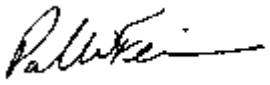
Stormwater Management Plan

For

Mendham Borough
Morris County, New Jersey

Prepared by:



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NJPE 32978

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Introduction

This Municipal Stormwater Management Plan (MSWMP) documents the strategy for Mendham Borough ("the Borough") 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 of the required elements described in N.J.A.C. 7:8 Stormwater Management Rules. The plan addresses groundwater recharge, stormwater quantity and stormwater 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 water quantity and the loss of groundwater recharge that provides baseflow in receiving water bodies. The plan describes long-term operation and maintenance measures for existing and future stormwater facilities.

A "build–out" analysis is included in this plan. It is based upon existing zoning and land available for development. This plan also addresses the review and update of existing ordinances, the Borough Master Plan and other planning documents to allow for project designs that include low impact development techniques. The final component of this plan includes 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.

MSWMP Goals

The goals of this MSWMP are to:

- Reduce flood damage, including damage to life and property;
- Minimize, to the extent practical, any increase in stormwater runoff from any new development;
- Reduce soil erosion from any development or construction project;
- Assure the adequacy of existing and proposed culverts and bridges, and other in-stream structures;
- Maintain groundwater recharge;
- Prevent, to the greatest extent feasible, any increase in non-point pollution;
- Maintain the integrity of stream channels for their biological functions and drainage capabilities;
- Minimize pollutants in stormwater from new and existing development to restore, enhance and maintain the chemical, physical and biological integrity of the waters of the state, to protect public health, to safeguard fish and aquatic life and scenic and ecological values and to enhance the domestic, municipal, recreational, industrial and other uses of water; and
- Protect public safety through the proper design and operation of stormwater basins.

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. Preventive and corrective maintenance strategies are included in the plan by reference to the NJ BMP Manual and NJAC 7:8 to ensure long-term effectiveness of stormwater management facilities. The plan also includes safety standards for stormwater infrastructure to be implemented to protect public safety. These standards are also included in the plan by reference to the NJ BMP Manual and NJAC 7:8.

Stormwater Discussion

Land development can dramatically alter the hydrologic cycle (see Figure 1) of a site and ultimately, an entire watershed. Prior to development, native vegetation can either directly intercept precipitation or draw that portion that has infiltrated into the ground and return it to the atmosphere through evapotranspiration. Development can remove this beneficial vegetation and replace it with lawn or impervious cover, 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 and diminish its infiltration ability, resulting in increased volumes and rates of stormwater runoff from the site. Impervious areas that are connected to each other through gutters, channels, and storm sewers can 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 natural conditions. These increases can create new, and aggravate existing, downstream flooding and erosion problems and increase the quantity of sediment in the channel. Filtration of runoff and removal of pollutants by surface and channel vegetation is eliminated by storm sewers that discharge runoff directly into a stream. Increases in impervious area can also decrease opportunities for infiltration which, in turn, reduce 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 create disruption to habitat to which some species 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 streams and becomes food for the aquatic community.

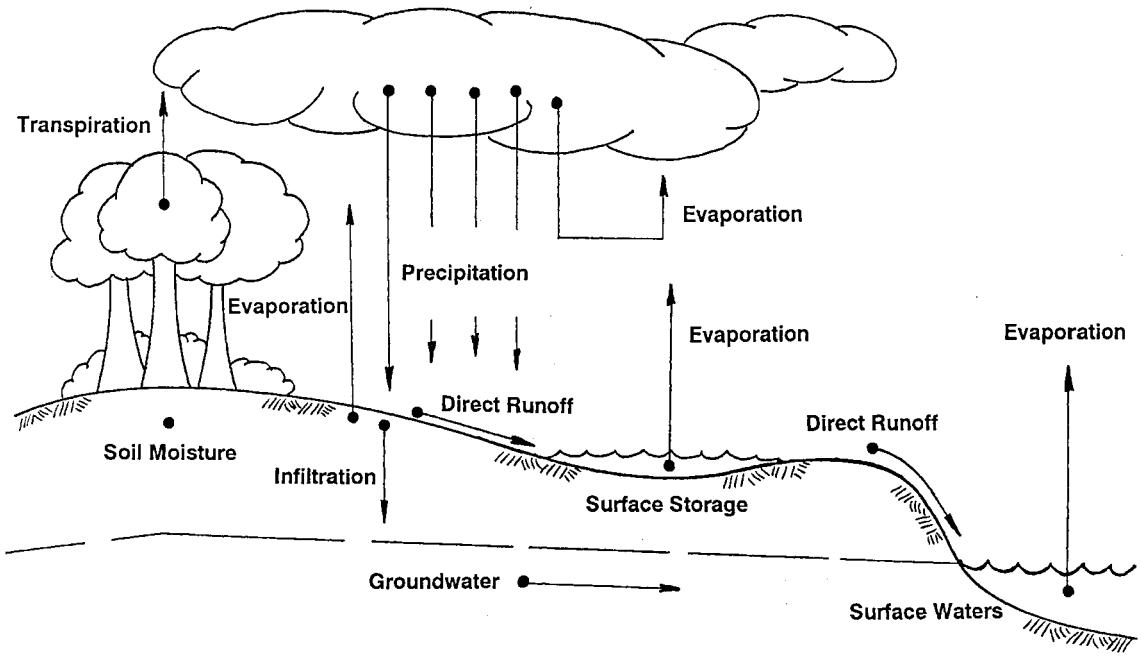

Figure 1 – Hydrologic Cycle

Background

The Borough encompasses 6.02 square miles in the south central part of Morris County and is primarily known for its small town village character. The First people to occupy this watershed region were the Lenape Indians. This area was called *roxiticus* by the Indians. The word means "a meeting place." Later, *Roxiticus* was used to designate the two white settlements Black Horse and Wills Settlement, now known as Mendham and Ralston.

About 1700, what the Indians called *succasunna* (black stone) proved to be iron and it lured people from Connecticut and Long Island. The first authentic settlement in this area was by an Englishman, James Wills, who in 1713 bought what, is now known as Ralston. The family never made any real settlement and soon disposed of their holdings to various settlers.

In 1722 James Pitney, of Scottish-Irish descent, settled on what was known as Pitney Corner. In the 1740's the Byram family did much to make this early settlement a town. In 1742 Ebenezer Byram gave this settlement a center--The Black Horse Inn, a proud "Hilltop" church in 1745, and on March 29, 1749, the name Mendham. Eliab Byram, son of Ebenezer Byram, was apparently the first Byram to discover this area. As a young graduate from Yale Divinity School, he traveled with David Brainard, an Indian

missionary, who made frequent trips to Delaware and stopped here along the way. They would hold services when here and preached in a little log church. Byram was eventually asked to stay on as permanent pastor. At the same time, his father was apparently finding Puritan intolerance in Massachusetts, "intolerable," and prepared to move here by purchasing, in 1740, the small farm house that would become The Black Horse Inn. When Byram moved from Massachusetts he brought with him a band of hearty men and women of like mind. In 1744, Eliab Byram was officially ordained as the church's first pastor, and construction on the first of four "Hilltop" churches that would occupy the same location, originally chosen by Byram, was begun.

The development of the Borough can be characterized by a central commercial core surrounded by residential development. The density of the residential development decreases rapidly as the distance from the core increases due to the lack of sewer and water infrastructure.

Mendham Borough has made efforts at preserving open space for future generations. With aggressive planning and 5-acre zoning in the southern portion of the Borough, the rural character will be retained. Private land owners have been supporting these efforts, and Borough residents, present and future, are most grateful for these acts of vision.

Mendham Borough is bounded on its southern side by Bernardsville Borough and the remaining boundaries are surrounded by Mendham Township. There are a number of waterways within Mendham Borough that are classified as Category I waterways. Defined by NJDEP as "waters that are classified as Category 1 for the protection from measurable changes in water quality characteristics because of their clarity, color, scenic setting, other characteristics of aesthetic value, exceptional ecological significance (i.e., habitat for threatened/endangered species such as wood turtle, bog turtle), exceptional recreational species, exceptional water supply, or exceptional fisheries resource (i.e., trout production)." These Category 1 waterways include the India Brook, the North Branch of the Raritan River, the Passaic River, the McVickers Brook, and the Indian Grove Brook. All of these exceptional streams are trout production streams with the exception of McVickers Brook as this brook is classified as trout maintenance. Streams and rivers within the Borough are shown in Figure 2 and the topography of the Borough is shown in Figure 3.

According to the 2000 census, the Borough has 5,097 residents. The population rose approximately 4.2 percent since the 1990 census. This population increase is less than the overall state increase of 8.9 percent as well as the County increase of 11.6 percent over the same period.

The Borough is located in Watershed Management Area (WMA) 8 – North and South Branch Raritan River and Watershed Management Area (WMA) 6 – Upper Passaic, Whippany and Rockaway Rivers. The Borough contains portions of four Hydrologic Unit Code (HUC) areas:

Table 1 – HUC14 Areas	
HUC14 Area	**Watershed**
02030103010010	Upper Passaic River
02030105060010	N. Branch Raritan River
02030105060030	N. Branch Raritan River
02030105060040	N. Branch Raritan River

These HUC14 areas are shown in Figure 4.

The New Jersey Department of Environmental Protection (NJDEP) has established an Ambient Bio-monitoring Network (AMNET) to document the health of the state's waterways. There are over 800 AMNET sites throughout New Jersey. These sites are sampled for benthic macro-invertebrates 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 macro-invertebrate community dynamics.

There is one AMNET site within or bordering Mendham Borough as follows:

Table 2 – AMNET Site Locations	
Site Number	**Location**
AN0345	India Brook at Mountainside Road

Based on the AMNET data, the waterbody within the Borough is not impaired.

In addition to the AMNET data, the NJDEP and other regulatory agencies collect water quality chemical data on the streams in the state. These data show that the instream total mercury and fecal coliform levels of the Passaic River exceed the allowed amounts. This means that the river is an impaired waterway and the NJDEP is required to develop Total Maximum Daily Loads (TMDL's) for these pollutants.

A TMDL is the amount of a pollutant that can be accepted by a waterbody without causing an exceedance of water quality standards or interfering with the ability to use a waterbody for one or more of its designated uses. The allowable load is allocated to the various sources of the pollutant, such as stormwater and wastewater discharges, which require an NJPDES permit to discharge, and non-point source, which includes stormwater runoff from agricultural areas and residential areas, along with a margin of safety. Provisions may also be made for future sources in the form of reserve capacity. An implementation plan is developed to identify how the various sources will be reduced to the designated allocations. Implementation strategies may include improved treatment plants, adoption of ordinances, reforestation of stream corridors, retrofitting stormwater systems, and other Best Management Practices (BMP's).

The New Jersey Integrated Water Quality Monitoring and Assessment Report (305(b) and 303(d)) (Integrated List) is required by the federal Clean Water Act to be prepared

biennially and is a valuable source of water quality information. This combined report presents the extent to which New Jersey waters are attaining water quality standards, and identifies waters that are impaired. Sublist 5 of the Integrated List constitutes the list of waters impaired or threatened by pollutants, for which one or more TMDL's are needed.

In addition to water quality problems, the Borough has occasional flooding problems. The approximate 100-year floodplains within the Borough are shown in Figure 5.

The USGS operates a Flood Information System for municipalities within the state. The Flood Information System consists of a network of stream and precipitation gauges throughout the state. Information from these gauges is automatically transmitted to a central location via telephone, radio and satellite. The information is then processed and appropriate actions are taken. These actions include notifying municipal police, fire and emergency management personnel with flood potential and water level information. Information from these gauges is available on the United States Geological Survey (USGS) web site in real time (http://waterdata.usgs.gov/nj/nwis). There are no stream or precipitation gauges near Mendham Borough.

Although the density of the Borough decreases as the distance from the commercial area increases, as mentioned earlier, the Borough has a small amount of developable land. The existing land use, based on 1995/1997 aerial photography, is shown in Figure 6. The existing zoning is shown in Figure 7. A current aerial photo with parcel lot lines overlain on it is shown in Figure 8. The Borough is not within the State Plan Designation PA1 Metropolitan Planning Area. Groundwater recharge rates for native soils in this area are generally between 1 and 17 inches annually. The average annual groundwater recharge rates are shown graphically in Figure 9.

According to the NJDEP, "A Well Head Protection Area (WHPA) in New Jersey is a map area calculated around a Public Community Water Supply (PCWS) well in New Jersey that delineates the horizontal extent of ground water captured by a well pumping at a specific rate over a two-, five-, and twelve-year period of time for unconfined wells. … The confined wells have a fifty foot radius delineated around each well serving as the well head protection area to be controlled by the water purveyor in accordance with Safe Drinking Water Regulations (see NJAC 7:10-11.7(b)1)."

WHPA delineations are conducted in response to the Safe Drinking Water Act Amendments of 1986 and 1996 as part of the Source Water Area Protection Program (SWAP). The delineations are the first step in defining the sources of water to a public supply well. Within these areas, potential contamination will be assessed and appropriate monitoring will be undertaken as subsequent phases of the NJDEP SWAP.

As shown in Figure 10, portions of the Borough are located in a Tier 3 well head protection area.

In addition to the rivers and streams that run through and along the Borough, there are a number of wetland areas. The major wetland areas, shown in Figure 11, provide flood storage, non-point pollutant removal and habitat for flora and fauna.

Design and Performance Standards

The Borough has adopted the 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 include 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.

During construction, Borough inspectors will observe the construction of each project to ensure that the stormwater management measures are constructed and function as designed. The Borough will require all parties who are responsible for maintenance tasks associated with a maintenance plan to send detailed maintenance logs to the Borough via certified mail every April 1st. This will help the Borough to complete its Stormwater Pollution Prevention Plan Annual Report Certification.

Plan Consistency

The Borough is not within a Regional Stormwater Management Planning Area and no TMDL's have been developed for waters within the Borough; therefore this plan does not need to be consistent with any regional stormwater management plans (RSWMPs) nor any TMDL's. If any RSWMPs or TMDLs are developed in the future, this Municipal Stormwater Management Plan will be updated to be consistent.

The Borough is within the Raritan Basin and much information on the basin and its characteristics has been developed as part of the Raritan Plan. Additional information concerning this plan can be found at: http://www.raritanbasin.org. The Borough supports the Raritan Plan. The following summarizes the plan:

- Protection and preservation of lands that play a critical role in the protection of Raritan Basin water resources, including headwaters streams.
- Maintenance and restoration of ground water recharge to ensure sufficient supplies for dry weather stream flow and public use, and to minimize stormwater runoff.
- Improved control of stormwater through watershed-based management plans, improved site design techniques and attention to the impacts of stormwater on stream stability and flooding.
- Management of water supply resources on a subwatershed, watershed and regional basis so that substantial levels of resources use are not exceeded, ensuring adequate water for both human and ecosystem uses.

● Restoration of streams and riparian areas that have been physically damaged by harmful land use and stormwater management practices, and protection of high-quality streams and riparian areas.
● Restoration and protection of ground and surface waters that are currently or prospectively impaired by excessive pollutant loads, through a combination of regulatory and non-regulatory programs affecting both point and nonpoint sources of pollutants.
● Understanding by residents, landowners, businesses and government decision-makers of the basic aspects of water resources and critical watershed management issues in the Raritan River Basin and tools to resolve them, so that they are moved to help solve these issues.

The Borough supports the Raritan Plan as the Raritan Plan's strategy is similar in nature to the principles mandated by Phase II of the EPA Clean Water Act.

The Municipal Stormwater Management Plan is consistent with the Residential Site Improvement Standards (RSIS) at N.J.A.C. 5:21. The Borough utilizes the most current update of the RSIS in the stormwater review of all projects. The Borough ordinances require that all projects, both residential and non-residential, be designed in accordance with the Stormwater Design Standards of the Residential Site Improvement Standards. This Municipal Stormwater Management Plan will be updated to be consistent with any future updates of the RSIS.

The Borough'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, Borough inspectors and those from the Morris County Soil Conservation District will observe on-site soil erosion and sediment control measures and report any inconsistencies to the local Soil Conservation District.

Nonstructural Stormwater Management Strategies

The Borough has reviewed the master plan and ordinances, and has provided a partial list of the sections in the Borough land use and zoning ordinances that are to be modified to incorporate nonstructural stormwater management strategies. Below are a portion of the ordinances identified for revision.

Chapter 195 of the Borough Code, entitled Subdivision of Land and Site Plan Review, is being reviewed with regard to incorporating non-structural stormwater management strategies. Several changes are being made to this Chapter to incorporate these strategies. Other articles of this chapter are also being changed to incorporate these strategies.

Section 195-49C: Stormwater Drainage must be revised to require that all drainage design shall be in accordance with the Stormwater Design Standards of the New Jersey Residential Site Improvement Standards (RSIS) N.J.A.C. 5:21-1 et seq. These design standards shall apply to all nonresidential projects as well as residential developments. This section shall require that detention or retention basins or other stormwater facilities shall be required to hold stormwater runoff as required in the RSIS. A waiver of this requirement may be

granted only when the applicant demonstrates that the impact from additional runoff resulting from the proposed development will be negligible. This section will be amended to state that a waiver may be granted only when the applicant provides different measures chosen from the mitigation plan that are similar to the measures for which the applicant seeks a waiver. This section will be amended to encourage the use of natural vegetated swales in lieu of inlets and pipes.

Section 195-29B: Natural Features requires that natural features, such as trees, brooks, swamps, hilltops, and views, be preserved whenever possible. This section should be amended so that care is taken to preserve selected trees to enhance soil stability and landscaped treatment of the area. This section will also be amended to expand trees to forested areas, to ensure that leaf litter and other beneficial aspects of the forest are maintained in addition to the trees.

Sections 195-44E and 195-45E: Landscaping require planting on a site to be constructed. These sections should be amended to recognize that the preservation of mature trees and forested areas is a key strategy in the management of environmental resources, particularly watershed management, air quality, and ambient heating and cooling. These sections will then comply with minimizing land disturbance, which is a nonstructural stormwater management strategy. The landscape requirements for buffer areas in the existing section do not recommend the use of native vegetation. The language of this section will be amended to require the use of native vegetation, which requires less fertilization and watering than non-native species.

Section 195-45: Off-street Parking Requirements details off-street parking and driveway requirements. All parking lots and driveways are required to have landscaping. This section will be amended to allow for flush curb with curb stops, or curbing with curb cuts to encourage developers to allow for the discharge of impervious areas into landscaped areas for stormwater management. Also, language will be added to allow for use of natural vegetated swales for the water quality design storm, with overflow for larger storm events into storm sewers. This section will be amended to allow pervious paving to be used in areas to provide overflow parking, vertical parking structures and shared parking. Additionally, language will be included to allow buffer areas to be used for stormwater management by disconnecting impervious surfaces and treating runoff from these impervious surfaces.

Section 195-45J: Off-Street Parking Construction describes the procedure for construction of any new parking area, loading area, and driveway or accessway to any street. This section should be amended to allow the limited use of pervious paving materials to minimize stormwater runoff and promote groundwater recharge.

Section 190: Streets describes the requirements for streets in the Borough. The Borough has several street classifications, ranging from "Arterial," which has a minimum right-of-way of 80 feet, to "Marginal," which has a minimum right-of-way of 40 feet. Street paving widths are a function of whether a street is curbed, whether on-street parking is permitted, and whether on-site topographical constraints allow design flexibility. Depending on these factors, paving width for streets has a range from 20 to 32 feet. This section will be amended to encourage developers to limit on-street parking to allow for narrower paved widths consistent with the RSIS.

Section 190-13: Sidewalks describes sidewalk requirements for the Borough. Although sidewalks are not required along all streets, the Borough can require them in areas where

the probable volume of pedestrian traffic, the development's location in relation to other populated areas and high vehicular traffic, pedestrian access to bus stops, schools, parks, and other public places, and the general type of improvement intended indicate the advisability of providing a pedestrianway. Sidewalks are to be a minimum of four feet wide and constructed of concrete. Language will be added to this section to require developers to design sidewalks to discharge stormwater to neighboring lawns where feasible to disconnect these impervious surfaces, or use permeable paving materials where appropriate.

Section 215-14: Village Center Cluster Option provides for a cluster development option to preserve land for public and agricultural purposes, to prevent development on environmentally sensitive areas, and to aid in reducing the cost of providing streets, utilities and services in residential developments. This cluster option is an excellent tool for reducing impervious roads and driveways. The option allows for smaller lots with smaller front and side yard setbacks than traditional development options. It also minimizes the disturbance of large tracts of land, which is a key nonstructural stormwater management strategy.

Section 195-62E: Off-tract Improvements describes essential off-site and off-tract improvements. Language will be added to this section to require that any off-site and off-tract stormwater management and drainage improvements must conform to the "Design and Performance Standards" described in this plan and provided in the Stormwater Management Ordinance. Additionally, language will be included to allow buffer areas to be used for stormwater management by disconnecting impervious surfaces and treating runoff from these impervious surfaces.

Land Use/Build-Out Analysis

Since the Borough of Mendham has a combined total of more than one square mile of vacant lands, the Borough is required to do a build-out analysis. A build-out analysis has been performed for the Borough of Mendham as described below.

The first of two phases of the build out analysis was to construct a map that includes the municipal boundary, existing roads, surface water bodies, HUC-14 boundaries, impervious cover, existing development by land use types, groundwater recharge areas, and wellhead protection area layers. A majority of the layers described above were taken directly from the website provided by the state of New Jersey, at http://www.nj.gov/dep/gis/. After constructing the map, the identification and delineation of land that cannot be developed because of legal restrictions, physical constraints, and environmental sensitivity were performed. Examples of the restrictions include lands in permanently preserved open space, public ownership, deed restrictions, utility easements, steep slopes, wetlands, floodways, and Category 1 Waters with associated special resource protection areas. Next, the identification and delineation of developable land under current zoning and land use regulations, as well as land that is vacant or not restricted as discussed above were performed. The identification and delineation of the developed areas within the municipality that have significant redevelopment potential and that have not been developed to the maximum allowed were also performed. For these undeveloped and underdeveloped areas, the maximum future development by projecting

the largest number of housing units allowed in residential zones and the largest number of buildings and most intensive land uses in commercial and industrial zones was determined.

The second phase of the build-out analysis quantified the impact of the changes based on information provided by the maps. This included calculations of percentage of impervious surfaces, number of housing units and their density, and remaining farmland and open space acreage. GIS can also assist in this computation by providing values for specific sets of layers such as the combination of the municipality, HUC14, and impervious area layers. This set of variables can provide the impervious cover for each HUC14 required by the Stormwater Management Rules. Values can be exported to other programs from GIS for more comprehensive computations, including the pollutant loading calculations also required by the regulations.

In simpler terms, all of the HUC-14's within the municipality were identified as well as the zones within each HUC-14. The area for each zone within each HUC-14 was calculated. The existing impervious areas were calculated in acres and in a percentage for each zone within each HUC-14. The same was done for the wetlands/constrained areas. An area was then calculated for the developable area within each zone for each HUC-14. A table was created itemizing each calculation described above. The maximum allowable impervious coverage in a percentage was applied to the developable area within each zone for each HUC-14. The result was the "Build-Out Impervious" area for each zone within each HUC-14. One will then be able to compare the build-out impervious to the existing impervious within each zone for each HUC-14. The build-out analysis is complete and the tables and maps are presented in Appendix C.

Mitigation Plans

This mitigation plan is provided for a proposed development that is granted a variance or exemption from the stormwater management design and performance standards. Presented is a hierarchy of options.

Mitigation Project Criteria

1. The mitigation project must be implemented in the same drainage area as the proposed development. The project must provide additional protection from stormwater runoff quality and quantity from previously developed property that does not currently meet the design and performance standards outlined in the Municipal Stormwater Management Plan. 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.

   a. The applicant can select one or more of the following projects listed 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 Borough Engineer. Listed below are specific projects that can be used to address the mitigation requirement.

Acquisition of Open Space especially in Well Head Protection Areas.

Retrofitting of Stormwater Inlets.

Labeling of Stormwater Inlets.

Mapping of Stormwater Inlet System.

Water Quality studies on streams

2. If a suitable site cannot be located in the same drainage area as the proposed development, as discussed in Option 1, the mitigation project may provide mitigation that is not equivalent to the impacts for which the variance or exemption is sought, but that addresses the same issue. For example, if a variance is given because the 80 percent TSS requirement is not met, the selected project may address water quality impacts that impact aquatic life along a certain stream.

The Borough may allow a developer to provide funding or partial funding to the Borough for an environmental enhancement project that has been identified in a Municipal Stormwater Management Plan, or towards the development of a Regional Stormwater Management Plan. The funding must be equal to or greater than the cost to implement the mitigation outlined above, including costs associated with purchasing the property or easement for mitigation, and the cost associated with the long-term maintenance requirements of the mitigation measure.

APPENDIX A

Copy of Mendham Borough's NJPDES Tier A Municipal Stormwater General Permit NJG0151483

APPENDIX B

FIGURES

APPENDIX C

BUILD OUT TABLES

APPENDIX D

STORMWATER CONTROL ORDINANCE