WASTEWATER MANAGEMENT PLAN
BOROUGH OF PENNINGTON
MERCER COUNTY, NEW JERSEY

SUBMITTED BY:
Stony Brook Regional Sewerage Authority
and
Borough of Pennington

SUBMITTED TO:
New Jersey Department of Environmental Protection
Mercer County Division of Planning

SUBMITTED:
JUNE 21, 2006

REVISED:
DECEMBER 20, 2007
MARCH 6, 2009

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Research Park • 321 Wall Street • Princeton, New Jersey 08540 • Tel: (609) 924-8821 • Fax: (609) 924-8831 • www.Omni-Env.com

WASTEWATER MANAGEMENT PLAN
BOROUGH OF PENNINGTON
MERCER COUNTY, NEW JERSEY

WATER QUALITY MANAGEMENT PLANNING AREA:
MERCER COUNTY

WATERSHED MANAGEMENT AREA:
MILLSTONE (WMA 10)

SUBMITTED BY:
Stony Brook Regional Sewerage Authority
and
Borough of Pennington

SUBMITTED TO:
New Jersey Department of Environmental Protection
Mercer County Division of Planning

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SUBMITTED:
JUNE 21, 2006

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NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION WASTEWATER MANAGEMENT PLAN (WMP) APPLICATION COMPLETENESS CHECKLIST

Below are the submission requirements for a complete application for a new WMP/WMP Update. Please read each section and check each area after you have fully completed or compiled the information for each applicable requirement.

This application is a request for:

☑ 1. WMP/WMP Update Application Form.

☑ Signed and Completed WMP/WMP Update Application Form **(See Appendix A)**

A Pre-Application Meeting was held on November 30, 2004 or was
☐ Not Requested.

☑ 2. Submitted application concurrently to or as directed by Designated Planning Agency (DPA) procedures, if applicable. **(See Appendix B)**

☐ No DPA exists for the project area.

☑ 3. Certification by the Wastewater Management Planning Agency. **(See Appendix C)**

☑ 4. Evidence of notification or consultation with affected governmental agencies as required under N.J.A.C. 7:15-5.22.
2 Number of agencies notified **(See Appendix D)**

☑ 5. Complete WMP/WMP Update (6 copies or as directed in the Pre-Application Meeting)

- ☑ Title Page
- ☑ Table of Contents
- ☑ Introduction
- ☑ Summary of Significant Actions
- ☑ Discussion of existing/future wastewater facilities, including facilities tables.
- ☑ Summary of Environmental Assessment Analyses (see below)
- ☑ Discussion of Justification of the Service Area Delineations

☑ Maps

- ☑ Wastewater Management Planning Area **(Map 1)**
- ☑ Existing Wastewater Facilities and Wastewater Service Areas **(Map 2)**
- ☑ Future Wastewater Facilities and Wastewater Service Areas **(Map 3)**
- ☑ Zoning/Master Plan **(Map 4)**
- ☑ Environmental Constraints **(Map 5)**
- ☑ Environmental Features **(Map 5)**
- ☐ Highlands **(Not Applicable)**
- ☐ Water Supply Purveyor **Wastewater**
- ☑ U.S.G.S. Topography Map Delineating Project **(Map 6)**
- ☐ Site Plans **(Not Applicable)**

☑ 6. Environmental Analyses/Assessments Document (a minimum of 3 copies will be required)

- ☑ Environmental Constraints/Build-Out Analysis
- ☑ Nonpoint Source Pollutant Loading Analysis
- ☑ Point Source Pollutant Loading Analysis
- ☑ Depletive/Consumptive Water Use Analysis
- ☑ Riparian Corridor Analysis
- ☑ Endangered/Threatened Species Analysis
- ☑ Alternatives Analysis
- ☑ Other Groundwater Quality Analysis

Applications shall be submitted to:
New Jersey Department of Environmental Protection
Division of Watershed Management
Bureau of Watershed Regulation
PO Box 418
401 East State Street
Trenton, New Jersey 08625-0418

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I. INTRODUCTION

The purpose of this document is to provide a comprehensive Wastewater Management Plan (WMP) update for the Borough of Pennington. The Borough of Pennington WMP has been submitted to the New Jersey Department of Environmental Protection (Department) for approval so that it may be incorporated into the Mercer County Water Quality Management Plan (WQMP) via the plan amendment procedure (N.J.A.C. 7:15). Appendix A provides the application form for this WMP update, while Appendix B provides proof that this WMP was concurrently submitted to Mercer County for approval as the Designated Planning Agency for the Mercer County WQMP. Appendices C and D contain supporting documents (Certification by the Wastewater Management Planning Agency and Proof of Notification to, and Comments from, the Borough of Pennington and Hopewell Township, respectively).

The Borough of Pennington is located entirely within the sewer service area of the Stony Brook Regional Sewerage Authority (SBRSA). Wastewater generated within Pennington Borough is treated at the SBRSA Pennington Sewage Treatment Plant (STP); there are no individual sewage disposal systems. In addition, several parcels along the border of Pennington Borough that are in Hopewell Township including Hopewell Valley Schools, Pennington Market, residences (52) from Pennington Point, sanitary flow from Bristol-Myers Squibb (BMS)[1]; and Pennington Borough's new Department of Public Works (DPW) facility are serviced by the SBRSA Pennington STP. The SBRSA Pennington STP is permitted to discharge to surface water and has a treatment capacity of 0.300 mgd. The receiving water body is the Stony Brook, which is classified as FW2-NT (C2) (freshwater, non-trout, category two).

This Borough of Pennington WMP is being submitted to the Department in order to provide an update to the current WMP, while also requesting an expansion of the service area and the treatment capacity. The Borough of Pennington WMP update includes a request for an increase in treatment capacity of 0.145 mgd for a total treatment capacity of 0.445 mgd. The STP is permitted for only 0.300 mgd and the highest 12-month moving average over the last two years was 0.300 mgd (November 2006, based on DMR data), leaving little capacity to accept additional wastewater. Thus, the increase is being requested in order to meet future wastewater

[1] Bristol-Myers Squibb (BMS) has an on-site sewage treatment plant. However, as per an agreement with SBRSA, BMS is permitted to send up to 0.025 mgd of sanitary flow to the SBRSA Pennington STP. The remaining wastewater from BMS is treated on-site. The BMS STP is a part of the Hopewell Township WMP.

needs from 1) growth in and expansion of current commercial and institutional (e.g. school) facilities, 2) redevelopment of select sites (the former Pennington DPW facility, the Capital Health site, and portions of the Town Center (TC) zone), 3) to provide service to new and future development, 4) to allow for closure of failing septic systems and connection of affected properties with public sewer, and 5) to provide allocated wastewater flow for Pennington Borough's new DPW facility.

The Borough of Pennington is nearly built-out. The requested increase is mostly being sought to support the changes in current site use and the development of select sites already within the sewer system boundaries. The requested expansion of the sewer service area is limited to three areas immediately adjacent to the existing boundary of the service area. The proposed expansion includes only lots with existing flow and property belonging to the Hopewell Valley Regional School District (HVRSD). The first area is contiguous with the existing boundary of the SBRSA Pennington STP sewer service area along North Main Street. The parcel contains Block 47, Lots 1 and 3 in Hopewell Township; these properties have existing commercial and residential development. The second area is property owned by the HVRSD (Block 63, Lot 4) and is adjacent to Timberlane Middle School. This property will be used to support future expansion of the HVRSD facilities, namely athletic fields with restrooms and concession stands. The third area is the "Tree Streets" neighborhood (Curlis Avenue, Maple Lane, Birch Street, and Oak Street neighborhoods) in Hopewell Township. The residences in the "Tree Streets" neighborhood are serviced by septic systems and will be connected to sewer upon closure of these systems and inclusion into the sewer service area. As will be discussed below, a request for wastewater allocation to serve theses properties is included in the WMP update. Thus, the proposed changes are not being requested to support development of new commercial and residential properties which could be considered to lead to further "sprawl" in the region.

II. SUMMARY TABLE OF SIGNIFICANT ACTIONS PROPOSED IN WMP

TABLE 1

Summary Table

1. Changes in the WMP Planning Agency and/or Area

NONE

2. Changes in the Sewer Service Area

The boundaries of the Borough of Pennington wastewater service area will remain essentially the same. There are only three proposed changes to the boundary. The first change is the addition of a parcel of land along the northern boundary of the existing service area. The parcel contains Block 47, Lots 1 and 3 in Hopewell Township, which are bounded by Knowles Street on the east, State Route 31 on the west, and North Main Street on the south. This parcel is contiguous with the existing boundary of the SBRSA Pennington STP sewer service area along North Main Street. The second change is the expansion of the sewer service area to include one lot belonging to the Hopewell Valley Regional School District (HVRSD, Block 63, Lot 4). The property is immediately adjacent to Timberlane Middle School along its western border. Currently, there are no structures on this property. Finally, the third change is to add the "Tree Streets" neighborhood. This neighborhood is immediately adjacent to the eastern border of Pennington Borough.

3. New or Expanded Sewage Treatment Facilities

The proposed expansion of sewage treatment facilities is limited to the requested increase in flow for the SBRSA Pennington STP. An increase of 0.145 mgd beyond the current 0.300 mgd flow is being requested.

4. Abandonment of Treatment Facilities

One commercial and numerous residential individual subsurface sewage disposal systems (ISSDS) will be abandoned and the properties will be connected to sewer upon the expansion of the sewer service area and treatment capacity. All of these properties are outside of the existing sewer service area but are included in the proposed future area.

5. Environmental Analyses and Assessments to Assess the Environmental Impact

An Executive Order 109 Environmental Constraints Analysis is being provided as a separate document entitled, "Executive Order Constraints Analysis for the Borough of Pennington Wastewater Management Plan Update," dated June 21, 2006 and last revised March 6, 2009.

III. DISCUSSION OF EXISTING/FUTURE WASTEWATER FACILITIES

The Borough of Pennington is approximately 0.9 square miles and is located in Mercer County, New Jersey. Pennington Borough lies within the Raritan Basin in the Millstone Watershed (WMA 10). The Borough is classified as a Fringe Planning Area (Planning Area 3) in the State Development and Redevelopment Plan. Major roads that serve Pennington Borough are primarily State and County highways, such as State Route 31 and Route 518, that provide north-south and east-west transit through the municipality.

The SBRSA provides wastewater treatment services to the Borough of Pennington and adjacent properties in Hopewell Township through the SBRSA Pennington STP. The entirety of the Borough of Pennington is treated by the SBRSA Pennington STP. All wastewater generated within Pennington Borough is treated at the SBRSA Pennington STP; there are no individual sewage disposal systems. The SBRSA Pennington STP existing sewer service area also includes some properties within Hopewell Township including Timberlane Middle School; Hopewell Valley Central High School; portions of Pennington Market and Pennington Point; sanitary flow from Bristol-Myers Squibb (formerly the Mobil Technical Center); and Pennington Borough's new DPW facility. There are 52 residential units from Pennington Point included in the above stated properties in Hopewell Township. Pennington Borough is responsible for the operation and maintenance of the wastewater collection system within the Borough. The collection system includes eight-inch sewer lines with the major interceptor sewer system consisting of 12, 16, 18, and 20 inch trunk sewer lines. These lines extend from the Borough to the SBRSA Pennington STP. The system also includes two small pumping stations that serve residential areas: the Curlis Avenue Pumping Station and the Sked Street Pumping Station; each pump can convey 100 gallons per minute (gpm).

The SBRSA Pennington STP is permitted to discharge to surface water and has a treatment capacity of 0.300 mgd. The receiving water body is the Stony Brook, which is classified as FW2-NT (freshwater, non-trout.)

This Borough of Pennington WMP update is being submitted in order to provide a current WMP to the Department while also requesting an expansion of the service area and the treatment capacity. As was mentioned above, the requested expansion of the service area is limited to three areas immediately adjacent to the existing boundary of the sewer service area.

The first area is in Hopewell Township and is adjacent to the existing northern boundary of the sewer service area; it contains an existing commercial building and a residence. The second area is also in Hopewell Township and is property belonging to the HVRSD. The property is adjacent to that containing Timberlane Middle School and will be used to support HVRSD facilities (namely athletic fields with restrooms and concession stands). The third area is the "Tree Streets" neighborhood (Curlis Avenue, Maple Lane, Birch Street, and Oak Street neighborhoods) in Hopewell Township. The residences in the "Tree Streets" neighborhood are serviced by septic systems and will be connected to sewer upon closure of these systems and inclusion into the sewer service area. As will be discussed below, a request for wastewater allocation to serve these properties is included in the WMP update.

Additionally, an increase in the treatment capacity is being requested; the requested increase is 0.145 mgd for a total treatment capacity of 0.445 mgd. The STP is presently permitted for 0.300 mgd and the highest 12-month moving average over the last two years is 0.300 mgd (November 2006, based on DMR data), leaving little capacity to accept additional wastewater. The increase in capacity is only being requested in order to meet future wastewater needs from 1) growth in and expansion of current commercial and institutional (e.g. school) facilities, 2) redevelopment of select sites (the former Pennington DPW facility, the Capital Health site, and portions of the TC zone), 3) to provide service to new and future development, 4) to allow for closure of failing septic systems and connection of affected properties with public sewer, and 5) to provide allocated wastewater flow for Pennington Borough's new DPW facility. Thus, the proposed changes will not be used to support new commercial and residential properties outside the existing sewer service area, which some would claim to exacerbate "sprawl" (Table 2).

Finally, the New Jersey Department of Environmental Protection (NJDEP) WMP Application Checklist requires the WMP to address the following statements. The applicability of these statements to the future sewer service area (the existing sewer service area plus the area proposed for expansion) and facilities are discussed below. Additionally, these statements are included on the appropriate map(s) as required by the NJDEP.

- *All existing, new, or expanded industrial pretreatment facilities requiring Significant Indirect User (SUI) permits and/or Treatment Works Approvals, and which are located within the specified sewer service area, are deemed to be consistent.*
    - Not Applicable – Pennington Borough does not contain any industrial facilities requiring either SUI permits or Treatment Works Approvals.
- *Individual subsurface sewage disposal systems (ISSDS) for individual residences can only be constructed in depicted sewer service areas if legally enforceable guarantees are provided, before such construction, that use of such systems will be discontinued when the depicted sewer service becomes available. This applies to ISSDS that require certification from the Department under the Realty Improvement Sewerage and Facilities Act (NJSA 58:11-23) or individual Treatment Works Approval or New Jersey Pollutant Discharge Elimination System Permits (under NJAC 7:14A). It also applies to ISSDS which require only local approvals if the WMP acknowledges adequate arrangements for enforcement of the requirement (such as through a municipal or sewerage authority ordinance).*
    - There are no ISSDS within the existing boundaries of the SBRSA Pennington STP sewer service area. However, residences in the "Tree Streets" neighborhood of Hopewell Township and Block 47, Lots 1 and 3, which are proposed for inclusion into the sewer service area, are serviced by septic systems. These septic systems will be abandoned and the properties connected to the sewer system.
- *Development in areas mapped as wetlands, flood prone areas, designated river areas, or other environmentally sensitive areas may be subject to special regulation under Federal or State statutes or rules. Interested persons should check with the Department of Environmental Protection for the latest information. Depiction of environmental features is for general information purposes only and shall not be construed to define the legal geographic jurisdiction of such statutes or rules.*
    - The proposed expansion will not be used to support development in environmentally constrained areas. The accompanying EO 109 environmental constraints/build-out analysis addresses this issue.

- *Pre-existing grant conditions and requirements (from Federal and State grants or loans for sewerage facilities) which provide for restriction of sewer service to environmentally sensitive areas, are unaffected by adoption of this WMP and compliance is required*.
    - According to the Hopewell Township WMP, the SBRSA Pennington STP and interceptors have grant conditions from its STEP 2 grant (#C340704-01). This grant prohibits expansion of the sewer service area to include proposed or future homes which will be located on lots within wetlands or the 100-year floodplain unless the written consent of the Municipal Wastewater Assistance Element of the NJDEP is obtained during the permit process. Adoption of this WMP will not contravene this grant condition since it will not enable additional construction of residential properties in restricted locations.
    - The STEP 2 (construction) grant (Project No. C-34-704-01) awarded to SBRSA from the United States Environmental Protection Agency (USEPA) included a special condition that restricted sewer connections from new development in environmentally sensitive areas. NJDEP mapping showed wetlands on the Hopewell Township school property that was desired to be added to the sewer service area. However, a Freshwater Wetlands Letter of Interpretation had been granted by the NJDEP for this property. Therefore, approval from the USEPA was necessary prior to adding to the sewer service area any lands identified as having environmental constraints (e.g. wetlands). On February 3, 2009, the USEPA granted a waiver from this condition to SBRSA to allow for inclusion of the Hopewell Township school property (Block 63, Lot 4) into the sewer service area and connection to sewer lines providing development will not result in disturbance to wetlands. A copy of the waiver is provided in Appendix E.

TABLE 2

Facility Table - Stony Brook Regional Sewerage Authority (SBRSA) Pennington STP

1.	Existing or Proposed:	Existing
2.	NJPDES Permit Number:	NJ0035319
3.	Ground or Surface Water Discharge:	Discharge to Surface Water (DSW)
4.	Name of Receiving Water:	Stony Brook
5.	Classification of Receiving Water:	FW2-NT
6.	Owner of Facility:	Stony Brook Regional Sewerage Authority
7.	Operator of Facility:	SBRSA; Robert Kunert, Lic. No. 0005853 (S-4)
8.	Co-Permittee of Facility:	N/A
9.	Location of Treatment Works:	Municipality: Hopewell Township County: Mercer Address: 363 Pennington-Rocky Hill Road Block/Lot: Block 46, Lot 19.01
10.	Location of Discharge:	Latitude: 40º 20’ 08” Longitude: 74º 46’ 52”
11.	Existing Permitted Flow:	0.300 mgd
12.	Existing Design Capacity:	0.300 mgd

13. Summary of Residential Population Served by Treatment Works:

Municipality	Present (2007)	Future (build-out)
Pennington Borough	2,696 [a]	3,436[b]
Hopewell Township	78[c]	205[d]
Total	***2,774***	***3,641***

[a] United States Census 2000

[b] Present population, plus additional population from growth and development to build-out scenario. The average household population of Pennington Borough, according to the 2000 US Census, is 2.66 people. See Table 2 in Appendix B of the EO 109.

[c] Hopewell Township population served by treatment works based on 52 units in Pennington Point located in Hopewell Township. Pennington Point is an adult living facility with apartments that house an average of 1.5 residents per unit. Therefore, the population was estimated to be 78 residents.

[d] The increase in population of Hopewell Township served between 2007 and future (build-out) represents the addition of the 46 “Tree Streets” residences to the sewer service system upon approval of the expansion of the sewer service area. The average household size of Hopewell Township, according to the 2000 US Census, is 2.77 people. See Table 3 in Appendix B of the EO 109.

TABLE 2

Facility Table (cont'd)

Stony Brook Regional Sewerage Authority (SBRSA) Pennington STP (cont'd)

14. Summary of Total Existing and Projected Wastewater Flows:

Municipality	Source	Present Flow (mgd) (2007)[a]	Requested Increase (mgd)	Future Flow (mgd) (build-out)
Borough of Pennington	Residential	0.135	0.074	0.209
	Industrial	0	0	0
	Commercial	0.032	0.025	0.057
	Institutional	0.015	0.01	0.025
	Total	**0.182**	**0.109**	**0.291**
Hopewell Township	Residential	0.004	0.014	0.018
	Industrial	0.025	0	0.025
	Commercial [d]	0.011	0.004	0.015
	Institutional [e]	0.016	0.018	0.034
	Total	**0.056**	**0.036**	**0.092**
Infiltration/Inflow [c]		0.062		0.062
Total		***0.300*** [b]	***0.145***	***0.445***

[a] Present flow for properties in the Borough of Pennington and Hopewell Township obtained from water and wastewater billing records for 2006 from Pennington Borough for properties serviced by the SBRSA Pennington STP and Pennington Water Company.

[b] Value provided is the highest 12-month moving average in two years (November 2006, based on DMR data). Use of the 12-month average is based upon guidance from the NJDEP; therefore, SBRSA expects that future compliance with Capacity Assurance Regulations will also be based on the 12-month average.

[c] The Borough of Pennington initiated studies in 1996 to determine sources of inflow and infiltration into the sanitary sewer collection system. This effort included physical inspections, smoke testing, and television surveys of the entire collection system. The study was completed in 1999. As a result of this study, two major collection system connections were repaired and all identified illegal connections were terminated. The Borough of Pennington Council also authorized a resolution (See EO 109, Appendix I) requiring an inspection of connections to the collection system at property transfer.

[d] Current Hopewell Township commercial flow is comprosed of Pennington Market flows; future commercial flow includes projected additional flow from Pennington Market and flow from Block 47, Lot 1 upon conversion from septic. Please refer to Table 6.

[e] Current Hopewell Township institutional flows includes flow from Timberlane Middle School and Hopewell High School; future institutional flow includes projected additional flow from the Hopewell Valley Regional Schools (17,850 gpd) and the DPW facility (420 gpd). Please refer to Table 6.

IV. SUMMARY OF ENVIRONMENTAL ASSESSMENTS AND ANALYSES

An Executive Order 109 Environmental Constraints Analysis was completed to assess the potential impacts of the adoption of the Borough of Pennington WMP on natural resources. This document is being provided as a separate document entitled, "Executive Order 109 Environmental Constraints Analysis for the Borough of Pennington Wastewater Management Plan Update," dated June 21, 2006 and revised December 20, 2007; however, a summary of the findings is provided below.

A. ENVIRONMENTAL CONSTRAINTS/ BUILD-OUT ANALYSIS

An environmental build-out analysis was completed to assess the future wastewater capacity needs of the SBRSA Pennington STP future sewer service area. The build-out analysis took into consideration environmentally sensitive areas and resources (see Sections IV.E and IV.F. below and Maps 5A and 5B). This assessment was completed to determine potential growth, development, and redevelopment within the existing sewer service area and within the proposed addition to the sewer service area.

Potential growth and development (e.g. development, redevelopment, and infill) for properties within Pennington Borough and Hopewell Township in the future sewer service area was assessed for existing, approved, and proposed commercial, residential, and institutional (e.g. school) development. Properties within the future sewer service area were evaluated on a lot by lot basis to determine if additional development would be allowed based on zoning regulations and municipal policies. Potential future development was determined based on the size of the lot, the presence of environmentally constrained land, and zoning regulations (or, for the schools, reports on potential student body growth). In general, lots that were smaller than the minimum lot size were not evaluated for potential development. However, there are a number of "postage stamp" lots in the Pennington Borough R-80 and R-100 zones for which future residential development would be permitted since they are surrounded by similarly sized lots with existing residential development. Zoning regulations for Pennington Borough and Hopewell Township are in Appendix F.

To determine the projected future wastewater flow increase that would be conveyed to the SBRSA Pennington STP at build-out, the additional commercial square footage, number of residential units, or the number of students/participants to be served by sewer was multiplied by the appropriate projected flow criteria in NJAC 7:14-23.3. The estimated additional population was determined by multiplying the number of units to be connected by the average household size for Pennington Borough (2.66 people) and Hopewell Township (2.77 people), according to the US Census Bureau 2000 Census.

Finally, the present treatment flow was combined with the projected future wastewater flow increase to determine the total treatment capacity needed by the SBRSA Pennington STP. Table 2 summarizes the existing flow for each source, the projected future wastewater needs, and the total future flow needed to provide service for existing and future development in the future sewer service area. In essence, it was determined that an additional treatment capacity of 0.145 mgd will be needed to service potential future development and to allow the connection of existing residences and commercial structures with failing septic systems. The additional treatment capacity of 0.145 mgd combined with existing flow of the 0.300 mgd yields a total future flow need of 0.445 mgd.

Tables 3 and 4 provide a summary of the results of the environmental constraints/build-out analyses. A full build-out analysis is provided in the EO 109. Tables 5 and 6 relate potential growth and development in each of the zones in Pennington Borough and Hopewell Township in the SBRSA Pennington STP future sewer service area to increases in wastewater flow.

TABLE 3

Extent of Potential Development in Pennington Borough by Zone

Zone	Description	Potential Future Development	
R-80	Residential Zone	Residential:	40 (2-bedroom) units
			82 (3-bedroom) units
		Commercial:	50,000 sq. ft.
R-100	Residential Zone	Residential:	34 (3-bedroom) units
		Commercial:	6,877 sq. ft.
		Institutional	150 people
R-A	Apartment-Townhouse Residential Zone	None	
O-R	Office-Residence Zone	1 (3-bedroom) unit	
TC	Town Center Zone	Residential:	81 (2-bedroom) units
		Commercial:	7,850 sq. ft.[a]
TCB	Towns Center Buffer Zone	None	
B-H	Highway Business Zone	None	
O-B	Office Building Zone	Commercial:	81,294 sq. ft.
		Institutional:	100 students
P-O	Professional Office Zone	None	
MU-1	Mixed Use Zone 1	None	
MU-2	Mixed Use Zone 2	None	
MU-3	Mixed Use Zone 3	Residential:	40 (3-bedroom) units
		Commercial:	100,000 sq. ft.
E-1 & E-2	Education Zone	280 students	

[a] TC future commercial includes development on one lot in the PC zone that is adjacent to one lot in the TC zone; these properties combined contain one commercial establishment.

TABLE 4

Extent of Potential Development in Hopewell Township within the SBRSA Pennington STP Future Sewer Service Area by Zone

Zone	Description	Potential Future Development
R-100 [a,b]	Residential Zone	45 (3-bedroom) units
		474 students
		1,200 attendants (athletic fields)
SC	Shopping Center Zone	25,184 sq. ft.
IC [c]	Industrial Commercial Zone	7 employees
		7 DPW vehicles
O/CC [d]	Office/Commercial Zone	14,936 sq.ft.
		1 (3-bedroom) unit

[a] Existing residences in Hopewell Township in the "Tree Streets" neighborhood with failing septic systems will be connected to the sewer system upon closure of their septic systems and inclusion into the sewer service area.

[b] The Hopewell Valley Regional Schools are located in a R-100 Zone. Potential future development of this zone is limited to the anticipated increase in student body and use of the HVRSD property for athletic fields.

[c] On June 25, 2007, the NJDEP issued a Mercer County WQMP revision to allow for the expansion of the SBRSA Pennington STP to include a portion of Block 46, Lot 13 in Hopewell Township for construction and operation of the Pennington Borough DPW facility. Approved wastewater flow for this facility is 420 gpd calculated by seven employees at 40 gpd and maintenance of seven vehicles at 20 gpd. (See Appendix K)

[d] Existing residential and commercial properties in the parcel proposed for addition to the sewer service area (Block 47, Lots 1 and 3) will be connected to the sewer system upon closure of their septic systems.

TABLE 5

Projected Pennington Borough Future Wastewater Flow Increases

Type	Zone	Potential Future Development	Flow as Per N.J.A.C. 7:14-23.3 (gpd per unit or sq. ft.)	Total Additional Flow (gpd)[a]
Residential	R-80	82 (3-bedroom) units	300	24,600
		40 (2-bedroom units)	225	9,000
	R-100	34 (3-bedroom) units	300	10,200
	O-R	1 (3-bedroom) unit	300	300
	TC	81 (2-bedroom) units	225	18,225
	MU-3	40 (3-bedroom) units	300	12,000
	Residential Total			**74,325**
Commercial	R-80	50,000 sq. ft.	0.100	5,000
	R-100	6,877 sq. ft.	0.100	688
	TC [b]	7,850 sq. ft.	0.100	785
	O-B	81,294 sq. ft.	0.100	8,129
	MU-3	100,000 sq. ft.	0.100	10,000
	Commercial Total			**24,602**
Institutional	O-B	100 students	10	1,000
	E-1 & E2	280 students	25	7,000
	R-100	150 people	10	1,500
	Institutional Total			**9,500**
TOTAL PROJECTED ADDITIONAL FLOW				***108,427***

[a] Projected wastewater flows were calculated based on the projected flow criteria provided in N.J.A.C. 7:14-23.3.

[b] TC future commercial includes development on one lot in the PC zone that is adjacent to one lot in the TC zone; these properties combined contain one commercial establishment.

TABLE 6

Projected Future Wastewater Flow Increases from Hopewell Township within the SBRSA Pennington STP Future Sewer Service Area

Type	Zone	Potential Future Development	Flow as Per N.J.A.C. 7:14-23.3 (gpd per unit or sq. ft.)	Total Additional Flow (gpd)[a]
Residential	R-100 [b]	45 (3-bedroom) units	300	13,500
	O/CC	1 (3-bedroom) unit	300	300
	Residential Total			**13,800**
Commercial	SC	25,184 sq. ft.	0.100	2,518
	O/CC	14,936 sq. ft.	0.100	1,494
	Commercial Total			**4,012**
Institutional	R-100 [c]	474 students	25	11,850
		1,200 attendants	5	6,000
	IC [d]	7 employees	40	280
		7 DPW vehicles	20	140
	Institutional Total			**18,270**
TOTAL PROJECTED ADDITIONAL FLOW				***36,082***

[a] Projected wastewater flows were calculated based on the projected flow criteria provided in N.J.A.C. 7:14-23.3.

[b] Existing residences in Hopewell Township in the "Tree Streets" neighborhood with failing septic systems will be connected to the sewer system upon closure of their septic systems and inclusion into the sewer service area.

[c] The Hopewell Valley Regional Schools are located in a R-100 Zone. Potential future development of this zone is limited to the anticipated increase in student body and use of the HVRSD property for athletic fields.

[d] On June 25, 2007, the NJDEP issued a Mercer County WQMP revision to allow for the expansion of the SBRSA Pennington STP to include a portion of Block 46, Lot 13 in Hopewell Township for construction and operation of the Pennington Borough DPW facility. Approved wastewater flow for this facility is 420 gpd calculated by seven employees at 40 gpd and maintenance of seven vehicles at 20 gpd. (See Appendix K)

B. NON-POINT SOURCE POLLUTANT LOADING ANALYSIS

The Borough of Pennington and Hopewell Township have both adopted stormwater management ordinances. The objective of these ordinances is to minimize non-point source pollutant loading that could result from the implementation of the Borough of Pennington WMP and resulting growth and development. The Pennington Borough ordinance was adopted on July 10, 2006; the Hopewell Township ordinance was adopted on September 12, 2005. The Pennington Borough and Hopewell Township stormwater management ordinance(s) and code(s) are provided in Appendix G and Appendix H, respectively.

C. POINT SOURCE POLLUTANT LOADING ANALYSIS

Omni Environmental LLC (Omni, formerly TRC Omni Environmental) completed a Point Source Pollutant Loading Anti-degradation Analysis for the proposed SBRSA Pennington STP expansion. The report, dated August 14, 2007 with a revision date of September 11, 2008 was submitted to Paul DeMuro of the NJDEP.

The Point Source Pollutant Loading Anti-degradation Analysis evaluated the potential impacts on the receiving water of increasing the SBRSA Pennington STP discharge to 0.500 mgd. The evaluation revealed that while there is an increase in pollutant loading related to an increase in the volume of wastewater being discharged to the receiving water, it does not result in a degradation to water quality.

D. DEPLETIVE/CONSUMPTIVE WATER USE ANALYSIS

A depletive/consumptive water use analysis was completed for the SBRSA Pennington STP future sewer service area under a built-out scenario. A comparison of total water demand at build-out against Pennington Water Company's Water Allocation Permit (WAP) monthly and yearly limits was completed.

In the Borough of Pennington, most properties receive their water from the Pennington Water Company. All of the properties in Pennington Borough for which future growth or development is possible obtain their water from the Pennington Water Company with the exception of the Pennington School. In addition, several properties included in the SBRSA Pennington STP future sewer service area in Hopewell Township

(Hopewell Central Valley High School, Pennington Market, and the new Pennington DPW facility) are also served by the Pennington Water Company; the remainder use individual wells as potable water sources.

In conjunction with the NJDEP's Division of Water Supply, a comparison of the water demand at build-out to the annual allocation was completed. Total annual water demand at build-out is equivalent to the current peak annual water demand plus the *additional* annual water demand. Additional annual water demand was determined to be 38 million gallons per year (mgy). The current peak yearly demand is 105 mgy. Thus, the total yearly water demand at build-out is 143 mgy. The yearly allocation is 145 mgy. Therefore, total annual water demand at build-out is 2 mgy (0.005 mgd) less than the annual allocation. Thus, the water use analysis clearly indicates that full build-out of the SBRSA Pennington STP future sewer service area will not require either a modification to the Pennington Water Company's WAP or an approved connection to another water supply system.

E. RIPARIAN CORRIDOR ANALYSIS

The objective of the riparian corridor analysis is to achieve a "no loss of value" of potentially affected stream corridors through potential short or long term disturbance of these corridors. Protection of these corridors is primarily achieved through the triad approach of "avoid → minimize → mitigate." Protection of stream corridors can be achieved when municipalities or wastewater authorities prepare and adopt a WMP, if they also concurrently devise and adopt a stream corridor protection ordinance designed to protect the corridors from development and changes in land use.

In order to support the "avoid → minimize → mitigate" triad approach for the protection of stream corridors, Pennington Borough adopted a riparian buffer zone conservation ordinance on August 4, 2008; the ordinance and code are provide in Appendix I. In addition, Hopewell Township adopted a stream corridor protection ordinance on December 13, 2004. The ordinance and corresponding code are in Appendix J. Based on Omni's discussion with the NJDEP during the SBRSA Pennington WMP pre-application meeting, since protection of the stream corridors will be achieved

through adoption of riparian buffer conservation ordinances, a full stream corridor analysis is not required. Additionally, since no new development is proposed on lands within a stream buffer, protection of stream corridors will be achieved; thus, a stream corridor analysis is not required.

F. ENDANGERED/THREATENED SPECIES ANALYSIS

The SBRSA Pennington STP future sewer service area was determined to have minor amounts of forest habitat that is suitable for the Red-headed Woodpecker (*Melanerpes erythrocephalus*). The land within the existing SBRSA Pennington STP sewer service area classified as Rank 3 habitat is limited to three parcels. One property is considered to be environmentally constrained since it is within a riparian buffer; thus, development will not be allowed on this property. The second property is already developed and is connected to sewer. The third parcel is the site of the new Pennington DPW facility. As mitigation for potential disturbance to this habitat through construction of the new Pennington DPW facility, the portion of the property not used for DPW facilities was conveyed to the D & R Greenway Land Preservation Trust for preservation.

Additionally, according to NJDEP's Landscape Project, one parcel (Hopewell Township Block 47, Lot 3) in the proposed expansion of the sewer service area contains potential Red-headed Woodpecker habitat. However, this lot is only being proposed to be included in the sewer service area to connect an existing single family home to sewer. This will allow for abandonment of a failing septic system. No additional development will be permitted on this property. Therefore a habitat analysis ordinance to evaluate potential impacts of development on this property is not necessary.

Based on Omni's discussion with the NJDEP during the SBRSA Pennington WMP pre-application meeting, since critical habitat is not present within the developable portion of the SBRSA Pennington STP future sewer service area, adoption of a habitat analysis ordinance is not required for the Borough.

G. ALTERNATIVES ANALYSIS

The Borough of Pennington's WMP includes the proposed increase in wastewater treatment capacity and the expansion of the SBRSA Pennington STP sewer service area. The increase in capacity is only being requested in order to meet future wastewater needs

from 1) growth in and expansion of current commercial and institutional (e.g. school) facilities, 2) redevelopment of select sites (the former Pennington DPW facility, the Capital Health site, and portions of the TC zone), 3) to provide service to new and future development, 4) to allow for closure of failing septic systems and connection of affected properties with public sewer, and 5) to provide allocated wastewater flow for Pennington Borough's new DPW facility. The alternative to these proposed changes, e.g. the denial of the proposed changes, is the "No Action" alternative.

If the Borough of Pennington is denied the requested changes, and must accept the "No Action" alternative, there will likely be environmental consequences. First, septic systems that are failing will continue to be utilized until the time at which the property owner is able to, or must, take corrective action. This could be costly to the property owner, and in the interim, there is an increased chance of groundwater contamination. Additionally, if the proposed changes are not allowed, redevelopment of properties within the Borough may be difficult. Since redevelopment often enables clean-up and restoration of a site, the inability to do so may also allow for the continuance of conditions which are not environmentally sound (e.g. improper storage of hazardous materials, presence of lead paint).

The potential environmental consequences of denying the proposed expansion of the sewer service area and the requested increase in wastewater flow greatly outweigh the potential consequences of approving the expansion. This is especially true since the expansion is limited to three areas to support existing and/or planned use (e.g. HVRSD facilities) and is not to be requested to support new development. Thus, it is strongly recommended that the proposed changes be approved and the "No Action" alternative be rejected.

H. GROUNDWATER QUALITY ANALYSIS

The SBRSA Pennington STP is permitted as a discharge to surface water (DSW) facility. Groundwater quality should not be detrimentally impacted by operation of the sewage facility since there is not direct connection with, or discharge to, groundwater resources. Thus, a groundwater quality analysis was not completed. However, as is discussed below, the potential impacts of connection of several areas in Hopewell

Township with sewer were evaluated by Mulhall (2003) in *Assessment of Groundwater Quality and Quantity Impacts from Sewer Area Expansion in Hopewell Township, Mercer County, New Jersey*.

M2 Associates was retained by Hopewell Township in June 2002 to assess potential impacts to groundwater quality and quantity from connection of sewer systems in several (17) areas of concern within the Township (Mulhall 2003). The areas of concern were identified in the April 27, 2001 report entitled "Hopewell Township, Feasibility Analysis for Selected Wastewater Alternatives Serving Areas of Concern" prepared by Van Cleef Engineering Associates of Robbinsville, New Jersey. Three of the areas of concern are properties included in this WMP update: Timberlane (the HVRSD property), the North Main Street Area (Block 47, Lots 1 and 3), and the "Tree Streets" neighborhood. Several characteristics of the areas were evaluated including the number and type of units used by Van Cleef Engineering to calculate daily discharge rates; size of the areas as determined from New Jersey Department of Environmental Protection (NJDEP) Geographic Information System (GIS) coverage; and the potential treatment alternatives identified by Van Cleef Engineering. Hopewell Township initiated these studies in response to complaints or problems with some of these septic systems.

According to Mulhall (2003), in the areas proposed for connection with the sewer system, septic systems are used to discharge wastewater and some if not all of this wastewater infiltrates to the underlying aquifer systems. The recycling of wastewater limits, to an extent, the necessity for removing groundwater from storage to meet withdrawals that exceed rates of natural replenishment. However, due to contaminants, the water returned to the aquifer system can not be safely consumed without extensive dilution to meet applicable criteria. Thus, if the rate of withdrawals exceeds the rate of natural replenishment and septic system discharges are not adequately diluted, groundwater quality will become degraded and may not meet public health standards. Thus, Mulhall concluded it might be necessary to install sewer systems in areas where groundwater becomes or has become degraded because withdrawals exceed natural replenishment to remove wastewater and restore groundwater quality.

V. DISCUSSION OF JUSTIFICATION OF SERVICE AREA DELINEATIONS

The existing sewer service area delineation is based on the current Borough of Pennington WMP, dated August 1991. The proposed expansion of the sewer service area is limited to the addition of three areas immediately adjacent to the existing boundary of the service area. The first area is along the northernmost border of Pennington Borough within Hopewell Township. The parcel contains Block 47, Lots 1 and 3 in Hopewell Township; these properties are contiguous with the existing boundary of the Stony Brook Regional Sewerage Authority (SBRSA) Pennington Sewage Treatment Plant (STP) sewer service area. The second area contains property belonging to the HVRSD (Block 63, Lot 4). This property is adjacent to Timberlane Middle School and will be used to support HVRSD facilities. The third area is the "Tree Streets" neighborhood in Hopewell Township; these residences are serviced by septic systems and will be connected to sewer upon closure of these systems and inclusion into the sewer service area.

The Borough of Pennington WMP is consistent with the Borough's adopted Land Use Plan and Zoning-Ordinance dated May 25, 2002. In addition, the build-out analysis and projected development are based on current zoning regulations and municipal policies. The Borough's zoning is provided in Map 4. Zoning information for the Pennington Borough and Hopewell Township is included in Appendix F.

VI. HOPEWELL TOWNSHIP WMP REVISION

Hopewell Township, Mercer County, New Jersey has an approved Wastewater Management Plan (WMP) as amended through December 1995. The WMP describes wastewater services provided to Hopewell Township through a number of treatment systems, including the SBRSA Pennington STP. Since the SBRSA Pennington STP sewer service area includes property that is physically located within Hopewell Township, it is necessary to request a minor revision to the Hopewell Township WMP to incorporate seven changes as follows:

1. Expansion of the existing commercial use for a portion of the Pennington Market within Hopewell Township, leading to a projected increase in wastewater flow of 0.003 mgd;
2. An estimated 474 person increase in the student body at the Hopewell Valley Regional Schools, resulting in a projected increase in wastewater flow of 0.012 mgd;
3. Provision for athletic fields and supporting structures (restrooms, concession stands) for approximately 1,200 attendees (0.006 mgd) within the HVRSD properties;
4. Inclusion of HVRSD property adjacent to Timberlane Middle School;
5. Inclusion of the "Tree Street" neighborhood; expansion of the sewer service area will allow residents to abandon failing septic systems and connect to sewer;
6. Inclusion of properties (Block 47, Lots 1 and 3) adjacent to the northern border Pennington Borough; expansion of the sewer service area will allow for connection of these properties to the sewer system upon closure of their septic systems; and
7. Inclusion of Pennington DPW facility into the SBRSA Pennington STP service area (as approved by the NJDEP via a revision to the Mercer County WQMP on June 25, 2007, see Appendix K), with a resulting wastewater flow of 420 gpd.

It is important to note that #1, #2, and #3 above are within the existing SBRSA Pennington STP sewer service area in the existing Hopewell Township WMP, and the only change necessary is with respect to a flow increase of 0.021 mgd. The remaining changes (#4, #5, #6, and #7) require an expansion of the existing sewer service area and an increase in allowed wastewater flow. The addition of the HVRSD property (#4) will support HVRSD facilities. Approval of the proposed expansion of the sewer service area and increase in

wastewater flow will allow for connection of the "Tree Street" residences (#5) with the sewer system and the abandonment of failing septic systems; this modification requires an expansion of the sewer service area and an increase in permitted wastewater flow. The addition of Block 47, Lots 1 and 3 (#6) will allow for the ISSDS to be abandoned upon the properties' connection to the sewer service system. This requires an expansion of the sewer service area and an increase in the wastewater treatment capacity. Finally, the revision to the Mercer County WQMP for the Pennington Borough DPW facility (#7) allowed for the inclusion of the site into the SBRSA Pennington STP sewer service area. This resulted in the expansion of the sewer service area by approximately 8.5 acres. The requested increase in the allocated flow includes capacity to treat wastewater from this facility. These changes need to be added to the Hopewell Township WMP. In accordance with the pre-application meeting held with NJDEP on November 30, 2004, these required changes will be processed as a revision to the Hopewell Township WMP. Table 2 of this WMP can also be used for the revision to the Hopewell WMP.

VII. MAPS

The WMP maps have been prepared in accordance with the requirements set forth in the NJDEP Wastewater Management Plan Application Completeness Checklist. The mapping consists of a series of seven maps including:

1. Wastewater Management Planning Area
2. Existing Wastewater Facilities and Service Areas
3. Future Wastewater Facilities and Service Areas
4. Zoning
5. Environmental Features/Environmental Constraints (2 maps)
6. U.S.G.S. Topographic Map

All of the maps have been prepared using NJDEP digital GIS data.

MAP 1: EXISTING SEWER SERVICE AREA

The planning area map shows the following features:

1. Current WMP area boundary
2. Water Quality Management Planning Area boundaries
3. Municipal boundaries
4. Watershed Management Area boundaries
5. Sewerage Authority and Municipal Utilities Authority Districts

The following features are not applicable:

1. Areas within the Hackensack Meadowlands District
2. Pinelands Area
3. Pinelands National Reserve
4. Coastal Area (CAFRA)
5. Franchise Areas for Sewer Utilities and Water Purveyors Regulated by the Board of Public Utilities

MAP 2: EXISTING WASTEWATER FACILITIES AND SERVICE AREAS

The map of existing wastewater facilities and service areas identifies only the present extent of the actual sewer infrastructure. The sewer service boundary includes only those areas where waste conveyance appurtenances are physically constructed and

in use, and for which a Treatment Works Approval permit has been issued. In addition, the map depicts the following features:

1. Pennington Sewer Treatment Plant – DSW treatment plants (with NJPDES permit number)
2. Major interceptors and trunk lines
3. Pumping stations
4. Wastewater discharge outfalls
5. Service areas of all facilities, domestic or industrial, discharging to surface water
6. Areas served by ISSDS with flows less than 0.002 mgd

The following features are not applicable:

1. DGW treatment plants with flows greater than 0.002 mgd and related service areas
2. Combined sewer overflow outfalls
3. Sanitary sewer overflow outfalls

MAP 3: FUTURE WASTEWATER FACILITIES AND SEWER AREAS

The future wastewater facilities and service area maps illustrate the existing extent of the service area as well as the proposed expansion of the sewer service area. In addition, the following existing and future sewage facilities are identified:

1. Pennington Sewer Treatment Plant – DSW treatment plants (with NJPDES permit number)
2. Major interceptors and trunk lines
3. Pumping stations
4. Wastewater discharge outfalls
5. Service area of facilities discharging to surface water
6. Areas served by ISSDS with flows less than 0.002 mgd
7. Open Space

The following features are not applicable:

1. DGW treatment plants with flows greater than 0.002 mgd and related service areas

2. Nondegradation areas
3. Service areas of a facility discharging to both surface and groundwater
4. Non-discharge areas
5. Area served by wastewater holding tank

As per Gene Dunworth of Pennington Borough, there is no dedicated open space in Pennington. Open space in Hopewell Township was identified through the *Open Space and Recreation Plan* for the Township of Hopewell, Mercer County, New Jersey (Hopewell Township 2004).

Finally, the NJDEP Instructions and Guide to Wastewater Management Plan Format and Content (3/14/2006) requires the following text to be included on this map: "Locations of future pump stations, major interceptors, and trunk sewers are being provided for general information only and will not serve as the basis for any future consistency determinations or permit reviews unless the pump station, major interceptor or trunk sewer is part of a State or federally funded project." However, the proposed expansion of the WMP sewer service area and treatment capacity does not include the identification of locations for future pump stations, major interceptors, and trunk sewers. Therefore, the required text is not applicable.

MAP 4: ZONING

The zoning map depicts the adopted zoning for all areas covered by the wastewater management plan. This map includes zone identification and lot lines.

MAP 5A & 5B: ENVIRONMENTAL FEATURES/ENVIRONMENTAL CONSTRAINTS

The environmental features maps illustrate the following features:

1. Major drainage basin boundaries- USGS HUC 14 (Map 5A)
2. Freshwater wetlands (Map 5A)
3. Flood prone areas (Map 5A)
4. Public open space and recreation areas greater than 10 acres in size (Map 5B)
5. Freshwater 1 (FW1), Category One (C1) waters, and trout production and maintenance waters (Map 5A)

6. Other open waters (Map 5A)
7. Conservation lands (Map 5B)
8. Landscape Project Rank 3, 4, and 5 (Map 5B)
9. 75' Buffer of all waterways not requiring 150' and 300' buffers
10. 300' Buffer of C1 waters (Map 5A)

The following features are not applicable:

1. New Jersey and Federal Wild and Scenic Rivers
2. Natural Heritage Priority Sites
3. Highlands Preservation Area
4. Highlands Planning Area

As required in the WMP Application Completeness Checklist, the following statement is included on the environmental features maps:

"Development in areas mapped as wetlands, flood prone areas, designated river areas, or other environmentally sensitive areas may be subject to regulation under Federal or State statutes or rules. Interested persons should check with the Department of Environmental Protection for the latest information. Depiction of environmental features is for general information purposes only and shall not be construed to define the legal geographic jurisdiction of such statutes or rules."

MAP 6: U.S.G.S TOPOGRAPHIC MAP

The existing SBRSA Pennington STP Sewer Service Area boundaries, and the proposed additions, are provided on a U.S.G.S. Topographic map.

VIII. REFERENCES

Borough of Pennington. *Borough of Pennington Zoning Ordinance, Article VII Zone Regulations* § 215 and Schedule of Area, Yard, and Building Regulations.

Hopewell Township. *An Ordinance Establishing Development Regulations and Zoning Districts in the Township of Hopewell, New Jersey, in Accordance with the 2002 Master Plan and 2002 Reexamination Report, and Amending the Supplementing the "Revised General Ordinances of the Township of Hopewell (1978)" Accordingly*. Article IX, Zoning Districts.

Mulhall, M. *Assessment of Groundwater Quality and Quantity Impacts from Sewer Area Expansion in Hopewell Township, Mercer County, New Jersey*. M^2 Associates, Inc., July 16, 2003.

Mulhall, M. *Evaluation of Groundwater Resources of Hopewell Township*. M^2 Associates Inc., March 2, 2001.

New Jersey Department of Environmental Protection (NJDEP). 2006. *New Jersey Department of Environmental Protection Instructions and Guide to Wastewater Management Plan Format and Content (Instructions)* dated 3/14/2006. Available URL: http://www.nj.gov/dep/watershedmgt/publications.htm. Accessed April 13, 2006.

The Hopewell Township Planning Board. *Open Space and Recreation Plan, Township of Hopewell, Mercer County, New Jersey*. Final Draft for Public Hearing. *Prepared by:* The Hopewell Township Planning Board *With the Assistance of:* Banisch Associates, Inc.

Township of Hopewell, Mercer County, New Jersey. 2002. An Ordinance Establishing Development Regulations and Zoning Districts in the Township of Hopewell, New Jersey, in Accordance with the 2002 Master Plan and 2002 Reexamination Report, and Amending and Supplementing the "Revised General Ordinances of the Township of Hopewell (1978)" Accordingly.

United States Census Bureau. 2000. United States Census 2000. Available Website: http://www.census.gov/main/www/cen2000.html.

Van Cleef Engineering Associates. 1995. "Wastewater-Management Plan, Hopewell Township, Mercer County, New Jersey." November 1995, Revised December, 1995.

Van-Note Harvey Associates. 1991. "Wastewater Management Plan for the Borough of Pennington, Mercer County, New Jersey."

MAPS

APPENDIX A

WASTEWATER MANAGEMENT PLAN APPLICATION

New Jersey Department of Environmental Protection
Water Quality Management Plan

Wastewater Management Plan/Wastewater Management Plan Update Application Form

For Office Use Only	Project Identification Number _____

❑ ***New Wastewater Management Plan, six copies of the request are attached.***

☑ ***Wastewater Management Plan Update, six copies of the request are attached.***

PLEASE TYPE

1. **NAME OF PROPOSED WASTEWATER MANAGEMENT PLAN:** Wastewater Management Plan for the Borough of Pennington, Mercer County, NJ

2. **MUNICIPALITIES ADDRESSED IN THE WASTEWATER MANAGEMENT PLAN:**

A. MUNICIPALITY(IES): Borough of Pennington B. COUNTY(IES): Mercer

MUNICIPALITY(IES): Hopewell Township COUNTY(IES): Mercer

MUNICIPALITY(IES): _____ COUNTY(IES): _____

3. **WASTEWATER MANAGEMENT PLAN AGENCY SUBMITTING REQUEST:**

WASTEWATER MANAGEMENT PLAN AGENCY: Stony Brook Regional Sewerage Authority

ADDRESS: 290 River Road
Street Address Suite Number

Princeton NJ 08540
City State Zip

CONTACT PERSON: John Kantorek TITLE: Executive Director

PHONE: (609) 924-8881 FAX: (609) 924-2587

E-MAIL ADDRESS: jkantorek@SBRSA.org

4. **PREPARER OF WASTEWATER MANAGEMENT PLAN:**

NAME/AGENT/ENGINEER: James F. Cosgrove, Jr. TITLE: President

AGENCY/COMPANY: TRC Omni Environmental Corporation (Now Omni Environmental LLC)

ADDRESS: 321 Wall Street
Street Address Suite Number

Princeton NJ 08540
City State Zip

PHONE: (609) 924-8821 ext. 11 FAX: (609) 924-8831

E-MAIL ADDRESS: JCosgrove@TRCsolutions.com (Now JCosgrove@Omni-Env.com)

CONTACT PERSON (if different from agent): Amy M. Soli TITLE: Senior Scientist

PHONE: (609) 924-8821 ext 30 FAX: (609) 924-8831

E-MAIL ADDRESS: ASoli@TRCsolutions.com (Now ASoli@Omni-Env.com)

5. PLAN INFORMATION:

NAME OF THE AREAWIDE WATER QUALITY MANAGEMENT PLAN(S) [WQMP] TO BE AMENDED: Mercer County
(See map on page 10 to determine which Water Quality Management Planning Area the wastewater management plan is located.)

6. SIGNIFICANT ACTIONS (Check all that apply):

☑ CHANGES TO SEWER SERVICE AREAS
- ☑ Expansion
- ❑ Reduction
- ❑ Transfers of Sewer Service Areas from_____ to _____
- ❑ Transfer of WMP Responsibility from _____ to _____

☑ WASTEWATER TREATMENT FACILITIES (WTF)
- ☑ New or Expanded Discharge to Surface Water
- ❑ New or Expanded Discharge to Ground Water
- ❑ Abandonment of Wastewater Treatment Facility
- ❑ Change in Discharge Location
- ❑ Increase in projected wastewater flow above that approved in the adopted areawide WQM plan for the facility wastewater service area

❑ Golf course

❑ Other _____

7. MAPS AND DRAWINGS

REFER TO THE NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION INSTRUCTIONS AND GUIDE TO WASTEWATER MANAGEMENT PLAN FORMAT AND CONTENT (Instructions) (see the website at http://www.nj.gov/dep/watershedmgt/rules.htm)

8. REGIONAL PLANNING CONSIDERATIONS:

A. ARE ANY PORTIONS OF THE WASTEWATER MANAGEMENT PLANNING AREA WITHIN THE HIGHLANDS PRESERVATION AREA?

❑ Yes ☑ No

B. ARE ANY PORTIONS OF THE WASTEWATER MANAGEMENT PLANNING AREA WITHIN THE HIGHLANDS PLANNING AREA?

☐ Yes ☑ No

C. ARE ANY PORTIONS OF THE WASTEWATER MANAGEMENT PLANNING AREA WITHIN NJ's REGULATED COASTAL ZONE?

☐ Yes ☑ No

IF YES, WHICH PLANNING AREA? _____

D. ARE ANY PORTIONS OF THE WASTEWATER MANAGEMENT PLANNING AREA WITHIN THE PINELANDS AREA OR PINELANDS NATIONAL RESERVE AREA OF JURISDICTION UNDER THE PINELANDS COMPREHENSIVE MANAGEMENT PLAN?

☐ Yes ☑ No

IF YES, WHICH CATEGORY_____

E. ARE ANY PORTIONS OF THE WASTEWATER MANAGEMENT PLANNING AREA LOCATED WITHIN THE JURISDICTION OF THE NEW JERSEY MEADOWLANDS COMMISSION?

☐ Yes ☑ No

F. IDENTIFY THE ADOPTED STATE DEVELOPMENT AND REDEVELOPMENT PLAN PLANNING AREA OR NAME OF APPROVED CENTER

Planning Area 3 (Fringe Planning Area)

G. IS THE WASTEWATER MANAGEMENT PLANNING AREA IN CONFORMANCE WITH ALL APPLICABLE LOCAL ORDINANCES?

☑ Yes ☐ No

IF NO, EXPLAIN_____

H. IS THE WASTEWATER MANAGEMENT PLANNING AREA IN CONFORMANCE WITH THE MUNICIPAL MASTER PLAN?

☑ Yes ☐ No

IF NO, EXPLAIN_____

I. IS THE WASTEWATER MANAGEMENT PLANNING AREA IN CONFORMANCE WITH THE MUNICIPAL STORMWATER MANAGEMENT PLAN?

☑ Yes ☐ No

IF NO, EXPLAIN_____

J. IS THE WASTEWATER MANAGEMENT PLANNING AREA IN CONFORMANCE WITH THE REGIONAL STORMWATER MANAGEMENT PLAN?

☐ Yes ☐ No

IF NO, EXPLAIN Mercer County does not have a regional stormwater management plan.

K. HAS A TOTAL MAXIMUM DAILY LOAD (TMDL) BEEN ESTABLISHED FOR ANY LAKES OR STREAMS WITHIN

THE WASTEWATER MANAGEMENT PLANNING AREA?

☐ Yes ☑ No

IF YES, EXPLAIN_____

L. ARE THERE ANY PROPOSED DEVELOPMENTS WITHIN THE SAME WATERSHED/HUC 14 AS A STREAM/LAKE THAT HAS AN ESTABLISHED TMDL?

☐ Yes ☑ No

IF YES, EXPLAIN_____

9. WATER SUPPLY CONSIDERATIONS:

A. IDENTIFY WATER SUPPLY SOURCE (See attached "Types of Public Water Systems" and check one of the following):

☑ Public Water System (If yes, check one): ☑ Existing ☐ Proposed

☐ Non-Public Water Systems (Individual Wells)

_____ Number of wells from a confined aquifer
_____ Number of wells from an unconfined aquifer

B. IF YOU CHECKED PUBLIC WATER SYSTEM, COMPLETE THE FOLLOWING. IF YOU CHECKED NON-PUBLIC, SKIP TO ITEM D.

NAME OF PURVEYOR: Pennington Borough

CHECK APPROPRIATE BOX TO INDICATE TYPE OF WATER SOURCE:

☐ Reservoir ☐ Surface Water Intake ☐ Confined aquifer

☐ Unconfined Aquifer diversion with a passing flow requirement

☑ Unconfined Aquifer diversion without a passing flow requirement

NAME OF SOURCE WATERBODY OR AQUIFER: Passaic Formation

LOCATION OF DIVERSION (Municipality and street, if applicable): Pennington Borough: 5 Wells

WATER ALLOCATION PERMIT OR WATER USE REGISTRATION NUMBER
ASSOCIATED WITH DIVERSION: Permit #5276

C. WILL THE EXISTING WATER ALLOCATION PERMIT OR WATER USE REGISTRATION NEED TO BE MODIFIED TO INCREASE THE ALLOCATION OR WILL A NEW WATER ALLOCATION PERMIT OR WATER USE REGISTRATION BE NEEDED TO MEET THE ANTICIPATED WATER SUPPLY DEMAND FOR ANY DEVELOPMENTS IN THE WASTEWATER MANAGEMENT PLAN DURING THE PLANNING PERIOD? (CHECK APPROPRIATE BOX)

☑ EXISTING WATER ALLOCATION PERMIT WILL NOT REQUIRE MODIFICATION

☐ EXISTING WATER USE REGISTRATION WILL NOT REQUIRE MODIFICATION

☐ INCREASE IN EXISTING WATER ALLOCATION PERMIT

☐ NEW WATER ALLOCATION PERMIT

☐ NEW WATER USE REGISTRATION

D. IS YOUR WASTEWATER MANAGEMENT PLANNING AREA LOCATED IN A WATER SUPPLY PLANNING DEFICIT AREA AS IDENTIFIED IN THE 1996 NEW JERSEY STATEWIDE WATER SUPPLY PLAN?

☐ Yes ☑ No

E. CHECK THE APPROPRIATE BOX BELOW TO INDICATE WHETHER THE WASTEWATER MANAGEMENT PLANNING AREA IS LOCATED WITHIN AN AREA OF CRITICAL WATER SUPPLY CONCERN.

☐ Critical Area 1 ☐ Critical Area 2 ☑ Not Applicable

F. HAS AN ORDINANCE BEEN ADOPTED BY THE MUNICIPALITY/MUNICIPALITIES COVERED WASTEWATER MANAGEMENT PLAN IS THAT LIMITS OUTDOOR WATER USE (OTHER THAN DURING TIMES OF DROUGHT WARNING OR DROUGHT EMERGENCY)?

☐ Yes ☑ No

IF YES, ATTACH A COPY OF THE ORDINANCE.

10. RIPARIAN CORRIDOR CONSIDERATIONS (refer to the Instructions for the Riparian Corridor Analysis):

A. What is/are the stream classification(s) of waterbodies in wastewater management planning area?
Existing Planning Area: Stony Brook, FW2-NT; Lewis Brook, FW2-NT
Proposed Addition: Baldwins Creek, FW2-NT

B. Are any portions of the wastewater management planning area within 300 feet of Category One (C1) waters or any Highlands waterbodies?

☑ Yes ☐ No Figure 5A, Borough of Pennington WMP; Figure 3, Borough of Pennington EO109 Analysis

C. Are any portions of the wastewater management planning area within 150 feet of Fresh Water 1 (FW1) or Fresh Water 2-Trout Production (FW2-TP waters)?

☐ Yes ☑ No

D. Are any portions of the wastewater management planning area within 75 feet of other Fresh Water 2 (FW-2) designated waters?

Figure 5A, Borough of Pennington WMP; Figure 3, Borough of Pennington EO109 Analysis

☑ Yes ☐ No

11. THREATENED AND ENDANGERED SPECIES HABITAT CONSIDERATIONS:

ARE THERE LANDSCAPE PROJECT RANKED THREATENED AND/OR ENDANGERED SPECIES HABITAT WITHIN THE PROPOSED PROJECT SITE OR PLANNING AREA

☑ Yes ☐ No Figure 5B, Borough of Pennington WMP; Figure 4, Borough of Pennington EO109 Analysis

A. If yes, please describe the rank and species as per the Landscape Project. Rank 3
Existing Planning Area: Rank 3- Red Headed Woodpecker, Wood Turtle; Proposed Addition: Rank 3- Red Headed Woodpecker

B. Are there any Natural Heritage Database designated areas within the wastewater management planning area?

☐ Yes ☑ No

If yes, please provide a copy of the description.

12. CERTIFICATION:

I HEREBY CERTIFY THAT THE ABOVE INFORMATION IS ACCURATE, TO THE BEST OF MY KNOWLEDGE.

SIGNATURE: John Kontoulis DATE 7/21/06

Additional information, analyses or assessments may be required upon review by the NJDEP

SEND COMPLETED FORM WITH REQUIRED ATTACHMENTS TO:

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATERSHED MANAGEMENT
BUREAU OF WATERSHED REGULATION
401 E.STATE ST. 7TH FLOOR W. WING
PO BOX 418
TRENTON, NJ 08625-0418

APPENDIX B

PROOF OF CONCURRENT WASTEWATER MANAGEMENT PLAN SUBMISSION TO MERCER COUNTY

TRC Omni

July 21, 2006

VIA CERTIFIED MAIL / RETURN RECEIPT

Mr. Rick Smith
Mercer County Board of Chosen Freeholders for the
Mercer County WQM Planning Area
c/o Mercer County Planning Division
McDade Administration Building, Room 412
640 South Broad Street
P.O. Box 8068
Trenton, NJ 08650

RE: WASTEWATER MANAGEMENT PLAN UPDATE
BOROUGH OF PENNINGTON, MERCER COUNTY, NEW JERSEY

Dear Mr. Smith:

Enclosed are two (2) copies of the Wastewater Management Plan (WMP) Update for the Borough of Pennington, Mercer County, New Jersey and two (2) copies of the Executive Order 109 (EO109) Environmental Constrains Analysis for the Borough of Pennington, Wastewater Management Plan Update, both dated July 21, 2006.

The Borough of Pennington is requesting an expansion of the sewer service area and an increase in their permitted treatment capacity. These changes are needed to support growth and redevelopment within the Borough of Pennington and select areas within Hopewell Township; the requested increase will not be used to support sprawl development in the region.

The WMP Update and EO109 Analysis are concurrently being submitted to the New Jersey Department of Environmental Protection for its review.

We would appreciate your review and approval of this WMP update. If you have any questions, please contact Amy Soli (609-924-8821, ext. 30, or *ASoli@TRCsolutions.com)* or me (609-924-8821, ext. 11, or *Jcosgrove@TRCsolutions.com)*.

Sincerely,

James F. Cosgrove, Jr., P.E.
President

c (w/o enclosures): John Kantorek, SBRSA
Elizabeth Sterling, Pennington Borough Clerk
Annette Bielawski, Hopewell Township Clerk

Research Park, 321 Wall Street • Princeton, New Jersey 08540-1515
Telephone: 609-924-8821 • Facsimile: 609-924-8831
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Sent To: K. Smith - Mercer Cty Plan Div
Street, Apt. No.; or PO Box No.: PO. Box 8068
City, State, ZIP+4: Trenton NJ 08650

PS Form 3800, June 2002 — See Reverse for Instructions

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Research Park
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Mr. Rick Smith
c/o Mercer County Planning Division
McDade Administration Building, Rm 412
P.O. Box 8068
Trenton, NJ 08650

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1. Article Addressed to:

Rick Smith
c/o Mercer City Plan Com.
McSade Admin Bldg.
Rm 412
P.O. Box 8068
Trenton, NJ 08650

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X

☐ Agent
☐ Addressee

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City, State, ZIP+4: Trenton, NJ 08650

PS Form 3800, June 2002 See Reverse for Instructions

Omni

Research Park
321 Wall Street
Princeton, New Jersey 08540-1515

Mr. Rick Smith
c./o Mercer County Planning Division
McDade Administration Building, Rm 412
P.O. Box 8068
Trenton, NJ 08650

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1. Article Addressed to:

Rick Smith
c/o Mercer City Plan Com.
McCade Admin Bldg
Rm 412
P.O. Box 8068
Trenton, NJ 08650

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X

☐ Agent
☐ Addressee

B. Received by *(Printed Name)*

C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☒ Certified Mail ☐ Express Mail
☐ Registered ☒ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

2. Article Number
(Transfer from service label) 7003 3110 0004 3538 6727

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APPENDIX C

CERTIFICATION BY THE WASTEWATER MANAGEMENT PLANNING AGENCY

WASTEWATER MANAGEMENT PLAN CERTIFICATION

NAME OF WASTEWATER MANAGEMENT PLAN:
Borough of Pennington

DATE OF WASTEWATER MANAGEMENT PLAN: July 21, 2006

The signature of an authorized Wastewater Management Planning Agency representative below certifies that the WMP is being submitted on behalf of the Wastewater Management Planning Agency.

WMP AGENCY NAME: Stony Brook Regional Sewerage Authority

REPRESENTATIVE NAME: John V. Kantorek

TITLE: Executive Director

SIGNATURE: John Kantorek DATE: 7/20/06

ADDRESS: 290 River Road
Street Address Suite Number

Princeton NJ 08540
City State Zip

PHONE: (609) 924-8881 X 203 FAX: (609) 924-2857

E-MAIL ADDRESS: jkantorek@sbrsa.org

APPENDIX D

PROOF OF NOTIFICATION TO AND COMMENTS FROM THE BOROUGH OF PENNINGTON AND HOPEWELL TOWNSHIP

TRC Omni Environmental Corporation

Research Park
321 Wall Street
Princeton, New Jersey 08540-1515
Telephone 609-924-8821
Facsimile 609-924-8831

October 6, 2005

Elizabeth Sterling
Borough of Pennington Acting Clerk
30 North Main Street
Pennington, NJ 08534-0095

Annette Bielawski
Hopewell Township Clerk
201 Washington Crossing-Pennington Road
Titusville, NJ 08560

RE: BOROUGH OF PENNINGTON WASTEWATER MANAGEMENT PLAN UPDATE
HOPEWELL TOWNSHIP WASTEWATER MANAGEMENT PLAN REVISION

Dear Ms. Sterling and Ms. Bielawski:

On behalf of the Stony Brook Regional Sewerage Authority (SBRSA), we have prepared a draft update to the Borough of Pennington Wastewater Management Plan (WMP). Enclosed are two documents entitled, "Draft Wastewater Management Plan for the Borough of Pennington, Mercer County, New Jersey," dated October 6, 2005, and "Draft Executive Order 109 Environmental Constraints Analysis for the Borough of Pennington Wastewater Management Plan Update," dated October 6, 2005.

The update to the WMP was necessary to provide for expansion of the SBRSA Pennington Wastewater Treatment Plant to accommodate redevelopment of selected sites within the Borough, growth of the school system, and to service the proposed Pennington Public Works Facility. A revision to the Hopewell WMP is necessary because some of the SBRSA service area is also within Hopewell Township.

SBRSA requests that you review these draft documents and hopes to meet with you in November to discuss the details of this WMP update. Please do not hesitate to contact me with any questions via telephone at 609-924-8821 (ext. 11) or via email at JCosgrove@TRCsolutions.com.

Sincerely,

James F. Cosgrove, Jr., P.E.
President

c: John Kantorek, SBRSA
Eugene J. Dunworth, Jr., Borough of Pennington Administrator
Bruce Hilling, Hopewell Township Administrator
Don Fetzer, P.E., Borough of Pennington Engineer (Van Note Harvey)
Paul Pogorzelski, P.E., Hopewell Township Engineer (Van Cleef Engineering)

Enclosures

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Neil I. Van Cleef, PE, LS & PP
Robert J. Clerico, PE & PP
Robert B. Heibell, PE, LS & PP
Daniel A. Nagy, LS & PP
Paul E. Pogorzelski, PE & PP
Samuel D. Costanzo, PE & PP

March 29, 2006

John V. Kantorek
Stony Brook Regional Sewerage Authority
290 River Road
Princeton, NJ 08540

Re: Future Wastewater Flows from Hopewell Township
SBRSA - Pennington Sewer Service Area
VCEA File 7437

Dear John:

This letter will serve as confirmation of our discussion regarding the proposed SBRSA amendment to the Pennington Borough Wastewater management Plan. In general, we have no objection to the report as prepared subject to the following minor revisions:

1. The following lots bounded by the area north of North Main Street, west of Old North Main Street and east of N.J.S.H. Route 31 should be included:

   - Block 47
     Lot 1
     Flow 1,750 gpd (existing non-residential flow)

   - Block 47
     Lot 3
     Flow 300 gpd (existing residential flow)

2. The area locally known as "Tree Streets" located on the southwest side of Pennington Borough should be included. The flows from this area are anticipated to be 13,800 gpd (residential flow) and the blocks and lots are more particularly described in the Parcel Summary in my report entitled Feasibility for Selected Wastewater Alternatives serving Areas of Concern dated April 27, 2001 and revised May 9, 2001.

3. Add an additional Institutional flow of 7,995 gpd from the Hopewell Valley Regional School tract. This flow is in addition to the 25,000 gpd already planned for the school tract.

Please Reply To:
• CENTRAL NJ OFFICE • 339 Amwell Road, Bldg. B, PO Box 5877 • Hillsborough, NJ 08844-5877 • 908.359.8291 • Fax: 908.359.1580
• WESTERN NJ OFFICE • 1128 Route 31 • Lebanon, NJ 08833 • 908.735.9500 • Fax: 908.735.6364
• SOUTHCENTRAL NJ OFFICE • 2345 Route 33 • Robbinsville, NJ 08691 • 609. 259.3263 • Fax: 609.259.0278
• SOUTHERN NJ OFFICE • 196 Grove Avenue, Suite F • Thorofare, NJ 08086 • 856.251.0928 • Fax: 856.251.1594
• NORTHERN NJ OFFICE • 114 Algonquin Parkway • Whippany, NJ 07981 • 973. 887.8711 • Fax: 973.887.7749
• DOYLESTOWN PA OFFICE • 501 North Main Street • Doylestown, PA 18901 • 215. 345.1876 • Fax: 215.345.1730
• LEHIGH VALLEY PA OFFICE • 551 Main Street • Bethlehem, PA 18018 • 610. 332.1772 • Fax: 610.332.1771
• BERKS COUNTY PA OFFICE • 4 Wellington Boulevard • Wyomissing, PA 19610 • 610. 670.6630 • Fax: 610.670.4603

Van Cleef
ENGINEERING ASSOCIATES

4. The sewer service area for the Hopewell Valley Regional Schools needs to be increased in size to include all lands owned by the Hopewell Valley Regional School District. This, essentially, adds Block 63, Lot 4 to the designated sewer service area.

Very truly yours,

Paul E. Pogorzelski, P.E.
Hopewell Township Engineer

C: Hopewell Township Committee
Steven P. Goodell, Esquire

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associates, pc
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Donald E. Fetzer, P.E.
President

February 22, 2006

Mr. John Kantorek, Executive Director
Stony Brook Regional Sewerage Authority
290 River Road
Princeton, New Jersey 08540

RE: Borough of Pennington Wastewater Management Plan Update
Borough of Pennington Endorsement
VNHA No. 36529-220-71 and 35745-200-71

Dear Mr. Kantorek:

At long last! Please find enclosed certified copy of the Borough of Pennington Resolution 2006-2.20 adopted at the Borough Council Meeting on Monday, February 13, 2006, as noted in the resolution. My letter of February 9, 2006, is attached.

On behalf of the Borough, I extend my gratitude to both the Authority and TRC Omni Environmental for a job well done and look forward to the State approval process now beginning in earnest.

As always, please call should you have any questions.

Very truly yours,

Donald E. Fetzer, P.E.
Pennington Borough Engineer

DEF/slb
Attachment – 1
c: (with attachments)
James F. Cosgrove, Jr., P.E., President, TRC Omni Environmental
321 Wall Street, Princeton, New Jersey 08540-1515
Betty Sterling, Pennington Borough Clerk
VNHA File Nos. 36042-220-71, 35521-300-71, and 36042-090-72

36042-090.71
36042-220.71
36529-090.71
36529-220.71
35745-200.71
35521-300.71

BOROUGH OF PENNINGTON
Resolution #2006-2.20

RESOLUTION ENDORSING PROPOSED WASTEWATER MANAGEMENT PLAN AMENDMENT WITH MODIFICATIONS

WHEREAS, the Stony Brook Regional Sewerage Authority has prepared a Wastewater Management Plan Amendment to provide for a future expansion of the Stony Brook Pennington Wastewater Treatment Facility and an amendment of the plant's service area for the limited purpose of adding the site owned by Pennington in Hopewell Township on which the Borough's Public Works Maintenance Facility will be built;

WHEREAS, the proposed amendment is based in part on estimated flows submitted to Stony Brook by the Borough; and these projected flows have been endorsed by the Pennington Planning Board and are now included in the Pennington Master Plan;

WHEREAS, Stony Brook Regional Sewerage Authority has requested that Borough Council endorse the proposed Wastewater Management Plan Amendment in order to permit its formal submission by the Authority to the New Jersey Department of Environmental Protection;

WHEREAS, the proposed Wastewater Management Plan Draft and related Executive Order 109: Environmental Constraints Analysis Draft have been reviewed by the Borough Engineer in consultation with Borough Council's Chairman of Public Works, the Borough's Superintendent of Public Works and the Borough Council's Public Works Committee, and same are recommended for endorsement subject to modifications as set forth in the letter of Donald E. Fetzer, Borough Engineer, to Mayor and Council of the Borough of Pennington dated February 9, 2006, and revised February 10, 2006 of which a copy is attached to the Resolution;

NOW, THEREFORE, BE IT RESOLVED, by the Borough Council of the Borough of Pennington as follows:

1. The "Wastewater Management Plan Draft" dated October 6, 2005 and "Executive Order 109: Environmental Constraints Analysis Draft" dated October 6, 2005 are hereby conditionally endorsed for submission to the New Jersey Department of Environmental Protection subject to the proposed modifications in both documents set forth in the attached letter of Donald E. Fetzer, Borough Engineer.

2. This conditional endorsement of the Wastewater Management Plan Amendment shall not be construed to constitute an agreement on the Borough's part to accept any additional wastewater flow from any properties in Hopewell Township.

3. The conditional endorsement is further subject to review of final language changes by the Borough Engineer, the Borough Council's Chairman of Public Works and the Borough's Superintendent of Public Works confirming incorporation of the plan modifications proposed in the attached Fetzer letter.

Record of Council Vote on Passage

COUNCILMAN	AYE	NAY	N.V.	A.B.	COUNCILMAN	AYE	NAY	N.V.	A.B.
Garber	X				Lytle	X			
Heinzel	X				Persichilli	X			
Lawver	M				Tucker	S			

This is to certify that this is a true copy of a Resolution adopted by the Pennington Borough Council at a meeting on February 13, 2006.

Elizabeth Sterling

Elizabeth Sterling, Borough Clerk

van note - harvey
ASSOCIATES, P.C.
777 Alexander Road
Princeton, New Jersey 08540
609-987-2323 Fax: 609-987-0005
www.vannoteharvey.com
E-mail: dfetzer@vannoteharvey.com

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February 9, 2006

Donald E. Fetzer, P.E.
President

FAXED 02.09.06 10:15 am SNS

VIA FACSIMILE: 609.737.9780

Mayor and Council of the
Borough of Pennington
30 North Main Street
Pennington, New Jersey 08534

RE: Proposed Wastewater Management Plan Amendment and Environmental Constraints Analysis
Prepared by Stony Brook Regional Sewerage Authority
VNHA No. 35521-300-71

Dear Mayor and Council:

As you are no doubt aware, over the past one to two years, Stony Brook Regional Sewerage Authority, in conjunction with information provided by the Borough, has been preparing a Wastewater Management Plan Amendment to most notably provide for future expansion of Stony Brook's Pennington Wastewater Treatment Facility as well as amend the service area to add Pennington's Public Works site (located in Hopewell Township) to the plant's service area.

Estimated flows contained in the report are those submitted by the Borough and have been endorsed by the Planning Board and included in its latest Master Plan update.

At this time, in order to continue the process and permit formal submission to DEP by the Stony Brook Regional Sewer Authority, the Authority has requested Borough *"endorsement"* of these reports.

After review of same, and after conversations with Council President Garber and Jeff Wittkop, it is recommended that the Borough endorse the proposed amendment subject to incorporation of the following modifications to the final October 6, 2005 Draft:

Wastewater Management Plan Draft, October 6, 2005

1. Page Two, last full paragraph: Indicate that the service area amendment is solely for lands owned by the Borough of Pennington for the relocation of its Public Works Facility to comply with the 2004 DEP Stormwater Management Regulations.

2. Page Two, last full paragraph: Modify language to indicate that the Borough anticipates preserving significant portions of the undeveloped land as open space. Since the Borough, at this time, has not made any formal indication of donating the remaining lands to the New Jersey Green Acres program or any other similar program. This language should be deleted.

3. Page 4, second paragraph: Reference to the Stony Brook Assisted Living Facility should be changed to be a portion of Pennington Point. Stony Brook Assisted Living is located within the Borough of Pennington whereas the Pennington Point Development straddles the Borough line with Hopewell Township.

4. Page 4, second paragraph: The source of the sixty-one (61) units referenced is assumed to include those in Hopewell Township as part of Pennington Point and not Stony Brook Assisted Living, as referenced. This should be changed.

5. Page 4, second to last line: Skeed Smarte Pumping Station should be Sked Street Pumping Station.

6. Page 5, second full paragraph: Similar to comment above, the reference to the remaining undeveloped lands being donated to the Green Acres Program should be modified. Additionally, it is requested that it be indicated that the land in Hopewell Township proposed to be added to the service area is owned by the Borough of Pennington and will be used as its the Public Works Facility.

7. Page 8, footnote "C": The reference of the fifty-two (52) units of Pennington Point which seems to be correct (see note above); however, the additional nine (9) houses that are indicated as being served by the Borough are believed to be along Vannoy Avenue with portions of these single family residential lots in the Borough. Based on Borough practice, single residential lots located in both Hopewell Township and the Borough could, if approved by Council, be extended sewer service. Consequently, with the exception of Pennington Point noted above, I am unaware of any residential properties that are provided wastewater conveyance through Pennington's system to the Stony Brook Plant and are located entirely within Hopewell Township. It could be argued that even Pennington Point meets the spirit of the Borough's practice. It is requested that Stony Brook review footnote "C" on page 8 for potential modification.

8. ~~Page 18, second line: The reference to Hopewell Township's 1995 Wastewater Management Plan and, more particularly, the description of the numerous treatment systems described therein does not seem germane to this document. It is requested that Stony Brook review this language.~~

per John Kanbrock

Executive Order 109: Environmental Constraints Analysis Draft October 6, 2005

1. Page 1, middle of second full paragraph: Reference is again made to Stony Brook Assisted Living Facility which, I believe, should be Pennington Point. See comments under Wastewater Management Plan above. The remaining portion of the second full paragraph references an inter-local sewerage agreement between Hopewell Township and the Borough of Pennington. I am not aware, nor have I reviewed any such Agreements. Should it exist, I request a copy of the document be provided to the Borough for review and inclusion in your files. As noted above, I am unaware of any properties that are located totally within the Township of Hopewell that are provided wastewater conveyance via Pennington's facilities.

2. Page 13, last four lines above Section "D": It should be indicated that this land is owned by the Borough of Pennington and language referencing the Green Acres Program should be modified, as requested above.

3. Page 19, last paragraph: This concept may be something that the Borough may consider in the future. Again, the Green Acres Program reference should be eliminated and has not been formally endorsed by the Mayor and Council; and, as such, we request that this language be removed.

4. Page 22, second full sentence: Once again, the Green Acres Program language should be modified in accordance with the comments above.

General

As a general comment, the Borough should indicate that endorsement of the plan does not imply any agreement to accept any additional wastewater flow from any properties in Hopewell Township unless, and until, service agreement(s) satisfactory to all parties, including, if necessary, the SBRSA, have been properly executed.

Assuming the above suggestions meet with your approval, I respectfully request endorsement of the Plan by the Mayor and Council to permit the proposed modifications to be made and the review document submitted to DEP to begin the time consuming amendment process in earnest.

As a further condition to the endorsement, consideration could be given to review of final language changes by me and/or Borough representative(s) to confirm compliance with the spirit of the endorsement and the conditions of same.

As always, I would be happy to discuss any questions or wish to discuss any aspect(s) further, please do not hesitate to contact me.

Very truly yours,

Donald E. Fetzer, P.E.
Pennington Borough Engineer

DEF/slb

c: Via Fax:

Walter Bliss, Esq., (609.683.9388)
Gene Dunworth (609.737.9780)
David Garber, Council President (609.737.0276)
Jeff Wittkop, Superintendent of Public Works (609.737.9576)

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APPENDIX E

USEPA STEP 2 GRANT CONDITION WAIVER

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

RECEIVED
FEB 09 2009
OMNI ENVIRONMENTAL LLC

FEB - 3 2009

John Kantorek, P.E.
Executive Director
Stony Brook Regional Sewerage Authority
290 River Road
Princeton, New Jersey 08540

Dear Mr. Kantorek:

This is in response to your November 20, 2008 request for a waiver from the special condition applied to the Stony Brook Regional Sewerage Authority's construction grant (Project No. C-34-704-01), which restricts sewer connections from new development in environmentally sensitive areas. Specifically, this request concerns the proposed construction of ballfields and associated infrastructure (including bathrooms) on Block 63, Lot 4, located in Howell Township, Mercer County, New Jersey.

We have carefully evaluated the information you provided. We note that the New Jersey Department of Environmental Protection (NJDEP) Division of Land Use Regulation has issued a Freshwater Wetlands Letter of Interpretation-Line Verification for this property (File No. 1106-96-0010.1). Accordingly, the wetlands and water boundary lines appearing on the plan map entitled "Proposed Sewer Service Area, Revisions to Hopewell Township School Property, Pennington STP WMP, Mercer County, New Jersey," dated October 22, 2008 and prepared by Omni Environmental, LLC. have been determined to be accurate by the NJDEP.

Our review indicates that none of the proposed facilities, including sewage generating structures, will be located within wetlands. Accordingly, I approve a partial waiver of the grant condition for the construction of the proposed project. Please note, however, that the sewer connection restriction will remain in effect for the remaining wetlands on this parcel. Any modification to this project resulting in any disturbance to wetlands will require a resubmittal of this application to the Environmental Protection Agency for a revised determination. Moreover, this waiver does not relieve the property owner from compliance with any other federal, state, or local requirements.

Finally, we would like to take this opportunity to urge you to inform the consultants / contractors involved in this project about alternative/green building materials and energy efficient products. Materials such as plastic lumber, porous concrete, cinder gravel, modular blocks, and crushed granite are widely available and their use should be evaluated. The use of these materials is well documented.

Please see internet sites on alternative/green materials and energy efficient products such as:

(1) http://www.epa.gov/epp/. The "Database of Environmental Information for Products and Services" provides information on how to purchase such products. Other information on this website includes a guide for construction specifications.

(2) http://www.energystar.gov/. ENERGY STAR has successfully delivered energy and cost savings across the United States and in 2007 avoided greenhouse gas emissions equivalent to those from 27 million cars, while saving businesses, organizations, and consumers about $16 billion.

(3) http://www.epa.gov/watersense. The WaterSense label indicates products and programs that are both high-performance and water efficient. Please see this website for EPA issued specifications that outline the requirements that products and programs should meet to earn the WaterSense label.

Using these alternative building materials can increase a structure's life expectancy, reduce maintenance requirements, and improve weather, insect and vandalism resistance without increasing the cost in relation to conventional materials. Energy efficient products have also been shown to deliver the same or better performance as comparable models while using less energy and saving money. Since this project involves the construction of parking spaces, we also strongly urge the use of rain gardens (also known as bioretention facilities). Rain gardens may be constructed in a parking island or linearly along a roadway with curb-cut inlets. These areas can be constructed along the edge of traditional parking spaces – the landscaped area is placed where the front or back of vehicles would overhang. Since this space is not used for wheel contact, valuable parking space is not sacrificed. We commend any efforts to use green building/energy efficient products and would appreciate being made aware of their usage.

If you have any questions or require additional information, please contact Steven Ferreira of my staff at (212) 637-3759.

Sincerely,

Ronald J. Borsellino, Acting Director
Division of Environmental Planning and Protection

cc: A. Soli, Omni Environmental LLC

APPENDIX F

ZONING INFORMATION FOR PENNINGTON BOROUGH AND HOPEWELL TOWNSHIP

BOROUGH OF PENNINGTON ZONING

Zone	Description	Minimum Lot Size	Maximum Densities*
Residential Zone (R-80, R-100)	**Principally Permitted Uses**		
	Single Family Dwellings; Municipal Parks and Buildings; Affordable Housing Overlay Zone (R-80)	Interior Lots: R-80: 12,000 sq. ft.; R-100: 20,000 sq. ft. Corner Lots R-80: 15,000 sq. ft.; R-100: 24,000 sq. ft.	Max. Lot Coverage: R-80: 50% of the first 6,000 sq. ft. plus 30% of the next 6,000 sq. ft. plus 20% of all area over 12,000 sq. ft. R-100: 25%
	Conditionally Permitted Uses		
	Non-Governmental Public Utility Uses; Clubhouses; Public and Private Schools; Churches; Dwelling Conversions (R-80); Home Occupations; Cluster Development (R-100); Continuing Care Retirement Facility (R-100)	Interior Lots: R-80: 12,000 sq. ft.; R-100: 20,000 sq. ft. Corner Lots: R-80: 15,000 sq. ft.; R-100: 24,000 sq. ft.	Max. Lot Coverage: R-80: 50% of the first 6,000 sq. ft. plus 30% of the next 6,000 sq. ft. plus 20% of all area over 12,000 sq. ft. R-100: 25%
Office-Residence Zone (OR)	**Principally Permitted Uses**		
	Single Family Dwellings	Interior Lots: 12,000 sq. ft. Corner Lots: 15,000 sq. ft.	Max. Lot Coverage: 50% of the first 6,000 sq. ft. plus 30% of the next 6,000 sq. ft. plus 20% of all area over 12,000 sq. ft.
	Professional Offices within Residential Structure; Municipal Facilities; Existing Office Uses	Interior Lots: 14,000 sq. ft. Corner Lots: 17,100 sq. ft.	Max. Lot Coverage: 50%
	Conditionally Permitted Uses		
	Dwelling Conversions; Churches	Church: 3 acres Dwelling Conversions: Interior Lots: 14,000 sq. ft. Corner Lots: 17,100 sq. ft.	Max. Lot Coverage: 50%

* Permitted densities were not provided for all zones in the applicable ordinances.

BOROUGH OF PENNINGTON ZONING

Zone	Description	Minimum Lot Size	Maximum Densities*
Town Center Zone (TC)	**Principally Permitted Uses**		
	Neighborhood Retail and Specialty Shops	Maximum Lot Area: 15,000 sq. ft.	Max. Lot Coverage: 60% Max. FAR: 60%
	Personal Service Establishments (Banks, Shoe Repair, Tailors, etc.); Existing Single- and Multi-Family Dwellings; Dwelling Units Above the First Floor; Municipal Parks and Buildings		
Office Building Zone (OB)	**Principally Permitted Uses**		
	Offices (Executive, General Business, Professional); Technical Training Centers; Child Care Centers	Interior Lots: 60,000 sq. ft. Corner Lots: 67,500 sq. ft.	Max. FAR: 30%
	Conditionally Permitted Uses		
	Public Utility; Scientific or Research Laboratories; Banks; Limited Retail	Interior Lots: 60,000 sq. ft. Corner Lots: 67,500 sq. ft.	Max. FAR: 30%
Professional Office Zone (PO)	**Principally Permitted Uses**		
	Professional Offices; General Business Offices; Offices for Social Service Organizations; Municipal Parks	Interior Lots: 60,000 sq. ft. Corner Lots: 60,000 sq. ft.	Max. FAR: 16%

BOROUGH OF PENNINGTON ZONING

Zone	Description	Minimum Lot Size	Maximum Densities*
Education Zone (E1 & E2)	**Principally Permitted Uses**		
	Private, Non-profit Educational Institutions Including Student Housing (E-1)	10 acres	Max. FAR: 30%
	School Related Facilities Excluding Student Housing, Libraries, Dining Halls, Theatres, and Classroom Buildings for Private, Non-Profit Educational Institutions (E-2)	5 acres	Max. FAR: 30%
	Single-Family Dwellings	E-1: 10 acres E-2: 5 acres	Max. FAR: 30%
	Attached Dwellings (E-2)	20,000 sq. ft. usable land	8 units/site acre
	Conditionally Permitted Uses		
	Public Utility Uses	E-1: 10 acres E-2: 5 acres	Max. FAR: 30%
	Clubhouses and Churches (E-1)	10 acres	Max. FAR: 30%
Mixed Use (MU3)	**Principally Permitted Uses**		
	Residential Development with Affordable Housing (Attached or Multi-Family Dwellings)	10 acres	Maximum 40 units
	Offices (Executive, Professional, Medical); Health Care Facilities; Assisted Care Living; Age Restricted Housing; Medical Staff Residences	10 acres	Max. FAR: 30%

HOPEWELL TOWNSHIP ZONING

Zone	Description	Minimum Lot Size	Maximum Densities†
Residential (R-100)	**Principally Permitted Uses**		
	Residences	40,000 sq. ft.	1/acre
	Community Residences	40,000 sq. ft.	1/acre
	Cemeteries; Public Library; Parks; Municipal Buildings; Fire Houses	Cemeteries: 3 acres Library: 3 acres Other uses: Not Available	Max. Lot Coverage: Library: 40% Other uses: Not Available
	Golf Course	75 acres	Not Applicable
	Farm and Agriculture	5 acres	Not Applicable
	Conditionally Permitted Uses		
	Low and Moderate Income Housing	Not Available	30 units/gross acre for residents 62 and over; 10 units/gross acre for others
	Utility Facilities	20,000 sq. ft.	Max. Lot Coverage: 20%
	Nursery Outlet	5 acres	Not Applicable
	Nonprofit Schools and Churches	Church: 3 acres School: 15 acres	Max. Lot Coverage: Church: 20% School: 25%
	Resident Professional Offices	40,000 sq. ft.	1/acre
	Child Care Centers	250 ft. x 200 ft.	Max. FAR: 5%

† Permitted densities were not provided for all zones in the applicable ordinances.

HOPEWELL TOWNSHIP ZONING

Zone	Description	Minimum Lot Size	Maximum Densities†
Shopping Center (SC)	**Principally Permitted Uses**		
	Retail Stores; Sales of Personal Services (Repair shops, tailors, etc.); Offices; Medical Clinics; Banks; Theatres; Bowling Alleys; Gymnasiums; Libraries; Night Clubs; Bar; Restaurant; Motel	5 acres	Max. FAR: 20%
	Child Care Center	Up to 40 Children: 1 acre; Over 40 Children: 0.25 acres for each group, or part of a group, of 10 children Maximum: 2.5 acres unless more space needed for on-site wells and/or septic	Max. FAR: 20%
	Conditionally Permitted Uses		
	One automobile service station and one fast food restaurant per shopping center.	Shopping center must be at least 10 acres in size.	Max. FAR: 20%
	Utility Facilities	20,000 sq. ft.	Max. Lot Coverage: 20%

HOPEWELL TOWNSHIP ZONING

Zone	Description	Minimum Lot Size	Maximum Densities†
Industrial Commercial (IC)	**Principally Permitted Uses**		
	Nursery and Garden Center Outlets; New Car/Truck Dealer	2 acres	Max. FAR: 10%
	Shopping Centers	10 acres	Max. FAR: 20%
	Medical Clinics; Banks; Mortuary	3 acres	Max. FAR: 15%
	Child Care Center	Up to 40 Children: 1 acre; Over 40 Children: 0.25 acres for each group, or part of a group, of 10 children Maximum: 2.5 acres unless more space needed for on-site wells and/or septic	Max. FAR: 20%
	Motel	5 acres	Max. FAR: 15%
	Farms and Agriculture; Office; Research Facility; Hospital; Restaurant	5 acres	Max. FAR: 20%
	Office Park	2 acres for any proposed development containing at least three lots with an average size of 3.5 acres and a tract of at least 20 acres; 5 acres otherwise	Max. FAR: 20%
	Veterinary Hospital	1 acre	Max. FAR: 20%
	Conditionally Permitted Uses		
	One automobile service station and one fast food restaurant per shopping center.	Shopping center must be at least 10 acres in size.	Max. FAR: 10%
	Automobile Car Wash	2 acres	Max. FAR: 10%

HOPEWELL TOWNSHIP ZONING

Zone	Description	Minimum Lot Size	Maximum Densities†
	Utility Facilities	20,000 sq. ft.	Max. Lot Coverage: 20%

HOPEWELL TOWNSHIP ZONING

Zone	Description	Minimum Lot Size	Maximum Densities†
Office and Commercial Conversion (O/CC)	**Principally Permitted Uses**		
	Offices and Banks; Medical Clinic	1 acre	Max. FAR: 15%
	Farms and Agriculture	5 acres	Not Applicable
	Single Family Dwellings and Conversion	20,000 sq. ft.	Max. Lot Coverage: 20%
	Child Care Centers	Up to 40 Children: 1 acre; Over 40 Children: 0.25 acres for each group, or part of a group, of 10 children Maximum: 2.5 acres unless more space needed for on-site wells and/or septic	Max. FAR: 20%
	Conditionally Permitted Uses		
	Utility Facilities	20,000 sq. ft.	Max. Lot Coverage: 20%

APPENDIX G

PENNINGTON BOROUGH STORMWATER MANAGEMENT ORDINANCE/CODE

BOROUGH OF PENNINGTON
ORDINANCE NO. 2006-7

AN ORDINANCE ADOPTING BEST MANAGEMENT PRACTICES FOR THE MANAGEMENT OF STORMWATER, PROVIDING FOR DESIGN AND PERFORMANCE STANDARDS FOR STORMWATER MANAGEMENT PLANS, AND AMENDING CHAPTER 163 OF THE CODE OF THE BOROUGH OF PENNINGTON.

WHEREAS, the effective management of stormwater has been declared to be the public policy of the State of New Jersey, and various ordinances have been recommended by the New Jersey Department of Environmental Protection for enactment by each municipality in order to further the public policy; and

WHEREAS, it is both appropriate and necessary for the Borough of Pennington to establish, consistent with the recommendations of the New Jersey Department of Environmental Protection, best management practices relating to stormwater management as set forth herein;

NOW, THEREFORE, BE IT ORDAINED, by the Borough Council of the Borough of Pennington, as follows:

1. Chapter 163, Article IV, of the Code of the Borough of Pennington, concerning Site Plan Review, is hereby amended by the addition of the following new sections:

§163-20.1. Definitions.

As used in this ordinance, the following terms shall have the meanings indicated, unless a modified definition applicable to stormwater management has been adopted by the New Jersey Department of Environmental Protection as part of the Stormwater Management Rules, in which case the definition enacted by the New Jersey Department of Environmental Protection shall apply.

"CAFRA Planning Map" means 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.

"CAFRA Centers, Cores or Nodes" means those areas within boundaries accepted by the Department pursuant to N.J.A.C. 7:8E-5B.
density.

"Core" means a pedestrian-oriented area of commercial and civic uses serving the surrounding municipality, generally including housing and access to public transportation.

"County review agency" means 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" shall be read within the context of the subject matter. For example, with respect to stormwater and environmental issues, "Department" means the New Jersey Department of Environmental Protection and with respect to transportation and highway issues, "Department" means the New Jersey Department of Transportation.

"Designated Center," means a State Development and Redevelopment Plan Center as designated by the State Planning Commission such as urban, regional, town, village, or hamlet.

"Design engineer" means 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" means 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 other structure or of any mining or 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, for which permission may be required pursuant to this chapter. 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" means a geographic area within which stormwater, sediments, or dissolved materials drain to a particular receiving waterbody or to a particular point along a receiving waterbody.

“Engineer” or “Municipal Engineer” means the Borough Engineer. Board Engineer means the Planning Board Engineer or the Zoning Board of Adjustment Engineer as appropriate.

“Environmentally critical areas” means 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 well head 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” means 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” means the detachment and movement of soil or rock fragments by water, wind, ice or gravity.

“Impervious surface” means a surface that has been covered with a layer of material so that it is highly resistant to infiltration by water.

“Infiltration” is the process by which water seeps into the soil from precipitation.

“Major development” means any “development” that provides for ultimately disturbing one or more acres of land or increasing impervious surface by one-quarter acre or more.

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.

“Minor development” means any “development” not defined as a “major development.”

“Municipality” means the Borough of Pennington.

“Node” means an area designated by the State Planning Commission concentrating facilities and activities, which are not organized in a compact form.

“Nutrient” means a chemical element or compound, such as nitrogen or phosphorus, which is essential to and promotes the development of organisms.

“Person” means any individual, corporation, company, partnership, firm, association, 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” means 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, ground waters or surface waters of the State, or to a domestic treatment works. “Pollutant” includes both hazardous and nonhazardous pollutants.

“Recharge” means the amount of water from precipitation that infiltrates into the ground and is not evapotranspired.

“Sediment” means 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” means the lot or lots upon which a major development is to occur or has occurred.

“Soil” means all unconsolidated mineral and organic material of any origin.

“State Development and Redevelopment Plan Metropolitan Planning Area (PA1)” means 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” is defined as 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” means 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” means water flow on the surface of the ground or in storm sewers, resulting from precipitation.

"Stormwater management basin" means 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" means 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 non-stormwater discharges into stormwater conveyances.

"Tidal Flood Hazard Area" means 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" means a neighborhood given priority access to State resources through the New Jersey Redevelopment Authority.

"Urban Enterprise Zone" means 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" is defined as 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" means the ocean and its estuaries, all springs, streams, wetlands, and bodies of surface or ground water, whether natural or artificial, within the boundaries of the State of New Jersey or subject to its jurisdiction.

"Wetlands" or "wetland" means 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.

§163-20.2. Scope and Purpose.

A. Policy Statement

Flood control, groundwater recharge, and pollutant reduction through nonstructural or low impact techniques shall be explored before relying on structural best management practices ("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.

B. Purpose

It is the purpose of this section to establish minimum stormwater management requirements and controls for "major development" as defined herein.

C. Applicability

1. 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:

   a. Non-residential major developments; and
   b. Aspects of residential major developments that are not pre-empted by the Residential Site Improvement Standards at N.J.A.C. 5:21.

2. This section shall also be applicable to all major developments undertaken by Pennington Borough.

D. 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 section. 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.

§163-20.3. 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 N.J.A.C.7:8-5.4 and 5.5, as may be amended from time to time. 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.

C. Stormwater management measures shall be required for minor developments, and shall be developed to address erosion control and stormwater run-off.

§163-20.4. Stormwater Management Requirements for Major Development

A. The development shall incorporate a maintenance plan for the stormwater management measures incorporated into the design of a major development in accordance with §163-20.10.

B. Stormwater management measures shall avoid adverse impacts of concentrated flow on habitat for threatened and endangered species as documented in the Department' 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).

C. The following linear development projects are exempt from the groundwater recharge, stormwater runoff quantity, and stormwater runoff quality requirements of Subsections 4.F and 4.G of this section:

    1. The construction of an underground utility line provided that the disturbed areas are revegetated upon completion;

    2. The construction of an above ground utility line provided that the existing conditions are maintained to the maximum extent practicable; and

    3. 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.

D. A waiver from strict compliance with the groundwater recharge, stormwater runoff quantity, and stormwater runoff quality requirements of Subsections 4.F and 4.G of this section may be obtained for the enlargement of an existing public roadway or railroad, or the construction or enlargement of a public pedestrian access, provided the following conditions are met:

    1. The applicant demonstrates that there is a public need for the project that cannot be accomplished by any other means;

    2. 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 Subsections 4.F and 4.G of this section to the maximum extent practicable;

    3. The applicant demonstrates that, in order to meet the requirements of Subsections 4.F and 4.G of this section, existing structures currently in use, such as homes and buildings, would need to be condemned; and

    4. 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 D.3 above within the upstream drainage area of the receiving stream, that would provide additional opportunities to mitigate the requirements of Subsections 4.F and 4.G that were not achievable on-site.

E. Nonstructural Stormwater Management Strategies

1. To the maximum extent practicable, the standards in Subsections 4.F and 4.G of this section shall be met by incorporating into the design nonstructural stormwater management strategies set forth in this subsection. 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 subparagraph 2 below into the design of a particular project, the applicant shall identify the strategy considered and provide a basis for the contention.

2. Nonstructural stormwater management strategies incorporated into site design shall:

a. Protect areas that provide water quality benefits or areas particularly susceptible to erosion and sediment loss;

b. Minimize impervious surfaces and break up or disconnect the flow of runoff over impervious surfaces;

c. Maximize the protection of natural drainage features and vegetation;

d. Minimize the decrease in the "time of concentration" from pre-construction to post construction. "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;

e. Minimize land disturbance including clearing and grading;

f. Minimize soil compaction;

g. Provide low-maintenance landscaping that encourages retention and planting of native vegetation and minimizes the use of lawns, fertilizers and pesticides;

h. Provide vegetated open-channel conveyance systems discharging into and through stable vegetated areas;

i. 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:

(1) Site design features that help to prevent accumulation of trash and debris in drainage systems, including features that satisfy §163-20.4.E.3. below;

(2) Site design features that help to prevent discharge of trash and debris from drainage systems;

(3) Site design features that help to prevent and/or contain spills or other harmful accumulations of pollutants at industrial or commercial developments; and

(4) 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.

3. Site design features identified under §163-20.4.E.2.i.(2) 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 §163-20.4.E.3.c below.

a. 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:

(1) 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
(2) A different grate, if each individual clear space in that grate has an area of no more than seven (7.0) 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.

b. 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 (7.0) square inches, or be no greater than two (2.0) inches across the smallest dimension.

c. This standard does not apply:

(1) 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;

(2) Where flows from the water quality design storm as specified in §163-20.4.G.1 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:

(a) A rectangular space four and five-eighths inches long and one and one-half inches wide (this option does not apply for outfall netting facilities); or
(b) A bar screen having a bar spacing of 0.5 inches.

(3) Where flows are conveyed through a trash rack that has parallel bars with one-inch (1") spacing between the bars, to the elevation of the water quality design storm as specified in §163-20.4.G.1; or

(4) 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.

4. Any land area used as a nonstructural stormwater management measure to meet the performance standards in subsections 4.F and 4.G of this section 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.

5. 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 §163-20.7, or found on the Department's website at www.njstormwater.org.

F. Erosion Control, Groundwater Recharge and Runoff Quantity Standards

1. 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.

a. 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.

b. The minimum design and performance standards for groundwater recharge are as follows:

(1) The design engineer shall, using the assumptions and factors for stormwater runoff and groundwater recharge calculations at N.J.A.C. 7:8-5.4, as may be amended from time to time, either:

(a) Demonstrate through hydrologic and hydraulic analysis that the site and its stormwater management measures maintain 100 percent of the average annual pre-construction groundwater recharge volume for the site; or

(b) Demonstrate through hydrologic and hydraulic analysis that the increase of stormwater runoff volume from pre-construction to post-construction for the 2-year storm is infiltrated.

(2) This groundwater recharge requirement does not apply to projects within the "urban redevelopment area," or to projects subject to (3) below.

(3) The following types of stormwater shall not be recharged:

(a) 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

(b) 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.

(4) 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.

(5) Subsurface stormwater retention/detention systems shall be designed to provide adequate access structures for inspection and cleaning. Such systems shall not be located on municipal property or within a municipal right-of-way.

c. In order to control stormwater runoff quantity impacts, the design engineer shall, using the assumptions and factors for stormwater runoff calculations at N.J.A.C. 7:8-5.6a, as may be amended from time to time, complete one of the following:

(1) Demonstrate through hydrologic and hydraulic analysis that for stormwater leaving the site, post-construction runoff hydrographs for the two-, ten- and 100-year storm events do not exceed, at any point in time, the pre-construction runoff hydrographs for the same storm events;

(2) Demonstrate through hydrologic and hydraulic analysis that there is no increase, as compared to the pre-construction condition, in the peak runoff rates of stormwater leaving the site for the two-, ten- and 100-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;

(3) Design stormwater management measures so that the post-construction peak runoff rates for the two-, ten- and 100-year storm events are 50, 75 and 80 percent, respectively, of the preconstruction peak runoff rates. The percentages apply only to the post-construction 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 post-construction 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

(4) In tidal flood hazard areas, stormwater runoff quantity analysis in accordance with (1), (2) and (3) above shall only be applied if the increased volume of stormwater runoff could increase flood damage below the point of discharge.

2. Any application for a new agricultural development that meets the definition of major development 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.

G. Stormwater Runoff Quality Standards

1. Stormwater management measures shall be designed to reduce the post-construction load of total suspended solids (TSS) in stormwater runoff by 80 percent 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 non-structural and structural stormwater management measures.

Table 1: Water Quality Design Storm Distribution

	Cumulative Rainfall (Inches)		**Cumulative Rainfall (Inches)**
Time (Minutes)		**Time (Minutes)**	
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		

2. 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 §163-20.7, or found on the Department's website at www.njstormwater.org. The BMP Manual and other sources of technical guidance are listed in §163-20.7. 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, PO Box 418 Trenton, New Jersey, 08625-0418.

3. If more than one BMP in series is necessary to achieve the required 80 percent TSS reduction for a site, the applicant shall utilize the following formula to calculate TSS reduction: R = A + B – (AxB)/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	163-20.6C
Sand Filter	80
Vegetative Filter Strip	60-80
Wet Pond	50-90

4. If there is more than one onsite drainage area, the 80 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.

5. Stormwater management measures shall also be designed to reduce, to the maximum extent feasible, the post-construction 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 subsections 4.F and 4.G of this section.

6. Additional information and examples are contained in the New Jersey Stormwater Best Management Practices Manual, which may be obtained from the address identified in §163-20.7.

7. 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.

8. 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:

a. The applicant shall preserve and maintain a special water resource protection area in accordance with one of the following:

(1) A 300-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 centerline of the waterway where the bank is not defined, consisting of existing vegetation or vegetation allowed to follow natural succession.

(2) Encroachment within the designated special water resource protection area under Subsection (1) 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 centerline of the waterway where the bank is undefined. All encroachments proposed under this subparagraph shall be subject to review and approval by the Department.

b. 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.

c. 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:

(1) Stabilization measures shall not be placed within 150 feet of the Category One waterway;

(2) Stormwater associated with discharges allowed by this section shall achieve a 95 percent TSS post-construction removal rate;

(3) Temperature shall be addressed to ensure no impact on the receiving waterway;

(4) 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;

(5) A conceptual project design meeting shall be held with the appropriate Department staff and Soil Conservation District staff to identify necessary stabilization measures; and

(6) All encroachments proposed under this section shall be subject to review and approval by the Department.

d. 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 §163-20.4.G.8 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 G.8 shall maintain or enhance the current functional value and overall condition of the special water resource protection area as defined in G.8.a.(1) 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.

e. Subparagraph G.8 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.

§163-20.5. Calculation of Stormwater Runoff and Groundwater Recharge.

A. Stormwater runoff shall be calculated in accordance with the following:

1. The design engineer shall calculate runoff using one of the following methods:

   a. 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

   b. The Rational Method for peak flow and the Modified Rational Method for hydrograph computations.

2. For the purpose of calculating runoff coefficients and groundwater recharge, there is a presumption that the pre-construction 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 A.1.a and the Rational and Modified Rational Methods at subsection A.1.b. 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).

3. In computing pre-construction 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 pre-construction stormwater runoff rates and volumes.

4. 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.

5. 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.

B. Groundwater recharge may be calculated in accordance with the following:

1. 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.

§163-20.6. Standards for Structural Stormwater Management Measures.

A. Standards for structural stormwater management measures are as follows:

1. 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).

2. 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 (1”) 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 one-third (1/3) the width of the diameter of the orifice or one-third (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 §163-20.8.D.

3. 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.

4. At the intake to the outlet from the stormwater management basin, the orifice size shall be a minimum of two and one-half inches in diameter.

5. Stormwater management basins shall be designed to meet the minimum safety standards for stormwater management basins at §163-20.8.

B. 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 §163-20.4.

C. Manufactured treatment devices may be used to meet the requirements of this Chapter, provided the pollutant removal rates are verified by the New Jersey Corporation for Advanced Technology and certified by the Department.

§163-20.7. Sources for Technical Guidance.

A. Technical guidance for stormwater management measures can be found in the documents listed at 1 and 2 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; telephone (609) 777-1038.

1. 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.

2. The New Jersey Department of Environmental Protection Stormwater Management Facilities Maintenance Manual, as amended.

B. Additional technical guidance for stormwater management measures can be obtained from the following:

1. 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;

2. The Rutgers Cooperative Extension Service, 732-932-9306; and

3. 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) 2925540.

§163-20.8. Safety Standards for Stormwater Management Basins.

A. 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.

B. Requirements for Trash Racks, Overflow Grates and Escape Provisions

1. 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:

    a. The trash rack shall have parallel bars, with no greater than six inch spacing between the bars.

    b. The trash rack shall be designed so as not to adversely affect the hydraulic performance of the outlet pipe or structure.

    c. 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.

    d. 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 lbs/sq.ft.

2. 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:

    a. The overflow grate shall be secured to the outlet structure but removable for emergencies and maintenance.

    b. The overflow grate spacing shall be no less than two inches across the smallest dimension.

    c. 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 lbs./sq. ft.

3. For purposes of this paragraph 3, 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:

    a. 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 §163-20.8C a freestanding outlet structure may be exempted from this requirement.

    b. Safety ledges shall be constructed on the slopes of all new stormwater management basins having a permanent pool of water deeper than two and one-half 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 two and one-half feet below the permanent water surface, and the second step shall be located one to one and one-half feet above the permanent water surface. See N.J.A.C. 7:8-6, Appendix A, for an illustration of safety ledges in a stormwater management basin.

    c. In new stormwater management basins, the maximum interior slope for an earthen dam, embankment, or berm shall not be steeper than 3 horizontal to 1 vertical. If the basin will ultimately be dedicated to the municipality, the maximum slope shall not be steeper than 5 horizontal to 1 vertical.

C. 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.

§163-20.9. Requirements for a Site Development Stormwater Plan.

A. Submission of Site Development Stormwater Plan

1. 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 C below as part of the submission of the applicant's application for subdivision or site plan approval.

2. The applicant shall demonstrate that the project meets the standards set forth in this section.

3. The applicant shall submit six (6) copies of the materials listed in the checklist for site development stormwater plans in accordance with §163-20.9.C of this section.

B. Site Development Stormwater Plan Approval

1. 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.

2. A stormwater management plan that incorporates an outfall to any municipally owned storm sewer system, or that will be ultimately dedicated to the Borough, shall be subject to review and approval by the Borough Engineer, as well as the appropriate Board Engineer.

C. Checklist Requirements

The following information shall be required:

1. Topographic Base Map
The reviewing engineer may require upstream tributary drainage system information as necessary. The topographic base map of the site shall extend a minimum of 200 feet beyond the limits of the proposed development, at a scale of 1" = 50’ or greater, showing 2- 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 flood plains 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 manmade features not otherwise shown.

2. 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.

3. 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 ground water elevations. A written description of the site plan and justification of proposed changes in natural conditions may also be provided.

4. Land Use Planning and Source Control Plan
This plan shall provide a demonstration of how the goals and standards of §163-20.3 through 20.6 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.

5. Stormwater Management Facilities Map
The following information, illustrated on a map of the same scale as the topographic base map, shall be included:

a. 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.

b. 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.

6. Calculations

a. Comprehensive hydrologic and hydraulic design calculations for the pre-development and postdevelopment conditions for the design storms specified in §163-20.4.

b. 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 onsite 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 minimum of two (2) soil test pits shall be required for each proposed stormwater management basin and/or recharge area. Soil test pits must be scheduled and witnessed with the Borough Engineer.

7. Maintenance and Repair Plan
The design and planning of the stormwater management facility shall meet the maintenance requirements of §163-20.10.

8. Waiver from Submission Requirements
The municipal official or board reviewing an application under this section may, in consultation with the Borough engineer, waive submission of any of the requirements in subsections C.1 through C.6 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.

§163-20.10. Maintenance and Repair.

A. Applicability

Projects subject to review as major development shall comply with the requirements of this section.

B. General Maintenance

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

2. 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.

3. 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.

4. If the person responsible for maintenance identified under §163-20.10.B.2 above is not a public agency, the maintenance plan and any future revisions based on §163-20.10.B.7 below shall be recorded in the title of each property on which the maintenance described in the maintenance plan must be undertaken.

5. 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.

6. The person responsible for maintenance identified under subsection B.2 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.

7. The person responsible for maintenance identified under subsection B.2 above shall evaluate the effectiveness of the maintenance plan at least once per year and adjust the plan and the deed as needed.

8. The person responsible for maintenance identified under subsection B.2 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 subsections 10.B.6 and 10.B.7 above.

9. The requirements of subsections 10.B.3 and 10.B.4 above do not apply to stormwater management facilities that are dedicated to and accepted by the municipality or another governmental agency.

10. 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 fourteen (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.

C. 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.

§163-20.11. Penalties.

Any person who erects, constructs, alters, repairs, converts, maintains, or uses any building, structure or land in violation of this ordinance shall be subject to the penalties set forth in §181-20 of this Code.

2. If the provisions of any section, subsection, paragraph, subdivision, or clause of this ordinance shall be judged invalid by a court of competent jurisdiction, such order or judgment shall not affect or invalidate the remainder of any section, subsection, paragraph, subdivision, or clause of this ordinance.

3. This ordinance shall take effect after publication and upon the approval by the county review agency, or sixty (60) days from the receipt of the ordinance by the county review agency if the county review agency should fail to act.

Introduced: June 5, 2006

Advertised: June 15, 2006

Public Hearing; July 10, 2006

Adoption: July 10, 2006

Final Publication: July 20, 2006

ATTEST: APPROVED:

Elizabeth Sterling, Borough Clerk James Benton, Mayor

Chapter 163: SITE PLAN REVIEW

[HISTORY: Adopted by the Borough Council of the Borough of Pennington 9-7-1976 by Ord. No. 280. Amendments noted where applicable.]

GENERAL REFERENCES

Land use procedures — See Ch. 34.
Uniform construction codes — See Ch. 83.
Fees — See Ch. 98.
Flood damage prevention — See Ch. 108.
Solid waste — See Ch. 172.
Subdivision of land — See Ch. 181.
Zoning — See Ch. 215.

ARTICLE I Title, Purpose and Approving Authority

§ 163-1. Title.

This chapter shall be known and may be cited as the "Site Plan Ordinance of the Borough of Pennington."

§ 163-2. Purpose.

The purpose of this chapter is to establish rules, regulations, standards and procedures for review of all development proposals other than single- or two-family dwellings in order to:

A. Preserve existing natural resources and give proper consideration to the physical constraints of the land.

B. Provide for safe and efficient vehicular and pedestrian circulation.

C. Provide for appropriate screening, landscaping, signing and lighting.

D. Ensure efficient, safe and aesthetic land development.

E. Provide for compliance with appropriate design standards to ensure adequate light and air, proper building arrangements and minimum adverse effect on surrounding property.

F. Develop proper safeguards to minimize any adverse impact on the environment.

G. Ensure the provision of adequate water supply, drainage and stormwater management, sanitary facilities and other utilities and services.

H. Provide for appropriate recreation, open space and public-use areas.

§ 163-3. Approving authority.

A. Planning Board. The provisions of this chapter shall be administered by the Planning Board of the Borough of Pennington except as noted below.

B. Board of Adjustment. The provisions of this chapter shall be administered by the Board of Adjustment in applications before the Board of Adjustment involving a variance provided for in N.J.S. 4D:55D-70d (use variance) of the Municipal Land Use Law.

ARTICLE II General Provisions

§ 163-4. Site plan approval required; exceptions. [Amended 1-2-1990 by Ord. No. 484]

Prior to the issuance of a building permit or certificate of occupancy for any new structure other than a single-family dwelling, addition to an existing nonresidential structure, conversion of a one- or two-family dwelling to three or more units or for any new multifamily structure or use, a site plan shall be reviewed and approved by the Planning Board or, where appropriate, by the Board of Adjustment. No site plan review shall be required for a change in occupancy or use of any nonresidential structure where the Borough Zoning Officer has determined that the new use is permitted either by reason of Chapter 215, Zoning, or because of prior Planning Board or Zoning Board approval and will not intensity site traffic circulation, required parking or endanger the general health, safety and public welfare.

§ 163-5. Waiver of site plan approval.

The Planning Board or, where appropriate, the Board of Adjustment may waive site plan approval requirements upon a finding by the Board that the appropriate proposed construction or alteration or change of occupancy or use does not affect existing circulation, drainage, relationship of buildings to each other, landscaping, buffering, lighting or other considerations of site plan review.

§ 163-6. Compliance with codes and ordinances. [Amended 7-10-1989 by Ord. No. 471]

The proposed structure or development shall meet all requirements of all applicable codes, ordinances and specifications of the municipality, county, state or federal governments or other agencies with jurisdiction over matters pertaining to site development, except as noted elsewhere in this chapter. All applicants for approvals required by § 163-4 above or applicants for waiver of site plan as provided for in § 163-5 above shall, upon approval, be required to comply with the provisions of § 209-5 of Chapter 209, Water Conservation, which provides that all construction within the borough, including both new construction and repairs and renovations, shall employ the latest up-to-date water-saving devices currently being sold in the Borough Clerk's office or their equivalent, specifically aerators, shower heads and toilet dams.

§ 163-7. Planning Board review in lieu of Board of Adjustment.

A. The Planning Board, when reviewing applications for site plans, shall have the power to grant to the same extent and subject to the same restrictions as the Board of Adjustment variances from lot area, lot dimensions, setback and yard requirements, provided that relief pursuant to this subsection from lot area requirements shall not be granted for more than one lot. Said variances may be granted when the Board finds that by reason of exceptional topographic conditions, or by reason of other extraordinary and exceptional situation or condition of such piece of property the strict application of any zoning regulation would result in peculiar and exceptional practical difficulties to or exceptional and undue hardship upon the developer of such property. The variance granted from such strict application of such regulation shall relieve such difficulties or hardship; provided, however, that no variance shall be granted under this subsection to allow a structure or use in a district restricted against such structure or use.

B. Public notice shall be required for all site plans which include, as part of their application, requests for variances under this section. Such public notice shall be provided by the applicant in accordance with the provisions of N.J.S.A. 40:55D-11 and 40:55D-12.

§ 163-8. Time for decision.

A. Upon the submission to the Secretary of the Planning Board of a complete application for a site plan for 10 acres of land or less, the Planning Board shall grant or deny preliminary approval within 45 days of the date of such submission or within such further time as may be consented to by the applicant, except that if the application for site plan approval also involves an application for a relief pursuant to N.J.S.A. 40:55D-60, the Planning Board shall grant or deny preliminary approval within 95 days of the date of submission of a complete application to the Secretary of the Planning Board, or within such further time as may be consented to by the applicant in writing.

B. Upon the submission of a complete application for a site plan of more than 10 acres, the Planning Board shall grant or deny preliminary approval within 95 days of the date of such submission or within such further time as may be consented to by the applicant in writing.

C. Upon the submission to the Secretary of the Board of Adjustment of a complete application for site plan approval pursuant to N.J.S.A. 40:55D-76b, the Board of Adjustment shall grant or deny approval of the application within 120 days of the date of such submission or within such further time as may be consented to by the applicant in writing.

D. Failure of the approving authority to reach a decision within the specified time periods or extensions thereof as stipulated in a written agreement and between the reviewing Board and the applicant shall result in the approval of the site plan as submitted.

ARTICLE III Procedure

§ 163-9. Sketch site plan review.

A. Sketch site plan review is intended to eliminate unnecessary detailed plan preparation for those plans eligible for waiver and to provide applicants ineligible for waiver with Planning Board recommendations before required detailed plan preparation. However, an applicant may, at his or her option, omit this review stage and proceed directly to preliminary site plan review.

B. Any applicant for sketch site plan review shall first file with the Secretary of the Planning Board a completed application form and six copies of proposed site and building plans. The completed application and plans must be submitted at least 15 days prior to the public meeting of the Board at which applicant desires to be heard. Such plans should be preliminary in nature, but should nevertheless indicate the size, shape and location of existing and proposed buildings, parking areas and drives; the location of proposed plantings, fences, signs, utilities and other important features; and a key map showing the entire project and its relation to surrounding properties and the existing buildings thereon.

C. At a public meeting of the Planning Board and within 45 days of sketch site plan filing, the Board shall, by formal vote, either waive site plan approval requirements or conditionally approve the sketch plan for preliminary review. If site plan approval requirements are waived, the sketch plan shall be so validated, and notification of such waiver shall be sent to the Borough Construction Code Official, together with one copy of the validated plan.

D. If no action is taken within 45 days of sketch plan filing or if the sketch plan is conditionally approved for preliminary review, the application shall prepare a preliminary site plan for submittal to the Planning Board. In its conditional approval of a sketch plan, the Planning Board may direct the applicant to make changes in the preliminary plan in conformance with the design standards and related standards of §§ 163-20 and 163-21.

§ 163-10. Preliminary site plan review.

A. Applications for preliminary site plan review shall be filed, on forms provided, with the Secretary of the Planning Board at least four weeks prior to a Planning Board public meeting at which the applicant wishes to be heard. All applications shall include 18 copies of the information required in § 163-18 and be accompanied by the required fee. **[Amended 9-2-1986 by Ord. No. 430]**

B. The time for preliminary site plan review shall not begin to run until the submission of a complete application and fee. Unless the applicant is informed in writing by the Secretary of the Planning Board within 45 days of the actual submission of the application that said application is incomplete, said application shall be deemed complete on the date submitted.

C. No application for preliminary site plan review shall be deemed complete in the absence of proof that a plan for soil erosion and sedimentation control has been submitted to the Mercer County Soil Conservation District, pursuant to the requirements of N.J.S.A. 4:24-39 et seq., or proof that such a plan is not required for the particular application.

D. The Secretary of the Planning Board shall immediately transmit copies of such plans and request comments from the following:

(1) Planning Board Site Plan Review Committee.

(2) Construction Code Official.

(3) Engineer.

(4) Planner.

(5) Environmental Commission.

(6) County Planning Board.

(7) Board of Health.

(8) Fire Chief.

(9) Police Chief.

(10) Consulting Sanitary Engineer.

(11) Borough Clerk.

(12) Borough Water Company.

E. At a public meeting the Planning Board shall consider these comments and shall consider the site plan submission and the comments of the above referrals. The Planning Board shall be guided in its action by the design and related standards of §§ 163-20 and 163-21 of this chapter. The applicant shall have the right to appear before the Planning Board and be heard with respect to the submission.

F. After completion of its review, the Planning Board shall approve or disapprove the submission, stating its findings and the reasons for its actions in writing. Approval may be made conditional upon the applicant's adoption of specified changes in the site plan and submission of an amended site plan indicating the changes.

G. The action of the Planning Board shall be noted on the site plan. If the Planning Board disapproves a site plan, the stated reasons for disapproval shall be remedied prior to further consideration. If the Planning Board requires a substantial change in layout, the applicant may be required to submit a new site plan which shall be proceeded on as in the case of the original filing, except that an additional fee will not be required.

§ 163-11. Rights under preliminary approval.

Preliminary approval of a site plan shall confer upon the applicant the following rights for a three-year period from the date of preliminary approval:

A. That the general terms and conditions on which preliminary approval was granted shall not be changed, including but not limited to use requirements; layout and design standards for streets, curbs and sidewalks; lot size; yard dimensions and off-tract improvements; natural resources to be preserved on the site; vehicular and pedestrian circulation, parking

and loading; screening, landscaping and location of structures; exterior lighting both for safety reasons and streetlighting, except that nothing herein shall be construed to prevent the borough from modifying by ordinance such general terms and conditions of preliminary approval as relate to public health, welfare and safety.

B. That the applicant may submit for final approval on or before the expiration date of preliminary approval the whole or a section or sections of the preliminary site plan.

C. That the applicant may apply for and the reviewing Board may grant extensions on such preliminary approval for additional periods of at least one year but not to exceed a total extension of two years, provided that if the design standards have been revised by ordinance, such revised standards may govern at the discretion of the reviewing Board.

§ 163-12. County Planning Board approval.

Where review or approval of the application by the County Planning Board is required by N.J.S.A. 40:27-6, the reviewing Board shall condition any approval that it grants upon the timely receipt of a favorable report from the County Planning Board. The absence of a report from the County Planning Board within the review period shall be considered an approval by the County Planning Board.

§ 163-13. Final approval.

A. No building or construction permits shall be issued, nor shall any work be undertaken on the proposed development without the prior final approval of the site plan by the appropriate Board. The Planning Board shall grant final approval if the Board finds that the detailed drawings, specifications and estimates of the application for final approval conform to ordinance requirements for final approval and the conditions of the preliminary approval. Final approval shall be granted or denied within 45 days after submission of a complete application for final approval to the Secretary of the Planning Board, or within such further time as may be consented to by the applicant.

B. Failure of the Planning Board to act within the period prescribed shall constitute final approval as submitted. If requested by the applicant, the Secretary of the Planning Board shall furnish a certificate attesting to the failure of the Planning Board to act, and such certificate shall be sufficient evidence of approval.

C. A complete application for final approval shall consist of the following:

(1) A properly completed final site plan application form and the required fee.

(2) Final site plans that are substantially the same as the approved preliminary site plans.

(3) Proof that all taxes and assessments for local improvements on the property have been paid.

(4) Bonds posted to ensure the installation of all on-site and off-tract improvements, in a form suitable to the Borough Attorney and Engineer.

§ 163-14. Final plan review waiver.

The Planning Board may grant final approval at the time of preliminary approval if it finds that all of the requirements for final approval are met at the time of preliminary approval.

§ 163-15. Effect of final approval.

The zoning requirements applicable to the preliminary approval first granted and all other rights conferred upon the applicant pursuant to § 163-11 of this chapter, whether conditionally or otherwise, shall not be changed for a period of two years after the date of final approval. If the Board finds that the applicant has followed the standards prescribed for final approval, the reviewing Board may extend such period of protection for extensions of one year but not to exceed three extensions. Notwithstanding any other provisions of this chapter, the granting of final approval terminates the time period of preliminary approval pursuant to § 163-11 of this chapter for the section granted final approval.

ARTICLE IV Submission Requirements

§ 163-16. Improvements to be installed or bonded.

A. The reviewing Board may require the construction or installation of improvements as set forth in Chapter 181, Subdivision of Land. Prior to the issuance of a building permit, the reviewing Board shall require the installation or construction of said improvements or the posting of performance guaranties, suitable to the Borough Attorney and Engineer and adequate to cover the cost of all such improvements and inspection fees.

B. All requirements of Chapter 181, Subdivision of Land, shall be met with respect to the form of performance guaranties, installation or construction, inspections and all inspection fees, acceptance and provision for maintenance bonds.

§ 163-17. Off-site and off-tract improvements.

The review Board shall obtain a report by the Municipal Engineer and such other municipal officers, boards and/or commissions as may be necessary with respect to what effect, if any, the granting of approval of the site plan will have upon existing municipal services and facilities. Should additional municipal services or facilities be needed, the reviewing Board shall forward its recommendations to the Borough Council within the period aforesaid and may grant approval contingent upon the Borough Council entering into an agreement with the site plan applicant regarding the development, extension or enlargement of such municipal services or facilities.

§ 163-18. Information to be shown on site plan.

The preliminary site plan shall be prepared by a professional engineer or architect and shall be drawn to a scale of not less than one inch equals 50 feet. The site plan shall contain the following information:

A. A key map of the site with reference to surrounding areas and existing street locations.

B. The names of the owners of all contiguous land and property and directly across the street as shown by the most recent municipal tax records.

C. Zone district of the site and all surrounding zone districts.

D. Location of all existing and proposed structures, streets, entrances and exits on the site and on contiguous property and property directly across the street.

E. Location of all existing and proposed buildings, including outside dimensions and architectural elevations.

F. Building setback, side yard and rear yard distances, lot line dimensions, easements and areas dedicated to public use.

G. All existing physical features, including streams, wooded areas, watercourses, single trees greater than 10 inches in caliper measured 42 inches above ground level and significant soil conditions, such as swamp or rock outcrop.

H. Topography showing existing and proposed contours at five-foot intervals for slopes averaging 10% or greater, and at two-foot intervals for land of 10% to 2% slope and one foot intervals for land of 2% or less. A reference bench mark shall be as related to United States Geodetic Survey.

I. Parking and loading and unloading areas shall be indicated with dimensions, traffic patterns, access aisles and curb radius.

J. Improvements, such as roads, curbs, bumpers and sidewalks, shall be indicated with cross sections, design details and dimensions.

K. Location and design of all existing and proposed utility systems, surface drainage systems, sanitary waste disposal systems, water mains and appurtenances, method of refuse disposal and storage and fire prevention provisions.

L. Landscaping and buffering plan showing what will remain and what will be planted, indicating names of plants, trees and dimensions.

M. Lighting details indicating type of standards, location, radius of light and intensity in foot candles.

N. Location, dimensions and details of signs.

O. A soil erosion and sedimentation control plan, pursuant to the requirements of N.J.S.A. 4:24-39 et seq.

P. The following legends which shall be on the site plan:

(1) To be signed before submission:

I CONSENT TO THE FILING OF THIS SITE PLAN WITH THE PLANNING BOARD OR THE BOARD OF ADJUSTMENT OF THE BOROUGH OF PENNINGTON

_____

Owner Date

_____

Address

(2) To be completed before submission:

SITE PLAN OF _____

LOT _____ BLOCK _____ TAX MAP _____

DATE _____ SCALE _____

ADDRESS _____

(3) To be signed before submission:

I HEREBY CERTIFY THAT I HAVE PREPARED THIS SITE PLAN AND THAT ALL DIMENSIONS AND INFORMATION IS CORRECT.

_____
Name

_____
Title and License No.

(4) To be signed before Planning Board or Zoning Board of Adjustment approval is given:

I HAVE REVIEWED THIS SITE PLAN AND CERTIFY THAT IT MEETS ALL CODES AND ORDINANCES UNDER MY JURISDICTION.

_____ _____

Date Municipal Engineer

(5) To be signed before issuance of a building permit.

APPROVED BY THE BOROUGH PLANNING BOARD OR ZONING BOARD OF ADJUSTMENT

_____ _____

Date Planning Board Chairman

_____ _____

Date Planning Board Secretary

§ 163-19. Waiver of submission of required exhibits.

The reviewing Board may waive submission of any required exhibits in appropriate cases and for specific site plans.

§ 163-20. Design standards.

A. Specific design standards shall conform to applicable borough ordinances. In reviewing any site plan, the reviewing Board shall, prior to approval thereof, find that:

(1) The design and arrangement of proposed buildings and parking areas includes consideration of an aesthetically pleasing design and efficient arrangement. In making such finding the Boards shall give particular attention to safety and fire protection and the visual and functional impact of the proposal on surrounding development and contiguous and adjacent buildings and lands.

(2) Buffering is located around the perimeter of the site to minimize the impact of headlights of vehicles, noise, light from structures, the movement of people and vehicles and to shield activities from adjacent properties when necessary. Buffering may consist of fencing evergreens shrubs, bushes, deciduous trees or combinations thereof to achieve the stated objectives.

(3) Landscaping is provided as part of the overall site plan design and integrated into building arrangements, topography, parking and buffering requirements. Landscaping shall include trees, bushes, shrubs, ground cover, perennial, annuals, plants, sculpture, art and the use of buildings and paving materials in an imaginative manner.

(4) Existing systems for sanitary waste disposal and water supply, or planned improvements to the systems both on and off site and tract, are adequate to meet sewage needs and to maintain an adequate supply of water at sufficient pressure. In making this finding the Boards shall place particular emphasis on the review and recommendation of the Borough Engineer, Board of Health and the Borough consulting sanitary engineer. Particular emphasis shall be given to the adequacy of existing systems and the need for improvements both on site and off site to meet sewage needs and to maintain an adequate supply of water at sufficient pressure and that the proposed project does not have a probable demand for water so large as to cause the Borough to exceed its state approved diversion. Any project which has a fire flow requirement in excess of 100 gallons per minute shall comply with the following additional standards and procedures: **[Amended 11-8-2004 by Ord. No. 2004-10]**

(a) The project shall incorporate on-site storage and pumping equipment of sufficient capacity to provide the full fire flow requirement, independent of the Borough water system, for a duration of not less than one hour.

(b) Rates and duration of fire flow for the project shall be be projected in compliance with the New Jersey

Uniform Fire Code, Uniform Construction Code and all applicable codes and be approved by the Fire Official.

(c) Fire flow calculations for the project and description of on-site fire system shall be submitted for preliminary site plan review.

(d) All improvements necessary to provide required fire flow shall be at the expense of the owner.

(5) Surface drainage from the site will not increase the potential of area or downstream flooding and on- and off-site erosion shall not be caused or worsened either during or after construction. Surface drainage and soil erosion and sediment control proposals shall be reviewed by the Borough Engineer.

(6) The Board will place particular emphasis on the review of layout of parking areas, off-street loading and unloading, movement of people, goods and vehicles. For example, large parking areas should be subdivided by landscaped aisles for traffic control, pedestrian safety and aesthetic considerations.

(7) All parking spaces are usable and safely and conveniently arranged. Access to the site from adjacent roads shall interfere as little as possible with traffic flow on these roads and to permit vehicles a convenient and safe ingress and egress to the site.

(8) Signs are unobtrusive and harmonious with other signs on the site and located so as to achieve their purpose without constituting hazards to vehicles and pedestrians.

(9) Adequate lighting is provided to ensure safe movement of persons and vehicles and for security purposes. Lighting standards are a type approved by the reviewing Board. Directional lights are arranged so as to minimize glare and reflection on adjacent properties. All electric, telephone and similar utilities are underground whenever feasible.

(10) Garbage disposal provisions shall ensure adequate storage facilities, vermin and rodent control, and that aesthetic considerations are adequate. All systems shall meet municipal specifications as to installation and construction.

B. The purpose of these design standards is to provide direction to applicants in the location, size, design and screening of exterior facilities for the temporary storage of solid waste, trash and recyclable materials. All nonresidential and multifamily developments that include exterior trash and recycling storage facilities shall conform to these standards. Editor's Note: See Ch. 172, Solid Waste. **[Added 10-7-1991 by Ord. No. 506]**

(1) Location.

(a) Trash and recycling storage facilities shall be located in side and rear yards only and shall be set back at least 10 feet from a side property line, at least five feet from a rear property line and at least 15 feet from a principal building.

(b) The recommended storage facility location for nonresidential uses is at the rear of the building it serves, near to any loading area and out of view from the public street. For multifamily residential uses the recommended location is adjacent to a tenant parking area.

(c) The placement of a dumpster or other trash and/or recycling container on an approved parking space shall be considered a change in any approved site plan for the use and shall require Planning Board review and approval.

(2) Trash and recycling storage facilities shall be large enough to meet the needs of the particular use they are intended to serve. Facility capacity requirements will depend upon the trash and recycling demands of the particular use and the frequency of removal. It shall be the responsibility of an applicant to demonstrate, to the satisfaction of the Planning Board, that the proposed capacity of storage facilities will be adequate. The applicant shall provide estimates of trash and recyclable material generation in terms of cubic feet of storage space required per week per type of material to be stored. Editor's Note: See Ch. 172, Solid Waste, Art. I, Recycling.

(3) Enclosures.

(a) Trash and recycling storage facilities shall include a four-inch thick reinforced concrete pad base over four inches of compacted stone and shall be surrounded on three sides by a masonry wall or solid wood board fence. If the open side of the enclosure is visible from the public street or from a public use area, a solid gate shall be provided.

(b) Recycling material storage areas shall be roofed. If freestanding, fully enclosed, recycling material storage containers are utilized, the required solid enclosure may be omitted, provided that the storage area is enclosed by an acceptable landscape screen. [See Subsection B(4) below.]

(c) Storage areas for compost material may be enclosed on three sides by an acceptable landscape screen. [See Subsection B(4) below.]

(d) For multifamily residential areas, it is recommended that trash and recycling storage facilities be housed with roofed accessory structures. Such structures should be similar to the principal structures in terms of building

design and materials.

(4) Where utilized as an alternative to a structural enclosure, landscape screenings for trash and recycling storage areas shall consist of evergreen plantings at least four feet in height at time of installation and spaced so as to provide a continuous visual screen.

§ 163-20.1. Stormwater management definitions. [Added 7-10-2006 by Ord. No. 2006-7]

As used in this article, the following terms shall have the meanings indicated, unless a modified definition applicable to stormwater management has been adopted by the New Jersey Department of Environmental Protection as part of the Stormwater Management Rules, in which case the definition enacted by the New Jersey Department of Environmental Protection shall apply.

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

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.

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:

A. A county planning agency; or

B. 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 — Shall be read within the context of the subject matter. For example, with respect to stormwater and environmental issues, "Department" means the New Jersey Department of Environmental Protection and with respect to transportation and highway issues, "Department" means the New Jersey Department of Transportation.

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 other structure or of any mining or 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 for which permission may be required pursuant to this chapter. 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.

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.

ENGINEER or MUNICIPAL ENGINEER — The Borough Engineer. "Board engineer" means the Planning Board Engineer or the Zoning Board of Adjustment Engineer, as appropriate.

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.

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 or

increasing impervious surface by 1/4 acre or more. 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.

MINOR DEVELOPMENT — Any development not defined as a major development.

MUNICIPALITY — The Borough of Pennington.

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, 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 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.

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

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 ZONE — 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:

A. Delineated on the State Plan Policy Map (SPPM) as the Metropolitan Planning Area (PA1), Designated Centers, Cores or Nodes;

B. Designated as CAFRA Centers, Cores or Nodes;

C. Designated as Urban Enterprise Zones; and

D. Designated as Urban Coordinating Council Empowerment Neighborhoods.

WATERS OF THE STATE — The ocean and its estuaries, all springs, streams, wetlands, and bodies of surface or ground water, 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 groundwater 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.

§ 163-20.2. Scope and purpose of stormwater management. [Added 7-10-2006 by Ord. No. 2006-7]

A. Policy statement. Flood control, groundwater recharge, and pollutant reduction through nonstructural or low-impact techniques shall be explored before relying on structural best management practices ("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.

B. Purpose. It is the purpose of this section to establish minimum stormwater management requirements and controls for major development as defined herein.

C. Applicability.

(1) 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:

(a) Nonresidential major developments; and

(b) Aspects of residential major developments that are not preempted by the Residential Site Improvement Standards at N.J.A.C. 5:21.

(2) This section shall also be applicable to all major developments undertaken by Pennington Borough.

D. 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 section. 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.

§ 163-20.3. Design and Performance Standards for Stormwater Management Measures. [Added 7-10-2006 by Ord. No. 2006-7]

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 N.J.A.C. 7:8-5.4 and 5.5, as may be amended from time to time. 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.

C. Stormwater management measures shall be required for minor developments and shall be developed to address erosion control and stormwater runoff.

§ 163-20.4. Stormwater management requirements for major development. [Added 7-10-2006 by Ord. No. 2006-7]

A. The development shall incorporate a maintenance plan for the stormwater management measures incorporated into the design of a major development in accordance with § 163-20.10.

B. 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).

C. The following linear development projects are exempt from the groundwater recharge, stormwater runoff quantity, and stormwater runoff quality requirements of Subsections F and G of this section:

(1) The construction of an underground utility line, provided that the disturbed areas are revegetated upon completion;

(2) The construction of an aboveground utility line, provided that the existing conditions are maintained to the maximum extent practicable; and

(3) 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.

D. A waiver from strict compliance with the groundwater recharge, stormwater runoff quantity, and stormwater runoff quality requirements of Subsections F and G of this section may be obtained for the enlargement of an existing public roadway or railroad, or the construction or enlargement of a public pedestrian access, provided the following conditions are met:

(1) The applicant demonstrates that there is a public need for the project that cannot be accomplished by any other means;

(2) 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 Subsections F and G of this section to the maximum extent practicable;

(3) The applicant demonstrates that, in order to meet the requirements of Subsections F and G of this section, existing structures currently in use, such as homes and buildings, would need to be condemned; and

(4) 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(3) above within the upstream drainage area of the receiving stream, that would provide additional opportunities to mitigate the requirements of Subsections F and G that were not achievable on site.

E. Nonstructural stormwater management strategies.

(1) To the maximum extent practicable, the standards in Subsections F and G of this section shall be met by incorporating into the design nonstructural stormwater management strategies set forth in this subsection. 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 E(2) below into the design of a particular project, the applicant shall identify the strategy considered and provide a basis for the contention.

(2) Nonstructural stormwater management strategies incorporated into site design shall:

(a) Protect areas that provide water quality benefits or areas particularly susceptible to erosion and sediment loss;

(b) Minimize impervious surfaces and break up or disconnect the flow of runoff over impervious surfaces;

(c) Maximize the protection of natural drainage features and vegetation;

(d) 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;

(e) Minimize land disturbance including clearing and grading;

(f) Minimize soil compaction;

(g) Provide low-maintenance landscaping that encourages retention and planting of native vegetation and minimizes the use of lawns, fertilizers and pesticides;

(h) Provide vegetated open-channel conveyance systems discharging into and through stable vegetated areas;

(i) 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:

[1] Site design features that help to prevent accumulation of trash and debris in drainage systems, including features that satisfy § 163-20.4E(3) below;

[2] Site design features that help to prevent discharge of trash and debris from drainage systems;

[3] Site design features that help to prevent and/or contain spills or other harmful accumulations of pollutants at industrial or commercial developments; and

[4] 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.

(3) Site design features identified under § 163-20.4E(2)(i)[2] 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 § 163-20.4E(3)(c) below.

(a) 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:

[1] 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

[2] 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.

(b) 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.

(c) This standard does not apply:

[1] 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;

[2] Where flows from the water quality design storm as specified in § 163-20.4G(1) 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:

[a] A rectangular space 4 5/8 inches long and 1 1/2 inches wide (this option does not apply for outfall netting facilities); or

[b] A bar screen having a bar spacing of 0.5 inches.

[3] 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 § 163-20.4G(1); or

[4] 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.

(4) Any land area used as a nonstructural stormwater management measure to meet the performance standards in Subsections F and G of this section 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.

(5) 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 § 163-20.7, or found on the Department's Web site at www.njstormwater.org.

F. Erosion control, groundwater recharge and runoff quantity standards.

(1) 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.

(a) 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.

(b) The minimum design and performance standards for groundwater recharge are as follows:

[1] The design engineer shall, using the assumptions and factors for stormwater runoff and groundwater recharge calculations at N.J.A.C. 7:8-5.4, as may be amended from time to time, either:

[a] 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

[b] Demonstrate through hydrologic and hydraulic analysis that the increase of stormwater runoff volume from preconstruction to postconstruction for the two-year storm is infiltrated.

[2] This groundwater recharge requirement does not apply to projects within the urban redevelopment area, or to projects subject to Subsection F(1)(b)[3] below.

[3] The following types of stormwater shall not be recharged:

[a] 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

[b] 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.

[4] 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.

[5] Subsurface stormwater retention/detention systems shall be designed to provide adequate access structures for inspection and cleaning. Such systems shall not be located on municipal property or within a municipal right-of-way.

(c) In order to control stormwater runoff quantity impacts, the design engineer shall, using the assumptions and factors for stormwater runoff calculations at N.J.A.C. 7:8-5.6a, as may be amended from time to time, complete one of the following:

[1] 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;

[2] 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;

[3] 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

[4] In tidal flood hazard areas, stormwater runoff quantity analysis in accordance with Subsection F(1)(c)[1], [2] and [3] above shall only be applied if the increased volume of stormwater runoff could increase flood damage below the point of discharge.

(2) Any application for a new agricultural development that meets the definition of major development 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.

G. Stormwater runoff quality standards.

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

(2) 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 § 163-20.7, or found on the Department's Web site at www.njstormwater.org. The BMP Manual and other sources of technical guidance are listed in § 163-20.7. 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, PO Box 418,

Trenton, New Jersey, 08625-0418.

(3) 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 - (AxB)/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 § 163-20.6C
Sand filter	80
Vegetative filter strip	60-80
Wet pond	50-90

(4) 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.

(5) 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 Subsections F and G of this section.

(6) Additional information and examples are contained in the New Jersey Stormwater Best Management Practices Manual, which may be obtained from the address identified in § 163-20.7.

(7) 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.

(8) 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:

(a) The applicant shall preserve and maintain a special water resource protection area in accordance with one of the following:

[1] 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.

[2] Encroachment within the designated special water resource protection area under Subsection G(8)(a)[1] 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.

(b) 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.

(c) 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:

[1] Stabilization measures shall not be placed within 150 feet of the Category One waterway;

[2] Stormwater associated with discharges allowed by this section shall achieve a ninety-five-percent TSS postconstruction removal rate;

[3] Temperature shall be addressed to ensure no impact on the receiving waterway;

[4] 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;

[5] A conceptual project design meeting shall be held with the appropriate Department staff and soil conservation district staff to identify necessary stabilization measures; and

[6] All encroachments proposed under this section shall be subject to review and approval by the Department.

(d) 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 § 163-20.4G(8) 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 G(8) shall maintain or enhance the current functional value and overall condition of the special water resource protection area as defined in Subsection G(8)(a)[1] 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.

(e) Subsection G(8) 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.

§ 163-20.5. Calculation of stormwater runoff and groundwater recharge. [Added 7-10-2006 by Ord. No. 2006-7]

A. Stormwater runoff shall be calculated in accordance with the following:

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

(a) 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

(b) The Rational Method for peak flow and the Modified Rational Method for hydrograph computations.

(2) 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 A(1)(a) and the Rational and Modified Rational Methods at Subsection A(1)(b). 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).

(3) 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.

(4) 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.

(5) 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.

B. Groundwater recharge may be calculated in accordance with the following:

(1) 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.

§ 163-20.6. Standards for structural stormwater management measures. [Added 7-10-2006 by Ord. No. 2006-7]

A. Standards for structural stormwater management measures are as follows:

(1) 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).

(2) 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 § 163-20.8D.

(3) 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.

(4) 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.

(5) Stormwater management basins shall be designed to meet the minimum safety standards for stormwater management basins at § 163-20.8.

B. 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 § 163-20.4.

C. Manufactured treatment devices may be used to meet the requirements of this chapter, provided the pollutant removal rates are verified by the New Jersey Corporation for Advanced Technology and certified by the Department.

§ 163-20.7. Sources for technical guidance. [Added 7-10-2006 by Ord. No. 2006-7]

A. Technical guidance for stormwater management measures can be found in the documents listed at Subsection A(1) and A(2) 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; telephone (609) 777-1038.

(1) 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.

(2) The New Jersey Department of Environmental Protection Stormwater Management Facilities Maintenance Manual, as amended.

B. Additional technical guidance for stormwater management measures can be obtained from the following:

(1) 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;

(2) The Rutgers Cooperative Extension Service, 732-932-9306; and

(3) 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) 2925540.

§ 163-20.8. Safety standards for stormwater management basins. [Added 7-10-2006 by Ord. No. 2006-7]

A. 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.

B. Requirements for trash racks, overflow grates and escape provisions.

(1) 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:

(a) The trash rack shall have parallel bars, with no greater than six-inch spacing between the bars.

(b) The trash rack shall be designed so as not to adversely affect the hydraulic performance of the outlet pipe or structure.

(c) 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.

(d) 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.

(2) 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:

(a) The overflow grate shall be secured to the outlet structure but removable for emergencies and maintenance.

(b) The overflow grate spacing shall be no less than two inches across the smallest dimension.

(c) 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.

(3) For purposes of this Subsection B(3), 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:

(a) 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 § 163-20.8C, a freestanding outlet structure may be exempted from this requirement.

(b) 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 above the permanent water surface. See N.J.A.C. 7:8-6, Appendix A, for an illustration of safety ledges in a stormwater management basin.

(c) 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. If the basin will ultimately be dedicated to the municipality, the maximum slope shall not be steeper than five horizontal to one vertical.

C. 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.

§ 163-20.9. Requirements for a site development stormwater plan. [Added 7-10-2006 by Ord. No. 2006-7]

A. Submission of site development stormwater plan.

(1) 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 C below as part of the submission of the applicant's application for subdivision or site plan approval.

(2) The applicant shall demonstrate that the project meets the standards set forth in this section.

(3) The applicant shall submit six copies of the materials listed in the checklist for site development stormwater plans in accordance with § 163-20.9C of this section.

B. Site development stormwater plan approval.

(1) 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.

(2) A stormwater management plan that incorporates an outfall to any municipally owned storm sewer system, or that

will be ultimately dedicated to the Borough, shall be subject to review and approval by the Borough Engineer, as well as the appropriate Board Engineer.

C. Checklist requirements. The following information shall be required:

(1) Topographic base map. The reviewing engineer may require upstream tributary drainage system information as necessary. The topographic base map of the site shall extend a minimum of 200 feet beyond the limits of the proposed development, at a scale of one inch equals 50 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.

(2) 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.

(3) 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.

(4) Land use planning and source control plan. This plan shall provide a demonstration of how the goals and standards of §§ 163-20.3 through 163-20.6 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.

(5) Stormwater management facilities map. The following information, illustrated on a map of the same scale as the topographic base map, shall be included:

(a) 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.

(b) 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.

(6) Calculations.

(a) Comprehensive hydrologic and hydraulic design calculations for the predevelopment and postdevelopment conditions for the design storms specified in § 163-20.4.

(b) 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 minimum of two soil test pits shall be required for each proposed stormwater management basin and/or recharge area. Soil test pits must be scheduled and witnessed with the Borough Engineer.

(7) Maintenance and repair plan. The design and planning of the stormwater management facility shall meet the maintenance requirements of § 163-20.10.

(8) Waiver from submission requirements. The municipal official or board reviewing an application under this section may, in consultation with the Borough engineer, waive submission of any of the requirements in Subsections C(1) through C(6) 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.

§ 163-20.10. Maintenance and repair. [Added 7-10-2006 by Ord. No. 2006-7]

A. Applicability. Projects subject to review as major development shall comply with the requirements of this section.

B. General maintenance.

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

(2) 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.

(3) 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.

(4) If the person responsible for maintenance identified under § 163-20.10B(2) above is not a public agency, the maintenance plan and any future revisions based on § 163-20.10B(7) below shall be recorded in the title of each property on which the maintenance described in the maintenance plan must be undertaken.

(5) 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.

(6) The person responsible for maintenance identified under Subsection B(2) 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.

(7) The person responsible for maintenance identified under Subsection B(2) above shall evaluate the effectiveness of the maintenance plan at least once per year and adjust the plan and the deed as needed.

(8) The person responsible for maintenance identified under Subsection B(2) 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 Subsections B(6) and B(7) above.

(9) The requirements of Subsections B(3) and B(4) above do not apply to stormwater management facilities that are dedicated to and accepted by the municipality or another governmental agency.

(10) 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.

C. 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.

§ 163-20.11. Violations and penalties. [Added 7-10-2006 by Ord. No. 2006-7]

Any person who erects, constructs, alters, repairs, converts, maintains, or uses any building, structure or land in violation of this article shall be subject to the penalties set forth in § 181-20 of this Code.

§ 163-21. Related standards.

A. The requirements contained in Chapter 215, Zoning, as they relate to circulation, parking, performance standards, location of structures, setbacks, yards, bulk, height and coverage shall apply to site plan approval.

B. The design criteria established in Chapter 181, Subdivision of Land, shall apply, where appropriate, to site plan approval.

C. In the Town Center and Town Center Buffer Zone, the following parking and loading requirements shall apply: **[Added 12-20-2001 by Ord. No. 2001-6]**

(1) No use shall be permitted to change or expand in any manner that will increase the demand for parking without demonstrating that the additional parking will be provided through on-site parking and/or cross-access easements to off-site parking within 250 feet of the establishment. Additional parking shall be calculated based on the following generation rates: 2.0 spaces per 1,000 square feet of additional space for retail uses; 3.0 spaces per 1,000 square feet of additional space for personal service uses; 2.5 spaces per 1,000 square feet of additional space for office uses; two spaces per unit for each additional residential unit. Uses may not be subdivided to account for storage space unless the storage is provided in an unfinished basement or attic or in a windowless

room. Food service and restaurant uses over 50 seats shall provide parking spaces at one space for each four seats over 50 seats.

(2) In addition to the landscaping requirements otherwise applicable, there shall be a minimum of 10 feet of landscaping along the property line adjacent to any residential use or zone.

(3) All parking and driveways adjacent to residential uses or zoning districts shall be visually impervious to both the first and second floors of existing or potential development on lots used or zoned residential.

(4) No new driveway shall be permitted unless an existing driveway is vacated.

(5) Truck loading and unloading facilities shall be provided on the property in other than the front yard in sufficient amount to permit the transfer of goods in other than a public street. This requirement shall not apply to facilities in existence on the date of adoption of the ordinance first creating the Town Center and Town Center Buffer zones.

(6) In the event that insufficient land area exists on site for 100% of required off-street parking or required loading area, an applicant for development approval may make a financial contribution in lieu of providing such parking and/or loading area, provided:

(a) The Borough has first created by ordinance a trust fund for the deposit and maintenance of such funds;

(b) The Borough has adopted by ordinance standards governing contributions to the fund, including the circumstances in which such contributions may be appropriate and the amounts of such contributions; and

(c) The Borough has further established by ordinance the standards and procedures governing disbursements from the fund, with the purpose of financing public improvements to meet parking and loading area needs which cannot be met by individual property owners.

(7) When two or more adjoining property owners agree to share common access driveways, common parking or common on-site loading areas to serve their properties, the Board may determine that such sharing satisfies the purpose of related site plan requirements and may therefore waive such requirements, provided any such sharing agreement is reduced to writing and the agreement and description of common improvements are recorded as deed restrictions.

D. Development in the Town Center Zone and Town Center Buffer Zone shall be subject to architectural standards which encourage visual harmony and create a clear sense of the Town Center or Town Center Buffer Zone for those buildings and improvements located within the zone. The following standards apply to structures containing nonresidential uses:

(1) Building mass. The proportions of new construction shall complement the existing streetscape.

(2) Fenestration. The number, size, and glazing patterns of windows shall reflect historically appropriate fenestration whenever possible. Storefront windows may be larger than upper floor windows.

(3) Building materials. Brick, masonry, or wood are the preferred exterior building materials. Other materials may be used if they are visually compatible with the existing streetscape. Appropriate architectural design elements are encouraged. The same building materials shall be used on all sides of the building.

(4) Facades. Entrances should be framed by a decorative molding, distinctive glazing pattern, a recessed alcove, or similar architectural treatment. Facades shall have an identifiable cornice. Existing panels, cornices, and transom windows shall be preserved whenever practicable. Awnings shall be made of canvas and shall be retractable and unlit. Awning colors shall not be fluorescent. The design of the storefront shall include the same building materials, architectural style, and construction detailing used in the remainder of the building.

(5) Waivers. Some or all of the architectural requirements may be waived if the Board finds that the design of the building or the exterior improvements for which Board approval is required reflect the pedestrian scale of the streetscape and advance the Borough's desired historic/residential image for the zone.

(6) Illustrations of the architectural elements which are the subject of these regulations are annexed to this subsection and incorporated herein for informational purposes only. Editor's Note: Said illustrations are on file in the Borough offices.

§ 163-22. Site plan review fee schedule. [Amended 12-6-1999 by Ord. No. 99-14; 12-29-1999 by Ord. No. 99-16]

The fees for site plan review shall be as provided in Chapter 93, Fees, Article II, Land Use Fees.

ARTICLE V Appeals

§ 163-23. Appeals to governing body. [Amended 12-29-1999 by Ord. No. 99-16]

Any interested party may appeal to the governing body of any final decision of the Planning Board or the Planning Board acting as a Board of Adjustment where that Board is charged with site plan review, on any application for site plan approval.

Such appeal shall be made within 10 days of the date of such final decision. The appeal to the governing body shall be made by serving the Borough Clerk in person or by certified mail with a notice of appeal specifying the grounds thereof and the name and address of the appellant and the name and address of his or her attorney, if represented. Such appeal shall be decided by the governing body only upon the record established before the Planning Board or Planning Board acting as a Board of Adjustment.

§ 163-24. Notice of meeting. [Amended 12-29-1999 by Ord. No. 99-16]

Notice of the meeting to review the record below shall be given by the governing body by personal service or certified mail to the appellant and to the Planning Board or the Planning Board acting as a Board of Adjustment, as the case may be, at least 10 days prior to the date of the meeting. The parties may submit oral and written argument on the record at such meeting, and the governing body shall provide for verbatim recording and transcripts of such meeting.

§ 163-25. Deadline for conclusion of review by governing body.

The governing body shall conclude a review of the record below not later than 45 days from the date of receipt of the transcript of the hearing unless the appellant and the applicant consent in writing to an extension of such period. The appellant shall arrange for a transcript for use by the governing body. Failure of the governing body to hold a hearing and conclude a review of the record below and to render a decision within such specified period, without such written consent of the appellant and the applicant, shall constitute a decision affirming the action of the Board.

§ 163-26. Decision. [Amended 12-29-1999 by Ord. No. 99-16]

The governing body may reverse, remand or affirm, wholly or in part, or may modify the final decision of the Planning Board or the Planning Board acting as a Board of Adjustment, as the case may be.

§ 163-27. Vote.

The affirmative vote of a majority of the full authorized membership of the governing body shall be necessary to reverse, remand or modify any final action of either Board.

§ 163-28. Stay of proceedings.

An appeal to the governing body shall stay all proceedings in furtherance of the action in respect to which the decision appealed from was made unless the applicable Board certifies to the governing body, after the notice of appeal shall have been filed, that by reasons of facts stated in the certificate a stay would, in its opinion, cause imminent peril to life or property. In such case, proceedings shall not be stayed other than by an order of the Superior Court on application upon notice to the applicable Board and on good cause shown.

§ 163-29. Copies of decision; publication of notice of decision.

The governing body shall mail a copy of the decision to the appellant or if represented then to his or her attorney, without separate charge, and for a reasonable charge to any interested party who has requested it, not later than 10 days after the date of the decision. A brief notice of the decision shall be published in the official newspaper of the borough. The period of time in which an appeal to a court of competent jurisdiction may be made shall run from the date of that publication.

ARTICLE VI Miscellaneous

§ 163-30. Definitions.

For the purposes of this chapter, words shall have the same meaning and definitions as set forth in N.J.S.A. 40:55D-3, 40:55D-4, 40:55D-5, 40:55D-6 and 40:55D-7.

§ 163-31. Hearings and notice. [Amended 12-29-1999 by Ord. No. 99-16]

The Planning Board or the Planning Board acting as a Board of Adjustment, as the case may be, shall hold a public hearing on each application for preliminary site plan approval, in accordance with N.J.S.A. 40:55D-10. Notice of said public hearing shall be given by the applicant in accordance with N.J.S.A. 40:55D-11 and 12.

APPENDIX H

HOPEWELL TOWNSHIP STORMWATER MANAGEMENT ORDINANCE/CODE

TOWNSHIP OF HOPEWELL
MERCER COUNTY, NEW JERSEY

O R D I N A N C E NO. 05-1352

AN ORDINANCE TO AMEND AND SUPPLEMENT CHAPTER XVII, "LAND USE AND DEVELOPMENT," ARTICLE VI, "DESIGN STANDARDS," OF THE REVISED GENERAL ORDINANCES OF THE TOWNSHIP OF HOPEWELL

EXPLANATION:Words in brackets […] to be deleted
Words underlined ____ to be added

WHEREAS, The U.S. Environmental Protection Agency (EPA) published the regulation entitled "National Pollutant Discharge Elimination System - Regulations for Revision of the Water Pollution Control Program Addressing Storm Water Discharges" (*Federal Register*, Volume 64, Number 235, pages 68722-68852) on December 8, 1999 as required by Section 402(p) of the Clean Water Act (CWA); and

WHEREAS, in February 2004 the New Jersey Department of Environmental Protection adopted new Stormwater Management Rules (N.J.A.C. 7:8) in fulfillment if its obligations under the USEPA Regulations; and

WHEREAS, Hopewell Township is designated as a Tier A Municipality under 7:8 and is obligated to implement certain ordinances required by the Tier A NJPDES Municipal Stormwater General Permit (NJ0141852) on or before October 2005; and

WHEREAS, the Hopewell Township Committee desires to meet its obligations under 7:8.

NOW, THEREFORE, BE IT ORDAINED by the Township Committee of the Township of Hopewell, County of Mercer, State of New Jersey that Article 6, Design Standards, in Chapter XVII, Land Use and Development," be revised as follows:

17-76 APARTMENTS AND TOWNHOUSES.

a.Each overall development shall have a compatible architectural and landscaping theme with variations in design to provide attractiveness to the development. Each project shall specify how each of the following considerations has been incorporated in the overall plans: landscaping techniques; building orientation to the site and to other structures; topography; natural features such as wooded areas, drainage courses, soil conditions, and topographic relief; and building design features such as varying unit widths, staggering unit setbacks, providing different exterior materials, changing roof lines and roof designs, altering building heights, and changing types of windows, shutters, doors, porches, colors and vertical or horizontal orientation of the facades, singly or in combination **and stormwater management.**

7.Landscaping and/or fencing shall be provided around any outdoor recycling area and shall be developed in an aesthetically pleasing manner **and shall use indigenous species to the maximum extent practicable.**

17-77 BIKEWAYS.

Bikeways shall be required at the planning board's discretion in any new development depending on the development's location in relation to schools, recreation areas, shopping facilities and other populated areas, or its location with respect to any overall bike route plan adopted by the planning board. Bicycle traffic shall be separated from motor vehicle and pedestrian traffic as much as possible. Bikeways shall comply **with the design criteria of the American with Disabilities Act and New Jersey Department of Transportation [**generally not exceed a grade of three percent, except for short distances, **]** and shall be a minimum of six feet wide. Bikeways shall have a minimum four inch base of crushed stone and a two inch **[**FABC-2**]** compacted thickness surface course. **Permeable paving materials shall be used where appropriate and stormwater management and related drainage controls shall comply with section 17-82.a.16** [all bikeways shall] Where bike paths located outside street rights-of-way intersect a street, the curbing shall be ramped for bicycle access to the street grade.

17-82 DRAINAGE, DETENTION, AND STORMWATER MANAGEMENT.

a. Drainage.

1.All off-street traffic facilities, parking facilities, loading areas, passageways, driveways, walks, roofs, and other similar impervious surfaces, as well as all lands which have been so changed in contour or permeability as to alter or quicken the natural flow of surface waters, shall be so drained as to prevent damage or hazard to the site or to abutting properties or public streets. **The design of all drainage facilities shall address water quality, flooding and groundwater recharge and shall incorporate the use of nonstructural stormwater management strategies to the maximum extent practicable.**

16.Stormwater [Design Computations] **Management**. All hydraulic and hydrologic computations for **all site development, subdivisions and site disturbances** shall be **in accordance with N.J.A.C. 7:8-5 and N.J.A.C. 5:21. [**submitted in report-form, signed, and sealed by the appropriate professional. The preferred computational forms are shown in the site improvement standards. All calculations should be developed using the following standards:**]**

[(a) through (k)**]** deleted in entirety

b. *Detention and Stormwater Management.*

1. **Shall be in accordance with N.J.A.C. 7:8-5 and N.J.A.C. 5:21.**

[Purpose. It is hereby determined that the lakes and waterways within the Township of Hopewell are at times subjected to flooding; that such flooding is a danger to the lives and property of the public; that such flooding is also a danger to the natural resources of the Township of Hopewell, County of Mercer and State of New Jersey; that development tends to accentuate such flooding by increasing stormwater runoff, due to alteration of the hydrologic response of the watershed in changing from the undeveloped to the developed condition; that such increased flooding produced by the development of real property contributes increased quantities of water-borne pollutants, and tends to increase channel erosion; that such increased flooding, increased erosion, and increased pollution constitutes deterioration of the water resources of the Township of Hopewell, the County of Mercer and the State of New Jersey; and that such increased flooding, increased erosion and increased pollution can be controlled to some extent by the regulation of stormwater runoff from such development. It is, therefore, determined that it is in the public interest to regulate the development of real property and to establish standards to regulate the additional discharge of stormwater runoff from such developments as provided in this paragraph.**]**

[2. through 8(f)**]** Deleted in entirety.

[(g)**]** **2.**Detention basins shall be appropriately landscaped. All detention basin landscaping shall be designed by a New Jersey licensed landscape architect. Floor and side slope areas within the basin and subject to submergence shall be planted with low maintenance, water-tolerant ground cover. Nursery stock and multileader trees shall be used along the perimeter of the basin and side slopes not subjected to submergence. Shade tree planting along any portions of a berm shall not be permitted.

[(h)**]** **3.**Point discharges onto private property shall require a maintenance easement to a hydraulically stable condition as determined by section 17-82b,5(a) above. Minimum width shall be as determined by the township engineer based on type of access and maintenance required. The minimum length shall be measured to the point of calculated stability or 100 feet minimum as measured from the termination point of the outlet pipe headwall or flared end section.

[9.**]** **4**.Submissions. All data required by this paragraph shall be provided in form and content, in accordance with the stormwater management checklist items for preliminary major subdivisions in the Land Use and Development Ordinance, section 17-125.

[10.] **5**.Maintenance and Repair. Responsibility for operation and maintenance of detention facilities, including periodic removal and disposal of accumulated particulate material and debris, shall remain with a homeowners' association, with permanent arrangements that it shall pass to any successive association, unless dedicated to the township along with a contribution to the township of sufficient funds to provide for the maintenance of such property for a period of 25 years from the date of planning board approval in accordance with the formula set forth hereafter. These arrangements shall designate for each project, the property owner, governmental agency, or other legally established entity to be permanently responsible for maintenance, hereinafter in this section referred to as the "responsible person."

[EXHIBIT D-1] Deleted in entirety.

17-83 DRIVEWAYS.

g.**Driveways shall be designed to use lawn areas to disconnect impervious surfaces and to use permeable paving materials where appropriate.**

17-87 FLOOD PLAINS.

4.Subdivision Proposals. All subdivision proposals shall be consistent with the need to minimize flood damage. All public utilities and facilities such as sewer, gas, electrical and water systems shall be located and constructed to minimize flood damage. All subdivision proposals shall have adequate drainage provided to reduce exposure to flood damage**,** [and] **shall be designed to address water quality, flooding and groundwater recharge and shall incorporate the use of nonstructural stormwater management strategies to the maximum extent practicable.**

17-89 LANDSCAPING.

e.A landscaped buffer shall be provided which will effectively screen all parking and loading areas which are used for industrial or commercial purposes from adjoining residences, and from adjoining vacant property located in a residential district (whether the adjoining property is located in the township or in another municipality), and from all streets. When the proposed location of the parking and loading areas is at the same elevation as the proposed buffer and the adjoining residence or property, the buffer shall be at least 25 feet wide, except that when the parking and loading areas are along a street, the landscaped area shall be at least ten feet wide. All buffers along residential property lines shall be five feet high when planted, and buffers along streets shall be three feet high. The landscaping shall consist of evergreen trees with the lowest branches not more than one foot above the ground, planted in a zigzag pattern not more than six feet apart, on center. Existing evergreen trees may be utilized as appropriate. Deciduous trees and shrubs may also be provided. All buffers shall produce a screen at the time of planting which will eliminate the glare of vehicle headlights at all seasons of the year. If the location of the buffer and the area to be screened and the adjoining residence or property or street are not at the same elevation so the plantings would not provide an effective screen, the plantings shall be high enough to provide a screen equivalent to that provided above where all land is at the same elevation. No screening is necessary if the ground is high enough to conceal headlights completely between the area to be screened and the property line. Berms with trees, which are stabilized by grass or other plantings, may be used to reduce the required screening height, if the planning board determines that they are appropriate in a particular case. **Buffers shall incorporate the use of native vegetation.**

17-91 LOTS.

h. Lots shall be designed to implement "low impact development" techniques for stomrwater management.

17-93 MODIFICATION OF LOT AREAS AND OTHER RESTRICTIONS.

In reviewing subdivisions, the planning board shall encourage the use of cluster designs and planned developments (sections 17-79 and 17-98) to enable greater variety and flexibility in lot designs, **promote groundwater recharge and water quality**, promote economy, protect environmental factors and increase the availability of open space, without increasing overall population density or intensity of land use.

17-95 OFF-STREET PARKING AND LOADING.

g. All parking facilities and loading areas which, either singly or in combination, contain more than 9,000 square feet shall have curbed, landscaped islands located within the perimeters of the surfaced area except as waived in lower income housing developments as permitted in section 17-92. **Where stormwater management strategies require the provision of other equivalent methods of controlling drainage and defining the edge of paving, protecting the edge of paving from chipping, and preventing vehicles from encroaching on parking/loading areas can be demonstrated to the satisfaction of the planning board with the advice of its engineer, curbing may be waived in whole or in part.**

h. Except as may be waived and modified in lower income housing developments under section 17-92, off-street parking areas containing ten or more spaces and all off-street loading areas shall have concrete **or Belgium block** curbing around the perimeter of the parking and loading areas and along major interior driveways, with appropriate ramps for wheelchairs and bicycles. Where **stormwater management strategies require the provision of other** equivalent methods of controlling drainage[,]**and** defining the edge of paving, protecting the edge of paving from chipping, and preventing vehicles from encroaching on nonparking/loading areas can be demonstrated to the satisfaction of the planning board with the advice of its engineer, [concrete] curbing may be waived in whole or in part. Concrete wheel blocks shall be installed where necessary to protect adjoining walls, trees, shrubs, sidewalks and other facilities.

k. Drainage. All parking and loading areas shall have drainage facilities installed in accordance with good engineering practice and in accordance with the "drainage" provisions of section 17-82. **The design of all drainage for parking facilities shall address water quality, flooding and groundwater recharge and shall incorporate the use of nonstructural stormwater management strategies to the maximum extent practicable. All parking and loading areas shall be designed to minimize impervious surfaces by use of permeable materials were appropriate, and use of multi-level parking where appropriate.** Where sub-base conditions are wet, springy, or of such nature that surfacing would be inadvisable without first treating the sub-base, these areas shall be excavated to a depth of at least 12 inches below the proposed sub-grade and filled with a suitable sub-base material. Where required, a system of porous concrete pipe, sub-surface drains shall be constructed beneath the surface of the paving and connected to a suitable drain. After the sub-base material has been properly placed and compacted, the parking area surfacing material shall be applied.

17-96 OFF-TRACT IMPROVEMENTS.

1. Streets: Including street widening, alignment, corrections, channelization of intersections, construction of barriers, new or improved traffic signalization, signs, curbs and gutters, sidewalks, trees, streets lights, **and related drainage and** utility improvements not covered elsewhere, the construction of new streets and other similar street or traffic improvements: The applicant's proportionate cost factor shall be the ratio of the estimated future peak-hour traffic generated by the proposed development to the total estimated future peak-hour traffic on the route or at the location under consideration. The product of this ratio times the sum of the design, acquisition, legal and construction costs shall be the applicant's pro rata share for the improvement. Ten percent of the total cost shall be added thereto and paid to the township to help defray legal, engineering and other professional review and administrative costs. For design purposes a level of service "B" shall be used for estimating future peak hour traffic.

17-98 PLANNED DEVELOPMENTS.

c. The physical design of the proposed development in relation to public facilities and services, safe and convenient vehicular and pedestrian traffic circulation, the amenities of light and air, recreation and open space uses, and an overall design sensitive to contours, wetlands, flood hazard areas, and similar natural features shall be prepared so as to comply with appropriate portions of this chapter and the master plan. **Any planned development shall be designed to address water quality, flooding and groundwater recharge and shall incorporate the use of nonstructural stormwater management strategies to the maximum extent practicable.**

17-101 RECREATION AREAS.

10. Recreation areas shall be designed to address water quality, flooding and groundwater recharge and shall incorporate the use of nonstructural stormwater management strategies to the maximum extent practicable.

17-102 SERVICE STATIONS.

e. Service Stations shall be designed to address water quality, flooding and groundwater recharge and shall incorporate the use of nonstructural stormwater management strategies to the maximum extent practicable.

17-104 SIDEWALKS.

Sidewalks shall be installed in locations determined by the planning board to be in the interest of public safety and proper pedestrian circulation considering the probable volume of pedestrian traffic, the adjoining street classification where sidewalks, parallel streets, school bus stops, recreation areas, schools, and the general type of improvement intended. Where required, sidewalks shall be at least four feet wide and may be constructed of concrete, brick or bituminous material. All sidewalks shall have a four inch granular base. If constructed of concrete, sidewalks shall be four inches thick, except at points of vehicular crossing where they shall be at least six inches thick, of Class B concrete having a 28 day compressive strength of 4,500 p.s.i., and shall be air-entrained. If constructed of bituminous materials, where permitted by the planning board, they shall adhere to the bikeway standards. Where sidewalks cross curbs curb ramps shall be provided. Preformed expansion joint material shall be placed on concrete sidewalks at 20 foot intervals and where sidewalks abut curbing or a structure.

Sidewalks shall be designed to comply with the design criteria of the American with Disabilities Act and New Jersey Department of Transportation. Permeable paving materials shall be used where appropriate and stormwater management and related drainage controls shall comply with section 17-82.a.16

17-108 STREETS.

4. Streets shall be designed to comply with the design criteria of the American Association of State Highway and Transportation Officials and the New Jersey Department of Transportation. Stormwater management and related drainage controls shall comply with section 17-82.a.16

Date Introduced: August 8, 2005

Date Advertised: August 25, 2005

Date Adopted: September 12, 2005

_____

Arlene A. Kemp
Mayor

Attest:

_____

Annette C. Bielawski
Municipal Clerk

Bridge Constructions, 1961" of the New Jersey State Highway Department as amended and the Hopewell Township Standard Specifications. Curbs shall be constructed of Class B, 4500 psi concrete, air-entrained. Unless otherwise required for arterial roads, or by other regulatory agencies, concrete curb shall be not less than six inches thick at the top and eight inches at the bottom and 18 inches deep. The top corner on the face of the curb shall be rounded to a radius of one-half inch. Top of curb shall project six inches above the finished road surface at the curb line.

b. *Rolled Concrete Curbing.* Where required under provisions of this chapter, rolled concrete curb shall be constructed of Portland Cement which shall have a compressive strength of 4,000 pounds per square inch after 28 days. The maximum length of sections shall be ten feet, with preformed bituminous expansion joint filler one-half inch thick installed at a maximum spacing of 20 feet. The curb shall be 24 inches wide, six inches deep on the pavement side, ten inches deep on the lot side, and shall have a one inch depression below the pavement side located about one-third the distance from the pavement edge. The side adjacent to the pavement shall be flush with the finished pavement surface.

17-82 DRAINAGE, DETENTION, AND STORMWATER MANAGEMENT.

a. *Drainage.*

1. All off-street traffic facilities, parking facilities, loading areas, passageways, driveways, walks, roofs, and other similar impervious surfaces, as well as all lands which have been so changed in contour or permeability as to alter or quicken the natural flow of surface waters, shall be so drained as to prevent damage or hazard to the site or to abutting properties or public streets. The design of all drainage facilities shall address water quality, flooding and groundwater recharge and shall incorporate the use of nonstructural stormwater management strategies to the maximum extent practicable.

2. Adequate surface and stormwater drainage facilities, (i.e. conduits and swales) shall be provided. The facilities shall be designed for the following minimum flow capacities:

Drainage Basin Size	*Design Storm Frequency*
0 to 100 acres	25 years
over 100 acres	50 years
Watercourse Crossing	100 years

The facilities shall also comply with the Soil Erosion and Sediment Control Chapter XII. All pipes shall be sized and located such that backwater or

headwaters shall not flow onto roadways, sewage disposal fields, or within building setback areas.

3. No change shall be made in the existing contours of the land, and no construction shall take place, which would result in any change in the rate, course, width, or elevation of any natural or other drainage channel, in any manner that would obstruct, interfere with or change the drainage of such land, taking into account land development that may take place in the vicinity, except insofar as adequate drainage is provided. In addition, stormwater runoff shall not be concentrated over driveways or within 20 feet of a dwelling.

4. Land contours, drainage facilities, detention basins, and other pertinent aspects of each proposed development shall be designed to encourage as well as to provide effective soil erosion and sediment control.

5. The pipe size shall be determined by acceptable drainage design procedures. In no case shall the pipe size in a surface water drainage system be less than 15 inches in diameter.

6. Drainage inlets shall be located on both sides of street at all intersections. Surface runoff in streets shall not exceed six cubic feet per second at the drainage inlet and surface runoff in parking, loading, and walkway areas shall not exceed three cubic feet per second. Access manholes shall be placed at maximum 500 foot intervals throughout the system and at pipe junctions where there are no drainage inlets. Inlets shall be placed at intervals not exceeding 400 feet.

7. Storm drain pipes shall be constructed longitudinally along streets and shall cross streets perpendicular to the centerline thereof. Pipe shall be located under or behind the curbline with the installation of inlet or manhole structures. Curvilinear alignments, i.e. curved pipe, pipe bends, or tees, wyes, etc. shall not be permitted.

8. Storm drain pipes shall be the size specified and laid to the exact lines and grades approved by the township engineer. Specifications for construction of manholes, inlets, and storm drains shall conform with the 1983 N.J.D.O.T. Standard Specifications for Road and Bridge Construction, as amended or supplemented or the Site Improvement Standards of the Township of Hopewell, with the more restrictive applying.

9. Lots shall be graded to provide proper drainage away from all buildings, to prevent the ponding of stormwater on each lot or adjacent lots. Minimum slopes of 1.5 percent shall be provided on all lots except in the vicinity of structures, where two percent shall be maintained for a minimum of 20 feet. All lots shall be designed to convey stormwater from adjacent lots around the perimeter of the lot in question by use of stable diversion (swales) or waterways designed in

accordance with the Standards for Soil Erosion and Sediment Control in New Jersey.

10. Land designated as a flood hazard area shall not be designed for any occupancy nor for any other purpose which may endanger life or property or aggravate the flood hazard. Such land may be considered for yard areas, or other similar uses and shall be preserved by a conservation easement.

11. Any underground drainageway or drainage systems outside a street or other public right-of-way shall be accompanied by a 15 foot wide (minimum) drainage easement dedicated to the township and conforming with the lines of such system. Sufficient width shall be provided so as to accommodate maintenance vehicle access.

12. Stream corridors shall be preserved by a conservation easement. Stream corridors extend 50 feet from each bank of permanently flowing streams as these streams are shown on Soil Conservation Service (SCS) maps. If the natural floodplain is greater, the corridor shall extend to the limits of the floodplain. Stream corridors shall also be extended to include contiguous wetlands and slopes over 12 percent where the toe of the slope is within 20 feet of the wet soils. Within the stream corridor and 20 feet of its edge, natural coverage shall be maintained, no alteration of the natural terrain shall occur, and no structures or impervious surfaces shall be constructed. All roads and utilities, including septic systems, shall be at least 100 feet from stream corridors.

    (a) Stream corridors as defined in Section 17-181 shall be preserved by a conservation easement, which shall specify the prohibited uses and contain the customary provisions for a conservation easement as required by the township committee.

13. In such cases in which an easement extends into a lot for a distance wider than that which is restricted against building by the required yard space regulations of this chapter, the planning board may require the lot to be enlarged to the degree necessary to provide additional building area.

14. Sump pump discharge lines may be connected to the storm drain system upon approval of the superintendent of public works, but in no event shall sump pumps be connected to any sanitary sewer system. Sump pump connections shall be made using the standard detail provided in the site improvement standards.

15. Septic systems shall not be connected to the storm drain system. Where perimeter drains are provided around septic systems for the sole purpose of lowering the water table, the discharge pipe may be connected to the storm drainage system after receiving approval from the board of health and township engineer. Provision shall be made by the applicant to permit adequate inspection and testing of the discharge from this line.

16. Stormwater Management. All hydraulic and hydrologic computations for all site development, subdivisions and site disturbances shall be in accordance with N.J.A.C. 7:8-5 and N.J.A.C. 5:21.

17. Materials used in the construction of storm sewers shall be of reinforced concrete, ductile iron, corrugated aluminum, or corrugated steel. Site or other conditions may dictate alternative materials or design methods, which will be reviewed case by case by the township engineer. Specifications referred to, such as ASA, ASTM, AWWA, etc., should be the latest revision.

18. Wetlands shall be preserved by conservation easements.

b. *Detention and Stormwater Management.*

1. Shall be in accordance with N.J.A.C. 7:8-5 and N.J.A.C. 5:21.

2. Detention basins shall be appropriately landscaped. All detention basin landscaping shall be designed by a New Jersey licensed landscape architect. Floor and side slope areas within the basin and subject to submergence shall be planted with low maintenance, water-tolerant ground cover. Nursery stock and multileader trees shall be used along the perimeter of the basin and side slopes not subjected to submergence. Shade tree planting along any portions of a berm shall not be permitted.

3. Point discharges onto private property shall require a maintenance easement to a hydraulically stable condition. Minimum width shall be as determined by the township engineer based on type of access and maintenance required. The minimum length shall be measured to the point of calculated stability or 100 feet minimum as measured from the termination point of the outlet pipe headwall or flared end section.

4. Submissions. All data required by this paragraph shall be provided in form and content, in accordance with the stormwater management checklist items for preliminary major subdivisions in the Land Use and Development Ordinance, section 17-125.

5. Maintenance and Repair. Responsibility for operation and maintenance of detention facilities, including periodic removal and disposal of accumulated particulate material and debris, shall remain with a homeowners' association, with permanent arrangements that it shall pass to any successive association, unless dedicated to the township along with a contribution to the township of sufficient funds to provide for the maintenance of such property for a period of 25 years from the date of planning board approval in accordance with the formula set forth hereafter. These arrangements shall designate for each project, the property owner, governmental agency, or other legally established entity to be permanently responsible for maintenance, hereinafter in this section referred to as the "responsible person."

Prior to granting approval to any project subject to review under this section, the applicant shall execute the standard detention basin easement and detention basin maintenance agreement with the municipality to ensure the continued operation and maintenance of the detention facility. The easement shall be in the standard form contained with the site improvement standards which may be amended from time to time to include or alter provisions relating to personal guarantees, deed restrictions, covenants, and bonds. In cases where a homeowners' association or similar permanent entity is established as the responsible entity, a detention basin maintenance agreement shall be prepared. This document shall incorporate detention basin maintenance standards of the Township of Hopewell and shall be executed with the association and all association documents shall address the provisions herein.

The funds to be contributed for the perpetual care of detention facilities dedicated to the township shall be computed in accordance with the following formula:

Item No.	*Description*	*Rate Per Acre*	*Total Acres*	*Freq. Per Year*	*Item Total*
1	Mowing	$ 63.42		10	
2	Mowing Materials	$ 14.33		10	
3	Landscape Maintenance	$ 389.16		2	
4	Landscape Maintenance Materials	$ 779.92		2	
5	General Maintenance	$ 219.00	1.0	4	
6	Periodic Maintenance	$ 4,835.00		0.076	
7	Engineering Inspection	$ 250.00		1	

Estimated Annual Maintenance Costs = $_____

Estimated Annual Insurance Costs = $_____

Total Estimated Annual Detention Basin Costs (ADBC) = $_____

To Determine Developer Contribution, Compute 25 Year Present Worth of ADBC (Assume 6% Inflation and 8% Rate of Return) = ADBC x 18.665 = $_____

Developer Contribution = $_____

Computation Factors Description

Item	*Description*	
1	Mowing:	This item anticipates all labor and equipment necessary for maintaining an average lawn height of 4 inches including fertilizing and mobilization. Rates per acre are based upon site work cost data for labor and equipment as provided by R.S. Mean Company, Inc., and as compared to prevailing local rates. Frequency reflects the number of times per annum in order to achieve an average lawn height of 4 inches.
2	Mowing Materials:	This item anticipates all materials to be used for mowing and fertilizing. This item includes gas, oil, and disposal of grass clippings and fertilizer. Frequency shall be same as item 1. Mowing material rates are based upon site work cost data as provided by R.S. Mean Company, Inc., and as compared to prevailing local rates.
3	Landscape Maintenance:	This item anticipates all labor and equipment necessary for mulching. Frequency reflects number of times performance of this item is anticipated annually. Landscape maintenance rates are based upon site work cost data for labor and equipment as provided by R.S. Mean Company, Inc., and as compared to prevailing local rates.
4	Landscape Materials:	This item anticipates all materials to be used for landscape maintenance. Landscape material rates are based upon site work cost data as provided by R.S. Mean Company, Inc., and as compared to prevailing local rates.
5	General Maintenance:	This item anticipates all labor and equipment necessary to perform removal of debris around the outlet structure and its receiving waterway and to insure proper functioning of the basin. Frequency is based upon frequency of a 25 year storm event. 25 year storms generally produce such volumes and velocities of runoff that can carry debris which could be entrapped within the basin thereby interfering with the operation of the outlet struc-

Item	*Description*	
		ture. General maintenance rates are based upon site work cost data for labor and equipment as provided by R.S. Mean Company, Inc., and as compared to prevailing local rates.
6	Periodic Maintenance:	This item anticipates capital expenditures which might occur during the 25 year period. These costs are assumed to be required during the 12th and 25th years. This item anticipates all labor, equipment, and materials necessary to perform this type of maintenance which may include but is not limited to: replacement of low flow channel, replacement of rusted elements of outlet structure, restoration of conduit outlet protection. In order to properly convert these costs to present worth, it is necessary to introduce a frequency factor which is less than one. Periodic maintenance rates are based upon site work cost data for labor and equipment as provided by R.S. Mean Company, Inc. and as compared to prevailing local rates.
7	Engineering Inspection:	This item anticipates all labor and materials necessary to contract for performance of an inspection of the facility and receive a certificate of adequacy or statement of deficiencies by a New Jersey licensed professional engineer. The frequency of this item shall be once per year. Engineering inspection rates are based upon site work cost data for labor and equipment as provided by R.S. Mean Company, Inc., and as compared to prevailing local rates.

(Ord. #04-1325, § 3; Ord. #05-1352)

APPENDIX I

PENNINGTON BOROUGH RIPARIAN BUFFER CONSERVATION ZONE ORDINANCE/CODE

Borough of Pennington
Ordinance 2008-2

AN ORDINANCE CONCERNING RIPARIAN BUFFER CONSERVATION ZONES AND AMENDING THE CODE OF THE BOROUGH OF PENNINGTON

WHEREAS, the Borough Council of the Borough of Pennington seeks to adopt and to incorporate in the Code of the Borough of Pennington an Ordinance establishing a Riparian Buffer Conservation Zone;

WHEREAS, the Borough of Pennington believes the Ordinance is consistent with the requirements set forth in New Jersey Stormwater Management Rule N.J.A.C. 7:8;

NOW, THEREFORE, BE IT ORDAINED, by the Borough Council of the Borough of Pennington, that the Code of the Borough of Pennington is hereby amended to incorporate the following:

I. INTENT AND PURPOSE

The governing body of the Borough of Pennington finds that riparian lands adjacent to streams, lakes, or other surface water bodies that are adequately vegetated provide an important environmental protection and water resource management benefit. It is necessary to protect and maintain the beneficial character of riparian areas by implementing specifications for the establishment, protection, and maintenance of vegetation along the surface water bodies within the jurisdiction of the Borough, consistent with the interest of landowners in making reasonable economic use of parcels of land that include such designated areas. The purpose of this Ordinance is to designate Riparian Buffer Conservation Zones, and to provide for land use regulation therein in order to protect the streams, lakes, and other surface water bodies of the Borough; to protect the water quality of watercourses, reservoirs, lakes, and other significant water resources within the Borough; to protect the riparian and aquatic ecosystems of the Borough; to provide for the environmentally sound use of the land resources of the Borough; and to complement existing state, regional, county, and municipal stream corridor protection and management regulations and initiatives. The specific purposes and intent of this Ordinance are to:

A. Restore and maintain the chemical, physical, and biological integrity of the water resources of the Borough;

B. Prevent excessive nutrients, sediment, and organic matter, as well as biocides and other pollutants, from reaching surface waters by optimizing opportunities for filtration, deposition, absorption, adsorption, plant uptake, biodegradation, and denitrification, which occur when stormwater runoff is conveyed through vegetated buffers as stable, distributed sheet flow prior to reaching receiving waters;

C. Provide for shading of the aquatic environment so as to moderate temperatures, retain more dissolved oxygen, and support a healthy assemblage of aquatic flora and fauna;

D. Provide for the availability of natural organic matter (fallen leaves and twigs) and large woody debris (fallen trees and limbs) that provide food and habitat for small bottom dwelling organisms (insects, amphibians, crustaceans, and small fish), which are essential to maintain the food chain;

E. Increase stream bank stability and maintain natural fluvial geomorphology of the stream system, thereby reducing stream bank erosion and sedimentation and protecting habitat for aquatic organisms;

F. Maintain base flows in streams and moisture in wetlands;

G. Control downstream flooding; and

H. Conserve the natural features important to land and water resources, e.g., headwater areas, groundwater recharge zones, floodways, floodplains, springs, streams, wetlands, woodlands, and prime wildlife habitats.

II. STATUTORY AUTHORITY

The Borough of Pennington is empowered to regulate land uses under the provisions of the New Jersey Municipal Land Use Law, N.J.S.A 40:55D-1 et seq., which authorizes each

municipality to plan and regulate land use in order to protect public health, safety and welfare by protecting and maintaining native vegetation in riparian areas. The Borough is also empowered to adopt and implement this Ordinance under provisions provided by the following legislative authorities of the State of New Jersey:

A. Water Pollution Control Act, N.J.S.A. 58:10A et seq.

B. Water Quality Planning Act, N.J.S.A. 58:11A-1 et seq.

C. Spill Compensation and Control Act, N.J.S.A. 58:10-23 et seq.

D. Soil Erosion and Sediment Control Act, N.J.S.A. 4:24-39 et seq.

E. Flood Hazard Area Control Act, N.J.S.A. 58:16A-50 et seq.

III. DEFINITIONS

"Administrative Authority" means the Planning Board and Board of Adjustment or Construction Office with all of the powers delegated, assigned, or assumed by them according to statute or ordinance.

"Applicant" means a person applying to the Planning Board and Board of Adjustment or the Construction Office proposing to engage in an activity that is regulated by the provisions of this ordinance, and that would be located in whole or in part within a regulated Riparian Buffer Conservation Zone.

"Floodway" shall have the meaning ascribed to this term by the Flood Hazard Area Control Act (N.J.S.A. 58:16A-50 et seq.) and regulations promulgated there under published at N.J.A.C. 7.13 et seq., and any supplementary or successor legislation and regulations from time to time enacted or promulgated.

"Intermittent Stream" means surface water drainage channels with definite natural bed and banks in which there is not a permanent flow of water. Streams shown as a dashed line on either the USGS topographic quadrangle maps or the USDA County Soil Survey Maps of the most recent edition that includes hydrography are included as intermittent streams.

"Lake, pond, or reservoir" means any impoundment, whether naturally occurring or created in whole or in part by the building of structures for the retention of surface water, excluding sedimentation control and stormwater retention/detention basins and ponds designed for treatment of wastewater.

"Perennial stream" means a stream that flows continuously throughout the year in most years. These streams usually appear as a blue line on USGS topographic quadrangle maps or on USDA County Soil Survey Maps.

"Riparian Buffer Conservation Zone (RBCZ)" means an area of land or water within or adjacent to a Surface Water Body within the Borough of Pennington.

"Surface Water Body" means any above ground perennial stream, intermittent stream, lake, pond, or reservoir, as defined herein. In addition, any state open waters identified in a letter of interpretation issued by the New Jersey Department of Environmental Protection Land Use Regulation Program shall also be considered surface water bodies.

IV. ESTABLISHMENT OF RIPARIAN BUFFER CONSERVATION ZONES

A. Riparian Buffer Conservation Zones (RBCZs) shall be delineated as follows:

1. For areas adjacent to surface water bodies, the RBCZ shall be measured from the top of bank of an intermittent or perennial stream, or centerline if bank is not defined, and shall extend 50 feet horizontally outward from the perpendicular.

2. For areas adjacent to surface water bodies for which the Floodway has been delineated, the RBCZ shall cover the entire Floodway area, or the area described in Section IV.A.1. or IV.A.2., whichever area has the greatest extent. Floodway delineations shall be based upon the State's adopted floodway delineations. However, requests for alterations to the adopted delineations can be provided to the New Jersey Department of Environmental Protection for consideration if site specific information is available.

B. An RBCZ is an overlay to the existing zoning districts. The provisions of the underlying district shall remain in full force except where the provisions of the RBCZ differ from

the provisions of the underlying district, in which case the provision that is more restrictive shall apply. These provisions apply to land disturbances resulting from or related to any activity or use requiring application for any of the following permits or approvals: Building permit; Zoning variance; Special exception; Conditional use; Subdivision/land development approval.

C. The applicant or designated representative shall be responsible for the initial determination of the presence of an RBCZ on a site, and for identifying the area on any plan submitted to the Borough in conjunction with an application for a construction permit, subdivision, land development, or other improvement that requires plan submissions or permits. This initial determination shall be subject to review and approval by the municipal engineer, governing body, or its appointed representative, and, where required, by the New Jersey Department of Environmental Protection.

V. USES PERMITTED IN RIPARIAN BUFFER CONSERVATION ZONES

. A. Any RBCZ area shall remain in a natural condition or, if in a disturbed condition, including agricultural activities, at the time of adoption of this ordinance may be restored to a natural condition. There shall be no clearing or cutting of trees and brush, except for removal of dead vegetation and pruning for reasons of public safety or for the replacement of invasive species with indigenous species. There shall be no altering of watercourses, dumping of trash, soil, dirt, fill, vegetative or other debris, regrading or construction. The following uses are permitted either by right or after review and approval by the Planning Board and Board of Adjustment in RBCZs. No new construction, development, use, activity, encroachment, or structure shall take place in an RBCZ, except as specifically authorized in this Section. The following uses shall be permitted within an RBCZ:

1. Open space uses that are primarily passive in character shall be permitted by right to extend into an RBCZ, provided near stream vegetation is preserved. These uses, if permitted uses in the affected Land Use Zone District, do not require approval by the Zoning Enforcement Officer or compliance with an approved RBCZ Management Plan Such uses include passive recreation areas of public and private lands, including lawns and gardens, hiking, bicycle and bridle trails.

2. Fences, for which a permit has been issued by the Construction Code Office, to the extent required by applicable law, rule or regulation.

3. Crossings by farm vehicles and livestock, recreational trails, roads, railroads, storm water lines, sanitary sewer lines, water lines and public utility transmission lines, provided that the land disturbance is the minimum required to accomplish the permitted use, subject to approval by the Zoning Enforcement Officer, provided that any applicable State permits are acquired, and provided that any disturbance is offset by buffer improvements in compliance with an approved RBCZ Management Plan and that the area of the crossing is stabilized against significant erosion due to its use as a crossing.

4. Stream bank stabilization or riparian reforestation, which conform to the guidelines of an approved RBCZ Management Plan, or wetlands mitigation projects that have been approved by the Department of Environmental Protection, subject to approval by the Zoning Enforcement Officer and subject to compliance with an approved RBCZ Management Plan.

5. Uses permitted under Section VII and Section IX.

VI. PERFORMANCE STANDARDS FOR RIPARIAN BUFFER CONSERVATION ZONES

A. For all RBCZs, the following conditions shall apply when the applicant is required to appear before the Planning Board:

1. All new major and minor subdivisions and site plans shall be designed to provide sufficient areas outside of the RBCZ to accommodate primary structures, any normal accessory uses appurtenant thereto, as well as all additional or expanded lawn areas.

2. Any proposed use or any portion of a lot or lots within the RBCZ except those not requiring Planning Board and/or Zoning Board approval as described in Section V above, must be permanently restricted by deed or conservation easement held by the Borough, its agent, or another public or private land

conservation organization, which has the ability to provide adequate protection to prevent adverse impacts within the RBCZ. A complete copy of the recorded conservation restriction that clearly identifies the deed book and pages where it has been recorded in the office of the clerk of the applicable county or the registrar of deeds and mortgages of the applicable county must be submitted to the municipality. The applicant shall not commence with the project or activity prior to making this submittal and receiving actual approval of the plan modification and receipt of any applicable permits from the Department of Environmental Protection. The recorded conservation restriction shall be in the form approved by the municipality and shall run with the land and be binding upon the property owner and the successors in interest in the property or in any part thereof. The conservation restriction may include language reserving the right to make de minimus changes to accommodate necessary regulatory approvals upon the written consent of the municipality, provided such changes are otherwise consistent with this chapter. The recorded conservation restriction shall, at a minimum, include:

a. A written narrative of the authorized regulated activity, date of issuance, and date of expiration, and the conservation restriction that, in addition, includes all of the prohibitions set forth at N.J.S.A. 13:8B-2b(1) through (7);

b. Survey plans for the property as a whole and, where applicable, for any additional properties subject to the conservation restrictions. Such survey plans shall be submitted on the surveyor's letterhead, signed and sealed by the surveyor, and shall include metes and bounds descriptions of the property, the site, and the areas subject to the conservation restriction in New Jersey State Plane Coordinates, North American Datum 1983, and shall depict the boundaries of the site and all areas subject to the conservation restriction as marked with flags or stakes onsite. All such survey plans shall be submitted on paper and in digital CAD or GIS file on a media and format defined by the Borough. The flags or stakes shall be numbered and identified on the survey plan; and

c. A copy or copies of deeds for the property as a whole that indicate the deed book and pages where it has been recorded in the office of the clerk of the applicable county or the registrar of deeds and mortgages of the applicable county.

3. Any lands proposed for development which include all or a portion of an RBCZ shall as a condition of any major subdivision or major site plan approval, encourage the vegetation or revegetation of any portions of the RBCZ which are not vegetated at the time of the application or which were disturbed by prior land uses, including for agricultural use. Said vegetation plan shall utilize native and non-invasive tree and plant species to the maximum extent practicable in accordance with an approved Riparian Buffer Conservation Zone Management Plan, described in Section X.

4. For building lots which exist as of the date of adoption of this ordinance, but for which a building permit or a preliminary site plan approval has not been obtained or is no longer valid, the required minimum front, side, and rear setbacks may extend into the RBCZ, provided that a deed restriction and/or conservation easement is applied which prohibits clearing or construction in the RBCZ.

5. All stormwater shall be discharged outside of but may flow through an RBCZ 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. (See N.J.A.C. 2:90-1.3.)

6. If stormwater discharged outside of and flowing through an RBCZ cannot comply with the Standard For Off-Site Stability cited in Section VI.5, then the stabilization measures in accordance with the requirements of the above standards may be placed within the RBCZ, provided that:

a. Stabilization measures shall not be placed closer than 50 feet from the top of the bank at bank-full flow or level of affected surface water bodies unless such disturbance can be completed within the allowable limits of the Flood Hazard Area Control Act;

b. The encroachment shall only be allowed where the applicant demonstrates that the functional value and overall conditions of the RBCZ will be maintained to the maximum extent practicable;

c. A conceptual project design meeting shall be held with the appropriate Borough staff and Soil Conservation District staff to identify necessary stabilization measures; and

d. All encroachments proposed under this section shall be subject to review and approval by the Administrative Authority.

VII. NONCONFORMING STRUCTURES AND USES IN RIPARIAN BUFFER CONSERVATION ZONES

Nonconforming structures and uses of land within the RBCZ are subject to the following requirements:

A. Legally existing but nonconforming structures or uses may be continued.

B. For all RBCZs:

1. Encroachment within the RBCZ shall only be allowed where previous development or disturbance has occurred unless it serves the public health or safety in accordance with Section IX..

2. Existing impervious cover shall not be increased within the RBCZ as a result of encroachments where previous development or disturbances have occurred.

3. Discontinued nonconforming uses may be resumed any time within three years from such discontinuance but not thereafter when showing clear indications of abandonment. No change or resumption shall be permitted that is more detrimental to the RBCZ, as measured against the intent and purpose under Section I, than the existing or former nonconforming use. This three-year time frame shall not apply to agricultural uses that are following prescribed Best Management Practices for crop rotation. However, resumption of agricultural uses must be strictly confined to the extent of disturbance existing at the time of adoption of this ordinance.

VIII. USES PROHIBITED IN RIPARIAN BUFFER CONSERVATION ZONES

A. For RBCZs, any use or activity not specifically authorized in Section V or Section VII shall be prohibited within the RBCZ. By way of example, the following activities and facilities are prohibited:

1. Removal or clear-cutting of trees and other vegetation or soil disturbance such as grading, except for selective vegetation removal for the purpose of stream or riparian area stabilization or restoration projects that require vegetation removal or grading prior to implementation.

2. Storage of any hazardous or noxious materials.

3. Use of fertilizers, pesticides, herbicides, and/or other chemicals in excess of prescribed industry standards or the recommendations of the Soil Conservation District.

4. Roads or driveways, except where permitted in compliance with Section V or Section VII.

5. Motor or wheeled vehicle traffic in any area, except as permitted by this Ordinance.

6. Parking lots.

7. Any type of permanent structure, except structures needed for a use permitted by Section V.

8. New subsurface sewage disposal areas. The expansion and replacement of existing subsurface sewage disposal areas for existing uses is permitted.

IX. ACTIVITIES PERMITTED IN STREAM BUFFER CONSERVATION ZONES WHEN NECESSARY FOR PUBLIC HEALTH AND SAFETY.

A. For RBCZs, hardship variances may be granted by the Zoning Board of Adjustment in cases of a preexisting lot (existing at the time of adoption of this ordinance) when there is insufficient room outside the RBCZ for uses permitted by the underlying zoning and there is no other reasonable or prudent alternative to placement in the RBCZ, including obtaining variances from setback or other requirements that would allow conformance with the RBCZ requirements, and provided the following demonstrations are made:

1. The proposed project will serve an essential public health or safety need; or

2. The proposed use is required to serve an existing public health or safety need; or

3. There is no alternative available to meet the established public health or safety need.

B. A variance can only be granted if it is shown that the activity is in conformance with all applicable local, state, and federal regulations, and that the exception granted is the minimum relief necessary to relieve the hardship.

C. If the above demonstrations are made, then the encroachment of impervious surfaces (structures or pavement) otherwise permitted by the underlying zoning is permitted to the extent of 1,500 square feet total.

X. BOUNDARY INTERPRETATION, APPEALS PROCEDURES, INSPECTIONS, CONFLICTS, SEVERABILITY

A. When a landowner or applicant disputes the boundaries of an RBCZ, the landowner or applicant shall submit evidence to the Planning Board that describes the RBCZ, presents the landowner or applicant's proposed RBCZ delineation, and presents all justification for the proposed boundary change.

B. Within 45 days of a complete submission of Section .A above, the Engineer of the Borough, or appointed representative, shall evaluate all material submitted and shall make a written determination, a copy of which shall be submitted to the Board and the landowner or applicant. Failure to act within the 45-day period shall not be interpreted to be an approval of the proposed boundary change..

C. Any party aggrieved by any such determination or other decision or determination under Section X.B. may appeal to the Planning Board under the provisions of this ordinance. The party contesting the location of the RBCZ boundary shall have the burden of proof in case of any such appeal.

D. Any party aggrieved by any determination or decision of the Planning Board under this Ordinance may appeal to the Borough Council. The party contesting the determination or decision shall have the burden of proof in case of any such appeal.

E. Inspections:

1. Lands within or adjacent to an identified RBCZ shall be inspected by the Borough Zoning Officer when:

a. A subdivision or land development plan is submitted;

b. A building permit is requested;

c. A change or resumption of a nonconforming use is proposed;

d. A discontinued nonconforming use is resumed more than a year later, as described in Section VII.

2. The RBCZ may also be inspected periodically by representatives from the Borough if excessive or potentially problematic erosion is present, other problems are discovered, or at any time when the presence of an unauthorized activity or structure is brought to the attention of municipal officials or when the downstream surface waters are indicating reduction in quality.

F. Conflicts: All other ordinances, parts of ordinances, or other local requirements that are inconsistent or in conflict with this ordinance are hereby superseded to the extent of any inconsistency or conflict, and the provisions of this ordinance apply.

G. Severability:

1. Interpretation: This Ordinance shall be so construed as not to conflict with any provision of New Jersey or Federal law.

2. Notwithstanding that any provision of this Ordinance is held to be invalid or unconstitutional by a court of competent jurisdiction, all remaining provisions of the Ordinance shall continue to be of full force and effect.

3. The provisions of this Ordinance shall be cumulative with, and not in substitution for, all other applicable zoning, planning and land use regulations.

XII. ENFORCEMENT

A prompt investigation shall be made by the appropriate personnel of the Borough of any person or entity believed to be in violation hereof. If, upon inspection, a condition which is in violation of this Ordinance is discovered, a civil action may be brought in the Special Part of the Superior Court, or in the Superior Court, if the primary relief sought is injunctive or if penalties may exceed the jurisdictional limit of the Special Civil Part, by the filing and serving of appropriate process. Nothing in this Ordinance shall be construed to preclude the right of the Borough, pursuant to N.J.S.A 26:3A2-25, to initiate legal proceedings hereunder in Municipal Court. The violation of any section or subsection of this Ordinance shall constitute a separate and distinct offense independent of the violation of any other section or subsection, or of any order issued pursuant to this Ordinance. Each day a violation continues may be considered a separate offense.

XIII. EFFECTIVE DATE

This Ordinance shall take effect upon final adoption and publication in accordance with the law.

Introduced:	July 7, 2008
Advertised:	July 17, 2008
Public Hearing:	August 4, 2008
Adoption:	August 4, 2008
Final Publication:	August 14, 2008

ATTEST:

Elizabeth Sterling

Elizabeth Sterling, Borough Clerk

APPROVED:

Anthony J. Persichilli

Anthony Persichilli, Mayor

Chapter 153

RIPARIAN BUFFER CONSERVATION ZONES

§ 153-1. Intent; purpose.

§ 153-2. Statutory authority.

§ 153-3. Definitions.

§ 153-4. Establishment of Riparian Buffer Conservation Zones.

§ 153-5. Permitted uses.

§ 153-6. Performance standards.

§ 153-7. Nonconforming structures and uses.

§ 153-8. Prohibited uses.

§ 153-9. Variances.

§ 153-10. Boundary interpretation; appeals procedures; inspections; conflicts; severability.

§ 153-11. Enforcement; violations and penalties.

[HISTORY: Adopted by the Borough Council of the Borough of Pennington 8-4-2008 by Ord. No. 2008-2. Amendments noted where applicable.]

GENERAL REFERENCES

Flood damage prevention — See Ch. 108.
Subdivision of land — See Ch. 181.
Water conservation — See Ch. 209.
Zoning — See Ch. 215.

§ 153-1. Intent; purpose.

The governing body of the Borough of Pennington finds that riparian lands adjacent to streams, lakes, or other surface water bodies that are adequately vegetated provide an important environmental protection and water resource management benefit. It is necessary to protect and maintain the beneficial character of riparian areas by implementing specifications for the establishment, protection, and maintenance of vegetation along the surface water bodies within the jurisdiction of the Borough, consistent with the interest of landowners in making reasonable economic use of parcels of land that include such designated areas. The purpose of this chapter is to designate Riparian Buffer Conservation Zones, and to provide for land use regulation therein in order to protect the streams, lakes, and other surface water bodies of the Borough; to protect the water quality of watercourses, reservoirs, lakes, and other significant water resources within the Borough; to protect the riparian and aquatic ecosystems of the Borough; to provide for the environmentally sound use of the land resources of the Borough; and to complement existing state, regional, county, and municipal stream corridor protection and management regulations and initiatives. The specific purposes and intent of this chapter are to:

A. Restore and maintain the chemical, physical, and biological integrity of the water resources of the Borough;

B. Prevent excessive nutrients, sediment, and organic matter, as well as biocides and other pollutants, from reaching surface waters by optimizing opportunities for filtration, deposition, absorption, adsorption, plant uptake, biodegradation, and denitrification,

which occur when stormwater runoff is conveyed through vegetated buffers as stable, distributed sheet flow prior to reaching receiving waters;

C. Provide for shading of the aquatic environment so as to moderate temperatures, retain more dissolved oxygen, and support a healthy assemblage of aquatic flora and fauna;

D. Provide for the availability of natural organic matter (fallen leaves and twigs) and large woody debris (fallen trees and limbs) that provide food and habitats for small bottom-dwelling organisms (insects, amphibians, crustaceans, and small fish), which are essential to maintain the food chain;

E. Increase streambank stability and maintain natural fluvial geomorphology of the stream system, thereby reducing streambank erosion and sedimentation and protecting habitats for aquatic organisms;

F. Maintain base flows in streams and moisture in wetlands;

G. Control downstream flooding; and

H. Conserve the natural features important to land and water resources, e.g., headwater areas, groundwater recharge zones, floodways, floodplains, springs, streams, wetlands, woodlands, and prime wildlife habitats.

§ 153-2. Statutory authority.

The Borough of Pennington is empowered to regulate land uses under the provisions of the New Jersey Municipal Land Use Law, N.J.S.A 40:55D-1 et seq., which authorizes each municipality to plan and regulate land use in order to protect public health, safety and welfare by protecting and maintaining native vegetation in riparian areas. The Borough is also empowered to adopt and implement this chapter under provisions provided by the following legislative authorities of the State of New Jersey:

A. Water Pollution Control Act, N.J.S.A. 58:10A et seq.

B. Water Quality Planning Act, N.J.S.A. 58:11A-1 et seq.

C. Spill Compensation and Control Act, N.J.S.A. 58:10-23.11 et seq.

D. Soil Erosion and Sediment Control Act, N.J.S.A. 4:24-39 et seq.

E. Flood Hazard Area Control Act, N.J.S.A. 58:16A-50 et seq.

§ 153-3. Definitions.

As used in this chapter, the following terms shall have the meanings indicated:

ADMINISTRATIVE AUTHORITY — The Planning Board and Board of Adjustment or Construction Office with all of the powers delegated, assigned, or assumed by them according to statute or ordinance.

APPLICANT — A person applying to the Planning Board and Board of Adjustment or the Construction Office proposing to engage in an activity that is regulated by the provisions of this chapter, and that would be located in whole or in part within a regulated Riparian Buffer Conservation Zone.

FLOODWAY — The meaning ascribed to this term by the Flood Hazard Area Control Act (N.J.S.A. 58:16A-50 et seq.) and regulations promulgated thereunder published at N.J.A.C. 7.13 et seq., and any supplementary or successor legislation and regulations from time to time enacted or promulgated.

INTERMITTENT STREAM — Surface water drainage channels with definite natural bed and banks in which there is not a permanent flow of water. Streams shown as a dashed line on either the USGS topographic quadrangle maps or the USDA County Soil Survey Maps of the most recent edition that includes hydrography are included as intermittent streams.

LAKE, POND, or RESERVOIR — Any impoundment, whether naturally occurring or created in whole or in part by the building of structures for the retention of surface water, excluding sedimentation control and stormwater retention/detention basins and ponds designed for treatment of wastewater.

PERENNIAL STREAM — A stream that flows continuously throughout the year in most years. These streams usually appear as a blue line on USGS topographic quadrangle maps or on USDA County Soil Survey Maps.

RIPARIAN BUFFER CONSERVATION ZONE (RBCZ) — An area of land or water within or adjacent to a surface water body within the borough of Pennington.

SURFACE WATER BODY — Any aboveground perennial stream, intermittent stream, lake, pond, or reservoir, as defined herein. In addition, any state open waters identified in a letter of interpretation issued by the New Jersey Department of Environmental Protection Land Use Regulation Program shall also be considered surface water bodies.

§ 153-4. Establishment of Riparian Buffer Conservation Zones.

A. Riparian Buffer Conservation Zones (RBCZs) shall be delineated as follows:

(1) For areas adjacent to surface water bodies, the RBCZ shall be measured from the top of bank of an intermittent or perennial stream, or center line if bank is not defined, and shall extend 50 feet horizontally outward from the perpendicular.

(2) For areas adjacent to surface water bodies for which the floodway has been delineated, the RBCZ shall cover the entire floodway area, or the area described in Subsection A(1) or (2), whichever area has the greatest extent. Floodway delineations shall be based upon the state's adopted floodway delineations. However, requests for alterations to the adopted delineations can be provided to the New Jersey Department of Environmental Protection for consideration if site-specific information is available.

B. An RBCZ is an overlay to the existing zoning districts. The provisions of the underlying district shall remain in full force except where the provisions of the RBCZ differ from the provisions of the underlying district, in which case the provision that is more

restrictive shall apply. These provisions apply to land disturbances resulting from or related to any activity or use requiring application for any of the following permits or approvals: building permit; zoning variance; special exception; conditional use; subdivision/land development approval.

C. The applicant or designated representative shall be responsible for the initial determination of the presence of an RBCZ on a site, and for identifying the area on any plan submitted to the Borough in conjunction with an application for a construction permit, subdivision, land development, or other improvement that requires plan submissions or permits. This initial determination shall be subject to review and approval by the Municipal Engineer, governing body, or its appointed representative, and, where required, by the New Jersey Department of Environmental Protection.

§ 153-5. Permitted uses.

Any RBCZ area shall remain in a natural condition or, if in a disturbed condition, including agricultural activities, at the time of adoption of this chapter may be restored to a natural condition. There shall be no clearing or cutting of trees and brush, except for removal of dead vegetation and pruning for reasons of public safety or for the replacement of invasive species with indigenous species. There shall be no altering of watercourses, dumping of trash, soil, dirt, fill, vegetative or other debris, regrading or construction. The following uses are permitted either by right or after review and approval by the Planning Board and Board of Adjustment in RBCZs. No new construction, development, use, activity, encroachment, or structure shall take place in an RBCZ, except as specifically authorized in this section. The following uses shall be permitted within an RBCZ:

A. Open space uses that are primarily passive in character shall be permitted by right to extend into an RBCZ, provided near stream vegetation is preserved. These uses, if permitted uses in the affected Land Use Zone District, do not require approval by the Zoning Enforcement Officer or compliance with an approved RBCZ management plan. Such uses include passive recreation areas of public and private lands, including lawns and gardens, hiking, bicycle and bridle trails.

B. Fences, for which a permit has been issued by the Construction Code Office, to the extent required by applicable law, rule or regulation.

C. Crossings by farm vehicles and livestock, recreational trails, roads, railroads, stormwaterlines, sanitary sewer lines, waterlines and public utility transmission lines, provided that the land disturbance is the minimum required to accomplish the permitted use, subject to approval by the Zoning Enforcement Officer, provided that any applicable state permits are acquired, and provided that any disturbance is offset by buffer improvements in compliance with an approved RBCZ management plan and that the area of the crossing is stabilized against significant erosion due to its use as a crossing.

D. Streambank stabilization or riparian reforestation, which conforms to the guidelines of an approved RBCZ management plan, or wetlands mitigation projects that have been approved by the Department of Environmental Protection, subject to approval by the Zoning Enforcement Officer and subject to compliance with an approved RBCZ management plan.

E. Uses permitted under §§ 153-7 and 153-9.

§ 153-6. Performance standards.

For all RBCZs, the following conditions shall apply when the applicant is required to appear before the Planning Board:

A. All new major and minor subdivisions and site plans shall be designed to provide sufficient areas outside of the RBCZ to accommodate primary structures, any normal accessory uses appurtenant thereto, as well as all additional or expanded lawn areas.

B. Any proposed use or any portion of a lot or lots within the RBCZ, except those not requiring Planning Board and/or Zoning Board approval as described in § 153-5 above, must be permanently restricted by deed or conservation easement held by the Borough, its agent, or another public or private land conservation organization, which has the ability to provide adequate protection to prevent adverse impacts within the RBCZ. A complete copy of the recorded conservation restriction that clearly identifies the deed book and pages where it has been recorded in the office of the clerk of the applicable county or the registrar of deeds and mortgages of the applicable county must be submitted to the municipality. The applicant shall not commence with the project or activity prior to making this submittal and receiving actual approval of the plan modification and receipt of any applicable permits from the Department of Environmental Protection. The recorded conservation restriction shall be in the form approved by the municipality and shall run with the land and be binding upon the property owner and the successors in interest in the property or in any part thereof. The conservation restriction may include language reserving the right to make de minimus changes to accommodate necessary regulatory approvals upon the written consent of the municipality, provided such changes are otherwise consistent with this chapter. The recorded conservation restriction shall, at a minimum, include:

(1) A written narrative of the authorized regulated activity, date of issuance, and date of expiration, and the conservation restriction that, in addition, includes all of the prohibitions set forth at N.J.S.A. 13:8B-2b(1) through (7);

(2) Survey plans for the property as a whole and, where applicable, for any additional properties subject to the conservation restrictions. Such survey plans shall be submitted on the surveyor's letterhead, signed and sealed by the surveyor, and shall include metes and bounds descriptions of the property, the site, and the areas subject to the conservation restriction in New Jersey State Plane Coordinates, North American Datum 1983, and shall depict the boundaries of the site and all areas subject to the conservation restriction as marked with flags or stakes on site. All such survey plans shall be submitted on paper and in digital CAD or GIS file on a media and format defined by the Borough. The flags or stakes shall be numbered and identified on the survey plan; and

(3) A copy or copies of deeds for the property as a whole that indicate the deed book and pages where it has been recorded in the office of the clerk of the applicable county or the registrar of deeds and mortgages of the applicable county.

C. Any lands proposed for development which include all or a portion of an RBCZ shall, as a condition of any major subdivision or major site plan approval, encourage the vegetation or revegetation of any portions of the RBCZ which are not vegetated at the time of the application or which were disturbed by prior land uses, including for agricultural use. Said vegetation plan shall utilize native and noninvasive tree and plant species to the maximum extent practicable in accordance with an approved Riparian Buffer Conservation Zone management plan, described in § 153-10.

D. For building lots which exist as of the date of adoption of this chapter, but for which a building permit or a preliminary site plan approval has not been obtained or is no longer valid, the required minimum front, side, and rear setbacks may extend into the RBCZ, provided that a deed restriction and/or conservation easement is applied which prohibits clearing or construction in the RBCZ.

E. All stormwater shall be discharged outside of but may flow through an RBCZ 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. (See N.J.A.C. 2:90-1.3.)

F. If stormwater discharged outside of and flowing through an RBCZ cannot comply with the standard for off-site stability cited in Subsection E, then the stabilization measures in accordance with the requirements of the above standards may be placed within the RBCZ, provided that:

(1) Stabilization measures shall not be placed closer than 50 feet from the top of the bank at bank-full flow or level of affected surface water bodies unless such disturbance can be completed within the allowable limits of the Flood Hazard Area Control Act;[1]

(2) The encroachment shall only be allowed where the applicant demonstrates that the functional value and overall conditions of the RBCZ will be maintained to the maximum extent practicable;

(3) A conceptual project design meeting shall be held with the appropriate Borough staff and Soil Conservation District staff to identify necessary stabilization measures; and

(4) All encroachments proposed under this section shall be subject to review and approval by the Administrative Authority.

§ 153-7. Nonconforming structures and uses.

Nonconforming structures and uses of land within the RBCZ are subject to the following requirements:

A. Legally existing but nonconforming structures or uses may be continued.

B. For all RBCZs:

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1. **Editor's Note: See N.J.S.A. 58:16A-50 et seq.**

(1) Encroachment within the RBCZ shall only be allowed where previous development or disturbance has occurred unless it serves the public health or safety in accordance with § 153-9.

(2) Existing impervious cover shall not be increased within the RBCZ as a result of encroachments where previous development or disturbances have occurred.

(3) Discontinued nonconforming uses may be resumed any time within three years from such discontinuance but not thereafter when showing clear indications of abandonment. No change or resumption shall be permitted that is more detrimental to the RBCZ, as measured against the intent and purpose under § 153-1, than the existing or former nonconforming use. This three-year time frame shall not apply to agricultural uses that are following prescribed best management practices for crop rotation. However, resumption of agricultural uses must be strictly confined to the extent of disturbance existing at the time of adoption of this chapter.

§ 153-8. Prohibited uses.

For RBCZs, any use or activity not specifically authorized in § 153-5 or 153-7 shall be prohibited within the RBCZ. By way of example, the following activities and facilities are prohibited:

A. Removal or clear-cutting of trees and other vegetation or soil disturbance such as grading, except for selective vegetation removal for the purpose of stream or riparian area stabilization or restoration projects that require vegetation removal or grading prior to implementation.

B. Storage of any hazardous or noxious materials.

C. Use of fertilizers, pesticides, herbicides, and/or other chemicals in excess of prescribed industry standards or the recommendations of the Soil Conservation District.

D. Roads or driveways, except where permitted in compliance with § 153-5 or 153-7.

E. Motor or wheeled vehicle traffic in any area, except as permitted by this chapter.

F. Parking lots.

G. Any type of permanent structure, except structures needed for a use permitted by § 153-5.

H. New subsurface sewage disposal areas. The expansion and replacement of existing subsurface sewage disposal areas for existing uses is permitted.

§ 153-9. Variances.

A. For RBCZs, hardship variances may be granted by the Zoning Board of Adjustment in cases of a preexisting lot (existing at the time of adoption of this chapter) when there is insufficient room outside the RBCZ for uses permitted by the underlying zoning and there is no other reasonable or prudent alternative to placement in the RBCZ, including

obtaining variances from setback or other requirements that would allow conformance with the RBCZ requirements, and provided the following demonstrations are made:

(1) The proposed project will serve an essential public health or safety need; or

(2) The proposed use is required to serve an existing public health or safety need; or

(3) There is no alternative available to meet the established public health or safety need.

B. A variance can only be granted if it is shown that the activity is in conformance with all applicable local, state, and federal regulations, and that the exception granted is the minimum relief necessary to relieve the hardship.

C. If the above demonstrations are made, then the encroachment of impervious surfaces (structures or pavement) otherwise permitted by the underlying zoning is permitted to the extent of 1,500 square feet total.

§ 153-10. Boundary interpretation; appeals procedures; inspections; conflicts; severability.

A. When a landowner or applicant disputes the boundaries of an RBCZ, the landowner or applicant shall submit evidence to the Planning Board that describes the RBCZ, presents the landowner or applicant's proposed RBCZ delineation, and presents all justification for the proposed boundary change.

B. Within 45 days of a complete submission of subsection A above, the Engineer of the Borough, or appointed representative, shall evaluate all material submitted and shall make a written determination, a copy of which shall be submitted to the Board and the landowner or applicant. Failure to act within the forty-five-day period shall not be interpreted to be an approval of the proposed boundary change.

C. Any party aggrieved by any such determination or other decision or determination under Subsection B may appeal to the Planning Board under the provisions of this chapter. The party contesting the location of the RBCZ boundary shall have the burden of proof in case of any such appeal.

D. Any party aggrieved by any determination or decision of the Planning Board under this chapter may appeal to the Borough Council. The party contesting the determination or decision shall have the burden of proof in case of any such appeal.

E. Inspections.

(1) Lands within or adjacent to an identified RBCZ shall be inspected by the Borough Zoning Officer when:

(a) A subdivision or land development plan is submitted;

(b) A building permit is requested;

(c) A change or resumption of a nonconforming use is proposed;

(d) A discontinued nonconforming use is resumed more than a year later, as described in § 153-7.

(2) The RBCZ may also be inspected periodically by representatives from the Borough if excessive or potentially problematic erosion is present, other problems are discovered, or at any time when the presence of an unauthorized activity or structure is brought to the attention of municipal officials or when the downstream surface waters are indicating reduction in quality.

F. Conflicts. All other ordinances, parts of ordinances, or other local requirements that are inconsistent or in conflict with this chapter are hereby superseded to the extent of any inconsistency or conflict, and the provisions of this chapter apply.

G. Severability.

(1) Interpretation. This chapter shall be so construed as not to conflict with any provision of New Jersey or federal law.

(2) Notwithstanding that any provision of this chapter is held to be invalid or unconstitutional by a court of competent jurisdiction, all remaining provisions of the Ordinance shall continue to be of full force and effect.

(3) The provisions of this chapter shall be cumulative with, and not in substitution for, all other applicable zoning, planning and land use regulations.

§ 153-11. Enforcement; violations and penalties.

A prompt investigation shall be made by the appropriate personnel of the Borough of any person or entity believed to be in violation hereof. If, upon inspection, a condition which is in violation of this chapter is discovered, a civil action may be brought in the Special Part of the Superior Court, or in the Superior Court, if the primary relief sought is injunctive or if penalties may exceed the jurisdictional limit of the Special Civil Part, by the filing and serving of appropriate process. Nothing in this chapter shall be construed to preclude the right of the Borough, pursuant to N.J.S.A 26:3A2-25, to initiate legal proceedings hereunder in Municipal Court. The violation of any section or subsection of this chapter shall constitute a separate and distinct offense independent of the violation of any other section or subsection, or of any order issued pursuant to this chapter. Each day a violation continues may be considered a separate offense.

APPENDIX J

HOPEWELL TOWNSHIP STREAM CORRIDOR PROTECTION ORDINANCE/CODE

TOWNSHIP OF HOPEWELL
MERCER COUNTY, NEW JERSEY

O R D I N A N C E NO. 04-1328

AN ORDINANCE AMENDING AND SUPPLEMENTING CHAPTER X, "FEES AND PERMITS," CHAPTER XII, "ENVIRONMENTAL CONTROL," AND CHAPTER XVII, "LAND USE AND DEVELOPMENT," OF THE REVISED GENERAL ORDINANCES OF THE TOWNSHIP OF HOPEWELL, NEW JERSEY (1978), IN ORDER TO PROVIDE REGULATIONS FOR STREAM CORRIDOR PROTECTION

BE IT ORDAINED by the Township Committee of the Township of Hopewell, in the County of Mercer and State of New Jersey, as follows:

Section 1.

Section 10-7.1 entitled •Application Fees and Escrow For Review,• of CHAPTER X entitled •FEES AND PERMITS• of the Revised General Ordinances of the Township of Hopewell, is hereby amended and supplemented by adding a new paragraph i. as follows:

i. Development application fees, escrows, stream corridor permit fees and appeal fees for development or disturbance in stream corridors shall be as follows:

1. For all uses, a development application fee of $150.00. For a stream corridor permit, a fee of $150 for every 100 square feet of development or disturbance as defined in Chapter XVII, Article X, Section 17-181. In addition, for development applications, an escrow fee of $150.00 for every 100 square feet of development or disturbance as defined in Chapter XVII, Article X, Section 17-181.

2. The fee for an appeal to the Zoning Board of Adjustment from the decision of the administrative officer regarding a stream corridor permit shall be $500. Where the Zoning Board reverses the decision of the administrative officer, the $500 appeal fee will be refunded to the applicant.

Section 2.

Chapter XII, entitled •Environmental Control,• of the •Revised General Ordinances of the Township of Hopewell, New Jersey (1978),• is hereby amended and supplemented in order to establish a new Section 12-3, entitled •Stream Corridor Protection,• as follows:

12-3 STREAM CORRIDOR PROTECTION.

12-3.1 Definitions. Definitions for this Section are set forth in Chapter XVII, Article X, Section 17-181 and are incorporated herein by reference.

12-3.2 General Provisions.

a. *Purposes.* The purposes of the stream corridor protection provisions are to:

Assure that adequate water supply is available and maintain the long-term natural equilibrium of the ground and surface waters in Hopewell Township and in neighboring communities.

Improve and maintain the quality of the water supply and sustain diverse populations of aquatic flora and fauna.

Improve the currently impaired streams in the Township.

Protect significant ecological components of stream corridors such as floodplains, woodlands, steep slopes and habitats for flora and fauna.

Minimize flood related damage to properties in the Township and in neighboring communities.

Complement federal, state, regional, county and municipal watershed, flood hazard and stream corridor protection and management programs.

b. *Applicability.* The stream corridor provisions apply to any land containing any portion of a stream corridor as defined in Chapter XVII, Article X, Section 17-181. In the event that the requirements of Section 17-115 are not applicable, then the provisions of this Chapter shall be applicable.

c. *Activities Permitted in Stream Corridors.* Stream corridors shall remain in their natural state and shall not be developed or disturbed, except for the following activities:

1. Any activity subject to regulation by the New Jersey Department of Environmental Protection under the New Jersey Freshwater Wetlands Protection Act.

2. Reconstruction of a valid nonconforming structure that pre-dates the adoption of this ordinance in the event of partial destruction by fire, natural hazards, or other acts of God, provided the reconstruction does not have a greater footprint or total area than that of the damaged structure and no change in land use occurs.

3. Any use or related maintenance thereof that existed prior to the date of adoption of this ordinance.

4. Any agricultural use or structure existing prior to the date of adoption of this ordinance, but no new agricultural use or structure, except for fences, shall be permitted in a stream corridor, subject to approval by the New Jersey Department of Environmental Protection.

5. Existing stormwater management facilities located in stream corridors are permitted to remain in a stream corridor and may be expanded or modified in connection with an application for development in accordance with the requirements of the approving authority.

6. Surveying or activities for the purpose of establishing or re-establishing a boundary line or points, which use only hand held equipment and do not involve the use of motorized vehicles to either clear vegetation or extract soil borings. The clearing of vegetation along the survey line or around the survey points shall not exceed three feet in width or diameter respectively and shall not be kept clear or maintained once the survey or delineation is completed.

d. *Prohibited Activities.* All activities not specifically permitted by the provisions of subsection c above are prohibited. Prohibited activities include, but are not limited to, the following:

1. Alteration of watercourses and stream corridors by development or disturbance of any type.
2. Clearing or cutting of any vegetation, except for removal of dead vegetation, pruning for reasons of safety and harvesting of agricultural products.
3. Disposal of brush, debris or any solid or liquid waste.
4. Installation of fences and sheds.

12-3.3 Administration.

a. *Stream corridor permit.* A stream corridor permit shall be required before any prohibited activity is undertaken within any stream corridor as defined in Chapter XVII, Article X, Section 17-181, provided that if the approving authority has considered an application for development involving a stream corridor, a stream corridor permit may not be sought for five years after the date of completion of the development.

b. *Duties and Responsibilities of the Administrative Officer.* The administrative officer shall be

responsible for the issuance of stream corridor permits, in accordance with the procedures and standards set forth in Sections 12-3.4 and 12-3.5 below. The administrative officer shall consult with the Township engineer with regard to engineering and technical issues.

c. *Application for Stream Corridor Permit.* Application for a stream corridor permit to allow prohibited activities to occur within stream corridors shall be made in accordance with the requirements of Section 12-3.4 and subject to the considerations set forth in Section 12-3.5.

d. *Appeal Procedure*. Appeals from determinations made by the administrative officer relative to the issuance of stream corridor permits may be made to the Zoning Board of Adjustment in accordance with the requirements of Section 12-3.8.

12-3.4 Application for Stream Corridor Permit/Procedures.

a. *Procedure.* The following procedures shall govern the issuance of stream corridor permits:

The applicant shall file an application with the administrative officer to allow prohibited activities to occur within a stream corridor. Such application shall be on a form prescribed by the Township and shall include a concept sketch drawn to scale showing the proposed development or disturbance. Based on the nature of the development or disturbance proposed, and in the reasonable discretion of the administrative officer and the Township engineer, the applicant may be required to submit, in addition to the application and the concept sketch, ten copies of a true and accurate plot plan, prepared by a qualified and licensed New Jersey professional, drawn to a scale of not less than one (1) inch equals fifty (50) feet. If required by the administrative officer or the Township engineer in order to make an informed decision, the plot plan shall exhibit the following:

The exact size, shape, location and elevation of existing and proposed structures and of any fill, re-grading or areas of disturbance;

Contour lines at intervals of not more than two (2) feet;

The stream corridor for a delineated stream as defined in Chapter XVII, Article X, Section 17-181;

The location of all improvements and disturbance proposed in the stream corridor; and

The extent of any proposed watercourse alterations.

The administrative officer shall review the submission and shall advise the applicant in writing within thirty (30) days of submission if the application is incomplete and shall specify the items that are lacking. If the administrative officer does not notify the applicant that the application is incomplete, then the application shall be deemed to be complete.

Upon determining the application to be complete, the administrative officer shall refer the stream corridor permit application and all accompanying documents relative thereto to the Environmental Commission and the Township engineer for review and comment. If necessary, the Environmental Commission shall appoint a sub-committee, consisting of less than an effective majority, in order to facilitate the prompt review of permit applications without requiring the application to await the next regularly scheduled meeting of the full Commission. The Commission or the sub-committee, jointly with the Township engineer, shall review the application, and after giving the applicant an opportunity to be heard with respect thereto, shall provide their joint findings and recommendations in writing to the administrative officer utilizing the considerations for review set forth in Section 12-3.5 below. The Commission shall render its written report within thirty days of referral. Failure to do so without written consent to an extension of time by the applicant shall be deemed to constitute a report in favor of issuance of the permit and without recommendations or conditions.

1. After review of the consideration set forth in Section 12-3.5 below and the joint recommendations made by the Environmental Commission or its sub-committee and the Township engineer, the administrative officer may approve the stream corridor permit with or without conditions or may deny the stream corridor permit as deemed necessary to further the purpose of this Chapter. The administrative officer shall make the final determination as to approval with or without conditions or denial of the requested stream corridor permit. Such final determination shall be forwarded in writing to the applicant. The administrative officer shall specify the reasons for the action taken.

If the stream corridor permit is approved, the administrative officer shall issue a permit to the applicant, but such permit shall not relieve the applicant from complying with other applicable laws and ordinances.

If the administrative officer fails to approve or deny the permit within ninety (90) days after the date of submission of a complete application, or within such further time agreed to by the applicant in writing, the application shall be deemed to be approved.

12-3.5 Considerations for Review of Stream Corridor Permits.

a. The administrative officer shall be guided by the following considerations in reviewing applications for stream corridor permits:

   1. The standards used to grant a design waiver set forth at N.J.S.A. 40:55D-51 a. and b., specifically whether the permit request is reasonable and within the general purpose and intent of the provisions of the ordinance and whether the literal enforcement of the ordinance is impracticable or will exact undue hardship because of peculiar conditions pertaining to the land in question.
   2. The extent to which all necessary permits have been obtained from applicable federal, state or local government agencies having jurisdiction.
   3. The extent to which applicant will mitigate any encroachments into the stream corridor and rehabilitate any and all degraded or disturbed areas within the stream corridor and maintain the integrity of the surrounding habitat.
   4. The extent to which the proposed activity, development or disturbance will measurably increase the danger of flood damage or negatively impact the ecology of the stream corridor.

b. In the event that the administrative officer grants a stream corridor permit, the stream corridor permit shall only allow the minimum encroachment necessary to afford relief.

c. *Interpretation of Boundaries*. The administrative officer, with the advice of the Township engineer and sub-committee of the Environmental Commission, shall make interpretations, where needed, as to the exact location of the boundaries of the stream corridors, for example, where there appears to be a conflict between the mapped or proposed mapped boundaries and actual field conditions.

12-3.6 Stream Corridor Averaging. An applicant may undertake stream corridor averaging, as defined in Chapter XVII, Article X, Section 17-181. Stream corridor averaging shall only be permitted along the perimeter of retention basins. Stream corridor width may be reduced to a minimum of twenty-five (25) feet for buildings or other structures or zero (0) feet for dams, pedestrian walkways, walls, and any associated landscaped areas along the perimeter of a retention basin, provided, however, that the total length of stream corridor reduction is not greater than forty percent (40%) of the length of the perimeter of the retention basin. For every stream corridor reduced in area along a retention basin, there shall be an equivalent increase in stream corridor area provided elsewhere along the perimeter of the retention basin.

12-3.7 Appeal Procedure.

a. The Zoning Board of Adjustment shall be designated as the agency to act as the appeal authority to hear and decide all appeals from the decision of the administrative officer.

b. Any applicant wishing to appeal the decision of the administrative officer relative to the issuance of a stream corridor permit, shall file a notice of appeal with the administrative officer within twenty (20) days of receipt of the administrative officer•s decision, specifying

the grounds of such appeal. The administrative officer shall immediately transmit to the Zoning Board of Adjustment all the documents constituting the record upon which the action appealed from was taken.

c. The Zoning Board of Adjustment shall follow the requirements set forth in the Municipal Land Use Law, *N.J.S.A. 40:55D-70a et seq.*, relating to the appeal of the administrative officer•s determination. However, the role of the Zoning Board of Adjustment shall not be derived from the Municipal Land Use Law but shall be a function assigned to the Zoning Board of Adjustment by this Chapter as the agency to perform this appeal function.

d. The Zoning Board of Adjustment shall render a decision no later than 120 days from the date of the notice of appeal. Failure of the Board to render a decision within such 120-day period or within such further time as may be consented to by the applicant in writing shall constitute a decision favorable to the applicant.

e. Any person aggrieved by the decision of the administrative officer may appeal such decision directly to the Superior Court of New Jersey as provided by the laws of the State of New Jersey or may appeal the decision of the Zoning Board of Adjustment, as the case may be.

Section 3.

Section 17-82 entitled •Drainage, Detention, and Stormwater Management,• of Chapter XVII, •Land Use and Development,• of the •Revised General Ordinances of the Township of Hopewell, New Jersey (1978),• is hereby amended and supplemented in the following respects only:

17-82 DRAINAGE, DETENTION, AND STORMWATER MANAGEMENT.

a.12. Stream corridors as defined in Section 17-181 shall be preserved by a conservation easement, which shall specify the prohibited uses and contain the customary provisions for a conservation easement as required by the Township Committee.

Section 4.

Chapter XVII, entitled •Land Use and Development,• of the •Revised General Ordinances of the Township of Hopewell, New Jersey (1978),• is hereby amended and supplemented in order to establish a new Section 17-115, entitled •Stream Corridors,• as follows:

17-115 STREAM CORRIDORS.

a. *Purposes.* The purposes of the stream corridor protection provisions are to:

1. Assure that adequate water supply is available and maintain the long-term natural equilibrium of the ground and surface waters in Hopewell Township and in neighboring communities.

2. Improve and maintain the quality of the water supply and sustain diverse populations of aquatic flora and fauna.

3. Improve the currently impaired streams in the Township.

4. Protect significant ecological components of stream corridors such as floodplains, woodlands, steep slopes and habitats for flora and fauna.

5. Minimize flood related damage to properties in the Township and in neighboring communities.

6. Complement federal, state, regional, county and municipal watershed, flood hazard and stream corridor protection and management programs.

b. *Applicability.* The stream corridor provisions apply to any land containing any portion of a stream corridor as defined in Chapter XVII, Article X, Section 17-181.

c. *Activities Permitted in Stream Corridors.* Stream corridors shall remain in their natural state and shall not be developed or disturbed, except for the following activities:

1. Any activity subject to regulation by the New Jersey Department of Environmental Protection under the New Jersey Freshwater Wetland Protection Act.

2. Reconstruction of a valid nonconforming structure that pre-dates the adoption of this ordinance in the event of partial destruction by fire, natural hazards, or other acts of God, provided the reconstruction does not have a greater footprint or total area than that of the damaged structure and no change in land use occurs.

3. Any use or related maintenance thereof that existed prior to the date of adoption of this ordinance.

4. Any agricultural use or structure existing prior to the date of adoption of this ordinance, but no new agricultural structure, except for fences, shall be permitted in a stream corridor, subject to approval by the New Jersey Department of Environmental Protection.

5. Existing stormwater management facilities located in stream corridors are permitted to remain in a stream corridor and may be expanded or modified in connection with an application for development and in accordance with the requirements of the approving authority.

6. Surveying or activities for the purpose of establishing or re-establishing a boundary line or points, which use only hand held equipment and do not involve the use of motorized vehicles to either clear vegetation or extract soil borings. The clearing of vegetation along the survey line or around the survey points shall not exceed three feet in width or diameter respectively and shall not be kept clear or maintained once the survey or delineation is completed.

d. *Stream Corridor Averaging.* An applicant may undertake stream corridor averaging, as defined in Chapter XVII, Article X, Section 17-181. Stream corridor averaging shall only be permitted along the perimeter of retention basins. Stream corridor width may be reduced to a minimum of twenty-five (25) feet for buildings or other structures or zero (0) feet for dams, pedestrian walkways, walls, and any associated landscaped areas along the perimeter of a retention basin, provided, however, that the total length of stream corridor reduction is not greater than forty percent (40%) of the length of the perimeter of the retention basin. For every stream corridor reduced in area along a retention basin, there shall be an equivalent increase in stream corridor width provided elsewhere along the perimeter of the retention basin.

e. *Prohibited Activities.* All activities not specifically permitted by the provisions of subsection c above are prohibited. The following activities are prohibited unless a design waiver is obtained:

1. Alteration of watercourses and stream corridors by development or disturbance of any type.
2. Clearing or cutting of any vegetation, except for removal of dead vegetation, pruning for reasons of safety and harvesting of agricultural products.
3. Disposal of brush, debris or any solid or liquid waste.
4. Installation of fences and sheds.

Section 5.

Chapter XVII, entitled •Land Use and Development,• of the •Revised General Ordinances of the Township of Hopewell, New Jersey (1978),• Section 17-181 is hereby amended and supplemented in order to add definitions, as follows:

1. •*Administrative Officer*• for stream corridor permits pursuant to Chapter XII, Section 12-3 entitled "Stream Corridor Protection shall be the zoning officer.

2. •*Disturbance*• means any activity involving the clearing, excavating, storing, grading,

filling or transporting of soil or any other activity, which causes soil to be exposed to the danger of erosion.

3. •*Mitigation*• shall include, but not be limited to, reforestation and stabilization of all disturbed stream banks and all other disturbed areas in the stream corridor and removal of all debris, re-establishment of the integrity of the surrounding habitat by undertaking all feasible actions, including, but not limited to, replacement of native vegetation lost as a result of the disturbance to the stream corridor or rehabilitation and cure of all other effects caused by disturbance to the stream corridor.

4. •*Stream Bank*• shall mean the inclined sides of a stream channel or embankment.

5. •*Retention basin*• shall mean any impoundment area with a permanent pool of water or pond made by constructing an embankment or by excavating a pit or both and shall include the outfall area related thereto.

6. •*Stormwater management facility*• means a facility which receives, stores, conveys, or discharges stormwater runoff and is designed in accordance with all applicable local, county, and State regulations. A stormwater management facility may be a retention or detention basin; infiltration structure; grassed swale; filter fabric; rip-rap channel; and/or stormwater outfall.

7. •*Stream Corridor*• shall mean all areas 150 feet from the centerline in both directions of all waterways that receive surface water runoff from an upland drainage area of fifty (50) acres or more as may be shown on a map entitled •Hopewell Township Stream Centerlines and 150 Foot Buffer,• prepared by the Stony Brook Millstone Watershed Association dated April 12, 2004, and as may be hereafter amended.

8. •*Stream Corridor Averaging*• shall mean reducing the required stream corridor area along specific lengths of retention basins in exchange for an equivalent increase in width elsewhere along the perimeter of the retention basin.

Section 6.

The provisions of this Ordinance shall be severable. In the event that any portion of this Ordinance is found to be invalid for any reason by any Court of competent jurisdiction, such judgment shall be limited in its effect only to the portion of the Ordinance actually adjudged invalid and shall not be deemed to affect the operation of any other portion thereof, which shall remain in full force and effect.

Section 7.

All other Ordinances or parts of Ordinances inconsistent herewith are hereby repealed.

Section 8.

This Ordinance shall take effect immediately upon final passage and publication in accordance with the law.

Date Introduced: November 22, 2004
Date Advertised: December 2, 2004
Date Adopted: December 13, 2004

_____
Vanessa Sandom
Mayor

Attest:

_____
Annette C. Bielawski
Municipal Clerk

17-113 UTILITIES.

Electric service shall be provided. Except for minor subdivisions, all electricity, telephone and other utility lines shall be underground. Generally street lighting shall be installed at time of road construction at all new street intersections and at such other places as may be required, at the developer's expense, with fixtures specifically approved by the planning board.

17-114 WATER.

a. An adequate water supply for the residents and occupants of the site shall be provided. If a public water supply is available, water mains shall be connected to the existing mains, if the Hopewell Township Municipal Utility Authority approves, and the developer shall contribute the entire cost of any necessary new wells, additional storage facilities, extension of water mains and increased size of water mains, except as provided in section 17-96 with respect to off-tract improvements.

b. If a public water supply is not available, or if in the judgment of the planning board it is not economically feasible to extend public water lines to the site, the planning board shall determine whether individual wells are appropriate, or whether a central water system should be installed, subject to the approval by the Hopewell Township Municipal Utilities Authority of the arrangements for transferring ownership of the system to the municipal utilities authority. In addition, compliance with section 16-6 of the Revised General Ordinances shall be required.

c. Whenever a public water supply or central water system is installed or expanded, the developer shall include fire hydrants, with approved coupling devices, sufficient for firefighting purposes.

17-115 STREAM CORRIDORS.

a. *Purposes.* The purposes of the stream corridor protection provisions are to:

1. Assure that adequate water supply is available and maintain the long-term natural equilibrium of the ground and surface waters in Hopewell Township and in neighboring communities.

2. Improve and maintain the quality of the water supply and sustain diverse populations of aquatic flora and fauna.

3. Improve the currently impaired streams in the township.

4. Protect significant ecological components of stream corridors such as floodplains, woodlands, steep slopes and habitats for flora and fauna.

5. Minimize flood related damage to properties in the township and in neighboring communities.

6. Complement federal, state, regional, county and municipal watershed, flood hazard and stream corridor protection and management programs.

b. *Applicability.* The stream corridor provisions apply to any land containing any portion of a stream corridor as defined in Chapter XVII, Article X, Section 17-181.

c. *Activities Permitted in Stream Corridors.* Stream corridors shall remain in their natural state and shall not be developed or disturbed, except for the following activities:

1. Any activity subject to regulation by the New Jersey Department of Environmental Protection under the New Jersey Freshwater Wetland Protection Act.

2. Reconstruction of a valid nonconforming structure that predates the adoption of this section* in the event of partial destruction by fire, natural hazards, or other acts of God, provided the reconstruction does not have a greater footprint or total area than that of the damaged structure and no change in land use occurs.

3. Any use or related maintenance thereof that existed prior to the date of adoption of this section.*

4. Any agricultural use or structure existing prior to the date of adoption of this section,* but no new agricultural structure, except for fences, shall be permitted in a stream corridor, subject to approval by the New Jersey Department of Environmental Protection.

5. Existing stormwater management facilities located in stream corridors are permitted to remain in a stream corridor and may be expanded or modified in connection with an application for development and in accordance with the requirements of the approving authority.

6. Surveying or activities for the purpose of establishing or re-establishing a boundary line or points, which use only hand held equipment and do not involve the use of motorized vehicles to either clear vegetation or extract soil borings. The clearing of vegetation along the survey line or around the survey points shall not exceed three feet in width or diameter respectively and shall not be kept clear or maintained once the survey or delineation is completed.

d. *Stream Corridor Averaging.* An applicant may undertake stream corridor averaging, as defined in Chapter XVII, Article X, Section 17-181. Stream corridor averaging shall only be permitted along the perimeter of retention basins. Stream corridor

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*Editor's Note: Ordinance No. 04-1328, codified herein was adopted December 13, 2004.

width may be reduced to a minimum of 25 feet for buildings or other structures or zero feet for dams, pedestrian walkways, walls, and any associated landscaped areas along the perimeter of a retention basin, provided, however, that the total length of stream corridor reduction is not greater than 40 percent of the length of the perimeter of the retention basin. For every stream corridor reduced in area along a retention basin, there shall be an equivalent increase in stream corridor width provided elsewhere along the perimeter of the retention basin.

e. *Prohibited Activities.* All activities not specifically permitted by the provisions of paragraph c. above are prohibited. The following activities are prohibited unless a design waiver is obtained:

1. Alteration of watercourses and stream corridors by development or disturbance of any type.
2. Clearing or cutting of any vegetation, except for removal of dead vegetation, pruning for reasons of safety and harvesting of agricultural products.
3. Disposal of brush, debris or any solid or liquid waste.
4. Installation of fences and sheds.
(Ord. #04-1328, § 4)

17-116 to 17-124 RESERVED.

ARTICLE VII
COMPLETE APPLICATIONS; GENERAL DEVELOPMENT PLAN

17-125 CHECKLIST FOR COMPLETE PLANNING BOARD APPLICATIONS.

a. Recent amendments to the Municipal Land Use Law further clarified the definition of "complete application" and required the adoption, by ordinance, of a checklist for determining complete applications.

b. The checklist for complete planning board applications is attached hereto as Appendix A.*

c. Any revisions to said checklist shall be made by ordinance.

1. Amendments to checklist:

(a) September 7, 2000 by Ordinance No. 00-1165.

*Editor's Note: Appendix A, referred to herein, may be found at the end of this chapter.

APPENDIX K

EXPANSION OF SBRSA PENNINGTON STP SEWER SERVICE AREA APPROVAL LETTER AND REVISION NOTICE

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Division of Watershed Management
Bureau of Watershed Regulation
P. O. Box 418, Trenton NJ, 08625-0418
Phone: (609) 984-6888
Fax: (609) 777-1282
www.state.nj.us/dep/watershedmgt

JON S. CORZINE
Governor

LISA P. JACKSON
Commissioner

Donald Fetzer, Pennington Borough Engineer
Van Note-Harvey, Assoc.
777 Alexander Road, Suite 102
Princeton, NJ 08540

JUN 2 5 2007

Re: Borough of Pennington Department of Public Works Facility
Block 46, Lot 13
Pennington Borough, Mercer County
Mercer County Water Quality Management Plan (WQMP)
Revision to the Pennington Borough Wastewater Management Plan

Dear Mr. Fetzer:

Recently the Department of Environmental Protection received information you submitted in support of a revision to the Mercer County Quality Management Plan (WQMP) for the above referenced project.

We have reviewed the information and are pleased to inform you that, pursuant to the provisions of the Water Quality Planning Act (N.J.S.A. 58:11A-1 et seq.) and the Statewide Water Quality Management Planning rules (N.J.A.C. 7:15-3.5), the WQMP revision has been adopted by the Department. Enclosed is a copy of the Department's notice approving the WQMP revision. A copy of this notice should be submitted with any Treatment Works Application. If you are the Designated Planning Agency or the Wastewater Management Planning agency for this area, please update your copy of the Pennington Borough and Hopewell Township Wastewater Management Plans WMP's to reflect this change.

If you have any questions or require further assistance, please call Paul DeMuro of my staff, at (609) 984-6888.

Sincerely,

Terry Pilawski, Chief
Bureau of Watershed Regulation

Enclosure(s): Revision Notice
* With Revised Hopewell Twp. WMP Map #2

c: John Kantorek, Executive Director, Stony Brook Regional Sewerage Authority
James F. Cosgrove, Jr. President, TRC Omni
David Garber, Pennington Borough Council
Donna Lewis, Director, Mercer County Planning Division
*Annette C. Bielawski, Clerk, Hopewell Township
*Elizabeth Sterling, Clerk, Pennington Borough
T. Pilawski, BWR
D. Bechtel, BWR
P. Singleton, BWR
J. Pontoriero, BFCP, N
Rajeshkumar Patel, BFCP, N

DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATERSHED MANAGEMENT

REVISION TO THE MERCER COUNTY WATER QUALITY MANAGEMENT PLAN

TAKE NOTICE that on June 25, 2007, pursuant to the provisions of the Water Quality Planning Act, N.J.S.A.58:11A-1 et seq., and the Statewide Water Quality Management Planning rules, N.J.A.C. 7:15-3.5, a revision to the Mercer County Water Quality Management Plan, was adopted by the New Jersey Department of Environmental Protection (Department). This revision modifies the Pennington Borough and Hopewell Township Wastewater Management Plans (WMP's) by expanding the Stony Brook Regional Sewerage Authority's (SBRSA) Pennington Sewage Treatment Plant (STP) (NJPDES #NJ0035319) sewer service area to include a portion of Block 46, Lot 13 located in Hopewell Township, Mercer County. The expanded sewer service area will encompass 8.5 acres of the approximately 19.5 acre parcel. The expanded sewer service area will allow for the completion of the construction of the new Borough Pennington Department of Public Works (DPW) facility consisting of the maintenance building with vehicle wash bay, road salt dome and associated infrastructure. The project location is bounded to the south by North Main Street and to the west by Old North Main Street and State Highway Route 31. The DPW facility will employ up to seven persons. The projected wastewater flow for the proposed new development, calculated in accordance with N.J.A.C. 7:14A-23.3 is 420 gallons per day (gpd).

The SBRSA Pennington STP currently serves the existing DPW facility, located on Block 4.01 Lot 15 in Pennington Borough. This existing DPW facility is currently staffed by seven employees. Therefore, no expansion of the SBRSA Pennington STP is proposed to accommodate this project.

Prior to the development of the proposed project property, all required Division of Land Use Regulation (DLUR) permits for disturbance within a designated stream encroachment area as identified by, Letter of Interpretation, (LOI) file number 1106-99-0002.1 were issued. Construction of Phase I, for the grading and installation of the stormwater detention basin were completed before the permit expiration date of May 15, 2006. Therefore, the proposed project activity was exempt from the current stormwater management rules at N.J.A.C. 7:8-1 et seq.

Consequently, a 300-foot special water resource area associated with Baldwin's Creek, an on-site Category 1 waterway, did not apply.

However, all on-site land area within 100 feet of the top of the bank of the on-site State open waters are designated as a Delaware and Raritan Canal Commission (D&RC) stream corridor buffer. With the exception of the minimum permitted disturbances within this 100 buffer required for the construction of a stormwater retention basin, this corridor will be maintained. Measures developed to meet the stormwater quantity and stormwater quality standards as required at the time of submittal for review by the LURP as a component of their permitting process have been met. The property location is identified by the Department's Endangered and Non-Game Species Program as Rank 3 critical habitat for the red headed woodpecker. As a result, the 10.5-acre portion of the project property not included in this sewer service area expansion is to be preserved as open space and conveyed to the D&R Greenway Land Preservation Trust as adopted by Hopewell Township Planning Board Resolution Number 07-011.

As provided under N.J.A.C. 7:15-3.5(b)4, the Department has determined that the proposed project activity qualifies as a revision for the expansion of a future sewer service area to contiguous lots where the expansion involves less than 100 areas and contributes less than 8,000 gpd of additional wastewater and that a significantly new pattern of sewered development or incentive for additional revisions or amendments to open new areas to sewered development will not be created. The Department has concluded that, whereas a substantial portion of the project property containing on-site state open waters and adjacent wetlands is to be maintained as open space, no significant impacts will occur to environmentally sensitive areas as a result of this revision.

Lawrence J. Baier

Lawrence J. Baier, Director
Division of Watershed Management
Department of Environmental Protection

June 25, 2007
Date