

TYLI Project No. 361120.01

TY·LININTERNATIONAL

STORMWATER MANAGEMENT PLAN

FOR THE
BOROUGH OF RIDGEFIELD
BERGEN COUNTY, NEW JERSEY

Addendum August 2012

PREPARED BY:

T.Y. LIN INTERNATIONAL

550 BROAD STREET, SUITE 1105, NEWARK NJ 07102

PH: 973.286.2891 FAX: 877.503.3039

TABLE OF CONTENTS

<u>Sections</u>	<u>Page</u>
1.0 INTRODUCTION.....	2
2.0 GOALS.....	3
3.0 STORMWATER DISCUSSION	4-5
4.0 BACKGROUND.....	6-7
5.0 DESIGN AND PERFORMANCE STANDARDS	8-9
6.0 PLAN CONSISTENCY.....	10
7.0 NONSTRUCTURAL STORMWATER MANAGEMENT STRATEGIES	11-13
8.0 LAND USE / BUILD-OUT ANALYSIS	14
9.0 MITIGATION PLAN.....	15-20

FIGURES

Figure C-1: Groundwater Recharge in the Hydrologic Cycle

Figure C-2: Borough and Its Waterways

Figure C-3: Borough Boundary on USGS Quadrangles

Figure C-4: Groundwater Recharge Areas

Figure C-5: Wellhead Protection Areas in the Borough

Figure C-6: Borough’s Existing Land Use

Figure C-7: Hydrologic Units (HUC14s) Within the Borough

Figure C-8: Zoning Districts within the Borough

Figure C-9: Wetlands and Water Land Uses within the Borough – Constrained Land

Figure C-10: Ordinances 1962, 1963, 1964, 1965, 1966, 1991 & 1992

1.0 INTRODUCTION

(*Slanted Text* represents original language per “Schoor Depalma Stormwater Management Plan” dated February 2005, Last Revised April 2005 with amendments dated May 17, 2005. Added text is in **BOLD** and removed text has a ~~Strikethrough~~)

The Municipal Stormwater Management Plan (MSWMP) documents the strategy for the Borough of Ridgefield ("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 addresses groundwater recharge, stormwater quantity, and stormwater quality impacts by incorporating stormwater design and performance standards for new major development, defined as projects that disturb one or more acre of land. 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 base flow in receiving water ways. ~~The plan also describes long-term operation and maintenance measures for existing and future stormwater facilities.~~

Overall this Plan relies on the existing regulatory framework as the basis for the management of stormwater. These regulatory requirements and the technical guidance documents on which they are based have been incorporated into this Plan. The Borough of Ridgefield Stormwater Ordinance further strengthens the reliance on these technical specifications and provides the means for insuring implementation and ongoing evaluation.

The Plan also addresses the review and update of existing ordinances 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. This plan has been developed for the portion of the Borough of Ridgefield which is not located within the land use jurisdiction of the New Jersey Meadowlands Commission (NJMC). NJMC is developing a separate Stormwater Management Plan for the in-district portions of all fourteen (14) member communities."

*This plan has been developed for the portion of the Borough of Ridgefield which is not located within the land use jurisdiction of the New Jersey Meadowlands Commission (NJMC). NJMC is developing a separate Stormwater Management Plan for the in-district portions of all fourteen (14) member communities. **The Municipality will defer to the NJMC for review and approval of stormwater for projects within the meadowlands jurisdiction.***

2.0 GOALS

The goals of this MSWMP are to:

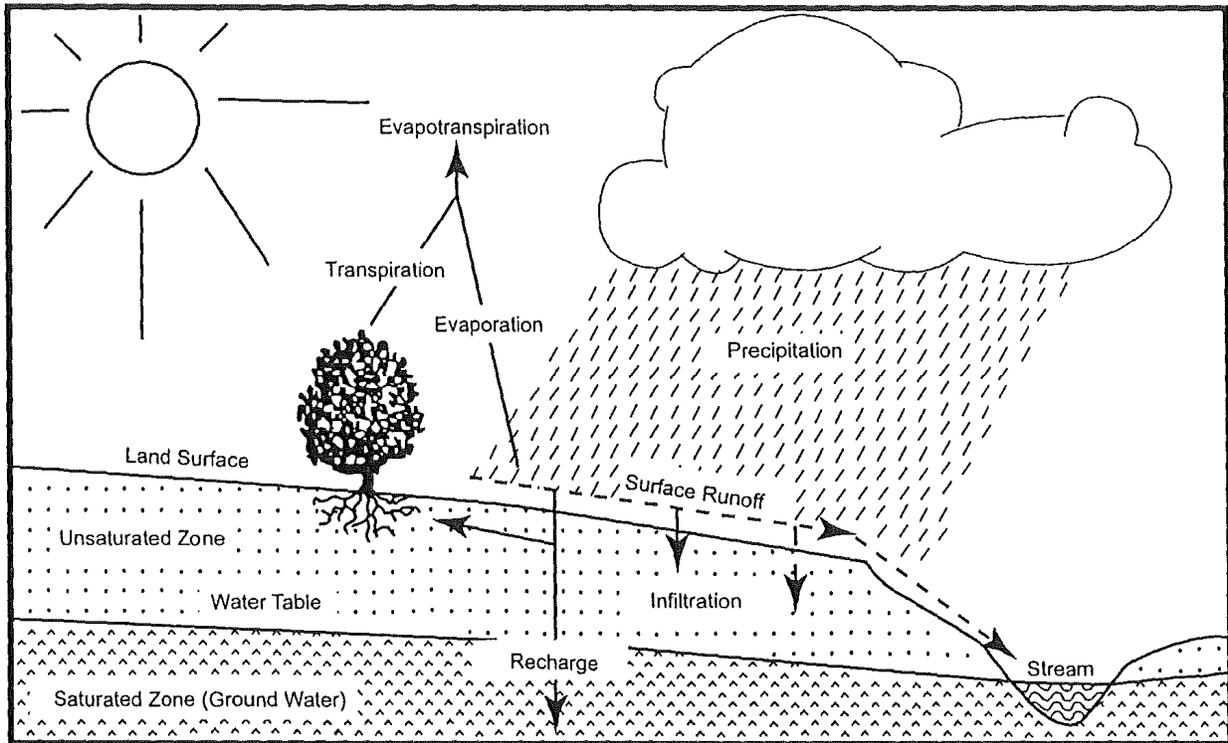
- *reduce flood damage, including damage to life and property;*
- *minimize, to the extent practical, any increase in stormwater runoff from any new development;*
- *reduce soil erosion from any development or construction property;*
- *assure the adequacy of existing and proposed culverts and bridges, and other instream structures;*
- *maintain groundwater recharge;*
- *prevent, to the greatest extent feasible, an increase in nonpoint pollution;*
- ~~*maintain groundwater recharge;*~~
- *prevent, to the greatest extent feasible, an increase in nonpoint pollution;*
- *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 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. **Section 5.0 describes the Design and Performance standards to be met through compliance with regulated ordinances.** ~~Additionally, the Plan proposes stormwater management controls to address impacts from existing development.~~ Preventative and corrective maintenance strategies are included in the Plan **in Section 5.0** 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.*

3.0 STORMWATER DISCUSSION

Land development can dramatically alter the hydrologic cycle 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, 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 from which some species cannot adapt.

Figure C-1: Groundwater Recharge in the Hydrologic Cycle



Source: New Jersey Geological Survey Report GSR-32.

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.

4.0 BACKGROUND

The Borough of Ridgefield encompasses a 2.78 square mile area in Bergen County, New Jersey. The 10,830 people residing in the Borough as of 2000 represents a decrease of 834 people from the 1990 population of 9,996 people, and an increase of 536 people from the 1980 population of 10,294. The Borough of Ridgefield is located in the southern portion of Bergen County and is bound by the Hackensack River on its western boundary. Ridgefield is bordered by the communities of Fairview, Cliffside Park, Palisades Park, Ridgefield Park, and North Bergen. The southwestern portion of the Borough contains areas that are included in the Meadowlands Commission.

There are several waterways located within the Borough of Ridgefield. The Hackensack River, which forms the Borough's western boundary; the Bellmans Creek, which forms the Borough's southern boundary; the Overpeck Creek, which forms the Borough's northern boundary and the Wolf Creek, which flows through the eastern portion of the Borough. Since the Borough of Ridgefield is bounded on three sides by waterways it is important to manage storm water. Figure C-2 illustrates the waterways in the Borough. Figure C-3 depicts the Borough boundary on the USGS Quadrangle maps.

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. The major goal of AMNET is to establish a network of stream sites that would adequately represent New Jersey's major drainage basins and NJDEP's Watershed Management Areas (WMA). Twenty (20) WMAs have recently been delineated within New Jersey's five (5) basins. Each basin constitutes a "Water Region." The results from the 2000-2001 Northeast Region AMNET Study for Watershed Management Area 5 indicate that the bioassessment for a portion of the Hackensack River located north of the Borough is moderately impaired. Although this AMNET study of the Hackensack River is not located directly adjacent to the Borough of Ridgefield, the river flows south along the Borough, therefore could have an effect on the bioassessment rating of the portion of the river adjacent to the Borough. Additionally, Bellmans Creek, Wolf Creek and Overpeck Creek are all not currently monitored by AMNET. There were no significant macroinvertebrate abnormalities during the sampling period for any of these streams.



Note:
Data obtained from i-MapNJ DEP.

Legend

- Municipalities
- Counties
- ~ Streams

FIGURE C-2
BOROUGH AND ITS WATERWAYS
N.T.S.

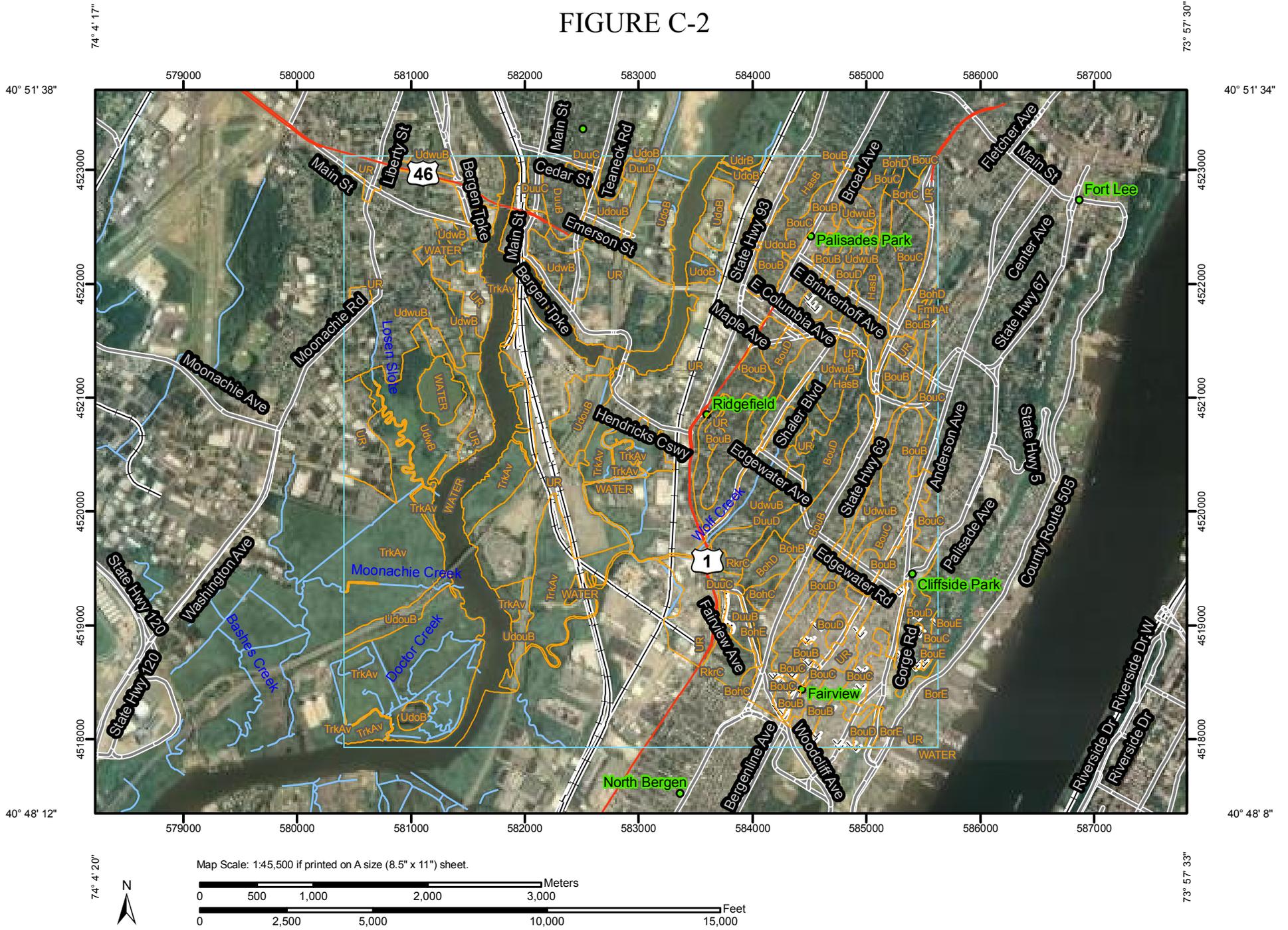
BOROUGH OF RIDGEFIELD
BERGEN COUNTY, NEW JERSEY

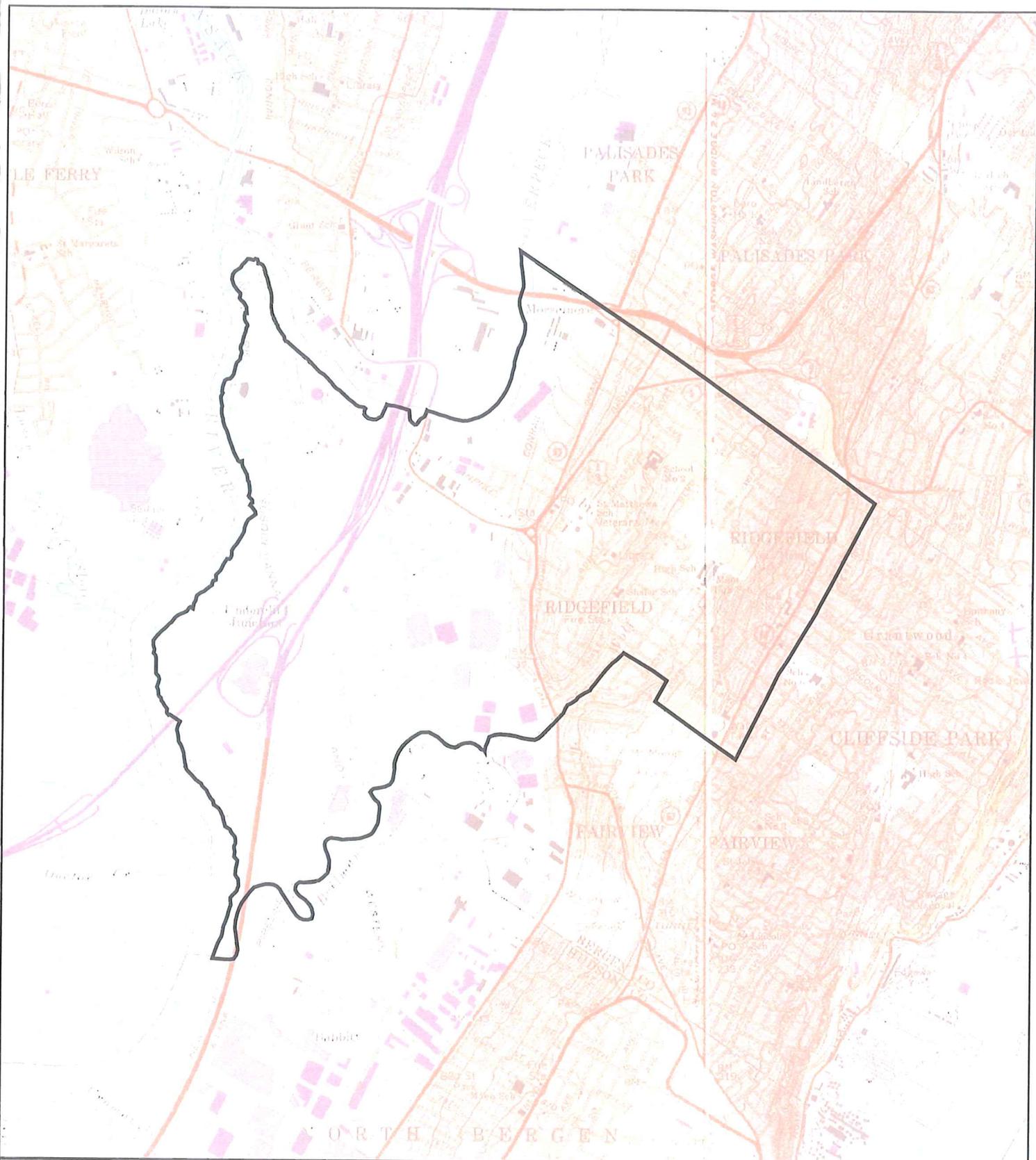
PREPARED BY:

TYLININTERNATIONAL

550 Broad Street, Suite 1105
Newark, New Jersey 07102
Tel. 973.286.2891

FIGURE C-2





Data Type	Source	Relevant Time Period
USGS Quadrangles Municipal Boundary	NJDEP	Feb-Apr 2002 1989

Figure C-3

Borough Boundary on USGS Quadrangles

**Borough of Ridgefield
Bergen County, New Jersey**



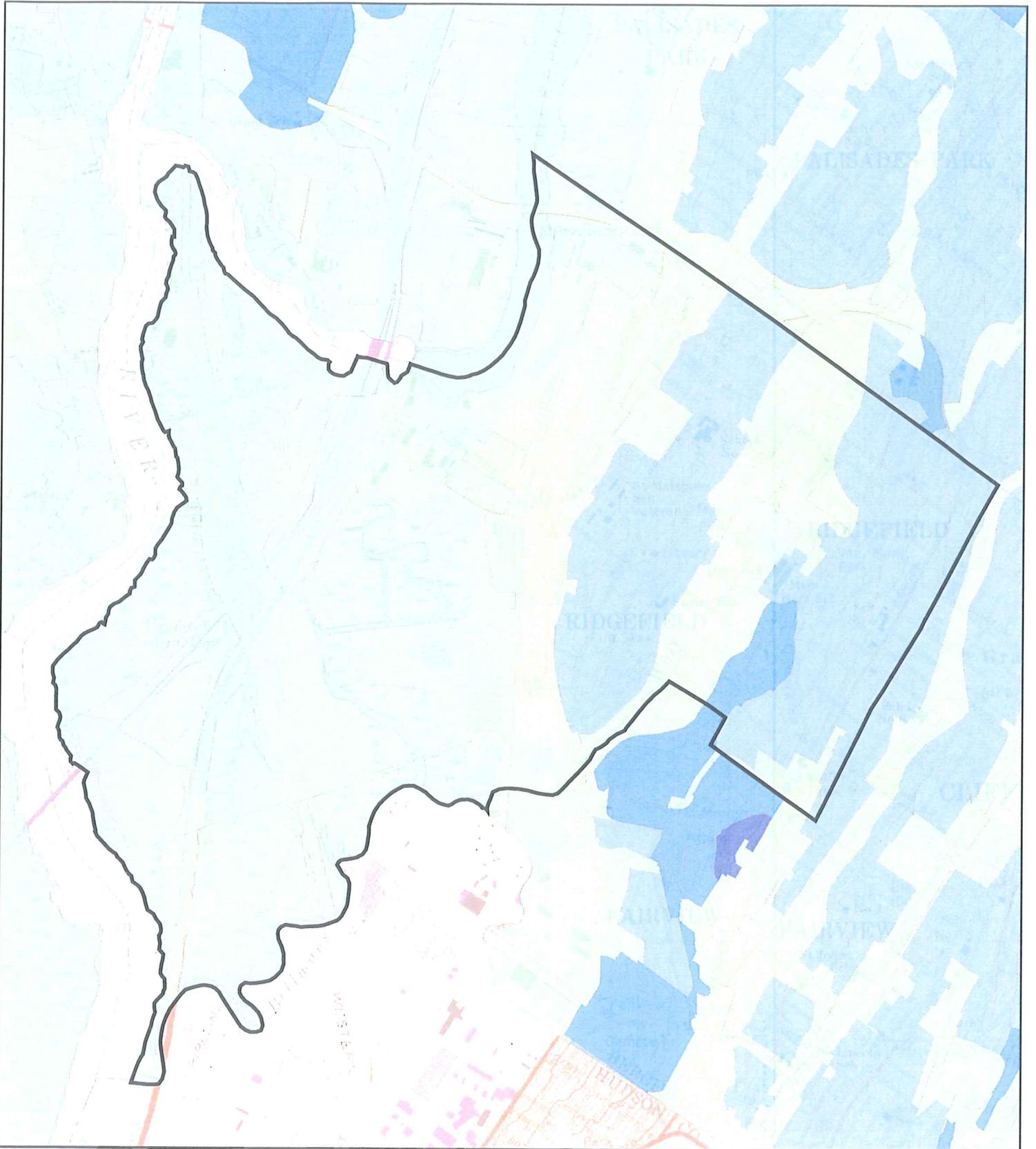
This map was developed using Geographic Information System digital data developed under the auspices of the Department of Environmental Protection, Geographic Information System digital data, but this secondary product has not been verified by NJDEP and is not State-authorized.



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 Total Maximum Daily Load (TMDLs) are needed. 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 storm water and wastewater discharges, which require a New Jersey Pollutant Discharge Elimination System (NJPDES) permit to discharge, and nonpoint 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 stormwater treatment plants, adoption of ordinances, reforestation of stream corridors, retrofitting stormwater systems, and other best management practices (BMPs).

Several portions of the Hackensack River are listed on Sublist 5 of the Integrated List for not attaining water quality standards for mercury, fish-PCB, fish-dioxin, phosphorus, fecal coliform, arsenic, benthic macroinvertebrates, chromium, copper and lead. Please note that none of these levels were for the portion of the river adjacent to the Borough of Ridgefield, but for portions north of the Borough. Furthermore, this Plan will outline the necessary steps to minimize stormwater related pollutants from entering the impaired waterways in the Borough.

A map of the Borough's groundwater recharge areas are shown in Figure C-4. Recharge areas are differentiated by the number of inches per year water infiltrates below the water table as groundwater. The Wellhead protection areas are shown in Figure C-5. 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.



Data Type	Source	Relevant Time Period
USGS Quad	UGSG	Feb-Apr 2002
Municipal Boundary	NJDEP	1989
Groundwater Recharge Areas	NJDEP	Various



This map was developed using Geographic Information System digital data developed under the auspices of the Department of Environmental Protection, Geographic Information System digital data, but this secondary product has not been verified by NJDEP and is not State-authorized.

Figure C-4

Groundwater Recharge Areas in the Borough

Borough of Ridgefield
Bergen County, New Jersey



Symbol Legend	
	Municipal Boundary
Ground Water Recharge Areas	
	0.00 in/yr
	0.01 - 9.00 in/yr
	9.01 - 12.00 in/yr
	12.01 - 16.00 in/yr
	16.01 - 22.74 in/yr





Legend

- Selected Features
- Municipalities
- Counties
- Well Head Protection Areas (Community)**
- Tier 1: 2-Year
- Tier 2: 5-Year
- Tier 3: 12-Year
- Well Head Protection Areas (Non-Community)**
- Tier 1: 2-Year
- Tier 2: 5-Year
- Tier 3: 12-Year

FIGURE C-5
WELL HEAD PROTECTION AREAS
IN THE BOROUGH
N.T.S.

BOROUGH OF RIDGEFIELD
 BERGEN COUNTY, NEW JERSEY

PREPARED BY:

TYLIN INTERNATIONAL

550 Broad Street, Suite 1105
 Newark, New Jersey 07102
 Tel. 973.286.2891

5.0 DESIGN AND PERFORMANCE STANDARDS

*The Borough will adopt the design and performance standards for stormwater management measures as presented in N.J.A.C. 7:8-5 through its stormwater management ordinance, to minimize the adverse impact of stormwater runoff on water quality and water quantity and loss of groundwater recharge in receiving water ways. 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. The ordinances will be submitted to Bergen County for review and approval within 24 months of the effective date of the Stormwater Management Rules. **Figure C-10 provides the Ordinances to address the regulations for future development showing compliance with NJAC7:8, which includes enforcement and penalties.***

*Non-structural measures to be considered first shall include site design and preventive source controls. To confirm the effectiveness of such measures, applicants must verify the control of stormwater quantity impacts as detailed in the Stormwater Management Rules. The tests of assuring control of the quantity impacts as detailed in these Rules have been incorporated into the Borough's Stormwater Ordinance. **See section 7.0 for additional information on how the Borough will achieve the 9 Non-structural requirements per N.J.A.C. 7:8-5.3.***

The general standards for structural measures are specified in the Stormwater Management Rules and have been incorporated into the Borough of Ridgefield's Stormwater Ordinance. These measures shall be incorporated as needed to meet the soil erosion, infiltration and runoff quantity standards included in the Borough's Stormwater Ordinance. The design standards for the specific structural stormwater management measures are those included in the New Jersey Stormwater Best Management Practices Manual. Other designs or practices may be used if they are approved by the Soil Conservation District. The design and construction of such facilities must comply with the NJ Soil Erosion and Sediment Control Standards as well as any other applicable state regulations including the Freshwater Wetland Protection Act rules, the Flood Hazard Control Rules, the Surface Water Quality Standards and the Dam Safety rules. The requirement to be consistent with all other applicable rules has been included in the Borough's Stormwater Ordinance. Stormwater runoff quality controls for total suspended solids and nutrient load shall meet the design and performance standards as specified in the Stormwater Management Rules. The minimum design and performance standards for infiltration and groundwater recharge specified in the Stormwater Management Rules have been incorporated into the Borough's Stormwater Ordinance and must be met for all applicable development. Consistent with the Stormwater Management Rules, the Ordinance allows for an exemption from this requirement where the applicant can demonstrate that it is not practicable to meet the standards but has taken all possible steps to meet all stormwater management measures.

The Soil Erosion and Sediment Control Act of 1976 stipulates that any project proposing more than 5,000 square feet of soil disturbance must have a Soil Erosion and Sediment Control (SESC) Plan certified by the local district. Prior to any construction the Building Department will review the application and where applicable require an applicant to submit to the Bergen County Soil Conservation district to obtain a certification of approval prior to issuance of any permits to construct.

During construction, Borough inspectors will observe the construction of the project to ensure that the stormwater management measures are constructed and function as designed. Adequate long term operation as well as preventative & corrective maintenance of the selected stormwater management measures will be ensured by requiring the design engineer to prepare a maintenance plan for its storm water management facilities incorporated into the design of the major development. The maintenance plan shall have specific preventative maintenance tasks, schedules and cost estimates as well as the responsible party for corrective and preventative maintenance.

Where the Borough assumes maintenance responsibility, preventative maintenance shall be performed on a regular basis and will be appropriate for the particular structural management measure being implemented. These maintenance measures shall be in accordance with N.J.A.C 7:8-5 and may include: periodic inspections, vegetation management, sediment, debris and trash removal and mosquito control. Corrective maintenance shall be performed on an as needed basis for structure repairs or replacements, removal of outlet and pipe blockages, erosion restoration, snow and ice removal etc. The person or persons responsible for maintenance shall keep a detailed log of all preventative and corrective maintenance for the structural management measures incorporated into the design of the development, including a record of all inspections and work orders.

Similarly, all new stormwater management basins will be designed and operated to protect public safety as mandated through ordinance.

A majority of stormwater runoff in the Borough discharges to Wolf Creek through various drainage inlets and piping which was constructed prior to the introduction of the NJDEP Best Management Practices, and in addition the borough does not own or maintain any surface detention basins, underground detention basins or manufactured treatment devices. To help reduce surface water pollutants into the waterway the borough has installed N-Eco curb heads on all drainage inlets and has enacted ordinances as shown in Figure C-10 to enforce future construction to comply with the NJDEP Best management practices. In addition any Brownfield sites to be redeveloped in the Borough must submit plans and reports to the Planning or Zoning Departments for review in compliance with Borough ordinances and will be requested to comply with any additional Federal and State Regulations regarding environmental cleanup and remediation.

6.0 PLAN CONSISTENCY

The Borough is not within a Regional Stormwater Management Planning Area, therefore this plan does not need to be consistent with any regional stormwater management plans (RSWMPs). A TMDL was to be completed by 2004 for fecal coliform and phosphorous levels in the Hackensack River and again by 2006 for phosphorous levels. This Municipal Stormwater Management Plan is consistent with the TMDL.

The Municipal Stormwater Management 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 storm water management review of residential projects. This Municipal Stormwater Management Plan will be updated to be consistent with any future updates to 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 will observe on-site soil erosion and sediment control measures and report any inconsistencies to the Bergen Soil Conservation District.

7.0 NONSTRUCTURAL STORMWATER MANAGEMENT STRATEGIES

Per NJAC 7:8- 4.2, if a municipality has less than one square mile of vacant or agricultural lands, it is at the option of the municipality to evaluate the extent to which the municipality's entire master plan, official map and development regulations implement the principles expressed in N.J.A.C. 7:8-5.3.

If the municipality chooses not to evaluate the above-mentioned documents, documentation must be added to the SWMP including an existing land use map at an appropriate scale to display the land uses of each parcel within the municipality.

A detailed land use analysis was not conducted for the Borough since the total area of vacant lands in the Borough is less than one square mile. See figure C-8 for land use map.

The Borough has reviewed its Summary Master Plan (Report No.6) adopted September 1989, the Reexamination of the Master Plan adopted November 25,2003 and Chapter 390 of the Borough's Code that governs Zoning, Development, Construction.

The Zoning and Design Requirements of the Borough Code were reviewed with regard to incorporating nonstructural stormwater management strategies. Several changes are recommended and described below. Non-structural measures to be considered shall include site design and preventive source controls. To confirm the effectiveness of such measures applicants must verify the control of stormwater quantify impacts as detailed in the Stormwater Management Rules. The tests of assuring control of the quantity impacts as detailed in these rules have been incorporated into the Borough of Ridgefield Stormwater Ordinance.

Off-Street Parking: Section 390-19. *This Section requires that all structures and land uses shall have sufficient amount of off-street automobile parking to meet the needs of persons residing in, employed at or making use of such structures or land uses. It is recommended that this section be amended to allow pervious paving used in areas to provide overflow parking, vertical parking structures, smaller parking stalls and shared parking.*

Off-Street Loading: Section 390-20. *This section requires for all industrial uses that off-street loading space shall be provided at the ratio of one loading space for each 5,000 square feet or floor area or fraction thereof, except that one space shall be provided for each 10,000 square feet of floor area in excess of the first 7,500 square feet of floor area. Paving required for off-street parking and loading zones shall be as follows: In Districts A, Band C, off-street parking and loading zones shall be paved with a minimum pavement of four-inch asphalt penetration macadam. In Districts D, E and P, off-street parking and loading zones shall be paved with a minimum pavement consisting of a six inch penetration macadam base with a one and one-and-half-inch bituminous concrete surface. It is recommended that this section be amended to allow for flush curb with curb stop, or curbing with curb cuts to encourage developers to allow for the discharge of impervious areas into landscaped areas for stormwater management.*

Driveways: Section 390-25. Requires that the total width of driveways in front yards on lots in residential districts shall not exceed 12 feet per building lot for properties with garage openings of one car width and 23 feet for garage openings of two car widths. It is recommended that language be added to encourage the use of pervious paving materials to minimize stormwater runoff and promote groundwater recharge.

Parking Areas: Section 390-228. Requires that all vehicular parking shall be banned on all parts of said parking lots except for those areas specifically designated as a parking area. Said parking areas shall be designed by angled yellow lines denoting parking stalls. It is recommended that language be added to encourage the use of pervious paving materials to minimize stormwater runoff and promote groundwater recharge.

Flood Plain Areas: Section 35-604. Implements NJDEP regulations for floodways and special flood hazard areas in the Borough of Ridgefield. The purposes of this Ordinance include discouraging encroachment within the floodway including fill, new construction, substantial improvements and other development. The existing code adequately addresses non-structural stormwater management strategies.

The Borough has six (6) types of residential districts. The maximum allowable impervious coverage varies depending upon the district and in certain instances, the size of the lot. Pursuant to a recent zoning ordinance amendment adopted in March of 2004, the bulk regulations for Residential A and Residential B Districts were revised to include an impervious coverage limit (exclusive of building coverage) that allows no more than 25% impervious coverage of the total lot area, no more than 40% impervious coverage of the front yard area with a single-car-wide garage opening and, no more than 50% of the front yard area with a two-car-wide garage opening. Ultimately in both the Residential A and B Districts, when combining the sliding scale building coverage requirements with the newly adopted impervious coverage requirement, total maximum impervious coverage (building and impervious surfaces) is not allowed to exceed 55% for a 5,000 square-foot-lot and no more than 43% for lots that are 11,001 square-feet or larger.

The regulations for multifamily development in the Residential C District specify a maximum coverage limitation of either 35% or 40% depending upon the proposed use. The remaining three (3) residential districts indirectly control maximum impervious coverage by requiring a minimum landscaped area, specifying a minimum of 25% landscaped area for development including affordable housing or a minimum of 40% landscaped area for conventional market development. Therefore, these three districts effectively have maximum impervious coverage allocations ranging from 60% to 75%.

There are ten (10) nonresidential districts and one (1) multi-use district (the O-TH Zone) in the Borough with maximum allowable impervious surface allocations ranging from 65% to 100%. It is important to note that the current regulations for Zone District D (Retail, Business, Commercial or Office Zone) and Zone District E (Light Manufacturing) both do not specify a maximum impervious coverage limitation and therefore development in these two districts is permitted with an impervious coverage of 100%.

The Borough should evaluate appropriate maximum impervious coverage limitations in Zone District D and Zone District E. The Borough may also evaluate the maximum allowable impervious surface regulations for all other zones to determine whether a reduction in impervious cover requirement is appropriate. Additionally, if a developer is given a variance to exceed the maximum allowable percent impervious cover, the developer must mitigate the impact of the additional impervious surface allowed. The detailed descriptions of suitable mitigation areas in the Borough are discussed in Section 9 of this SWMP.

For future development Ordinance 1964 will be added providing Stormwater Management Requirements and additionally outlining the 9 Nonstructural Stormwater Management Strategies to be addressed. For the current conditions to achieve the 9 goals as much as feasible the Borough will do the following:

- 1. Protect Borough owned open space and maintain the space to prevent erosion and sediment loss.**
- 2. Minimize the increase to impervious surfaces on Borough owned property.**
- 3. Maximize the protection of Wolf Creek, Bellman's Creek, Overpeck Creek and associated tributaries through review of development application by the Planning / Zoning Boards and regulations enacted to protect these areas.**
- 4. Minimize the decrease in Time of Concentration by ensuring public open space such as ball fields have the appropriate grass cover.**
- 5. Minimize clearing or cutting of Borough owned street trees and natural vegetation within open space areas as much as feasible.**
- 6. Minimize compaction of soil on Borough owned open Space as much as feasible.**
- 7. Maintain landscaping and minimize the use of harmful fertilizers and pesticides.**
- 8. Maintain vegetated open channel conveyance.**
- 9. Provide other source controls.**
 - Borough will replace curb heads with N-Eco type curb heads**
 - Borough will enact ordinance to control garbage, trash & yard waste.**
 - Borough will enact ordinance to control domestic animal waste.**

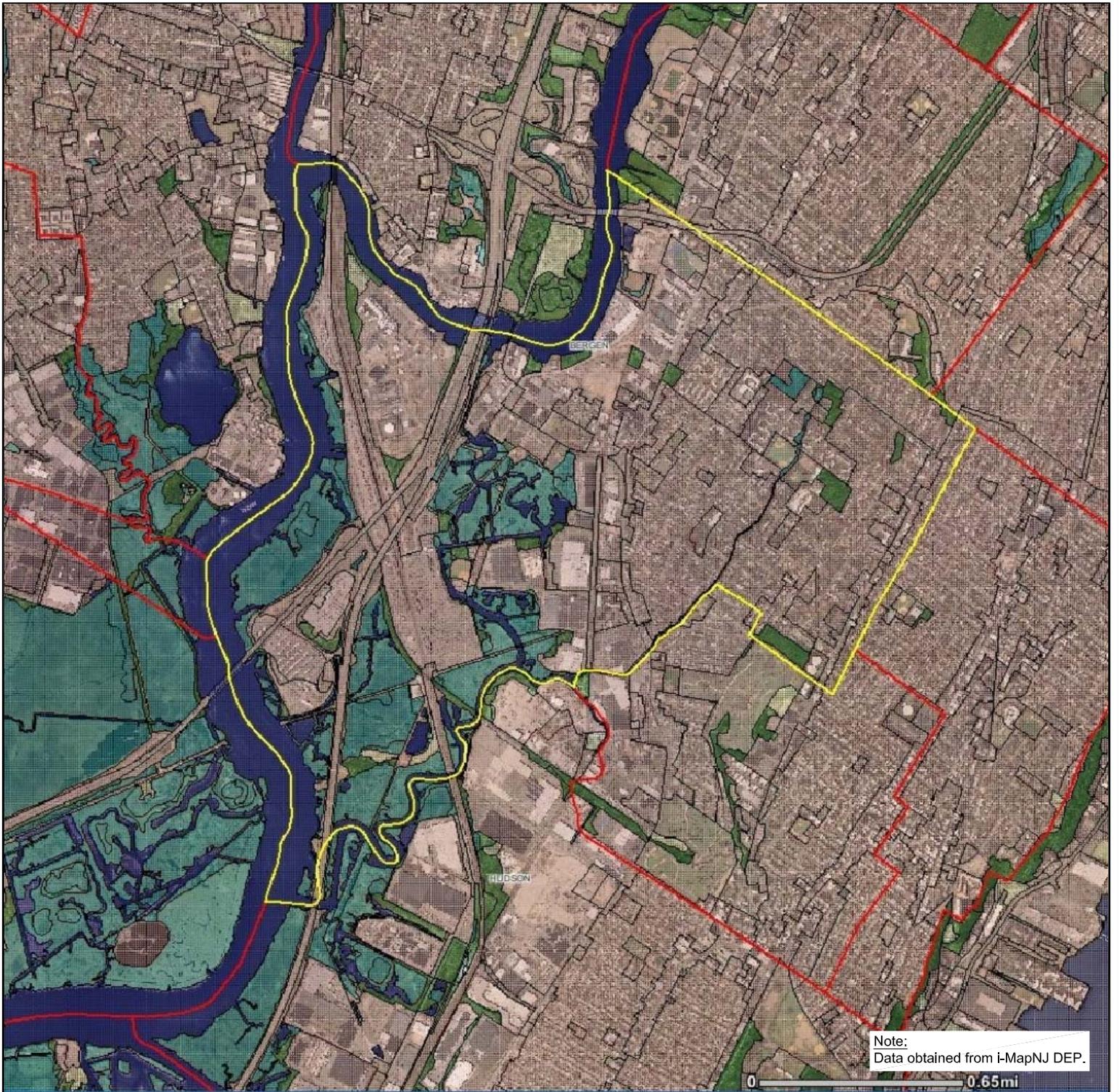
Once the ordinance texts are completed, they will be submitted to Bergen County for review and approval. A copy will be sent to the Department of Environmental Protection at the time of submission.

8.0 LAND USE / BUILD-OUT ANALYSIS

A detailed land use analysis was not conducted for the Borough since the total area of vacant lands in the Borough is approximately 229 AC which is less than one square mile (640 AC). The Borough zoning map is shown in conjunction with the HUC 14 zones in the Borough in order to show the total area of the Borough and to illustrate the extent of developed land.

A record search from the Borough Tax Assessor identified vacant property in the borough as shown below:

Block	Lot	Property Size	Block	Lot	Property Size	Block	Lot	Property Size
101	26	0.090 AC	802	10	0.092 AC	2904	4	0.473 AC
108	1	0.328 AC	803	5.02	0.204 AC	3001	2	0.272 AC
201	15	0.115 AC	1005	7	0.115 AC	3001	8	0.092 AC
202	28	0.115 AC	1101	9	0.196 AC	3003	5	1.562 AC
203	7	0.115 AC	1303	10	0.137 AC	3004	1	0.111 AC
203	8	0.115 AC	1304	8	0.037 AC	3106	14	0.034 AC
206	14	0.120 AC	1310	7	0.015 AC	3204	2.01	0.008 AC
301	4	0.050 AC	1503	5.01	0.124 AC	3303	18	0.134 AC
303	2	0.058 AC	1503	5.02	0.154 AC	3501	9	1.13 AC
305	4	0.060 AC	1503	7.01	0.313 AC	3501	10	0.406 AC
306	7	0.056 AC	1503	19	0.064 AC	3702	9	0.115 AC
306	9	0.054 AC	1601	2	1.53 AC	3703	13	0.117 AC
401	9	0.108 AC	1909	6	0.087 AC	3704	1	0.092 AC
401	10	0.135 AC	1909	7	0.163 AC	3704	6	0.092 AC
404	3	0.054 AC	2101	16	0.360 AC	3704	7	0.069 AC
404	5.01	0.054 AC	2102	7	0.109 AC	3803	5	1.80 AC
404	7	0.054 AC	2301	1	13.92 AC	3803	27	0.062 AC
405	9	0.057 AC	2303	12	0.161 AC	4004	2	46.18 AC
406	5	0.079 AC	2304	2	0.225 AC	4006	2	0.863 AC
503	1	15.53 AC	2401	5	1.82 AC	4008	1	7.89 AC
504	3	0.230 AC	2504	17.01	0.150 AC	4010	1	13.27 AC
504	4	0.651 AC	2504	17.02	0.166 AC	4014	7	0.105 AC
504	6	0.115 AC	2504	18	0.689 AC	4014	6	0.30 AC
504	11	0.115 AC	2604	7	0.144 AC	4014	15	6.15 AC
505	5	0.129 AC	2604	8	0.144 AC	4014	19	3.06 AC
601	1	3.84 AC	2704	5	0.464 AC	4014	25	0.552 AC
601	2	0.360 AC	2704	24	0.700 AC	4016	1	98.51 AC
701	2	0.158 AC	2706	7	0.172 AC			
801	2	0.092 AC	2902	11	0.188 AC			



Legend

- Selected Features
- Municipalities
- Counties
- Land Use 2002**
- WATER
- BARREN LAND
- AGRICULTURE
- FOREST
- URBAN
- WETLANDS
- Aerial Photos 2007**
- Mid-Atlantic States
- New Jersey
- Other States

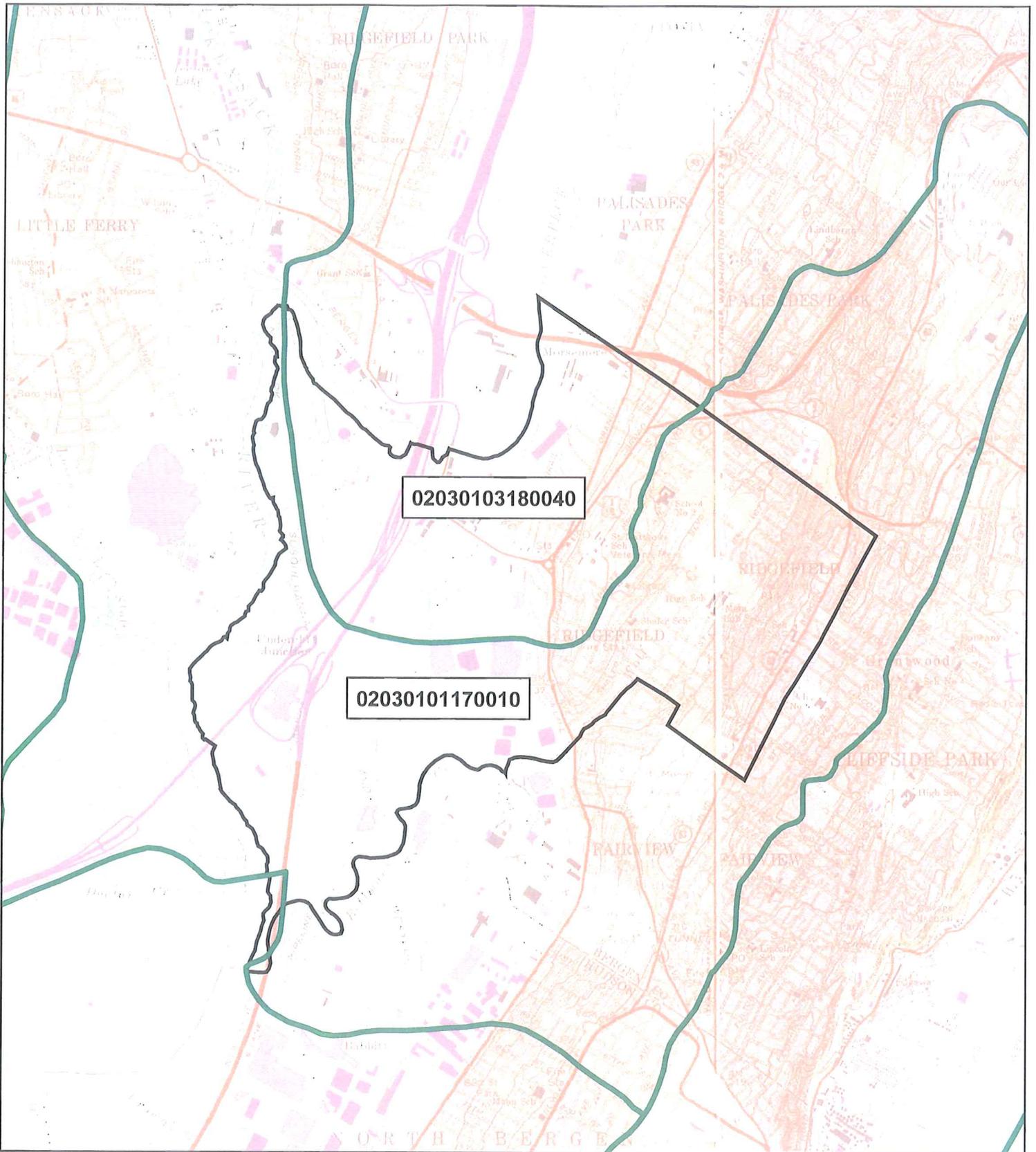
FIGURE C-6
BOROUGH EXISTING LAND USE
 N.T.S.

BOROUGH OF RIDGEFIELD
 BERGEN COUNTY, NEW JERSEY

PREPARED BY:

TYLIN INTERNATIONAL

550 Broad Street, Suite 1105
 Newark, New Jersey 07102
 Tel. 973.286.2891



Data Type	Source	Relevant Time Period
USGS Quad	UGSG	Feb-Apr 2002
Municipal Boundary	NJDEP	1989
HUC14	NJDEP	2000



Figure C-7

Hydrologic Units (HUC14) Within the Borough

Borough of Ridgefield
Bergen County, New Jersey

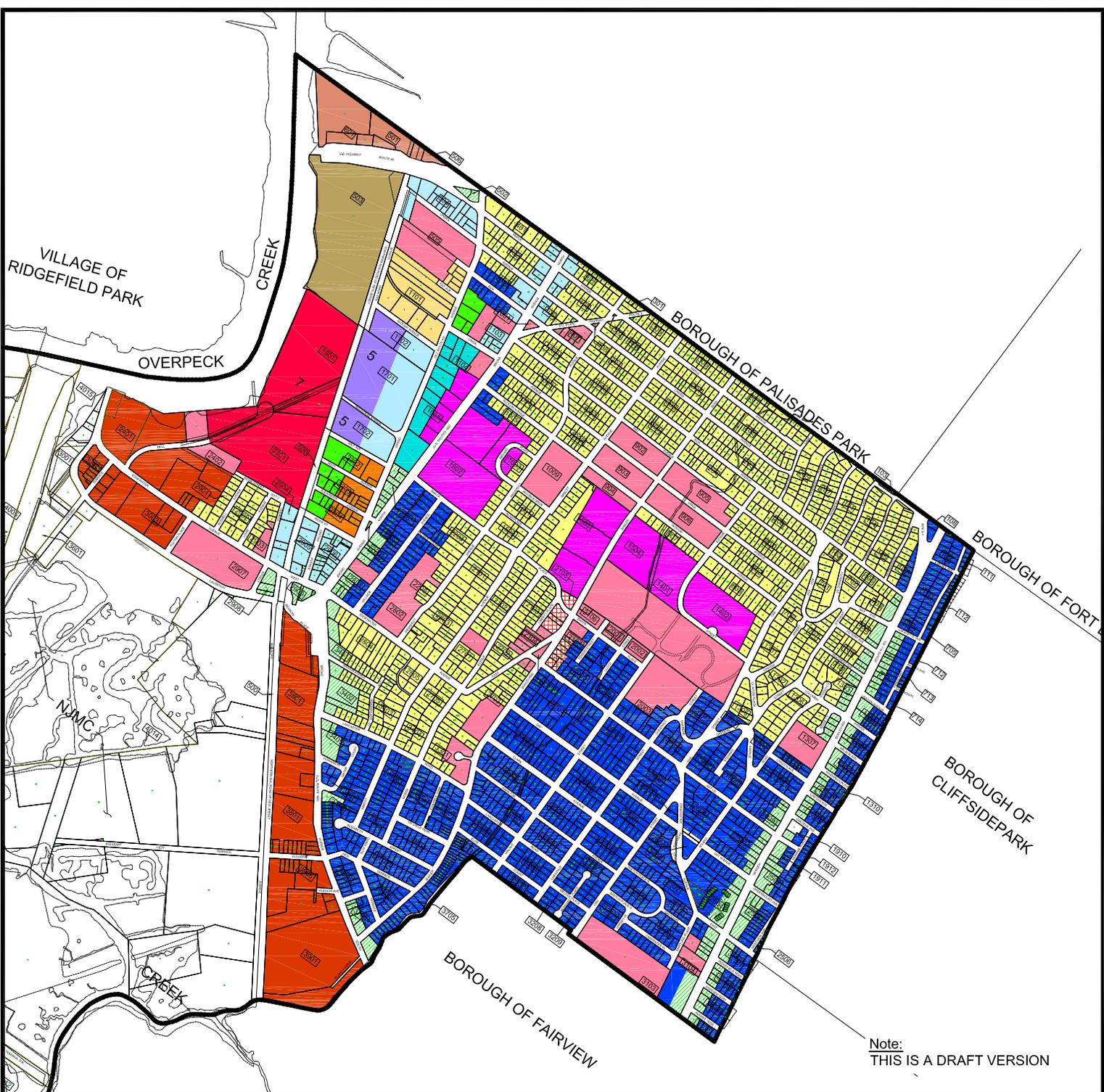
Symbol Legend

-  NJDEP Huc 14
-  Municipal Boundary



This map was developed using Geographic Information System digital data developed under the auspices of the Department of Environmental Protection, Geographic Information System digital data, but this secondary product has not been verified by NJDEP and is not State-authorized.





- ONE FAMILY RESIDENTIAL - A
- TWO FAMILY RESIDENTIAL - B
- GA / TH CLUSTER - C(R-TH)
- TOWNHOUSES - R-TH
- TH / SR CITIZENS HOUSING - R-SR
- OFFICE / TH - O-TH
- OFFICE MID RISE (# DENOTES STORY) - O-5
- OFFICE MID RISE HOTEL (# DENOTES STORY) - O-7
- OFFICE LOW RISE - OLR
- OFFICE MID RISE HOTEL - OMH
- OFFICE/COMMERCIAL - D
- COMMERCIAL - C
- NEIGHBORHOOD BUSINESS - NB
- COMMERCIAL/HIGH RISE HOTEL - CH
- PUBLIC/SEMI PUBLIC - G
- LIGHT MANUFACTURING - E
- NEW JERSEY MEADOWLANDS COMMISSION DISTRICT - NJMC

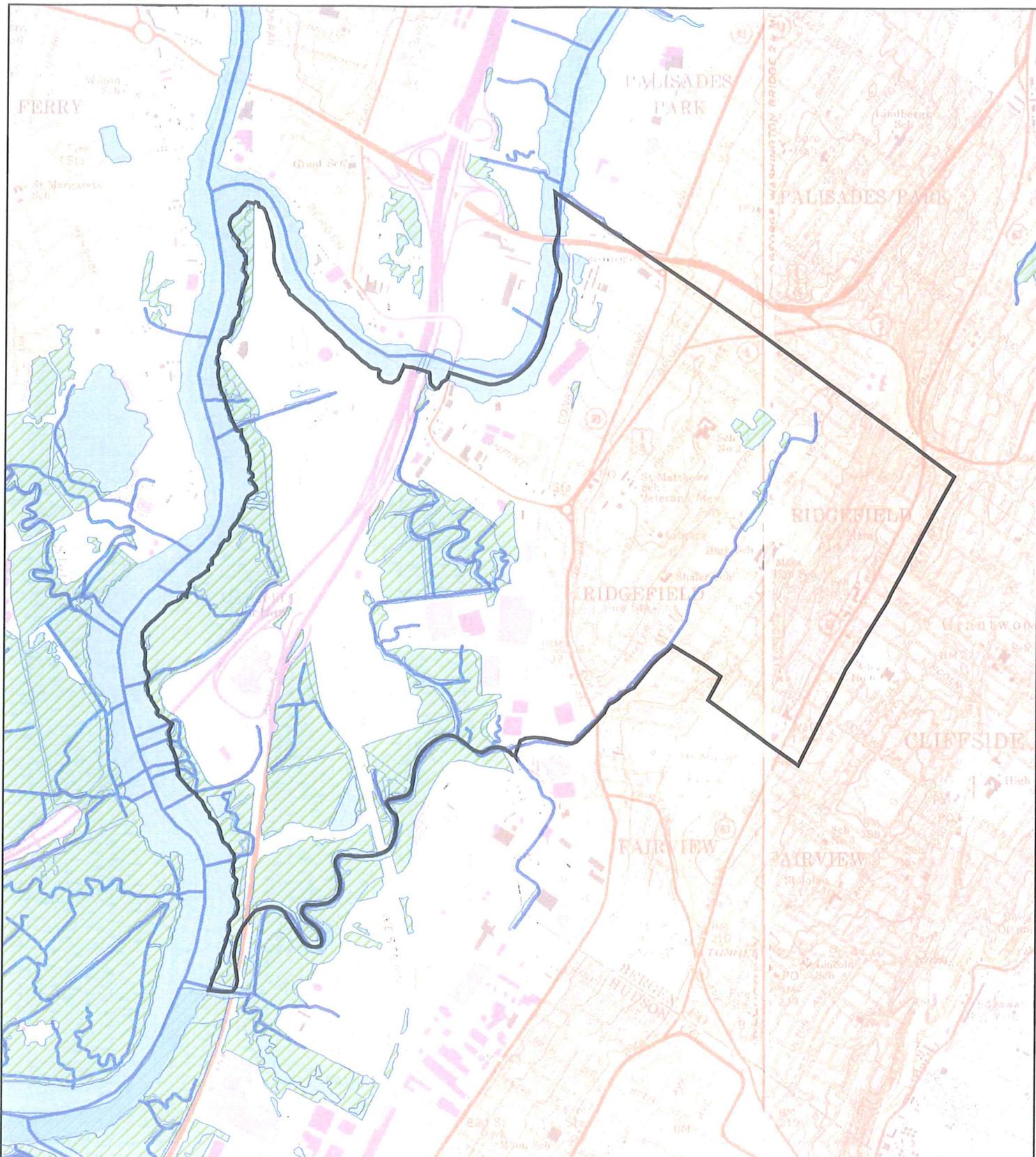
FIGURE C-8
ZONING DISTRICTS MAP
 N.T.S.

BOROUGH OF RIDGEFIELD
BERGEN COUNTY, NEW JERSEY

PREPARED BY:

TYLIN INTERNATIONAL

550 Broad Street, Suite 1105
 Newark, New Jersey 07102
 Tel. 973.286.2891



Data Type	Source	Relevant Time Period
USGS Quad	USGS	Feb-Apr 2002
Municipal Boundary	NJDEP	1989
Wetlands	NJDEP	1986
Lakes	NJDEP	1986
Streams	NJDEP	1998



This map was developed using Geographic Information System digital data developed under the auspices of the Department of Environmental Protection, Geographic Information System digital data, but this secondary product has not been verified by NJDEP and is not State-authorized.

Figure C-9

Wetlands and Water Land Uses within the Borough

Borough of Ridgefield
Bergen County, New Jersey

Symbol Legend

-  Streams
-  Lakes
-  Wetlands
-  Municipal Boundary



9.0 MITIGATION PLAN

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.

The mitigation project must be implemented in the same drainage area as the proposed development. 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 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.

The applicant can select one 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 when granting waivers or variances in redevelopment and infill areas of the Borough.

- ~~● Retrofit of existing outfalls~~
- ~~● Improving the quality of existing stormwater runoff~~
- ~~● Stabilize stream banks~~

- 1. The project must be within the same area that would contribute to the receptor impacted by the project. Note that depending on the specific performance standard waived, the sensitive receptor and/or the contributory area to that receptor may be different. If there are no specific sensitive receptors that would be impacted as the result of the grant of the waiver/exemption, then the location of the mitigation project can be located anywhere within the municipality, and should be selected to provide the most benefit relative to an existing stormwater problem in the same category (quality, quantity or recharge).**
- 2. Legal authorization must be obtained to construct the project at the location selected. This includes the maintenance and any access needs for the project in the future.**
- 3. The project should be close to the location of the original project, and if possible, be located upstream at a similar distance from the identified sensitive receptor. This distance should not be based on actual location, but on a similar hydraulic distance to the sensitive receptor. For example, if the project for which a waiver is obtained discharges to a tributary, but the closest location discharges to the main branch, it may be more beneficial to identify a location discharging to the same tributary.**

4. For ease of administration, if sensitive receptors are addressed, it is preferable to have one location that addresses any and all of the performance standards waived, rather than one location for each performance standard.
5. It must be demonstrated that implementation of the mitigation project will result in no adverse impacts to other properties.
6. Mitigation projects that address stormwater runoff quantity can provide storage for proposed increases in runoff volume, as opposed to a direct peak flow reduction.

Stormwater Quantity Considerations:

1. Increased stormwater runoff volume from new development can cause damages to property and habitat due to increased flood elevations and/or flood velocities. Mitigation project areas can include locations that will provide for additional storage and slower release of excess stormwater. Mitigation of stormwater quantity can be accomplished by increasing flood storage areas along the waterway, creating new best management practices (BMPs) to control previously uncontrolled runoff or by retrofitting existing stormwater structures to decrease the volume and peak of runoff.
2. In areas adjacent to the stream, a hydrologic and hydraulic analysis can be performed to determine if increasing storage capacity would offset the additional volume of runoff and associated peak increase from sites upstream of the storage area. Increases in the storage capacity of an existing structure, such as upstream of a bridge or culvert, can also be considered provided that it is demonstrated that such an increase does not exacerbate flooding at other areas.
3. Note that work in regulated areas, such as floodplains and wetlands must be performed in accordance with applicable regulations such as the Flood Hazard Area Control Act Rules and the Freshwater Wetland Act Rules. Also, many areas of open space in New Jersey have received funding by the Department's Green Acres Program and many of those encumbered lands have restrictions placed on them as a result of that funding. Any and all restrictions placed on these lands must be investigated by the municipality before these areas can be utilized for mitigation to ensure that there are no conflicts.
4. Some examples of areas or features sensitive to changes with regard to flooding include:
Culverts and bridges - these features may constrict flow and cause flooding or may provide storage that, if lost, would cause downstream flooding problems;

Property subject to flooding - areas of concern include those where there is historical evidence of recurrent problems, particularly if exacerbated over time because of increasing impervious surface in the contributing watershed;

Eroding/widening stream banks or channels - particularly if due to changes in hydrology due to effects of development;

Category One waters - flooding affects could alter habitat that was the basis for the designation;

Wetlands - changes in hydrology can affect viability of wetlands, either by increasing or decreasing volumes and velocities of water discharging to the wetlands.

Stormwater Quality Considerations:

- 1. Stormwater quality is regulated for the purpose of minimizing/preventing nonpoint source pollution from reaching the waterway. Mitigation for stormwater quality can be achieved either by directing the runoff from the water quality design storm into a natural area where it can be filtered and/or infiltrated into the ground, by constructing a new BMP to intercept previously untreated runoff or by retrofitting existing stormwater systems that previously did not provide sufficiently for water quality.**
- 2. Existing forested and other vegetated non-wetland areas can also be used as a water quality mitigation area if runoff is discharged as sheet flow through the area in a nonerosive manner, and the vegetated area is restricted from future development. A discussion of the appropriate widths for these vegetative filters is provided in Chapter 9 of the New Jersey Stormwater Best Management Practices Manual (BMP Manual).**
- 3. If a mitigation project cannot be identified that would compensate for a waiver related to water quality, and provided the project requiring a waiver would not result in a measurable change in water quality relative to TSS and nutrients, the mitigation project could be designed to address another parameter of concern in the watershed (as indicated by an impairment listing and/or an adopted TMDL) for which stormwater is a source, such as fecal coliform.**
- 4. Some examples of areas or features sensitive to water quality changes include:**
Trout associated waters - chemical pollutants and temperature effects can diminish viability of populations;

Lakes, ponds or other impoundments - these waterways are sensitive to addition of nutrients;

Threatened and endangered species or their habitats - sensitive to both quality and quantity changes;

Drinking water supplies - adverse affects on quality can increase the cost of treatment or threaten the use;

Category One waters - an issue where quality was the basis of the designation

Waterways with a water quality or use impairment - deterioration of quality in an impaired waterway will increase the cost and challenge of restoration

Ground Water Recharge Considerations:

1. Recharge is regulated to maintain the availability of ground water as a water supply source as well as to provide a stable source of baseflow in streams.
2. There are two requirements associated with the recharge standard. The first is that 100 percent of the site's average annual pre-developed ground water recharge volume be maintained after development and the second is that 100 percent of the difference between the site's pre- and post-development 2-year runoff volumes be infiltrated. To mitigate for groundwater recharge design requirements, either computational method can be utilized to determine the volume lost that needs to be provided by the mitigation project.
3. One method to accomplish ground water recharge mitigation is to discharge runoff as sheet flow across a vegetated area to allow for the infiltration of runoff. It should be noted that, if this measure is used, calculating compliance with the recharge standard is limited to the 2-year storm standard, given existing methods.
4. Some examples of areas or features sensitive to ground water recharge changes include:
Springs, seeps, wetlands, white cedar swamps - sensitive to changes in ground water level/hydrology;

Threatened and endangered species or their habitats—some are sensitive to changes in ambient ground water levels;

Streams with low base flow or passing flow requirements—would be particularly sensitive to changes in hydrology;

Aquifer recharge zones—loss of recharge in these areas can adversely affect ground water supply;

Category One waters—loss of base flow can affect many of the bases for designation

Identification of Specific Mitigation Projects:

The Borough of Ridgefield 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.

Administrative Requirements:

Each municipality that received a Tier A or Tier B NJPDES Municipal Stormwater General Permit is required to file an annual report to demonstrate continuing compliance with the permit requirements. The municipality must indicate in the annual report form whether any variances or exemptions from stormwater management standards have been given. When submitting the annual report as required by the NJPDES permit, the municipality must provide an annual submission of its variances, exemptions, and related mitigation projects to the NJDEP Division of Watershed Management (DWM). This annual report to DWM must include both projects reviewed by the municipality under the Municipal Land Use Law, as well as the municipality's own projects unable to fully comply with the design and performance standards. The following information is required for each waiver granted from the performance standard(s).

- **Impact from noncompliance. Provide a table quantifying what would be required for the project to achieve the standards, the extent to which this value will be achieved on site and the extent to which the value must be mitigated off site.**
- **Narrative and supporting information regarding the need for the waiver including:**
 - **The waiver cannot be due to a condition created by the applicant. If the applicant can comply with the Stormwater Management rules through a reduction in the scope of the project, the applicant has created the condition and a waiver cannot be issued. Demonstrate that the need for a waiver is not created by the applicant.**
 - **Provide a discussion and supporting documentation of the site conditions peculiar to the subject property that prevent the construction of a stormwater management facility that would achieve full compliance with the design and performance standards. Site conditions may include soil type, the presence of karst geology, acid soils, a high groundwater table, unique conditions that would create an unsafe design, as well as conditions that may provide a detrimental impact to public health, welfare, and safety.**
 - **Demonstration that the grant of the requested waiver/exemption would not result in an adverse impact that would not be compensated for by off site mitigation.**

- **Sensitive Receptor:** Identify the sensitive receptor(s) related to the performance standard from which a waiver is sought. Demonstrate that the mitigation site contributes to the same sensitive receptor.
- **Design of the Mitigation Project:** Provide the design details of the mitigation project. This includes, but is not limited to, drawings, calculations, and other information needed to evaluate the mitigation project.
- **Responsible Party:** List the party or parties responsible for the construction and the maintenance of the mitigation project. Documentation must be provided to demonstrate that the responsible party is aware of, has authority to, and accepts the responsibility for construction and maintenance. Under no circumstance shall the responsible party be an individual single-family homeowner. Selection of a project location that is under municipal authority avoids the need to obtain authority from a third party for the construction and future maintenance of the project.
- **Maintenance:** Include a maintenance plan that addresses the maintenance criteria at N.J.A.C. 7:8-5.8. In addition, if the maintenance responsibility is being transferred to the municipality or another entity, the entity responsible for the cost of the maintenance must be identified. The municipality may provide the option for the applicant to convey the mitigation project to the municipality, if the applicant provides for the cost of maintenance in perpetuity.
- **Permits:** Obtain any and all necessary local, State or other applicable permits for the mitigation measure or project must be obtained prior to the municipal approval of the project for which mitigation is being provided.
- **Construction:** Demonstrate that the construction of the mitigation project coincides with the construction of the proposed project. A certificate of occupancy or final approval by the municipality for the project requiring mitigation cannot be issued until the mitigation project or measure receives final approval. Any mitigation projects proposed by the municipality to offset the stormwater impacts of that municipality's own projects must be completed within 6 months of the completion of the municipal project, in order to remain in compliance with their NJPDES General Permit.

BOROUGH ORDINANCE:

1. Ord. 1962 - Separate Storm Sewer System: Illicit Connection (CH 345, Art I) Adopted 12-27-2005

§345-1 PURPOSE:

An ordinance to prohibit illicit connections to the municipal separate storm sewer system(s) operated by the Borough of Ridgefield, so as to protect public health, safety and welfare, and to prescribe penalties for the failure to comply

§345-2 DEFINITIONS:

For the purpose of this article, the following terms, phrases, words, and their derivations shall have the meanings stated herein unless their use in the text of this chapter clearly demonstrates a different meaning. When not inconsistent with the context, words used in the present tense include the future, words used in the plural number include the singular number, and words used in the singular number include the plural number. The word "shall" is always mandatory and not merely directory. The definitions below are the same as or based on corresponding definitions in the New Jersey Pollutant Discharge Elimination System (NJPDES) rules at N.J.A.C. 7:14A-1.2.

DOMESTIC SEWERAGE - Waste and wastewater from humans or household operations

INDUSTRIAL WASTE - Nondomestic waste, including, but not limited to, those pollutants regulated under Section 307(a), (b), or (c) of the Federal Clean Water Act [33 U.S.C. § 1317(a), (b), or (c)].

MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) - A conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains) that is owned or operated by the Borough of Ridgefield or other public body, and is designed and used for collecting and conveying stormwater.

NJPDES PERMIT - A permit issued by the New Jersey Department of Environmental Protection to implement the New Jersey Pollutant Discharge Elimination System (NJPDES) rules at N.J.A.C. 7:14A.

NONCONTACT COOLING WATER - Water used to reduce temperature for the purpose of cooling. Such waters do not come into direct contact with any raw material, intermediate product (other than heat) or finished product. Noncontact cooling water may, however, contain algacides, or biocides to control fouling of equipment such as heat exchangers, and/or corrosion inhibitors.

PERSON - Any individual, corporation, company, partnership, firm, association, or political subdivision of this state subject to municipal jurisdiction.

PROCESS WASTEWATER - Any water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, by-product, or waste product. Process wastewater includes, but is not limited to, leachate and cooling water other than noncontact cooling water.

STORMWATER - Water resulting from precipitation (including rain and snow) that runs off the land's surface, is transmitted to the subsurface, is captured by separate storm sewers or other sewerage or drainage facilities, or is conveyed by snow removal equipment.

§345-3 PROHIBITED CONDUCT:

No person shall discharge or cause to be discharged through an illicit connection to the municipal separate storm sewer system operated by the Borough of Ridgefield any domestic sewage, noncontact cooling water, process wastewater, or other industrial waste (other than stormwater).

§345-4 ENFORCEMENT:

This article shall be enforced by the Police Department and/or the Department of Public Works of the Borough of Ridgefield.

§345-5 VIOLATION AND PENALTIES:

Any person(s) who is found to be in violation of the provisions of this article shall be subject to an initial fine not to exceed \$2,000. The violator shall be required to correct the condition within 30 days or be fined an additional \$500 per day of continued violation.

2. **Ord. 1963 - Separate Storm Sewer System: Prohibited Disposal of Material (CH 345, Art II) Adopted 12-27-2005; Ord. 1991 - VIOLATIONS AND PENALTIES (§345-11) - Amended 6-12-2006.**

§345-6 PURPOSE:

An ordinance to prohibit the spilling, dumping, or disposal of materials other than stormwater to the municipal separate storm sewer system (MS4) operated by the Borough of Ridgefield, so as to protect public health, safety and welfare, and to prescribe penalties for the failure to comply.

§345-7 DEFINITIONS:

For the purpose of this article, the following terms, phrases, words, and their derivations shall have the meanings stated herein unless their use in the text of this chapter clearly demonstrates a different meaning. When not inconsistent with the context, words used in the present tense include the future, words used in the plural number include the singular number, and words used in the singular number include the plural number. The word "shall" is always mandatory and not merely directory.

MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) -A conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains) that is owned or operated by the Borough of Ridgefield or other public body, and is designed and used for collecting and conveying stormwater.

PERSON - Any individual, corporation, company, partnership, firm, association, or political subdivision of this state subject to municipal jurisdiction.

STORMWATER - Water resulting from precipitation (including rain and snow) that runs off the land's surface, is transmitted to the subsurface, is captured by separate storm sewers or other sewerage or drainage facilities, or is conveyed by snow removal equipment.

§345-8 PROHIBITED CONDUCT:

The spilling, dumping, or disposal of materials other than stormwater to the municipal separate storm sewer system operated by Borough of Ridgefield is prohibited. The spilling, dumping, or disposal of materials other than stormwater in such a manner as to cause the discharge of pollutants to the municipal separate storm sewer system is also prohibited.

§345-9 EXCEPTIONS AND PROHIBITIONS:

- A. Waterline flushing and discharges from potable water sources;**
- B. Uncontaminated groundwater (e.g., infiltration, crawl space or basement sump pumps, foundation or footing drains, rising groundwaters);**
- C. Air-conditioning condensate (excluding contact and noncontact cooling water);**
- D. Irrigation water (including landscape and lawn watering runoff);**

- E. Flows from springs, riparian habitats and wetlands, water reservoir discharges and diverted stream flows;**
- F. Residential car washing water, and residential swimming pool discharges;**
- G. Sidewalk, driveway and street wash water;**
- H. Flows from fire-fighting activities;**
- I. Flows from rinsing of the following equipment with clean water:**
 - (1) Beach maintenance equipment immediately following their use for their intended purposes; and**
 - (2) Equipment used in the application of salt and deicing materials immediately following salt and deicing material applications. Prior to rinsing with clean water, all residual salt and deicing materials must be removed from equipment and vehicles to the maximum extent practicable using dry cleaning methods (e.g., shoveling and sweeping). Recovered materials are to be returned to storage for reuse or properly discarded.**
 - (3) Rinsing of equipment, as noted in the above situation, is limited to exterior, undercarriage, and exposed parts and does not apply to engines or other enclosed machinery.**

§345-10 ENFORCEMENT:

This article shall be enforced by the Police Department and/or the Department of Public Works of the Borough of Ridgefield.

§345-11 VIOLATIONS AND PENALTIES:

[Amended 6-12-2006 by Ord. No. 1991]

Any person(s) who continues to be in violation of the provisions of this article, after being duly notified, shall be subject to a fine of not less than \$100 nor more than \$1,000. Each separate day that a violation continues shall constitute a separate offense under this article

3. Ord. 1964 - Zoning Development and Construction: Site Plan Review Amendments (CH 390, Part 4) §390-137.1 Added 12-27-2005

§390-137.1 STORMWATER MANAGEMENT:

A. Scope and purpose.

- (1) Policy statement.** Flood control, groundwater recharge, and pollutant reduction through nonstructural or low-impact techniques shall be explored before relying on structural BMPs. Structural BMPs should be integrated with nonstructural stormwater management strategies and proper maintenance plans. Nonstructural strategies include both environmentally sensitive site design and source controls that prevent pollutants from being placed on the site or from being exposed to stormwater. Source control plans should be developed based upon physical site conditions and the origin, nature, and the anticipated quantity or amount of potential pollutants. Multiple stormwater management BMPs may be necessary to achieve the established performance standards for water quality, quantity, and groundwater recharge.
- (2) Purpose.** It is the purpose of this section to establish minimum stormwater management requirements and controls for major development, as defined in Subsection B.
- (3) Applicability.**
 - (a)** This section shall be applicable to all site plans and subdivisions for the following major developments that require preliminary or final site plan or subdivision review:
 - [1]** Nonresidential major developments; and
 - [2]** Aspects of residential major developments that are not preempted by the Residential Site Improvement Standards at N.J.A.C. 5:21.
 - (b)** This section shall also be applicable to all major developments undertaken by the Borough of Ridgefield.
- (4) Compatibility with other permit and ordinance requirements.** Development approvals issued for subdivisions and site plans pursuant to this section are to be considered an integral part of development approvals under the subdivision and site plan review process and do not relieve the applicant of the responsibility to secure required permits or approvals for activities regulated by any other applicable code, rule, act, or ordinance. In their interpretation and application, the provisions of this section shall be held to be the minimum requirements for the promotion of the public health, safety, and general welfare. This section is not intended to interfere with, abrogate, or annul any other ordinances, rule or regulation, statute, or other provision of law except that, where any provision of this section imposes restrictions different from those imposed by any other ordinance, rule or regulation, or other provision of law, the more restrictive provisions or higher standards shall control.

B. Definitions. Unless specifically defined below, words or phrases used in this section shall be interpreted so as to give them the meaning they have in common usage and to give this section its most reasonable application. The definitions below are the

same as or based on the corresponding definitions in the Stormwater Management Rules at N.J.A.C. 7:8-1.2.

CAFRA CENTERS, CORES OR NODES - Those areas within boundaries accepted by the Department pursuant to N.J.A.C. 7:8E-5B.

CAFRA PLANNING MAP - The geographic depiction of the boundaries for Coastal Planning Areas, CAFRA Centers, CAFRA Cores and CAFRA Nodes pursuant to N.J.A.C. 7:7E-5B.3.

COMPACTION - The increase in soil bulk density.

CORE - A pedestrian-oriented area of commercial and civic uses serving the surrounding municipality, generally including housing and access to public transportation.

COUNTY REVIEW AGENCY - An agency designated by the County Board of Chosen Freeholders to review municipal stormwater management plans and implementing ordinance(s). The county review agency may either be:

- (1) A county planning agency; or
- (2) A county water resource association created under N.J.S.A. 58:16A-55.5, if the ordinance or resolution delegates authority to approve, conditionally approve, or disapprove municipal stormwater management plans and implementing ordinances.

DEPARTMENT - The New Jersey Department of Environmental Protection.

DESIGNATED CENTER - A State Development and Redevelopment Plan Center as designated by the State Planning Commission, such as urban, regional, town, village, or hamlet.

DESIGN ENGINEER - A person professionally qualified and duly licensed in New Jersey to perform engineering services that may include, but not necessarily be limited to, development of project requirements, creation and development of project design and preparation of drawings and specifications.

DEVELOPMENT - The division of a parcel of land into two or more parcels, the construction, reconstruction, conversion, structural alteration, relocation or enlargement of any building or structure, any mining excavation or landfill, and any use or change in the use of any building or other structure, or land or extension of use of land, by any person, for which permission is required under the Municipal Land Use Law, N.J.S.A. 40:55D-1 et seq. In the case of development of agricultural lands, development means: any activity that requires a state permit; any activity reviewed by the County Agricultural Board (CAB) and the State Agricultural Development Committee (SADC), and municipal review of any activity not exempted by the Right to Farm Act, N.J.S.A. 4:1C-1 et seq.

DRAINAGE AREA - A geographic area within which stormwater, sediments, or dissolved materials drain to a particular receiving water body or to a particular point along a receiving water body.

ENVIRONMENTALLY CRITICAL AREAS - An area or feature which is of significant environmental value, including but not limited to: stream corridors; natural heritage priority sites; habitat of endangered or threatened species; large areas of contiguous open space or upland forest; steep slopes; and wellhead protection and groundwater recharge areas. Habitats of endangered or threatened species are identified using the Department's Landscape Project as approved by the Department's Endangered and Nongame Species Program.

EMPOWERMENT NEIGHBORHOOD - A neighborhood designated by the Urban Coordinating Council "in consultation and conjunction with" the New Jersey Redevelopment Authority pursuant to N.J.S.A. 55:19-69.

EROSION - The detachment and movement of soil or rock fragments by water, wind, ice or gravity.

IMPERVIOUS SURFACE - A surface that has been covered with a layer of material so that it is highly resistant to infiltration by water.

INFILTRATION - The process by which water seeps into the soil from precipitation.

MAJOR DEVELOPMENT - Any development that provides for ultimately disturbing one or more acres of land. Disturbance for the purpose of this rule is the placement of impervious surface or exposure and/or movement of soil or bedrock or clearing, cutting, or removing of vegetation.

MUNICIPALITY - Any city, borough, town, township, or village.

NODE - An area designated by the State Planning Commission concentrating facilities and activities which are not organized in a compact form.

NUTRIENT - A chemical element or compound, such as nitrogen or phosphorus, which is essential to and promotes the development of organisms.

PERSON - Any individual, corporation, company, partnership, firm, association, the Borough of Ridgefield, or political subdivision of this state subject to municipal jurisdiction pursuant to the Municipal Land Use Law, N.J.S.A. 40:55D-1 et seq.

POLLUTANT - Any dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, refuse, oil, grease, sewage sludge, munitions, chemical wastes, biological materials, medical wastes, radioactive substance [except those regulated under the Atomic Energy Act of 1954, as amended (42 U.S.C. 2011 et seq.)], thermal waste, wrecked or discarded equipment, rock, sand, cellar dirt, industrial, municipal, agricultural, and construction waste or runoff, or other residue

discharged directly or indirectly to the land, groundwaters or surface waters of the state, or to a domestic treatment works. "Pollutant" includes both hazardous and nonhazardous pollutants.

RECHARGE - The amount of water from precipitation that infiltrates into the ground and is not evapotranspired.

SEDIMENT - Solid material, mineral or organic, that is in suspension, is being transported, or has been moved from its site of origin by air, water or gravity as a product of erosion.

SITE - The lot or lots upon which a major development is to occur or has occurred.

SOIL - All unconsolidated mineral and organic material of any origin.

STATE DEVELOPMENT AND REDEVELOPMENT PLAN METROPOLITAN PLANNING AREA (PA1) - An area delineated on the State Plan Policy Map and adopted by the State Planning Commission that is intended to be the focus for much of the state's future redevelopment and revitalization efforts.

STATE PLAN POLICY MAP - The geographic application of the State Development and Redevelopment Plan's goals and statewide policies, and the official map of these goals and policies.

STORMWATER - Water resulting from precipitation (including rain and snow) that runs off the land's surface, is transmitted to the subsurface, or is captured by separate storm sewers or other sewage or drainage facilities, or conveyed by snow removal equipment.

STORMWATER RUNOFF - Water flow on the surface of the ground or in storm sewers, resulting from precipitation.

STORMWATER MANAGEMENT BASIN - An excavation or embankment and related areas designed to retain stormwater runoff. A stormwater management basin may either be normally dry (that is, a detention basin or infiltration basin), retain water in a permanent pool (a retention basin), or be planted mainly with wetland vegetation (most constructed stormwater wetlands).

STORMWATER MANAGEMENT MEASURE - Any structural or nonstructural strategy, practice, technology, process, program, or other method intended to control or reduce stormwater runoff and associated pollutants, or to induce or control the infiltration or groundwater recharge of stormwater or to eliminate illicit or illegal nonstormwater discharges into stormwater conveyances.

TIDAL FLOOD HAZARD AREA - A flood hazard area, which may be influenced by stormwater runoff from inland areas, but which is primarily caused by the Atlantic Ocean.

URBAN COORDINATING COUNCIL EMPOWERMENT NEIGHBORHOOD
A neighborhood given priority access to state resources through the New Jersey Redevelopment Authority.

URBAN ENTERPRISE ZONES - A zone designated by the New Jersey Enterprise Zone Authority pursuant to the New Jersey Urban Enterprise Zones Act, N.J.S.A. 52:27H-60 et seq.

URBAN REDEVELOPMENT AREA - Previously developed portions of areas:
(1) Delineated on the State Plan Policy Map (SPPM) as the Metropolitan Planning Area (PA1), Designated Centers, Cores or Nodes;
(2) Designated as CAFRA Centers, Cores or Nodes;
(3) Designated as Urban Enterprise Zones; and
(4) Designated as Urban Coordinating Council Empowerment Neighborhoods.

WATERS OF THE STATE - The ocean and its estuaries, all springs, streams, wetlands, and bodies of surface water or groundwater, whether natural or artificial, within the boundaries of the State of New Jersey or subject to its jurisdiction.

WETLANDS or WETLAND - An area that is inundated or saturated by surface water or ground water at a frequency and duration sufficient to support, and that under normal circumstances does support, a prevalence of vegetation typically adapted for life in saturated soil conditions, commonly known as hydrophytic vegetation.

C. General standards.

(1) Design and performance standards for stormwater management measures.

(a) Stormwater management measures for major development shall be developed to meet the erosion control, groundwater recharge, stormwater runoff quantity, and stormwater runoff quality standards in Subsection D. To the maximum extent practicable, these standards shall be met by incorporating nonstructural stormwater management strategies into the design. If these strategies alone are not sufficient to meet these standards, structural stormwater management measures necessary to meet these standards shall be incorporated into the design.

(b) The standards in this section apply only to new major development and are intended to minimize the impact of stormwater runoff on water quality and water quantity in receiving water bodies and maintain groundwater recharge. The standards do not apply to new major development to the extent that alternative design and performance standards are applicable under a regional stormwater management plan or water quality management plan adopted in accordance with Department rules.

D. Stormwater management requirements for major development.

- (1) The development shall incorporate a maintenance plan for the stormwater management measures incorporated into the design of a major development in accordance with Subsection J.
- (2) Stormwater management measures shall avoid adverse impacts of concentrated flow on habitat for threatened and endangered species as documented in the Department's Landscape Project or Natural Heritage Database established under N.J.S.A. 13:1B-15.147 through 15.150, particularly *Helonias bullata* (swamp pink) and/or *Clemmys muhlnebergi* (bog turtle).
- (3) The following linear development projects are exempt from the groundwater recharge, stormwater runoff quantity, and stormwater runoff quality requirements of Subsection D(6) and (7):
 - (a) The construction of an underground utility line, provided that the disturbed areas are revegetated upon completion;
 - (b) The construction of an aboveground utility line, provided that the existing conditions are maintained to the maximum extent practicable; and
 - (c) The construction of a public pedestrian access, such as a sidewalk or trail with a maximum width of 14 feet, provided that the access is made of permeable material.
- (4) A waiver from strict compliance from the groundwater recharge, stormwater runoff quantity, and stormwater runoff quality requirements of Subsection D(6) and (7) may be obtained for the enlargement of an existing public roadway or railroad, or the construction or enlargement of a public pedestrian access, provided that the following conditions are met:
 - (a) The applicant demonstrates that there is a public need for the project that cannot be accomplished by any other means;
 - (b) The applicant demonstrates through an alternatives analysis that, through the use of nonstructural and structural stormwater management strategies and measures, the option selected complies with the requirements of Subsection D(6) and (7) to the maximum extent practicable;
 - (c) The applicant demonstrates that, in order to meet the requirements of Subsection D(6) and (7), existing structures currently in use, such as homes and buildings, would need to be condemned; and
 - (d) The applicant demonstrates that it does not own or have other rights to areas, including the potential to obtain through condemnation lands not falling under Subsection D(4)(c) above within the upstream drainage area of the receiving stream, that would provide additional opportunities to mitigate the requirements of Subsection D(6) and (7) that were not achievable on site.
- (5) Nonstructural stormwater management strategies.
 - (a) To the maximum extent practicable, the standards in Subsection D(6) and (7) shall be met by incorporating nonstructural stormwater management strategies set forth at Subsection D(5) into the design. The applicant shall identify the nonstructural measures incorporated into the design of the project. If the applicant contends that it is not feasible for engineering, environmental, or safety reasons to incorporate any nonstructural

stormwater management measures identified in Subsection D(5)(b) below into the design of a particular project, the applicant shall identify the strategy considered and provide a basis for the contention.

- (b) Nonstructural stormwater management strategies incorporated into site design shall:
 - [1] Protect areas that provide water quality benefits or areas particularly susceptible to erosion and sediment loss;
 - [2] Minimize impervious surfaces and break up or disconnect the flow of runoff over impervious surfaces;
 - [3] Maximize the protection of natural drainage features and vegetation;
 - [4] Minimize the decrease in the time of concentration from preconstruction to postconstruction. "Time of concentration" is defined as the time it takes for runoff to travel from the hydraulically most distant point of the watershed to the point of interest within a watershed;
 - [5] Minimize land disturbance including clearing and grading;
 - [6] Minimize soil compaction;
 - [7] Provide low-maintenance landscaping that encourages retention and planting of native vegetation and minimizes the use of lawns, fertilizers and pesticides;
 - [8] Provide vegetated open-channel conveyance systems discharging into and through stable vegetated areas;
 - [9] Provide other source controls to prevent or minimize the use or exposure of pollutants at the site, in order to prevent or minimize the release of those pollutants into stormwater runoff. Such source controls include, but are not limited to:
 - [a] Site design features that help to prevent accumulation of trash and debris in drainage systems, including features that satisfy Subsection D(5)(c) below;
 - [b] Site design features that help to prevent discharge of trash and debris from drainage systems;
 - [c] Site design features that help to prevent and/or contain spills or other harmful accumulations of pollutants at industrial or commercial developments; and
 - [d] When establishing vegetation after land disturbance, applying fertilizer in accordance with the requirements established under the Soil Erosion and Sediment Control Act, N.J.S.A. 4:24-39 et seq., and implementing rules.
- (c) Site design features identified under Subsection D(5)(b)[9][b] above shall comply with the following standard to control passage of solid and floatable materials through storm drain inlets. For purposes of this paragraph, "solid and floatable materials" means sediment, debris, trash, and other floating, suspended, or settleable solids. For exemptions to this standard see Subsection D(5)(c)[3]below.
 - [1] Design engineers shall use either of the following grates whenever they use a grate in pavement or another ground surface to collect stormwater

- from that surface into a storm drain or surface water body under that grate:
- [a] The New Jersey Department of Transportation (NJDOT) bicycle safe grate, which is described in Chapter 2.4 of the NJDOT Bicycle Compatible Roadways and Bikeways Planning and Design Guidelines (April 1996); or
 - [b] A different grate, if each individual clear space in that grate has an area of no more than seven square inches, or is no greater than 0.5 inches across the smallest dimension. Examples of grates subject to this standard include grates in grate inlets, the grate portion (non-curb-opening portion) of combination inlets, grates on storm sewer manholes, ditch grates, trench grates, and grates of spacer bars in slotted drains. Examples of ground surfaces include surfaces of roads (including bridges), driveways, parking areas, bikeways, plazas, sidewalks, lawns, fields, open channels, and stormwater basin floors.
- [2] Whenever design engineers use a curb-opening inlet, the clear space in that curb opening (or each individual clear space, if the curb opening has two or more clear spaces) shall have an area of no more than seven square inches, or be no greater than two inches across the smallest dimension.
- [3] This standard does not apply:
- [a] Where the review agency determines that this standard would cause inadequate hydraulic performance that could not practicably be overcome by using additional or larger storm drain inlets that meet these standards;
 - [b] Where flows from the water quality design storm as specified in Subsection D(7)(a) are conveyed through any device (e.g., end-of-pipe netting facility, manufactured treatment device, or a catch basin hood) that is designed, at a minimum, to prevent delivery of all solid and floatable materials that could not pass through one of the following:
 - [i] A rectangular space 4 5/8 inches long and 1 1/2 inches wide (this option does not apply for outfall netting facilities); or
 - [ii] A bar screen having a bar spacing of 0.5 inches.
 - [c] Where flows are conveyed through a trash rack that has parallel bars with one-inch spacing between the bars, to the elevation of the water quality design storm as specified in Subsection D(7)(a); or
 - [d] Where the New Jersey Department of Environmental Protection determines, pursuant to the New Jersey Register of Historic Places Rules at N.J.A.C. 7:4-7.2(c), that action to meet this standard is an undertaking that constitutes an encroachment or will damage or destroy the New Jersey Register-listed historic property.
- (d) Any land area used as a nonstructural stormwater management measure to meet the performance standards in Subsection D(6) and (7) shall be dedicated to a government agency, subjected to a conservation restriction filed with the appropriate county clerk's office, or subject to an approved equivalent

restriction that ensures that measure or an equivalent stormwater management measure approved by the reviewing agency is maintained in perpetuity.

- (e) **Guidance for nonstructural stormwater management strategies is available in the New Jersey Stormwater Best Management Practices Manual. The BMP Manual may be obtained from the address identified in Subsection G, or found on the Department's Web site at www.njstormwater.org.**
- (6) **Erosion control, groundwater recharge and runoff quantity standards.**
 - (a) **This subsection contains minimum design and performance standards to control erosion, encourage and control infiltration and groundwater recharge, and control stormwater runoff quantity impacts of major development.**
 - [1] **The minimum design and performance standards for erosion control are those established under the Soil Erosion and Sediment Control Act, N.J.S.A. 4:24-39 et seq., and implementing rules.**
 - [2] **The minimum design and performance standards for groundwater recharge are as follows:**
 - [a] **The design engineer shall, using the assumptions and factors for stormwater runoff and groundwater recharge calculations at Subsection E, either:**
 - [i] **Demonstrate through hydrologic and hydraulic analysis that the site and its stormwater management measures maintain 100% of the average annual preconstruction groundwater recharge volume for the site; or**
 - [ii] **Demonstrate through hydrologic and hydraulic analysis that the increase of stormwater runoff volume from preconstruction to postconstruction for the two-year storm is infiltrated.**
 - [b] **This groundwater recharge requirement does not apply to projects within the urban redevelopment area, or to projects subject to Subsection D(6)(a)[2][c] below.**
 - [c] **The following types of stormwater shall not be recharged:**
 - [i] **Stormwater from areas of high pollutant loading. High pollutant loading areas are areas in industrial and commercial developments where solvents and/or petroleum products are loaded/unloaded, stored, or applied; areas where pesticides are loaded/unloaded or stored; areas where hazardous materials are expected to be present in greater than "reportable quantities" as defined by the United States Environmental Protection Agency (EPA) at 40 CFR 302.4; areas where recharge would be inconsistent with Department-approved remedial action work plan or landfill closure plan and areas with high risks for spills of toxic materials, such as gas stations and vehicle maintenance facilities; and**
 - [ii] **Industrial stormwater exposed to source material. "Source material" means any material(s) or machinery, located at an industrial facility, that is directly or indirectly related to process,**

manufacturing or other industrial activities, which could be a source of pollutants in any industrial stormwater discharge to groundwater. Source materials include, but are not limited to, raw materials; intermediate products; final products; waste materials; by-products; industrial machinery and fuels, and lubricants, solvents, and detergents that are related to process, manufacturing, or other industrial activities that are exposed to stormwater.

- [d] The design engineer shall assess the hydraulic impact on the groundwater table and design the site so as to avoid adverse hydraulic impacts. Potential adverse hydraulic impacts include, but are not limited to, exacerbating a naturally or seasonally high water table so as to cause surficial ponding, flooding of basements, or interference with the proper operation of subsurface sewage disposal systems and other subsurface structures in the vicinity or downgradient of the groundwater recharge area.
- [3] In order to control stormwater runoff quantity impacts, the design engineer shall, using the assumptions and factors for stormwater runoff calculations at Subsection E, complete one of the following:
- [a] Demonstrate through hydrologic and hydraulic analysis that, for stormwater leaving the site, postconstruction runoff hydrographs for the two-, ten-, and one-hundred-year storm events do not exceed, at any point in time, the preconstruction runoff hydrographs for the same storm events;
 - [b] Demonstrate through hydrologic and hydraulic analysis that there is no increase, as compared to the preconstruction condition, in the peak runoff rates of stormwater leaving the site for the two-, ten-, and one-hundred-year storm events and that the increased volume or change in timing of stormwater runoff will not increase flood damage at or downstream of the site. This analysis shall include the analysis of impacts of existing land uses and projected land uses assuming full development under existing zoning and land use ordinances in the drainage area;
 - [c] Design stormwater management measures so that the postconstruction peak runoff rates for the two-, ten- and one-hundred year storm events are 50%, 75% and 80%, respectively, of the preconstruction peak runoff rates. The percentages apply only to the postconstruction stormwater runoff that is attributable to the portion of the site on which the proposed development or project is to be constructed. The percentages shall not be applied to postconstruction stormwater runoff into tidal flood hazard areas if the increased volume of stormwater runoff will not increase flood damages below the point of discharge; or
 - [d] In tidal flood hazard areas, stormwater runoff quantity analysis in accordance with Subsection D(6)(a)[3][a], [b] and [c] above shall only

be applied if the increased volume of stormwater runoff could increase flood damages below the point of discharge.

- (b) Any application for a new agricultural development that meets the definition of major development at Subsection B shall be submitted to the appropriate soil conservation district for review and approval in accordance with the requirements of this section and any applicable soil conservation district guidelines for stormwater runoff quantity and erosion control. For the purposes of this section, "agricultural development" means land uses normally associated with the production of food, fiber and livestock for sale. Such uses do not include the development of land for the processing or sale of food and the manufacturing of agriculturally related products.**
- (7) Stormwater runoff quality standards.**
 - (a) Stormwater management measures shall be designed to reduce the postconstruction load of total suspended solids (TSS) in stormwater runoff by 80% of the anticipated load from the developed site, expressed as an annual average. Stormwater management measures shall only be required for water quality control if an additional 1/4 acre of impervious surface is being proposed on a development site. The requirement to reduce TSS does not apply to any stormwater runoff in a discharge regulated under a numeric effluent limitation for TSS imposed under the New Jersey Pollution Discharge Elimination System (NJPDES) rules, N.J.A.C. 7:14A, or in a discharge specifically exempt under a NJPDES permit from this requirement. The water quality design storm is 1.25 inches of rainfall in two hours. Water quality calculations shall take into account the distribution of rain from the water quality design storm, as reflected in Table 1. The calculation of the volume of runoff may take into account the implementation of nonstructural and structural stormwater management measures.**

Table 1: Water Quality Design Storm Distribution			
Time (minutes)	Cumulative Rainfall (inches)	Time (minutes)	Cumulative Rainfall (inches)
0	0.0000	65	0.8917
5	0.0083	70	0.9917
10	0.0166	75	1.0500
15	0.0250	80	1.0840
20	0.0500	85	1.1170
25	0.0750	90	1.1500
30	0.1000	95	1.1750
35	0.1330	100	1.2000
40	0.1660	105	1.2250
45	0.2000	110	1.2334
50	0.2583	115	1.2417
55	0.3583	120	1.2500
60	0.6250		

(b) For purposes of TSS reduction calculations, Table 2 below presents the presumed removal rates for certain BMPs designed in accordance with the New Jersey Stormwater Best Management Practices Manual. The BMP Manual may be obtained from the address identified in Subsection G, or found on the Department's Web site at www.njstormwater.org. The BMP Manual and other sources of technical guidance are listed in Subsection G. TSS reduction shall be calculated based on the removal rates for the BMPs in Table 2 below. Alternative removal rates and methods of calculating removal rates may be used if the design engineer provides documentation demonstrating the capability of these alternative rates and methods to the review agency. A copy of any approved alternative rate or method of calculating the removal rate shall be provided to the Department at the following address: Division of Watershed Management, New Jersey Department of Environmental Protection, P.O. Box 418, Trenton, New Jersey 08625-0418.

(c) If more than one BMP in series is necessary to achieve the required eighty-percent TSS reduction for a site, the applicant shall utilize the following formula to calculate TSS reduction:

$R = A + B - (A \times B) / 100$	
Where:	
R = total TSS percent load removal from application of both BMPs	
A = the TSS percent removal rate applicable to the first BMP	
B = the TSS percent removal rate applicable to the second BMP	
Table 2: TSS Removal Rates for BMPs	
Best Management Practice	TSS Percent Removal Rate
Bioretention systems	90
Constructed stormwater wetland	90
Extended detention basin	40-60
Infiltration structure	80
Manufactured treatment device	See Subsection F(3)
Sand filter	80
Vegetative filter strip	60-80
Wet pond	50-90

(d) If there is more than one on-site drainage area, the eighty-percent TSS removal rate shall apply to each drainage area, unless the runoff from the subareas converge on site, in which case the removal rate can be demonstrated through a calculation using a weighted average.

(e) Stormwater management measures shall also be designed to reduce, to the maximum extent feasible, the postconstruction nutrient load of the anticipated load from the developed site in stormwater runoff generated from the water quality design storm. In achieving reduction of nutrients to the maximum extent feasible, the design of the site shall include nonstructural strategies and structural measures that optimize nutrient

removal while still achieving the performance standards in Subsection D(6) and (7).

- (f) Additional information and examples are contained in the New Jersey Stormwater Best Management Practices Manual, which may be obtained from the address identified in Subsection G.
- (g) In accordance with the definition of FW1 at N.J.A.C. 7:9B-1.4, stormwater management measures shall be designed to prevent any increase in stormwater runoff to waters classified as FW1.
- (h) Special water resource protection areas shall be established along all waters designated Category One at N.J.A.C. 7:9B, and perennial or intermittent streams that drain into or upstream of the Category One waters as shown on the USGS Quadrangle Maps or in the County Soil Surveys, within the associated HUC14 drainage area. These areas shall be established for the protection of water quality, aesthetic value, exceptional ecological significance, exceptional recreational significance, exceptional water supply significance, and exceptional fisheries significance of those established Category One waters. These areas shall be designated and protected as follows:
 - [1] The applicant shall preserve and maintain a special water resource protection area in accordance with one of the following:
 - [a] A three-hundred-foot special water resource protection area shall be provided on each side of the waterway, measured perpendicular to the waterway from the top of the bank outwards or from the center line of the waterway where the bank is not defined, consisting of existing vegetation or vegetation allowed to follow natural succession.
 - [b] Encroachment within the designated special water resource protection area under Subsection D(7)(h)[1][a] above shall only be allowed where previous development or disturbance has occurred (for example, active agricultural use, parking area or maintained lawn area). The encroachment shall only be allowed where applicant demonstrates that the functional value and overall condition of the special water resource protection area will be maintained to the maximum extent practicable. In no case shall the remaining special water resource protection area be reduced to less than 150 feet as measured perpendicular to the top-of-bank of the waterway or center line of the waterway where the bank is undefined. All encroachments proposed under this subparagraph shall be subject to review and approval by the Department.
 - [2] All stormwater shall be discharged outside of and flow through the special water resource protection area and shall comply with the standard for off-site stability in the Standards for Soil Erosion and Sediment Control in New Jersey, established under the Soil Erosion and Sediment Control Act, N.J.S.A. 4:24-39 et seq.
 - [3] If stormwater discharged outside of and flowing through the special water resource protection area cannot comply with the standard for off-site stability in the "Standards for Soil Erosion and Sediment Control in

New Jersey," established under the Soil Erosion and Sediment Control Act, N.J.S.A. 4:24-39 et seq., then the stabilization measures in accordance with the requirements of the above standards may be placed within the special water resource protection area, provided that:

- [a] Stabilization measures shall not be placed within 150 feet of the Category One waterway;
 - [b] Stormwater associated with discharges allowed by this section shall achieve a ninety-five-percent TSS postconstruction removal rate;
 - [c] Temperature shall be addressed to ensure no impact on the receiving waterway;
 - [d] The encroachment shall only be allowed where the applicant demonstrates that the functional value and overall condition of the special water resource protection area will be maintained to the maximum extent practicable;
 - [e] A conceptual project design meeting shall be held with the appropriate Department staff and soil conservation district staff to identify necessary stabilization measures; and
 - [f] All encroachments proposed under this section shall be subject to review and approval by the Department.
- [4] A stream corridor protection plan may be developed by a regional stormwater management planning committee as an element of a regional stormwater management plan, or by a municipality through an adopted municipal stormwater management plan. If a stream corridor protection plan for a waterway subject to Subsection D(7)(h) has been approved by the Department of Environmental Protection, then the provisions of the plan shall be the applicable special water resource protection area requirements for that waterway. A stream corridor protection plan for a waterway subject to Subsection D(7)(h) shall maintain or enhance the current functional value and overall condition of the special water resource protection area as defined in Subsection D(7)(h)[1][a] above. In no case shall a stream corridor protection plan allow the reduction of the special water resource protection area to less than 150 feet as measured perpendicular to the waterway subject to this subsection.
- [5] Subsection D(7)(h) does not apply to the construction of one individual single-family dwelling that is not part of a larger development on a lot receiving preliminary or final subdivision approval on or before February 2, 2004, provided that the construction begins on or before February 2, 2009.

E. Calculation of stormwater runoff and groundwater recharge.

(1) Stormwater runoff shall be calculated in accordance with the following:

(a) The design engineer shall calculate runoff using one of the following methods:

- [1] The USDA Natural Resources Conservation Service (NRCS) methodology, including the NRCS Runoff Equation and Dimensionless Unit Hydrograph, as described in the NRCS National Engineering

Handbook Section 4 — Hydrology and Technical Release 55 — Urban Hydrology for Small Watersheds; or

[2] The Rational Method for peak flow and the Modified Rational Method for hydrograph computations.

- (b) For the purpose of calculating runoff coefficients and groundwater recharge, there is a presumption that the preconstruction condition of a site or portion thereof is a wooded land use with good hydrologic condition. The term "runoff coefficient" applies to both the NRCS methodology at Subsection E(1)(a)[1] and the Rational and Modified Rational Methods at Subsection E(1)(a)[2]. A runoff coefficient or a groundwater recharge land cover for an existing condition may be used on all or a portion of the site if the design engineer verifies that the hydrologic condition has existed on the site or portion of the site for at least five years without interruption prior to the time of application. If more than one land cover have existed on the site during the five years immediately prior to the time of application, the land cover with the lowest runoff potential shall be used for the computations. In addition, there is the presumption that the site is in good hydrologic condition (if the land use type is pasture, lawn, or park), with good cover (if the land use type is woods), or with good hydrologic condition and conservation treatment (if the land use type is cultivation).
- (c) In computing preconstruction stormwater runoff, the design engineer shall account for all significant land features and structures, such as ponds, wetlands, depressions, hedgerows, or culverts, that may reduce preconstruction stormwater runoff rates and volumes.
- (d) In computing stormwater runoff from all design storms, the design engineer shall consider the relative stormwater runoff rates and/or volumes of pervious and impervious surfaces separately to accurately compute the rates and volume of stormwater runoff from the site. To calculate runoff from unconnected impervious cover, urban impervious area modifications as described in the NRCS Technical Release 55 — Urban Hydrology for Small Watersheds and other methods may be employed.
- (e) If the invert of the outlet structure of a stormwater management measure is below the flood hazard design flood elevation as defined at N.J.A.C. 7:13, the design engineer shall take into account the effects of tailwater in the design of structural stormwater management measures.
- (2) Groundwater recharge may be calculated in accordance with the following: The New Jersey Geological Survey Report GSR-32, A Method for Evaluating Ground-Water Recharge Areas in New Jersey, incorporated herein by reference as amended and supplemented. Information regarding the methodology is available from the New Jersey Stormwater Best Management Practices Manual; at <http://www.state.nj.us/dep/njgs/>; or at New Jersey Geological Survey, 29 Arctic Parkway, P.O. Box 427, Trenton, New Jersey 08625-0427; (609) 984-6587.

F. Standards for structural stormwater management measures.

- (1) Standards for structural stormwater management measures are as follows:

- (a) Structural stormwater management measures shall be designed to take into account the existing site conditions, including, for example, environmentally critical areas, wetlands; flood-prone areas; slopes; depth to seasonal high water table; soil type, permeability and texture; drainage area and drainage patterns; and the presence of solution-prone carbonate rocks (limestone).
- (b) Structural stormwater management measures shall be designed to minimize maintenance, facilitate maintenance and repairs, and ensure proper functioning. Trash racks shall be installed at the intake to the outlet structure as appropriate, and shall have parallel bars with one-inch spacing between the bars to the elevation of the water quality design storm. For elevations higher than the water quality design storm, the parallel bars at the outlet structure shall be spaced no greater than 1/3 the width of the diameter of the orifice or 1/3 the width of the weir, with a minimum spacing between bars of one inch and a maximum spacing between bars of six inches. In addition, the design of trash racks must comply with the requirements of Subsection H(4).
- (c) Structural stormwater management measures shall be designed, constructed, and installed to be strong, durable, and corrosion-resistant. Measures that are consistent with the relevant portions of the Residential Site Improvement Standards at N.J.A.C. 5:21-7.3, 7.4, and 7.5 shall be deemed to meet this requirement.
- (d) At the intake to the outlet from the stormwater management basin, the orifice size shall be a minimum of 2 1/2 inches in diameter.
- (e) Stormwater management basins shall be designed to meet the minimum safety standards for stormwater management basins at Subsection H.
- (2) Stormwater management measure guidelines are available in the New Jersey Stormwater Best Management Practices Manual. Other stormwater management measures may be utilized provided the design engineer demonstrates that the proposed measure and its design will accomplish the required water quantity, groundwater recharge and water quality design and performance standards established by Subsection D of this section.
- (3) Manufactured treatment devices may be used to meet the requirements of Subsection D of this section, provided the pollutant removal rates are verified by the New Jersey Corporation for Advanced Technology and certified by the Department.

G. Sources for technical guidance.

- (1) Technical guidance for stormwater management measures can be found in the documents listed at Subsection G(1)(a) and (b) below, which are available from Maps and Publications, New Jersey Department of Environmental Protection, 428 East State Street, P.O. Box 420, Trenton, New Jersey 08625; (609) 777-1038.
 - (a) Guidelines for stormwater management measures are contained in the New Jersey Stormwater Best Management Practices Manual, as amended. Information is provided on stormwater management measures, such as: bioretention systems, constructed stormwater wetlands, dry wells, extended

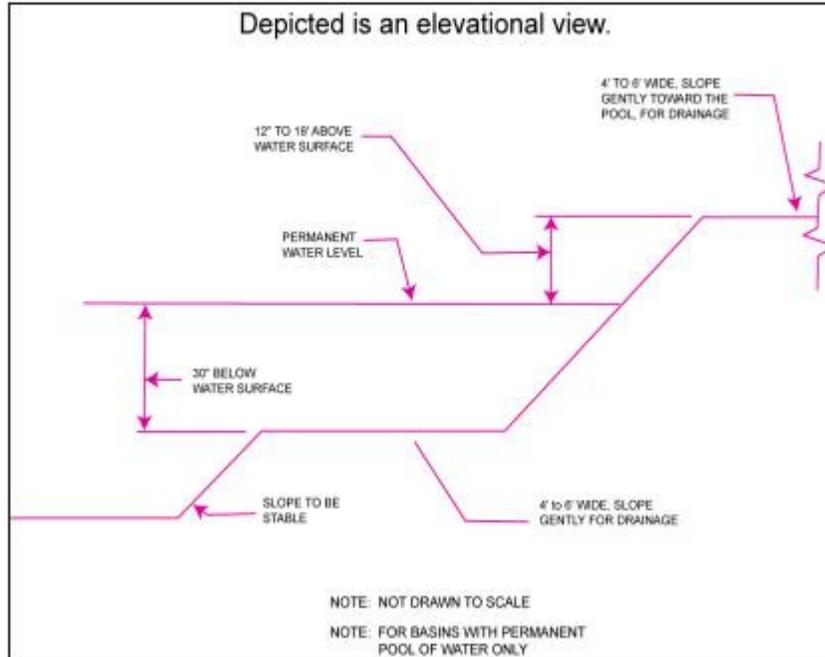
detention basins, infiltration structures, manufactured treatment devices, pervious paving, sand filters, vegetative filter strips, and wet ponds.

- (b) The New Jersey Department of Environmental Protection Stormwater Management Facilities Maintenance Manual, as amended.
- (2) Additional technical guidance for stormwater management measures can be obtained from the following:
 - (a) The Standards for Soil Erosion and Sediment Control in New Jersey promulgated by the State Soil Conservation Committee and incorporated into N.J.A.C. 2:90. Copies of these standards may be obtained by contacting the State Soil Conservation Committee or any of the soil conservation districts listed in N.J.A.C. 2:90-1.3(a)4. The location, address, and telephone number of each soil conservation district may be obtained from the State Soil Conservation Committee, P.O. Box 330, Trenton, New Jersey 08625; (609) 292-5540;
 - (b) The Rutgers Cooperative Extension Service, (732) 932-9306; and
 - (c) The soil conservation districts listed in N.J.A.C. 2:90-1.3(a)4. The location, address, and telephone number of each soil conservation district may be obtained from the State Soil Conservation Committee, P.O. Box 330, Trenton, New Jersey, 08625, (609) 292-5540.

H. Safety standards for stormwater management basins.

- (1) This section sets forth requirements to protect public safety through the proper design and operation of stormwater management basins. This section applies to any new stormwater management basin.
- (2) Requirements for trash racks, overflow grates and escape provisions.
 - (a) A trash rack is a device designed to catch trash and debris and prevent the clogging of outlet structures. Trash racks shall be installed at the intake to the outlet from the stormwater management basin to ensure proper functioning of the basin outlets in accordance with the following:
 - [1] The trash rack shall have parallel bars, with no greater than six-inch spacing between the bars.
 - [2] The trash rack shall be designed so as not to adversely affect the hydraulic performance of the outlet pipe or structure.
 - [3] The average velocity of flow through a clean trash rack is not to exceed 2.5 feet per second under the full range of stage and discharge. Velocity is to be computed on the basis of the net area of opening through the rack.
 - [4] The trash rack shall be constructed and installed to be rigid, durable, and corrosion-resistant, and shall be designed to withstand a perpendicular live loading of 300 pounds per square foot.
 - (b) An overflow grate is designed to prevent obstruction of the overflow structure. If an outlet structure has an overflow grate, such grate shall meet the following requirements:
 - [1] The overflow grate shall be secured to the outlet structure but removable for emergencies and maintenance.
 - [2] The overflow grate spacing shall be no less than two inches across the smallest dimension.

- [3] The overflow grate shall be constructed and installed to be rigid, durable, and corrosion-resistant, and shall be designed to withstand a perpendicular live loading of 300 pounds per square foot.
- (c) For purposes of this paragraph, escape provisions means the permanent installation of ladders, steps, rungs, or other features that provide easily accessible means of egress from stormwater management basins. Stormwater management basins shall include escape provisions as follows:
 - [1] If a stormwater management basin has an outlet structure, escape provisions shall be incorporated in or on the structure. With the prior approval of the reviewing agency identified in Subsection H(3), a freestanding outlet structure may be exempted from this requirement.
 - [2] Safety ledges shall be constructed on the slopes of all new stormwater management basins having a permanent pool of water deeper than 2 1/2 feet. Such safety ledges shall be comprised of two steps. Each step shall be four to six feet in width. One step shall be located approximately 2 1/2 feet below the permanent water surface, and the second step shall be located one to 1 1/2 feet above the permanent water surface. See Subsection H(4) for an illustration of safety ledges in a stormwater management basin.
 - [3] In new stormwater management basins, the maximum interior slope for an earthen dam, embankment, or berm shall not be steeper than three horizontal to one vertical.
- (3) Variance or exemption from safety standards. A variance or exemption from the safety standards for stormwater management basins may be granted only upon a written finding by the appropriate reviewing agency (municipality, county or Department) that the variance or exemption will not constitute a threat to public safety.
- (4) Illustration of safety ledges in a new stormwater management basin.



I. Requirements for a site development stormwater plan.

(1) Submission of site development stormwater plan.

- (a) Whenever an applicant seeks municipal approval of a development subject to this section, the applicant shall submit all of the required components of the checklist for the site development stormwater plan at Subsection I(3) below as part of the submission of the applicant's application for subdivision or site plan approval.
- (b) The applicant shall demonstrate that the project meets the standards set forth in this section.
- (c) The applicant shall submit 14 copies of the materials listed in the checklist for site development stormwater plans in accordance with Subsection I(3) of this section.

(2) Site development stormwater plan approval. The applicant's site development project shall be reviewed as a part of the subdivision or site plan review process by the municipal board or official from which municipal approval is sought. That municipal board or official shall consult the engineer retained by the Planning and/or Zoning Board (as appropriate) to determine if all of the checklist requirements have been satisfied and to determine if the project meets the standards set forth in this section.

(3) Checklist requirements. The following information shall be required:

- (a) Topographic base map. The reviewing engineer may require upstream tributary drainage system information as necessary. It is recommended that the topographic base map of the site be submitted which extends a minimum of 200 feet beyond the limits of the proposed development, at a scale of one inch equals 200 feet or greater, showing two-foot contour intervals. The map

as appropriate may indicate the following: existing surface water drainage, shorelines, steep slopes, soils, erodible soils, perennial or intermittent streams that drain into or upstream of the Category One waters, wetlands and floodplains along with their appropriate buffer strips, marshlands and other wetlands, pervious or vegetative surfaces, existing man-made structures, roads, bearing and distances of property lines, and significant natural and man-made features not otherwise shown.

- (b) **Environmental site analysis.** A written and graphic description of the natural and man-made features of the site and its environs. This description should include a discussion of soil conditions, slopes, wetlands, waterways and vegetation on the site. Particular attention should be given to unique, unusual, or environmentally sensitive features and to those that provide particular opportunities or constraints for development.
- (c) **Project description and site plan(s).** A map (or maps) at the scale of the topographical base map indicating the location of existing and proposed buildings, roads, parking areas, utilities, structural facilities for stormwater management and sediment control, and other permanent structures. The map(s) shall also clearly show areas where alterations occur in the natural terrain and cover, including lawns and other landscaping, and seasonal high groundwater elevations. A written description of the site plan and justification of proposed changes in natural conditions may also be provided.
- (d) **Land use planning and source control plan.** This plan shall provide a demonstration of how the goals and standards of Subsections C through F are being met. The focus of this plan shall be to describe how the site is being developed to meet the objective of controlling groundwater recharge, stormwater quality and stormwater quantity problems at the source by land management and source controls whenever possible.
- (e) **Stormwater management facilities map.** The following information, illustrated on a map of the same scale as the topographic base map, shall be included:
 - [1] Total area to be paved or built upon, proposed surface contours, land area to be occupied by the stormwater management facilities and the type of vegetation thereon, and details of the proposed plan to control and dispose of stormwater.
 - [2] Details of all stormwater management facility designs, during and after construction, including discharge provisions, discharge capacity for each outlet at different levels of detention and emergency spillway provisions with maximum discharge capacity of each spillway.
- (f) **Calculations.**
- (4) **Comprehensive hydrologic and hydraulic design calculations** for the predevelopment and postdevelopment conditions for the design storms specified in Subsection D of this section.
- (5) **When the proposed stormwater management control measures (e.g., infiltration basins) depends on the hydrologic properties of soils, then a soils report shall be submitted.** The soils report shall be based on on-site boring logs or soil pit profiles. The number and location of required soil borings or soil pits shall be

determined based on what is needed to determine the suitability and distribution of soils present at the location of the control measure.

(a) **Maintenance and repair plan.** The design and planning of the stormwater management facility shall meet the maintenance requirements of Subsection J.

(b) **Waiver from submission requirements.** The municipal official or board reviewing an application under this section may, in consultation with the Municipal Engineer, waive submission of any of the requirements in Subsection I(3)(a) through (f) of this section when it can be demonstrated that the information requested is impossible to obtain or it would create a hardship on the applicant to obtain and its absence will not materially affect the review process.

J. Maintenance and repair.

(1) **Applicability.** Projects subject to review as in Subsection A(3) of this section shall comply with the requirements of Subsection J(2) and (3).

(2) **General maintenance.**

(a) The design engineer shall prepare a maintenance plan for the stormwater management measures incorporated into the design of a major development.

(b) The maintenance plan shall contain specific preventative maintenance tasks and schedules; cost estimates, including estimated cost of sediment, debris, or trash removal; and the name, address, and telephone number of the person or persons responsible for preventative and corrective maintenance (including replacement). Maintenance guidelines for stormwater management measures are available in the New Jersey Stormwater Best Management Practices Manual. If the maintenance plan identifies a person other than the developer (for example, a public agency or homeowners' association) as having the responsibility for maintenance, the plan shall include documentation of such person's agreement to assume this responsibility, or of the developer's obligation to dedicate a stormwater management facility to such person under an applicable ordinance or regulation.

(c) Responsibility for maintenance shall not be assigned or transferred to the owner or tenant of an individual property in a residential development or project, unless such owner or tenant owns or leases the entire residential development or project.

(d) If the person responsible for maintenance identified under Subsection J(2)(b) above is not a public agency, the maintenance plan and any future revisions based on Subsection J(2)(g) below shall be recorded upon the deed of record for each property on which the maintenance described in the maintenance plan must be undertaken.

(e) Preventative and corrective maintenance shall be performed to maintain the function of the stormwater management measure, including repairs or replacement to the structure; removal of sediment, debris, or trash; restoration of eroded areas; snow and ice removal; fence repair or replacement; restoration of vegetation; and repair or replacement of nonvegetated linings.

- (f) The person responsible for maintenance identified under Subsection J(2)(b) above shall maintain a detailed log of all preventative and corrective maintenance for the structural stormwater management measures incorporated into the design of the development, including a record of all inspections and copies of all maintenance-related work orders.
 - (g) The person responsible for maintenance identified under Subsection J(2)(b) above shall evaluate the effectiveness of the maintenance plan at least once per year and adjust the plan and the deed as needed.
 - (h) The person responsible for maintenance identified under Subsection J(2)(b) above shall retain and make available, upon request by any public entity with administrative, health, environmental, or safety authority over the site, the maintenance plan and the documentation required by Subsection J(2)(f) and (g) above.
 - (i) The requirements of Subsection J(2)(c) and (d) do not apply to stormwater management facilities that are dedicated to and accepted by the municipality or another governmental agency.
 - (j) In the event that the stormwater management facility becomes a danger to public safety or public health, or if it is in need of maintenance or repair, the municipality shall so notify the responsible person in writing. Upon receipt of that notice, the responsible person shall have 14 days to effect maintenance and repair of the facility in a manner that is approved by the Municipal Engineer or his designee. The municipality, in its discretion, may extend the time allowed for effecting maintenance and repair for good cause. If the responsible person fails or refuses to perform such maintenance and repair, the municipality or county may immediately proceed to do so and shall bill the cost thereof to the responsible person.
- (3) Nothing in this section shall preclude the municipality in which the major development is located from requiring the posting of a performance or maintenance guarantee in accordance with N.J.S.A. 40:55D-53.

K. Violations and penalties. Any person who erects, constructs, alters, repairs, converts, maintains, or uses any building, structure or land in violation of this section shall be subject to the following penalties:

§390-135 [Amended 3-25-1985 by Ord. No. 1281; 6-28-2010 by Ord. No. 2133]

A.- If Part 4 of this chapter of the Code of the Borough of Ridgefield provides for the licensing or permitting of the violator, the Mayor and Council of the Borough of Ridgefield reserve the right to revoke such permit or license.

B. - Any person found guilty of violating Part 4 of this chapter of the Code of the Borough of Ridgefield shall be subject to a penalty consisting of a fine or imprisonment, or both, subject to the discretion of the Judge, the maximum of which shall be the maximum fine or term of imprisonment permitted to be imposed by the court having jurisdiction over the violation of Part 4 of this chapter of the Code of the Borough of Ridgefield; provided, however, that the fine shall not be less

than \$100 nor more than \$2,000 per offense and the prison term shall not exceed 90 days in accordance with N.J.S.A. 40:49-5.

C. - In the event of a continuing violation, each day shall constitute a separate offense.

L. Effective date. This section shall take effect immediately upon the approval by the county review agency, or 60 days from the receipt of the section by the county review agency if the county review agency should fail to act.

4. **Ord. 1965 - Animals: Feeding of unconfined wildlife (CH 131, Art IV) Adopted 12-27-2005**

§131-39 PURPOSE:

An article to prohibit the feeding of unconfined wildlife in any public park or on any other property owned or operated by the Borough of Ridgefield, so as to protect public health, safety and welfare, and to prescribe penalties for failure to comply.

§131-40 DEFINITIONS:

For the purpose of this article, the following terms, phrases, words and their derivations shall have the meanings stated herein unless their use in the text of this chapter clearly demonstrates a different meaning. When not inconsistent with the context, words used in the present tense include the future, words used in the plural number include the singular number, and words used in the singular number include the plural number. The word "shall" is always mandatory and not merely directory.

FEED - To give, place, expose, deposit, distribute or scatter any edible material with the intention of feeding, attracting or enticing wildlife. Feeding does not include baiting in the legal taking of fish and/or game.

PERSON - Any individual, corporation, company, partnership, firm, association, or political subdivision of this state subject to municipal jurisdiction.

WILDLIFE - All animals that are neither human nor domesticated.

§131-41 PROHIBITED CONDUCT:

No person shall feed, in any public park or on any other property owned or operated by the Borough of Ridgefield, any wildlife, excluding confined wildlife (for example, wildlife confined in zoos, parks or rehabilitation centers, or unconfined wildlife at environmental education centers).

§131-42 ENFORCEMENT:

- A. This article shall be enforced by the Police Department and/or the Board of Health of the Borough of Ridgefield.
- B. Any person found to be in violation of this ordinance shall be ordered to cease the feeding immediately.

§131-43 VIOLATION AND PENALTIES:

Any person(s) who is found to be in violation of the provisions of this ordinance shall be subject to an initial fine not to exceed \$200; each subsequent violation shall be subject to a minimum fine of \$200 up to a maximum of \$1,000.

5. **Ord. 1966 - Garbage and Trash: Yard Waste (CH 208, Art III) Adopted 12-27-2005**

§208-9 PURPOSE:

An article to establish a yard waste collection and disposal program in the Borough of Ridgefield, so as to protect public health, safety and welfare, and to prescribe penalties for the failure to comply.

§208-10 DEFINITIONS:

For the purpose of this article, the following terms, phrases, words and their derivations shall have the meanings stated herein unless their use in the text of this chapter clearly demonstrates a different meaning. When not inconsistent with the context, words used in the present tense include the future, words used in the plural number include the singular number, and words used in the singular number include the plural number. The word "shall" is always mandatory and not merely directory.

CONTAINERIZED - The placement of yard waste in a trash can, bucket, bag or other vessel, such as to prevent the yard waste from spilling or blowing out into the street and coming into contact with stormwater.

PERSON - Any individual, corporation, company, partnership, firm, association, or political subdivision of this state subject to municipal jurisdiction.

STREET - Any street, avenue, boulevard, road, parkway, viaduct, drive, or other way which is an existing state, county, or municipal roadway, and includes the land between the street lines, whether improved or unimproved, and may comprise pavement, shoulders, gutters, curbs, sidewalks, parking areas, and other areas within the street lines.

YARD WASTE - Leaves and grass clippings.

§208-11 YARD WASTE COLLECTION:

Sweeping, raking, blowing or otherwise placing yard waste that is not containerized at the curb or along the street is only allowed during the seven days prior to a scheduled and announced collection, and shall not be placed closer than 10 feet from any storm drain inlet. Placement of such yard waste at the curb or along the street at any other time or in any other manner is a violation of this article. If such placement of yard waste occurs, the party responsible for placement of the yard waste must remove the yard waste from the street or said party shall be deemed in violation of this article.

§208-12 ENFORCEMENT:

The provisions of this article shall be enforced by the Police Department and/or the Department of Public Works.

§208-13 VIOLATION AND PENALTIES:

Any person(s) who is found to be in violation of the provisions of this article shall be subject to an initial fine not to exceed \$200. Each subsequent violation shall be subject to a minimum fine of \$200 up to a maximum of \$1,000.

7. Ord. 1992 – Domestic Animals Amendment (CH 131, Art II) Various Sections

§131-21 DISTURBANCE OF PEACE: [Amended 6-12-2006 by Ord. No. 1992]

No person shall keep, harbor or maintain any pet which shall habitually disturb the peace and quiet of the neighborhood.

§131-22 RUNNING AT LARGE PROHIBITED: [Amended 6-12-2006 by Ord. No. 1992]

No person owning, keeping or harboring any pet shall suffer or permit it to run at large without a leash upon the public streets or in any public park or in any public building or in any other public place within the Borough unaccompanied by its owner or his/her representative. All pets shall be leashed when off the premises of its owner and keeper.

§131-24 DEFECATION AND NUISANCES ON PUBLIC AND PRIVATE PROPERTY: [Amended 10-24-2005 by Ord. No. 1954; 6-12-2006 by Ord. No. 1992; 7-23-2007 by Ord. No. 2028]

A. - No person being the owner of, or in charge or control of, or keeping or harboring any pet shall allow or permit it to defecate upon or otherwise soil, defile, or commit any nuisance upon any public property, including but not limited to any sidewalk, passageway, bike path, play area, park or any place where people congregate or walk, or upon any lawn, shrubbery or tree on any public property or upon any private property not belonging to the owner or custodian of said pet. When the pet shall defecate in the portion of a public street between the curblines, it shall not be considered a violation of this article, if, and only if, the person owning or in charge or control shall immediately remove and dispose of feces in a designated waste receptacle, or in a refuse container which is regularly emptied by the municipality or some other refuse container.

B. - All dog walkers must carry baggies or other means of removing and disposing of the feces.

§131-26 VIOLATIONS AND PENALTIES: [Amended 3-25-1985 by Ord. No. 1281; 10-24-2005 by Ord. No. 1954]

A. - If this article of the Code of the Borough of Ridgefield provides for the licensing or permitting of the violator, the Mayor and Council of the Borough of Ridgefield reserve the right to revoke such permit or license.

B. - Any person found guilty of violating this article of the Code of the Borough of Ridgefield shall be subject to a penalty consisting of a fine or imprisonment or both, subject to the discretion of the Judge; each offense shall be a minimum fine of \$250, and the maximum fine or term of imprisonment permitted to be imposed by the court having jurisdiction over the violation of this article of the Code of the Borough of Ridgefield. [Amended 7-23-2007 by Ord. No. 2028]

C. - In the event of a continuing violation, each day shall constitute a separate offense.

D. - Enforcement of this article of the Code of the Borough of Ridgefield shall be by the agents and officers of the Ridgefield Police Department, including special police officers and/or agents and employees of the Board of Health.