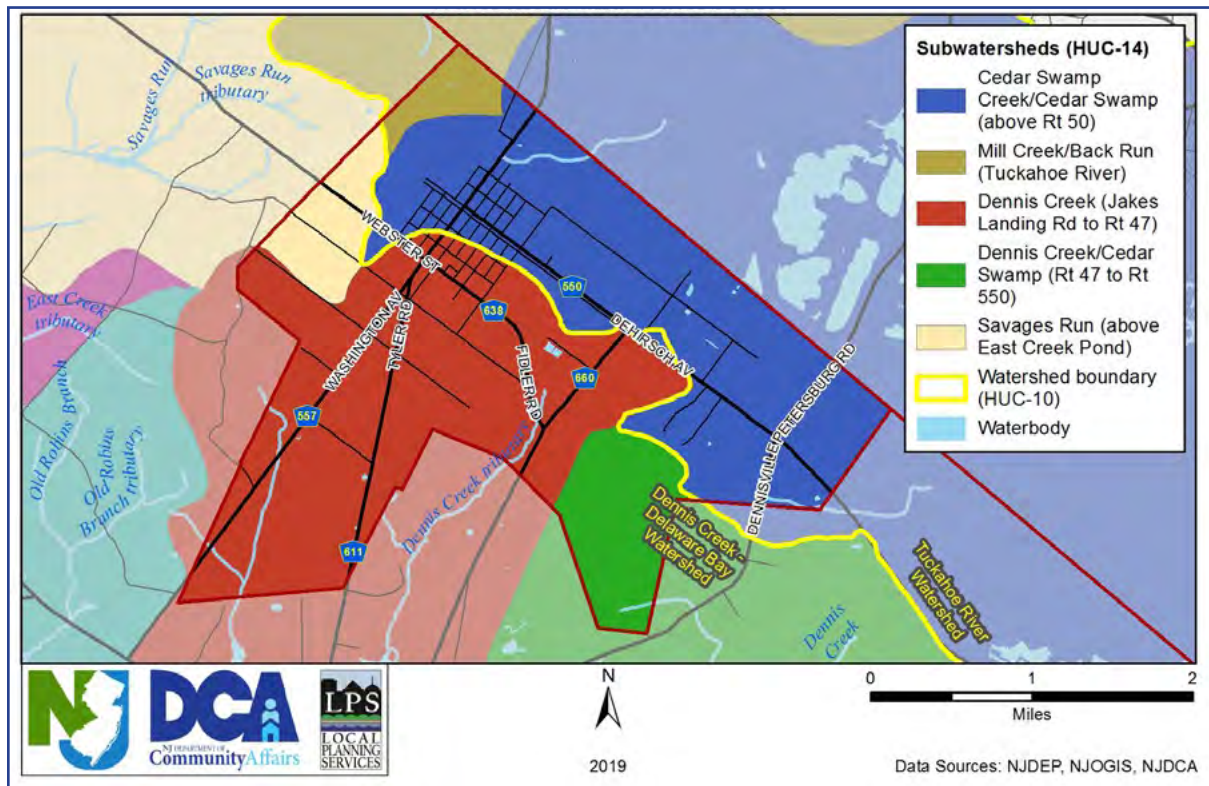


## Waterbodies and Watersheds

Woodbine is the headwaters area for Cedar Swamp Creek, Dennis Creek, Savage's Run, and Mill Creek. The Borough drains into two major watersheds (HUC-10) that are roughly separated by DeHirsch Avenue: the Dennis Creek-Delaware Bay Watershed to the southwest and the Tuckahoe River Watershed to the northeast. As shown on Map 6-1, three subwatersheds (HUC-14) are within the Dennis Creek-Delaware Bay Watershed and two subwatersheds are within the Tuckahoe River Watershed.

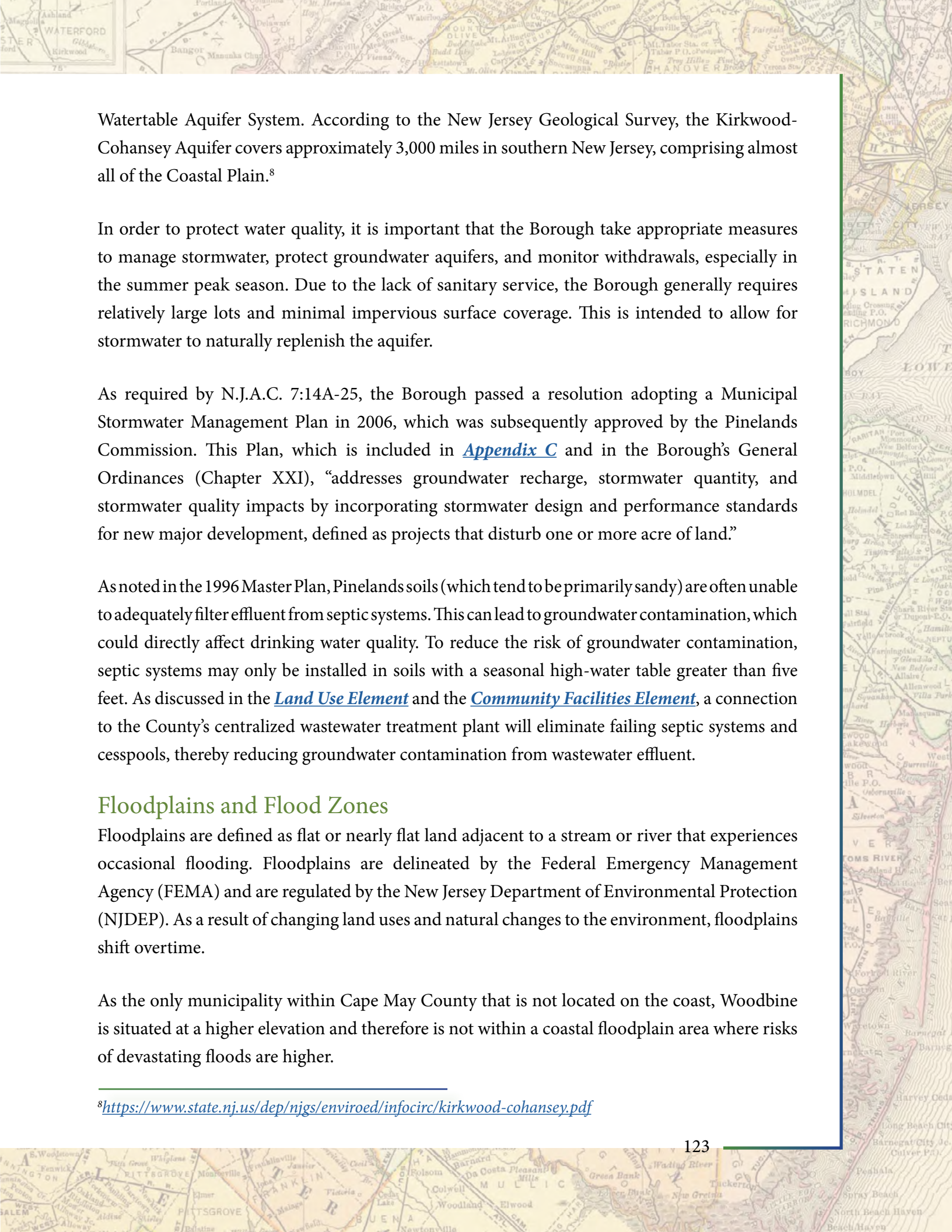
**Map 6-1. Woodbine Borough Watershed and Waterbodies**



## Water Supply, Groundwater Recharge, and Stormwater/Wastewater

Groundwater recharge occurs when water from precipitation or snowmelt infiltrates through the soil to the aquifer. An aquifer is a water-bearing layer of rock or unconsolidated sediments that yields water to a well or spring. Natural vegetation cover, flat topography, permeable soils, a deep-water table, and the absence of confining beds all increase the rate of recharge. Impervious surfaces, such as roads and parking lots, disrupt groundwater recharge.

The Woodbine Water Department (formerly the Woodbine MUA) operates a public community water system, which consist of two wells that withdraw from the Kirkwood-Cohansey



Watertable Aquifer System. According to the New Jersey Geological Survey, the Kirkwood-Cohansey Aquifer covers approximately 3,000 miles in southern New Jersey, comprising almost all of the Coastal Plain.<sup>8</sup>

In order to protect water quality, it is important that the Borough take appropriate measures to manage stormwater, protect groundwater aquifers, and monitor withdrawals, especially in the summer peak season. Due to the lack of sanitary service, the Borough generally requires relatively large lots and minimal impervious surface coverage. This is intended to allow for stormwater to naturally replenish the aquifer.

As required by N.J.A.C. 7:14A-25, the Borough passed a resolution adopting a Municipal Stormwater Management Plan in 2006, which was subsequently approved by the Pinelands Commission. This Plan, which is included in [Appendix C](#) and in the Borough's General Ordinances (Chapter XXI), "addresses groundwater recharge, stormwater quantity, and stormwater quality impacts by incorporating stormwater design and performance standards for new major development, defined as projects that disturb one or more acre of land."

As noted in the 1996 Master Plan, Pinelands soils (which tend to be primarily sandy) are often unable to adequately filter effluent from septic systems. This can lead to groundwater contamination, which could directly affect drinking water quality. To reduce the risk of groundwater contamination, septic systems may only be installed in soils with a seasonal high-water table greater than five feet. As discussed in the [Land Use Element](#) and the [Community Facilities Element](#), a connection to the County's centralized wastewater treatment plant will eliminate failing septic systems and cesspools, thereby reducing groundwater contamination from wastewater effluent.

## Floodplains and Flood Zones

Floodplains are defined as flat or nearly flat land adjacent to a stream or river that experiences occasional flooding. Floodplains are delineated by the Federal Emergency Management Agency (FEMA) and are regulated by the New Jersey Department of Environmental Protection (NJDEP). As a result of changing land uses and natural changes to the environment, floodplains shift overtime.

As the only municipality within Cape May County that is not located on the coast, Woodbine is situated at a higher elevation and therefore is not within a coastal floodplain area where risks of devastating floods are higher.

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<sup>8</sup><https://www.state.nj.us/dep/njgs/enviroed/infocirc/kirkwood-cohansey.pdf>

# Appendix C: Municipal Stormwater Management Plan

## RESOLUTION NO. 11-133-2006

### AUTHORIZING THE ADOPTION OF A MUNICIPAL STORMWATER MANAGEMENT PLAN

**WHEREAS**, the Borough of Woodbine is in the process of completing the passage and implementation of ordinances providing for Stormwater Control Regulations and the incorporation of certain design and performance standards relating to a Borough Stormwater Management Plan for all Borough lands lying within the jurisdiction of the New Jersey Pinelands Commission as well as those lands subject to the Coastal Area Facilities Review Act (CAFRA); and

**WHEREAS**, a Municipal Stormwater Management Plan (MSWMP) has been prepared by the Office of the Borough's Engineer, a copy of which is attached hereto as Schedule "A" and is on file with the Borough Clerk's Office; and

**WHEREAS**, the MSWMP documents a strategy for the Borough of Woodbine to address stormwater related impacts and is required by N.J.A.C. 7:14A-25, Municipal Stormwater Regulations; and

**WHEREAS**, the subject MSWMP contains all of the required elements described in the Stormwater Management Rules N.J.A.C. 7:8 et seq., including provisions addressing groundwater recharge, stormwater quantity, stormwater quality impacts, stormwater design and performance standards for new major development which will minimize adverse impact of stormwater runoff on water quality, water quantity and groundwater recharge; provides for build-out analysis as well as the review and update of existing ordinances and planning documents and finally provides for mitigation strategies where development exemption of design and performance standards is sought; and

**WHEREAS**, adoption and implementation of the MSWMP will allow for the advancement and protection of public health, safety and welfare through proper design and operation of stormwater basin.

**NOW, THEREFORE, BE IT RESOLVED** by the Mayor and Council of the Borough of Woodbine, in the County of Cape May and State of New Jersey, as follows:

1. The statements of the preamble are incorporated herein by this reference.
2. The Municipal Stormwater Management Plan, attached hereto as Schedule "A", and as is on file with the Office of the Borough Clerk be and the same is hereby adopted as the Borough's strategy for addressing storm water related impacts in conformance with State law and

Municipal Ordinances adopted or to be adopted in connection with the control and regulation of stormwater runoff and impacts in the Borough of Woodbine.

  
WILLIAM RIKOLYCKY, MAYOR

ATTESTED:

  
LISA GARRISON, CLERK

DATED: NOVEMBER 1, 2006

OFFERED BY: SCHWEIBINZ

SECONDED BY: MURRAY

ROLL CALL

AYES: ORTIZ, MURRAY, SADUK, SCHWEIBINZ, RODRIGUEZ

NAYS:

ABSTAIN:

ABSENT: SANFORD

STATE OF NEW JERSEY }  
COUNTY OF CAPE MAY }

I hereby certify that the foregoing resolution  
was duly adopted at a Council meeting of the  
Borough Council on November 2, 2006

  
Lisa Garrison - Clerk

DATED: November 1, 2006



# Municipal Stormwater Management Plan

Prepared For The  
**Borough of Woodbine**  
By  
**Van Note-Harvey Associates**

2005  
Amended October 19, 2006

VNH File No. 35316-210-21

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## Introduction

This Municipal Stormwater Management Plan (MSWMP) documents the strategy for the Borough of Woodbine to address stormwater related impacts. The creation of this plan is required by N.J.A.C. 7:14A-25, Municipal Stormwater Regulations and contains all of the required elements described in N.J.A.C. 7:8 Stormwater Management Rules. The plan addresses groundwater recharge, stormwater quantity, and stormwater quality impacts by incorporating stormwater design and performance standards for new major development, defined as projects that disturb one or more acre of land. These standards are intended to minimize the adverse impact of stormwater runoff on water quality and water quantity and the loss of groundwater recharge that provides baseflow in receiving waterbodies. The plan describes long-term operation and maintenance measures for existing and future stormwater facilities.

A build-out analysis has been included in this plan based upon existing zoning and land available for development. The plan also addresses the review and update of existing ordinances, the Township Master Plan, and other planning documents to allow for project designs that include low impact development techniques. The final component of this plan is a mitigation strategy for when a variance or exemption of the design and performance standards is sought. As part of the mitigation section of the stormwater plan, specific stormwater management measures are identified to lessen the impact of existing development.

## Goals

The goals of this MSWMP are to:

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

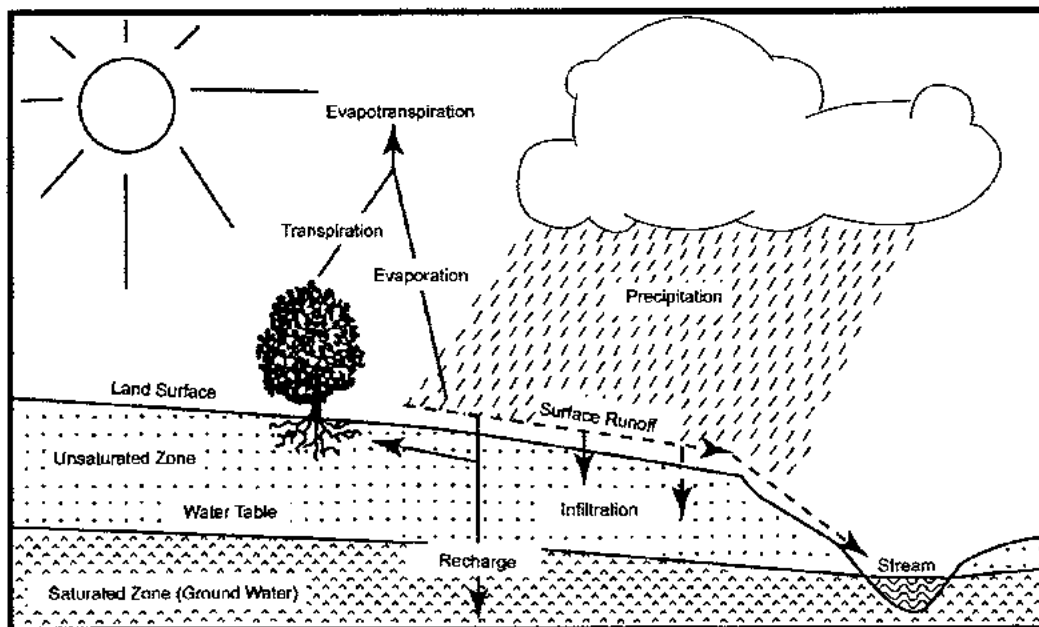
To achieve these goals, this plan outlines specific stormwater design and performance standards for new development. Additionally, the plan proposes stormwater management controls to address impacts from existing development. Preventative and corrective maintenance strategies are included in the plan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

facilities. The plan also outlines safety standards for stormwater infrastructure to be implemented to protect public safety.

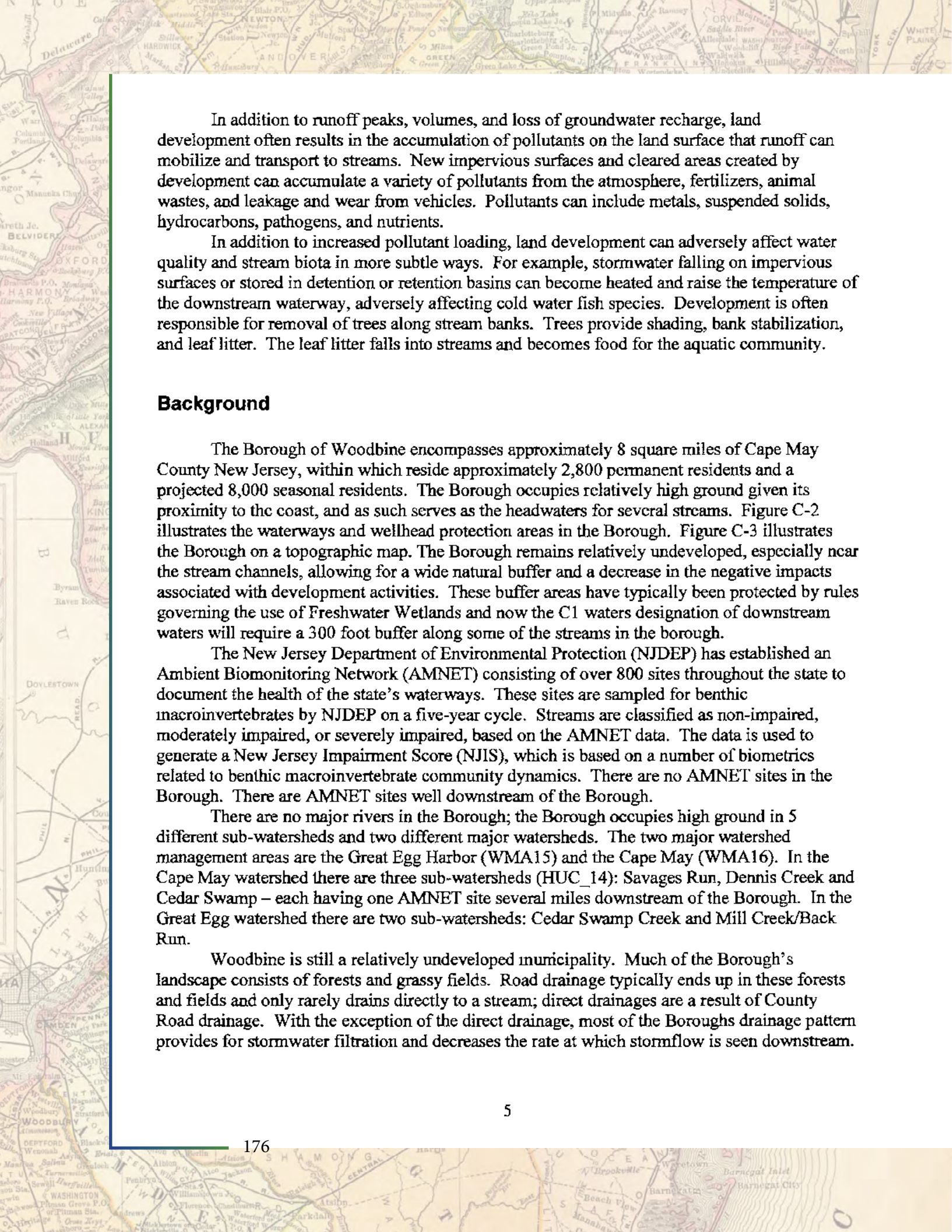
## Stormwater Discussion

Land development can dramatically alter the hydrologic cycle (see figure C-1) of a site and, ultimately, an entire watershed. Prior to development, native vegetation can either directly intercept precipitation or draw that portion that has infiltrated into the ground and return it to the atmosphere through evapotranspiration. Development can remove this beneficial vegetation and replace it with lawn or impervious cover, reducing the site's evapotranspiration and infiltration rates. Clearing and grading a site can remove depressions that store rainfall. Construction activities also may compact the soil and diminish its infiltration ability, resulting in increased volumes and rates of stormwater runoff from a site. Impervious areas that are connected to each other through gutters, channels and storm sewers can transport runoff more quickly than natural areas. This shortening of the transport or travel time quickens the rainfall-runoff response of the drainage area, causing flow in downstream waterways to peak faster and higher than natural conditions. These increases can create new and aggravate existing downstream flooding and erosion problems and increase the quantity of sediment in the channel. Filtration of runoff and removal of pollutants by surface and channel vegetation is eliminated by storm sewers that discharge runoff directly into a stream. Increases in impervious area can also decrease opportunities for infiltration which, in turn, reduces stream base flow and groundwater recharge. Reduced base flows and increased peak flows produce greater fluctuations between normal and storm flow rates, which can increase channel erosion. Reduced base flows can also negatively impact the hydrology of adjacent wetlands and the health of biological communities that depend on base flows. Finally, erosion and sedimentation can destroy habitat from which some species cannot adapt.

Figure C-1: Groundwater recharge in the Hydrologic Cycle







In addition to runoff peaks, volumes, and loss of groundwater recharge, land development often results in the accumulation of pollutants on the land surface that runoff can mobilize and transport to streams. New impervious surfaces and cleared areas created by development can accumulate a variety of pollutants from the atmosphere, fertilizers, animal wastes, and leakage and wear from vehicles. Pollutants can include metals, suspended solids, hydrocarbons, pathogens, and nutrients.

In addition to increased pollutant loading, land development can adversely affect water quality and stream biota in more subtle ways. For example, stormwater falling on impervious surfaces or stored in detention or retention basins can become heated and raise the temperature of the downstream waterway, adversely affecting cold water fish species. Development is often responsible for removal of trees along stream banks. Trees provide shading, bank stabilization, and leaf litter. The leaf litter falls into streams and becomes food for the aquatic community.

## Background

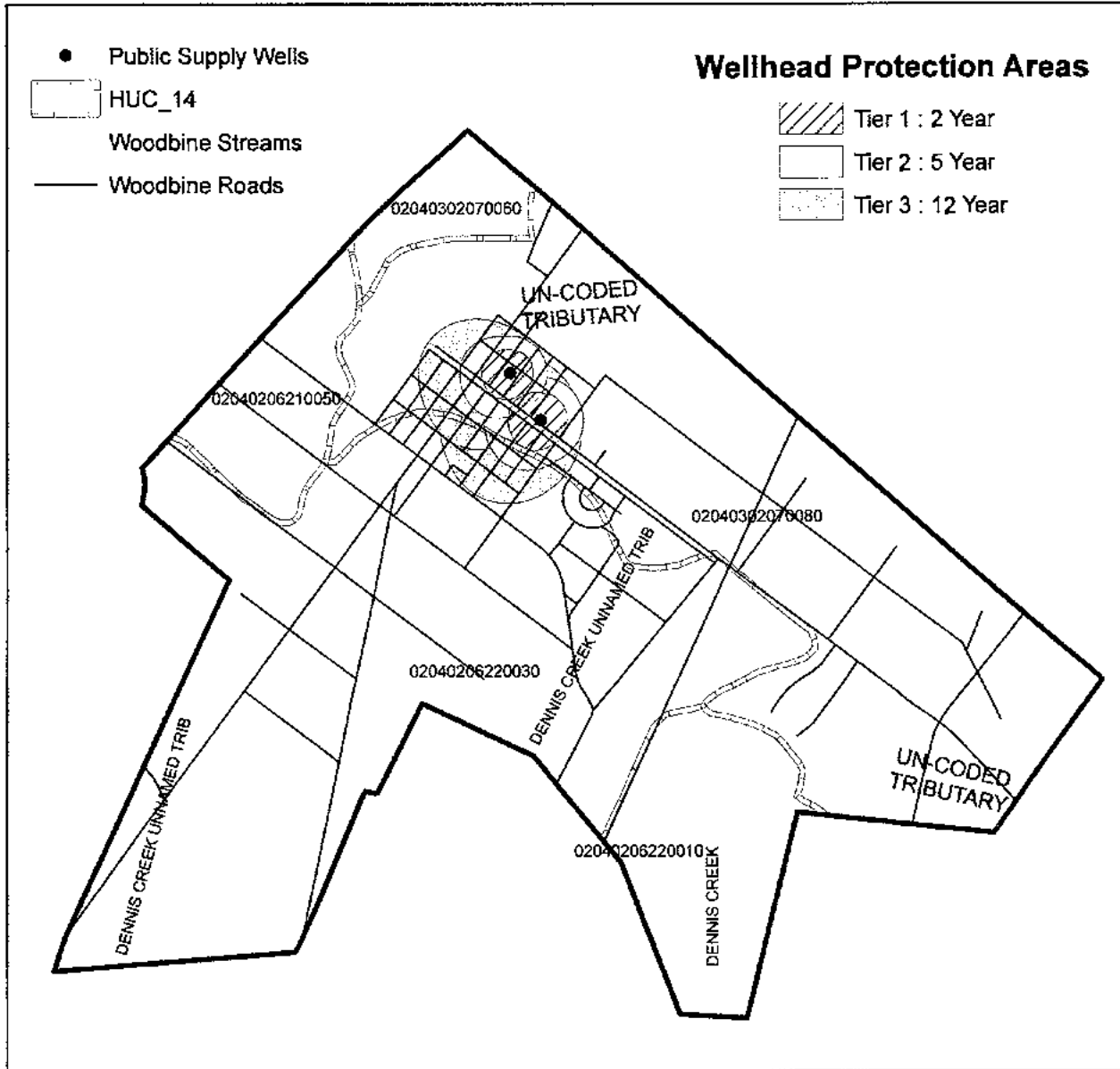
The Borough of Woodbine encompasses approximately 8 square miles of Cape May County New Jersey, within which reside approximately 2,800 permanent residents and a projected 8,000 seasonal residents. The Borough occupies relatively high ground given its proximity to the coast, and as such serves as the headwaters for several streams. Figure C-2 illustrates the waterways and wellhead protection areas in the Borough. Figure C-3 illustrates the Borough on a topographic map. The Borough remains relatively undeveloped, especially near the stream channels, allowing for a wide natural buffer and a decrease in the negative impacts associated with development activities. These buffer areas have typically been protected by rules governing the use of Freshwater Wetlands and now the C1 waters designation of downstream waters will require a 300 foot buffer along some of the streams in the borough.

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

There are no major rivers in the Borough; the Borough occupies high ground in 5 different sub-watersheds and two different major watersheds. The two major watershed management areas are the Great Egg Harbor (WMA15) and the Cape May (WMA16). In the Cape May watershed there are three sub-watersheds (HUC\_14): Savages Run, Dennis Creek and Cedar Swamp – each having one AMNET site several miles downstream of the Borough. In the Great Egg watershed there are two sub-watersheds: Cedar Swamp Creek and Mill Creek/Back Run.

Woodbine is still a relatively undeveloped municipality. Much of the Borough's landscape consists of forests and grassy fields. Road drainage typically ends up in these forests and fields and only rarely drains directly to a stream; direct drainages are a result of County Road drainage. With the exception of the direct drainage, most of the Boroughs drainage pattern provides for stormwater filtration and decreases the rate at which stormflow is seen downstream.

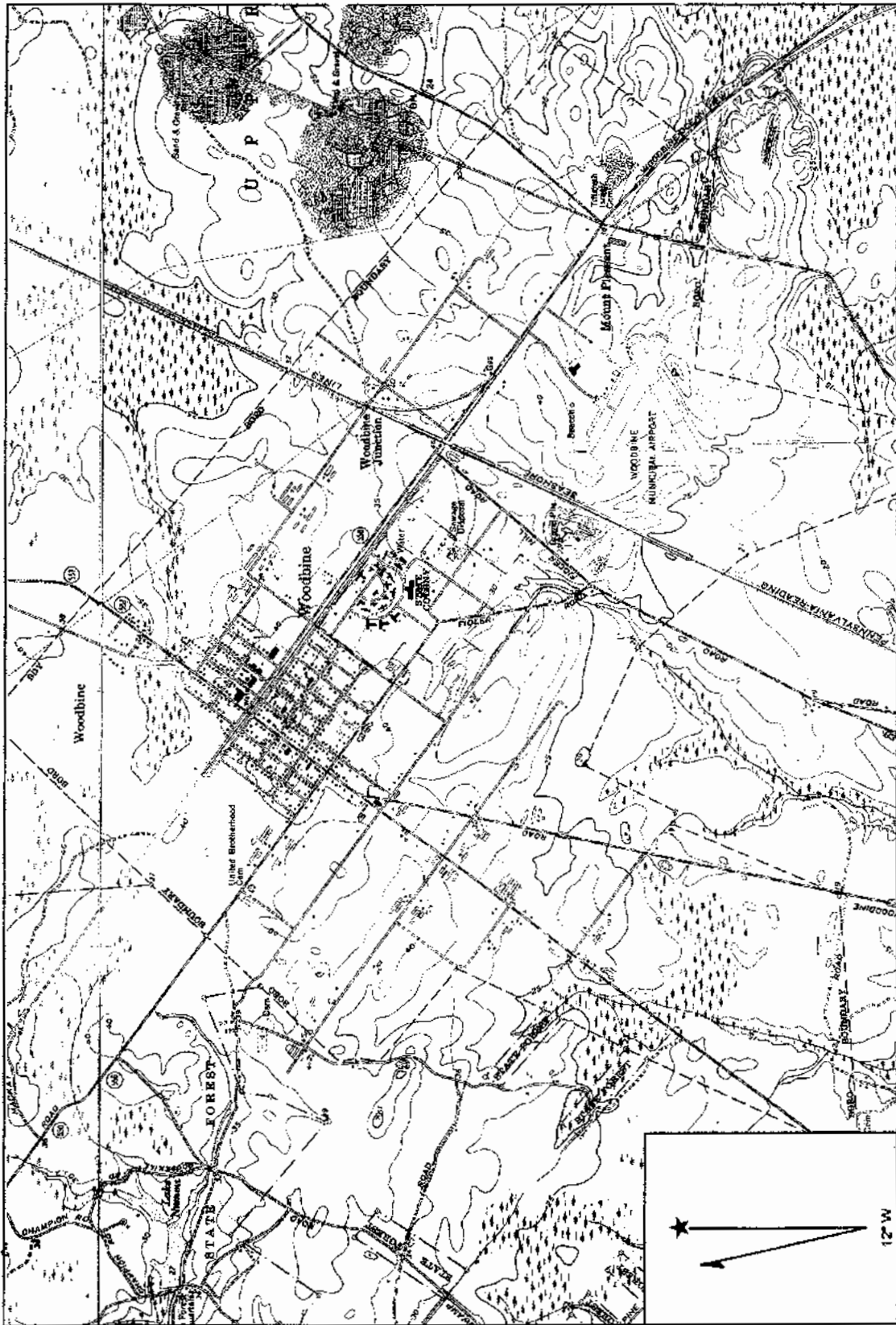
# Figure C-2: Woodbine and Its Waterways



4,700 2,350 0 4,700

Feet



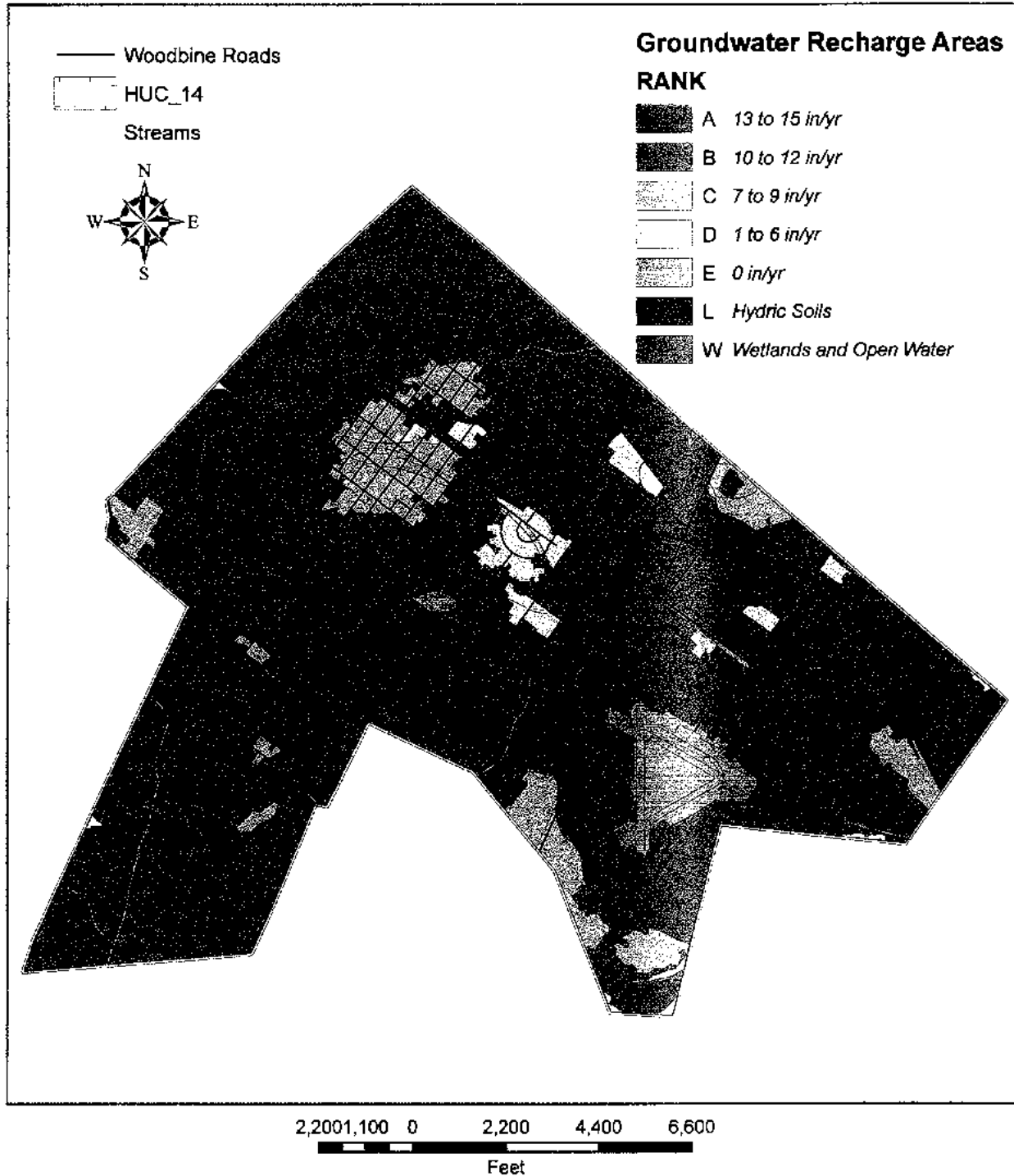


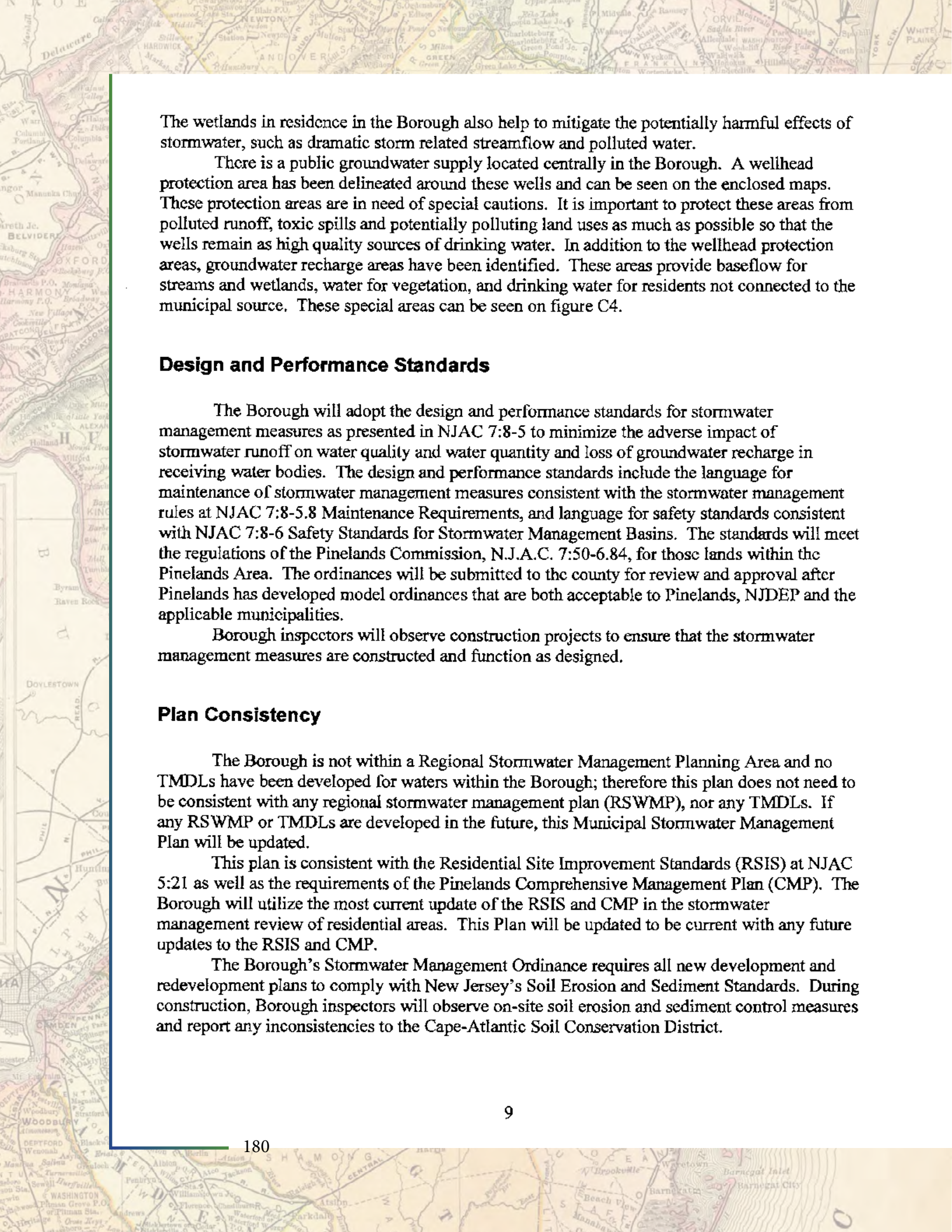
Location: 039° 13' 46.30" N 074° 48' 45.28" W  
 Caption: Figure C-3: Woodbine on USGS Topographic Map

Name: WOODBINE  
 Date: 3/17/2005  
 Scale: 1 inch equals 2667 feet

Copyright (C) 1987, Maptech, Inc.

# Figure C-4: Groundwater Recharge Areas Woodbine





The wetlands in residence in the Borough also help to mitigate the potentially harmful effects of stormwater, such as dramatic storm related streamflow and polluted water.

There is a public groundwater supply located centrally in the Borough. A wellhead protection area has been delineated around these wells and can be seen on the enclosed maps. These protection areas are in need of special cautions. It is important to protect these areas from polluted runoff, toxic spills and potentially polluting land uses as much as possible so that the wells remain as high quality sources of drinking water. In addition to the wellhead protection areas, groundwater recharge areas have been identified. These areas provide baseflow for streams and wetlands, water for vegetation, and drinking water for residents not connected to the municipal source. These special areas can be seen on figure C4.

## **Design and Performance Standards**

The Borough will adopt the design and performance standards for stormwater management measures as presented in NJAC 7:8-5 to minimize the adverse impact of stormwater runoff on water quality and water quantity and loss of groundwater recharge in receiving water bodies. The design and performance standards include the language for maintenance of stormwater management measures consistent with the stormwater management rules at NJAC 7:8-5.8 Maintenance Requirements, and language for safety standards consistent with NJAC 7:8-6 Safety Standards for Stormwater Management Basins. The standards will meet the regulations of the Pinelands Commission, N.J.A.C. 7:50-6.84, for those lands within the Pinelands Area. The ordinances will be submitted to the county for review and approval after Pinelands has developed model ordinances that are both acceptable to Pinelands, NJDEP and the applicable municipalities.

Borough inspectors will observe construction projects to ensure that the stormwater management measures are constructed and function as designed.

## **Plan Consistency**

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

This plan is consistent with the Residential Site Improvement Standards (RSIS) at NJAC 5:21 as well as the requirements of the Pinelands Comprehensive Management Plan (CMP). The Borough will utilize the most current update of the RSIS and CMP in the stormwater management review of residential areas. This Plan will be updated to be current with any future updates to the RSIS and CMP.

The Borough's Stormwater Management Ordinance requires all new development and redevelopment plans to comply with New Jersey's Soil Erosion and Sediment Standards. During construction, Borough inspectors will observe on-site soil erosion and sediment control measures and report any inconsistencies to the Cape-Atlantic Soil Conservation District.

## Nonstructural Stormwater Management Strategies

The Borough has reviewed the master plan and ordinances, and has provided a list of the sections in the Borough land use and zoning ordinances that are to be modified to incorporate nonstructural stormwater management strategies. These are the ordinances identified for revision. Once the ordinance texts are completed, they will be submitted to the County review agency for review. A copy will be sent to the Department of Environmental Protection at the time of submission.

The Borough Code was reviewed with regard to incorporating non-structural stormwater management strategies. Several changes were necessary to incorporate these strategies. The following ordinances were reviewed and identified as complete or requiring change or introduction. Modifying 26-35.6 "Storage and Waste Disposal" may be adequate to address several of the proposed ordinances.

Model Ordinance	Changes Necessary
Stormwater Control Ordinance (Pinelands)	Currently Does not Exist
3-1 Litter Control	Complete – No Changes
5-1.12 Pet Waste	Complete – No Changes
Wildlife Feeding	Currently Does not Exist
Yard Waste Collection Ordinance	Currently Does not Exist
Improper Disposal of Waste (Into Storm Sewers)	Currently Does not Exist
Illicit Connection	Currently Does not Exist
Containerized Yard Waste	Currently Does not Exist

## Land Use / Build-Out Analysis

A detailed land use analysis for the Borough was conducted. Figure C-6 illustrates the existing land use in the Township based on 1995/1997 GIS information from NJDEP. Figure C-7 illustrates the HUC14s within the Borough. The Borough zoning map is shown in Figure 8. Figure C-9 illustrates the constrained lands within the Borough. The build-out calculations for impervious cover are shown in Table C-2. As expected, when developing agricultural and forest lands, the build-out of the HUC14s will result in a significant increase in impervious surfaces.

Table C-1 presents the pollutant loading coefficients by land cover. The pollutant loads at full build-out are presented in Table C-3. The zoning labels utilized in the Borough are illustrated in Table C-4.

**Table C-1 Pollutant Loads by Land Cover**

Land Cover	Total Phosphorus Load (lbs/acre/year) "TP"	Total Nitrogen Load (lbs/acre/year) "TN"	Total Suspended Solids Load (lbs/acre/yr) "TSS"
High, Medium Density Residential	1.4	15	140
Low Density, Rural Residential	0.6	5	100
Commercial	2.1	22	200
Industrial	1.5	16	200
Urban, Mixed Urban, Other Urban	1.0	10	120
Agricultural	1.3	10	300
Forest, Water, Wetlands	0.1	3	40
Barrenland/Transitional Area	0.5	5	60

Source: NJDEP Stormwater BMP Manual 2004.

Figure C-5: Woodbine's 1995 Land Use

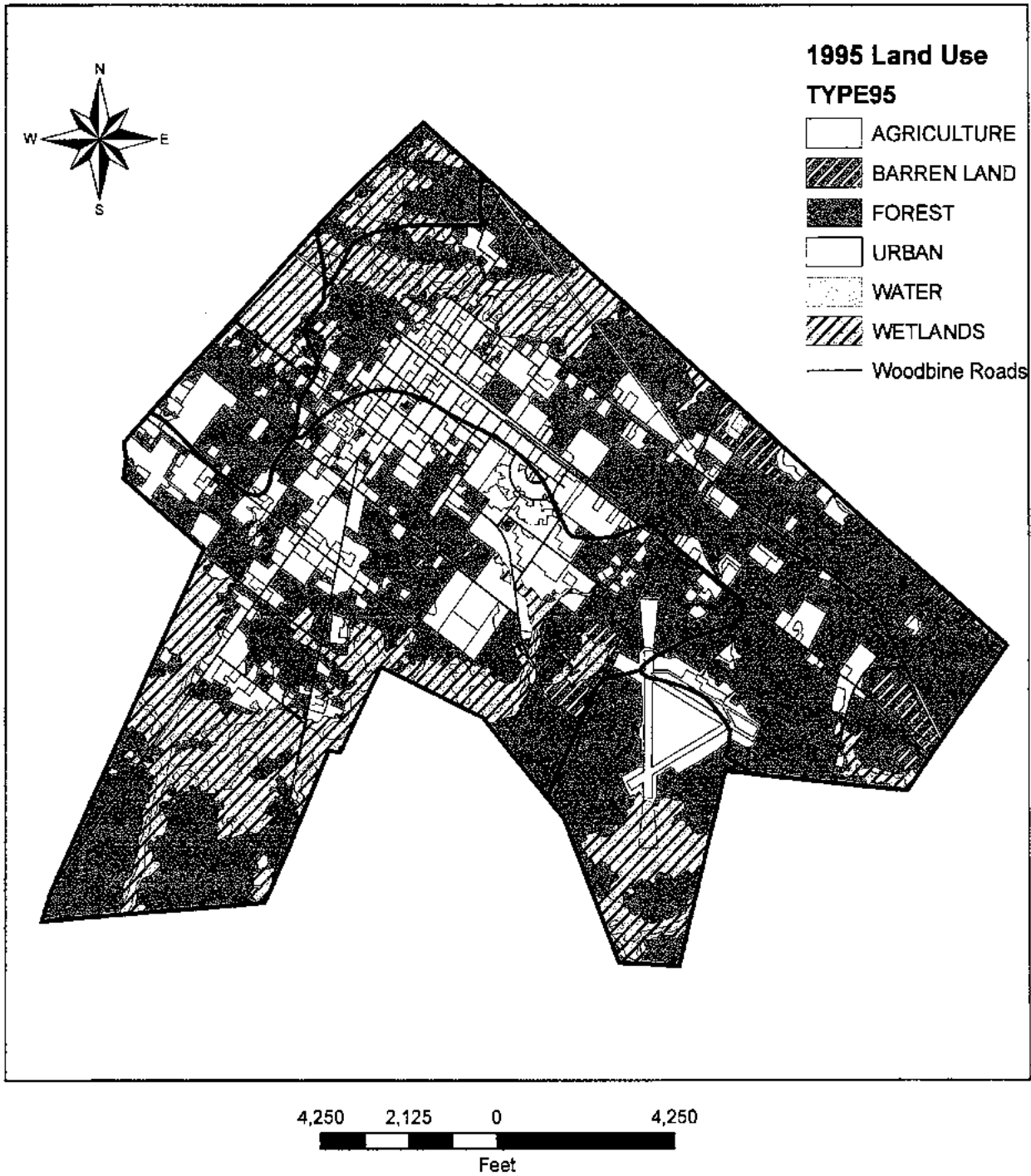




Figure C-6: Hydrologic Units (HUC14s)  
Within Woodbine

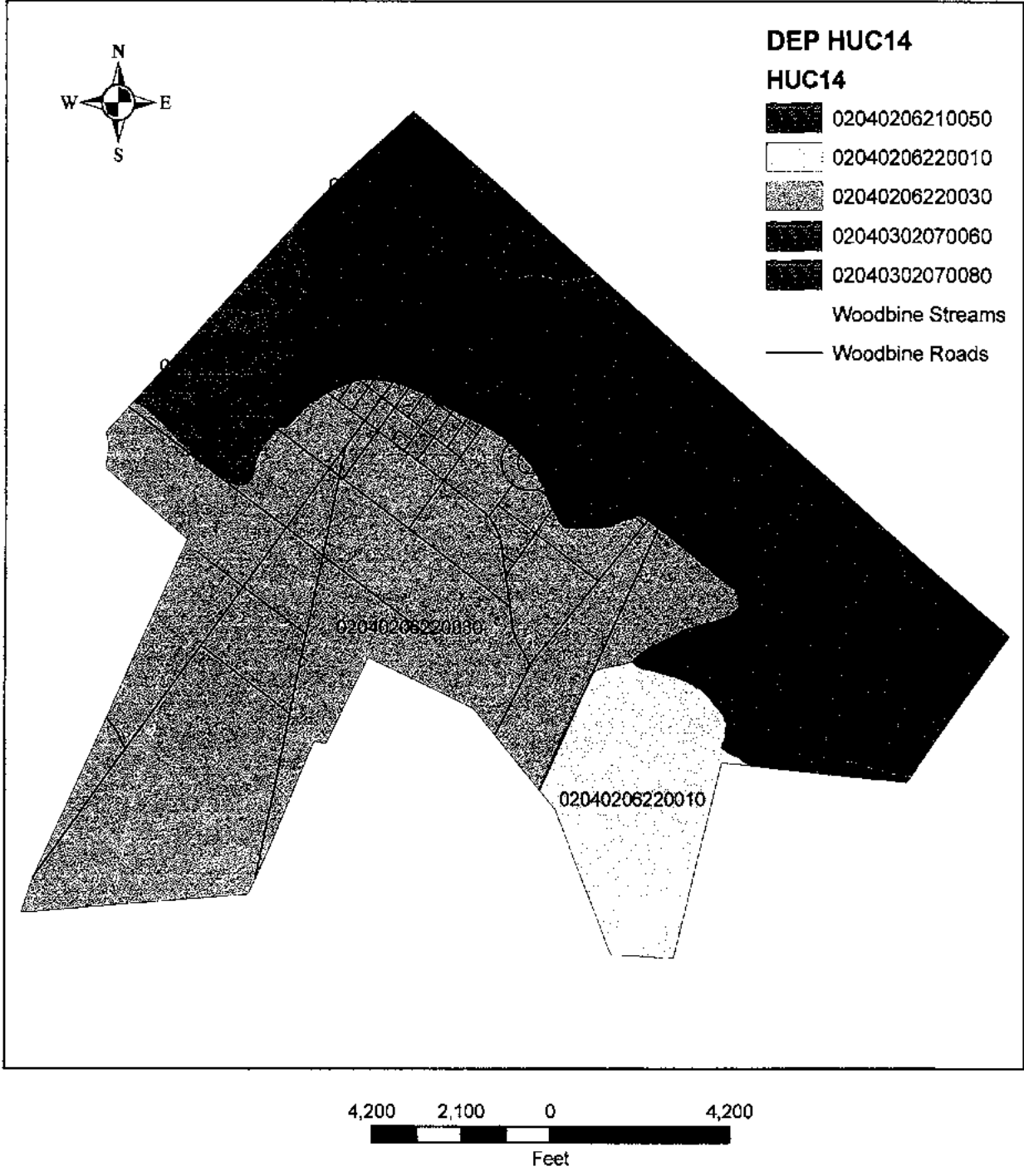


Figure C-7: Zoning Districts Within the Borough

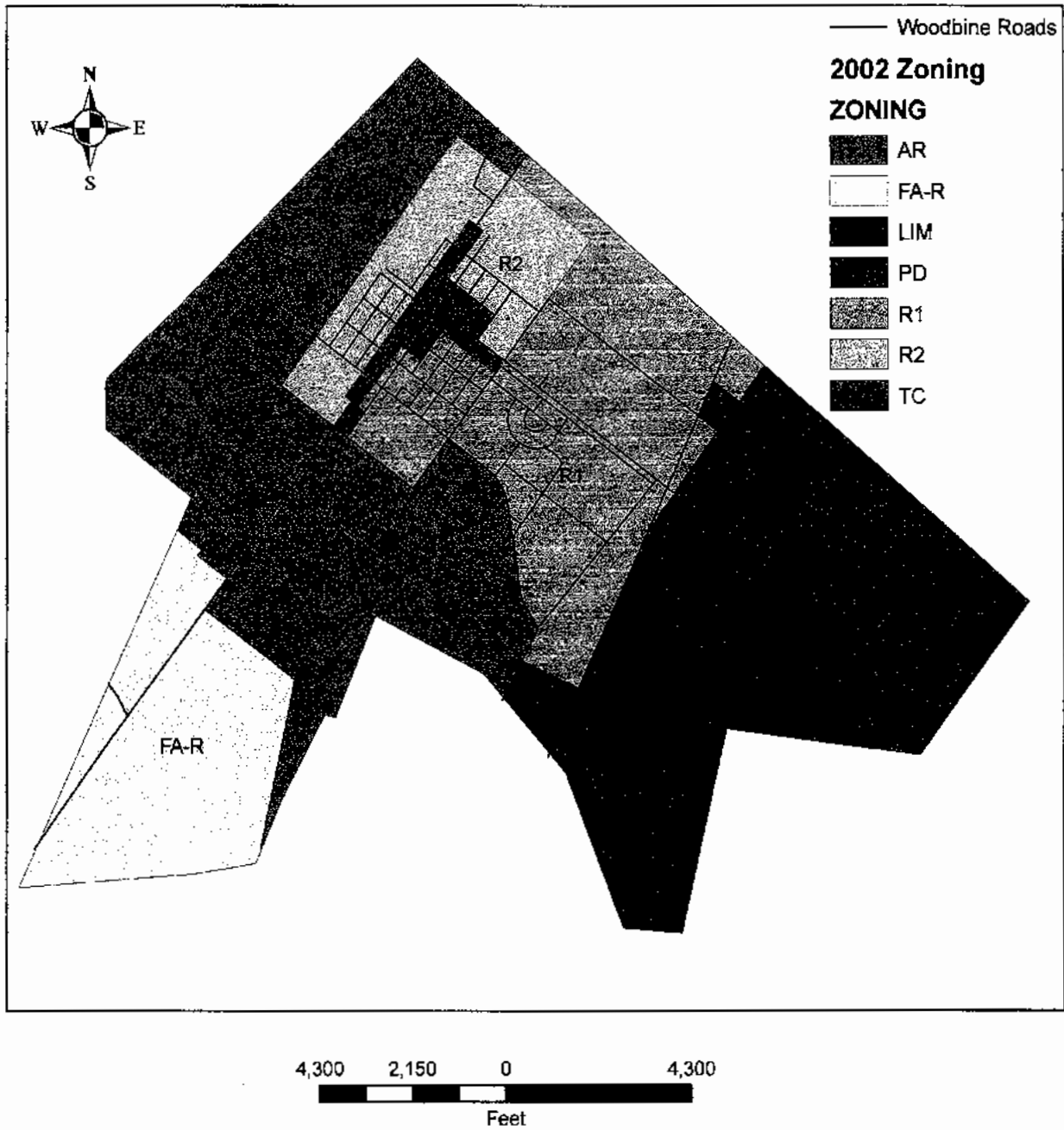
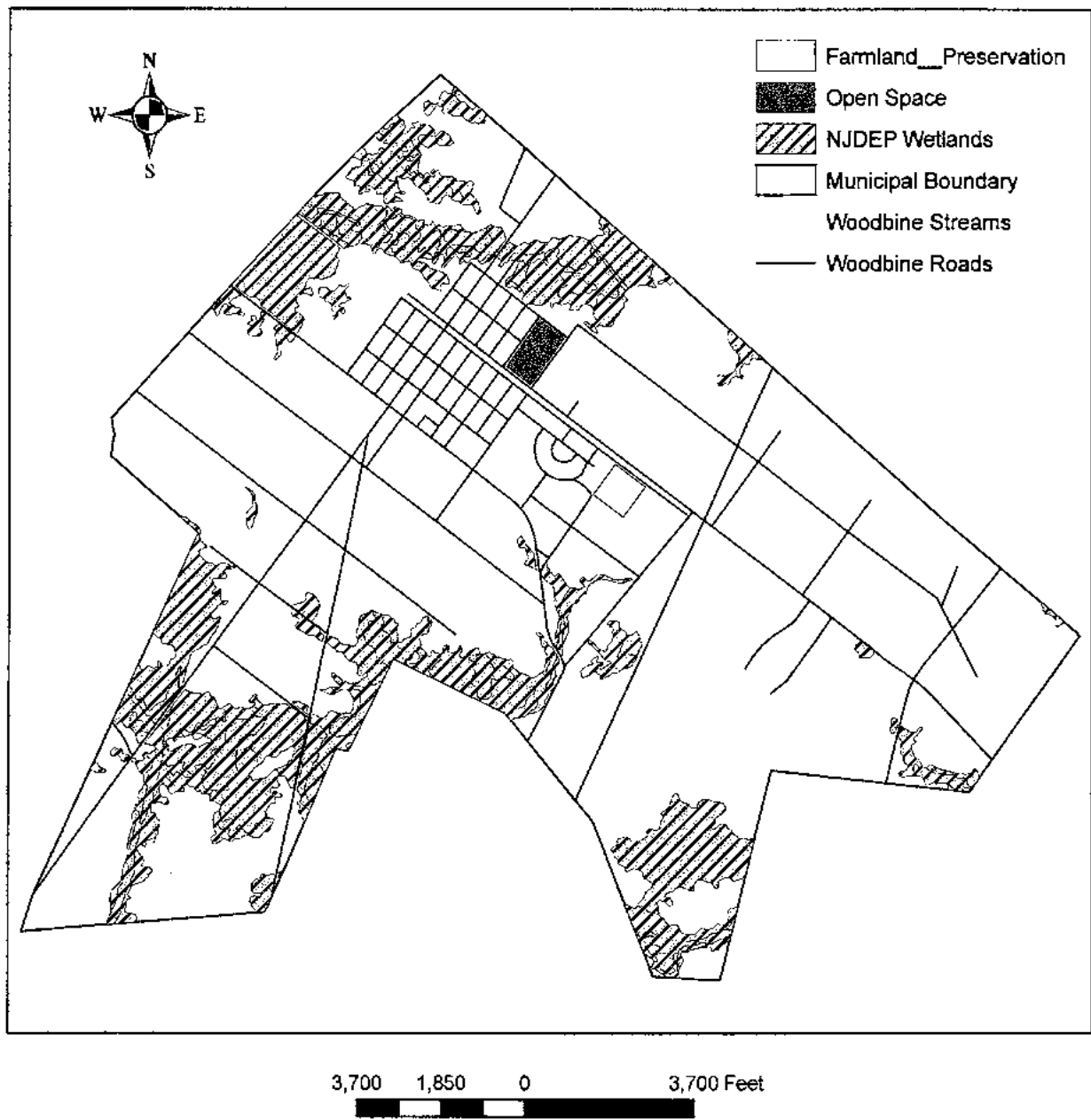


Figure C-8: Woodbine Constrained Land



**Table C-2. WMA 16 - Cape May Watershed - Woodbine Buildout Calculations**

HUC_14 and Zone	1995 DEP Land Use Data				Bulk Requirements		Building Coverage	
	Total Area Acres	Existing Impervious %	Existing Impervious Acres	Wetlands / Water Area Acres	Developable Area Acres	Allowable Impervious %	Build-Out Impervious Acres	
<b>2040206210050 - Savages Run</b>								
A-R	276	7.67%	21.17	80	196	40%	78.4	
Totals	276				196		78.4	
<b>2040206220030 - Dennis Creek</b>								
FA-R	630	2.78%	17.5	284.87	345.13	20%	69.026	
A-R	950	14.11%	134	181.61	768.39	40%	307.356	
R1	310	26.16%	81.1	33.7	276.3	40%	110.52	
ALIM	50	14.40%	7.2	0	50	50%	25	
R2	180	56.06%	100.9	0	180	40%	72	
TC	30	100.00%	30	0	30	60%	18	
Totals	2150	17.24%	370.7	500.18	1649.82		601.902	
<b>2040206220010 - Dennis Creek / Cedar Swamp</b>								
ALIM	465	6.88%	32	132	333	50%	166.5	
Totals	465				333		166.5	

**Table C-2. WMA 15 - Great Egg Harbor Watershed - Woodbine Buildout Calculations**

HUC_14 and Zone	1995 DEP Land Use Data				Bulk Requirements		Build-Out	
	Total Area Acres	Existing Impervious %	Existing Impervious Acres	Wetlands / Water Area Acres	Developable Area Acres	Allowable Impervious %	Impervious Acres	
"Constrained Land"								
<b>2040302070080 - Cedar Swamp Creek</b>								
ALIM	275	10.76%	29.6	1.5	273.5	50%	136.75	
LIM	670	14.03%	94	20	650	50%	325	
R1	505	22.74%	114.86	60.5	444.5	40%	177.8	
A-R	144	1.39%	2	47	97	40%	38.8	
R2	325	34.78%	113.04	105	220	40%	88	
DLM	17	100.00%	17	0	17	50%	8.5	
TC	58	100.00%	58	0	58	60%	34.8	
<b>Totals</b>	<b>1994</b>	<b>21.49%</b>	<b>428.5</b>	<b>234</b>	<b>1760</b>		<b>809.65</b>	
<b>2040302070060 - Mill Creek / Back Run</b>								
A-R	140	0.14%	0.2	70	70	40%	28	
R2	10	12.00%	1.2	0.3	9.7	40%	3.88	
<b>Totals</b>	<b>150</b>	<b>12.14%</b>	<b>1.4</b>	<b>70.3</b>	<b>80</b>		<b>31.88</b>	

**Table C-3. Cape May Watershed - Nonpoint Source Pollutant Loads at Build-Out**

HUC_14 and Zone	Fully Developed (acres)	TP* (lbs/acre/yr)	TP (lbs/yr)	TN* (lbs/acre/yr)	TN (lbs/yr)	TSS* (lbs/acre/yr)	TSS (lbs/acre/yr)
<b>2040206210050 - Savages Run</b>							
A-R	78	0.6	47.04	5	392	100	7840
<b>Totals</b>	<b>78</b>		<b>47.04</b>		<b>392</b>		<b>7840</b>
<b>2040206220030 - Dennis Creek</b>							
FA-R	69	0.1	6.9026	3	207.08	40	2761.04
A-R	307	0.6	184.41	5	1536.8	100	30735.6
R1	111	1.4	154.73	15	1657.8	140	15472.8
ALIM	25	1.5	37.5	16	400	200	5000
R2	72	1.4	100.8	15	1080	140	10080
TC	18	2.1	37.8	22	396	200	3600
<b>Totals</b>	<b>602</b>		<b>522.14</b>		<b>5277.7</b>		<b>67649.44</b>
<b>2040206220010 - Dennis Creek / Cedar Swamp</b>							
ALIM	167	1.5	249.75	16	2664	200	33300
<b>Totals</b>	<b>167</b>		<b>249.75</b>		<b>2664</b>		<b>33300</b>

**Table C-3 Great Egg Harbor Watershed - Nonpoint Source Pollutant Loads at Build-Out**

HUC 14 and Zone	Fully Developed (acres)	TP* (lbs/acre/yr)	TP (lbs/yr)	TN* (lbs/acre/yr)	TN (lbs/yr)	TSS* (lbs/acre/yr)	TSS (lbs/acre)
<b>2040302070080 - Cedar Swamp Creek</b>							
ALIM	137	1.5	205.13	16	2188	200	27350
LIM	325		0		0		0
R1	178	1.4	248.92	15	2667	140	24892
A-R	39	0.6	23.28	5	194	100	3880
R2	88	1.4	123.2	15	1320	140	12320
DLM	9	1.5	12.75	16	136	200	1700
TC	35	2.1	73.08	22	765.6	200	6960
<b>Totals</b>	<b>810</b>		<b>686.36</b>		<b>7270.6</b>		<b>77102</b>

**2040302070060 - Mill Creek / Back Run**

A-R	28	0.6	16.8	5	140	100	2800
R2	4	1.4	5.432	15	58.2	140	543.2
<b>Totals</b>	<b>32</b>		<b>22.232</b>		<b>198.2</b>		<b>3343.2</b>

**Table C-4: Woodbine Zoning Labels**

Woodbine Zone	Abbreviations
Forest Area - Residential	FA-R
Agriculture - Residential	A-R
Light Residential	R-1
Medium Residential	R-2
Airport Light Industrial Manufacturing	ALIM
Light Industrial Manufacturing	LIM
DeHirsch Light Manufacturing	DLM
Town Commercial	TC



## Mitigation Plans

This mitigation plan is provided for a proposed development that is granted a variance or exemption from the stormwater management design and performance standards and applies only to lands located outside the Pinelands Area. Listed below is a hierarchy of options.

### Mitigation Project Criteria

1. The mitigation project must be implemented in the same drainage area as the proposed development. The project must provide additional groundwater recharge benefits, or protection from stormwater runoff quality and quantity from previously developed property that does not currently meet the design and performance standards outlined in this plan. The developer must ensure the long-term maintenance of the project, including the maintenance requirements under Chapters 8 and 9 of the NJDEP Stormwater BMP manual. The mitigation project must be acceptable to the Borough.
2. If a suitable site cannot be located in the same drainage area as the proposed development, as discussed in option 1, the mitigation project may provide mitigation that is not equivalent to the impacts for which the variance or exemption is sought, but that addresses the same issue. For example, if a variance is given because the 80 percent TSS requirement is not met, the selected project may address water quality impacts due to a fecal impairment.

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

On a case by case basis, the Borough may consider a variance or exemption from the stormwater management design and performance standards for a project within a Pinelands Area. If such a variance or waiver is considered by the Borough, the proposed mitigation project must satisfy the requirements of the Pinelands Comprehensive Management Plan. Furthermore, in order to consider any variance or exemption within a Pinelands Area, it will be necessary for the Borough to amend the mitigation section of their Municipal Stormwater Management Plan relative to the specific mitigation project and to have such amendment certified by the Pinelands Commission.