Quantity
    - Stream cleaning and debris removal at select locations along Toney's and Nishuane Brook to maintain normal flow.

If a suitable mitigation site cannot be located in the same drainage area as the proposed development, the Township may allow a developer to provide funding or partial funding to the municipality for an environmental enhancement project that has been identified in the Stormwater Management Plan. The funding must be equal to or greater than the cost to implement the mitigation outlined above, including any costs associated with the long-term maintenance requirements of the mitigation measure.