# WASTEWATER MANAGEMENT PLAN FOR WEST AMWELL TOWNSHIP, HUNTERDON COUNTY, NJ

Upper Delaware Water Quality Management Plan

June 26, 2006

Submitted by the West Amwell Township Committee

Tom Molnar, Mayor Gary Bleacher Ron Shapella

Prepared by

Robert J. Clefico, Professional Engineer NJ License #22360 Van Cleef Engineering Associates

1128 Route 31, Lebanon, NJ 08833

(908) 735-9500

# **TABLE OF CONTENTS**

INTRODUC	CTION	1
	TABLE OF ALL PROPOSED NT ACTIONS WITHIN THE WMP	3
1. Poin 2. Grou 3. Nonp 4. Cons 5. Envii 6. Ripai 7. Enda	OF ENVIRONMENTAL ASSESSMENTS AND ANALYSES to Source Pollutant Loading Analysis andwater Discharges (Nitrate Dilution) point Source Pollutant Loading/Hydromodification Analysis sumptive Water Use Analysis ronmental Constraints Analysis rian Corridor Analysis and Corridor Analysis angered/Threatened Species Analysis natives Analysis	4
DISCUSSIO AND INDUS	N OF EXISTING AND FUTURE DOMESTIC STRIAL TREATMENT FACILITIES	6
BASIS FOR	THE SERVICE AREA DELINATIONS	10
TABLES		
l able 2 – Fa	ncilities Table For West Amwell Elementary School ncilities Table For South Hunterdon High School oning Summary	8 9 16
Map 1 Map 2 Map 2A Map 2B Map 3 Map 4 Map 5 Map 6	Planning Area and Existing Sewer Service Area Future Wastewater Facilities and Service Areas Existing Sewer Service Area, West Amwell Elementary Sexisting Sewer Service Area, South Hunterdon Regional Township Zoning Map Environmental Features Environmental Priority Sites Open Space Map (with Open Space inventory)	ichool ⊦HS

#### INTRODUCTION

The purpose of this document is to provide a comprehensive Wastewater Management Plan (WMP) for West Amwell Township, Hunterdon County. The WMP has been submitted to the New Jersey Department of Environmental Protection (Department) for approval so that it may be incorporated into the Upper Delaware Water Quality Management Plan (WQMP) via the plan amendment procedure (NJAC 7:15).

West Amwell Township is in the southwest corner of Hunterdon County. It is bordered on the north by Delaware Township, on the east by East Amwell Township, on the south by Hopewell Township, Mercer County and on the west by the Delaware River and the City of Lambertville. The Township encompasses 14,016 acres of land. Approximately 25 percent of this land has been developed. The primary land use in West Amwell is agricultural, with single-family residential and vacant land (primarily forest and woodlands) making up the next two largest land use categories.

The West Amwell Township Master Plan, revised through October 2003, estimated that the population of the Township in the 2000 census was 2,383 persons. Based on buildout estimates revised in 2004, the Hunterdon County Planning Board projects that the Township's population will increase to 2,780 residents by 2010 and 2,943 residents in 2020. Hunterdon County also estimates household size in West Amwell at 2.51 persons per household, based on 2000 census data.

As shown on Map 1, West Amwell Township is included in the Upper Delaware WQMP, as established by the NJDEP. A small portion of the Township, located in the northeast quadrant, drains to the South Branch of the Raritan River and is included in the North and South Branch Raritan WQMP. In addition, a portion of the Township, located in the eastern quadrant, drains to the Stony Brook. Both of these areas are at the extreme ends of their respective watersheds.

A portion of West Amwell Township within the Upper Delaware WQMP was included in the study area for the Lambertville Regional 201 Facilities Plan. Glace and Glace, Inc., Consulting Engineers, Harrisburg, PA, completed this plan in 1978 for the Lambertville Sewerage Authority (LSA). West Amwell Township elected not to participate in the implementation of the recommendations of this 201 Plan. Accordingly no facilities were constructed within the Township and the Plan has no official status for West Amwell Township as part of the Upper Delaware WQMP.

Due to substantial zoning and master plan changes within the Township, the current proposed updated plan is intended to amend and replace the previous plan in the Upper Delaware Water Quality Management Plan. In cases of conflict or contradiction, the Statewide Water Quality Management Rules take precedence.

There currently are no public or private sewer systems being operated within West Amwell Township. All areas of the Township are served by individual subsurface sewerage disposal systems. It is the expressed desire, intention and goal of West Amwell Township that all

development continue to be served by individual subsurface sewage disposal systems with planning flows of less than 2,000 gallons per day.

Breen Color Concentrates, Inc., located on the south side of Route 179 approximately one mile east of the Lambertville City limits, has a NJPDES permit for industrial non-processed cooling water discharging to a lagoon. The building discharges sewer waste to existing holding tanks, which are pumped regularly. The West Amwell Township Elementary School on Route 179 has a NJPDES permit for its individual subsurface sewage disposal system. South Hunterdon Regional High School upgraded its subsurface sewerage disposal system in recent years, which involved obtaining treatment works and NJPDES permits. The locations of the Elementary and High Schools have been added to the appropriate maps.

# SUMMARY OF ALL PROPOSED SIGNIFICANT ACTIONS WITHIN THE WMP

1. Eliminate boundaries of previously proposed sewer service areas due to zoning and master plan changes, and designate the remaining portion of the municipality for facilities discharging to groundwater having wastewater planning flows of less than 2,000 gpd.

### SUMMARY OF ENVIRONMENTAL ASSESSMENTS AND ANALYSES

### 1. Point Source Pollutant Loading Analysis

Surface Water Discharges (Antidegradation Analysis):

There are no proposed increases of wastewater discharges to surface water.

#### 2. Groundwater Discharges (Nitrate Dilution)

Ground water quality impacts as new or expanded discharges are proposed will be evaluated through the NJPDES permitting process. Under this WMP, all of West Amwell, excluding current NJPDES permit holders, will be designated as DGW <2,000 gpd. West Amwell acknowledges the state's finding that a minimum four-acre zoning is required throughout the Township to protect ground water quality. The Township notes that the minimum residential building density in the municipal Zoning Ordinance is one unit per four acres.

West Amwell intends to address the Department's concerns about adequate nitrate dilution by amending the Township's land use ordinance. This ordinance amendment, which will the municipality expects to adopt before the end of 2006, would be consistent with the options recommended by the Department. The amendment would require that future applicants for subdivision or site plan approval in the Highway Commercial, Village Residential, Limited Highway Commercial, Neighborhood Commercial or Light Industrial zones conduct appropriate nitrate dilution analyses to ensure that the number of units allowed, regardless of underlying zoning, supports conformance with ground water standards.

(Please note: the R-1A zone is built out. No further development can take place there.)

This amendment will include a provision consistent with the municipal clustering ordinance and Township efforts to preserve open space, and allow applicants for minor subdivisions to conduct nitrate dilution analyses that take into account upslope land preservation. This flexibility will account for specific features of the project area that tend to mitigate the state's concerns about nitrate dilution.

## 3. Nonpoint Source Pollutant Loading/Hydromodification Analysis

This WMP update calls for no increase in nonpoint source pollution, so this section is not applicable.

### 4. Consumptive Water Use Analysis

West Amwell is not requesting an extension of new or expanded public water service to any section of the municipality as part of this WMP update. Except for a residential development of fewer than 100 homes adjacent to the City of Lambertville, all of West Amwell receives its water supply exclusively from ground water. United Water Lambertville serves one residential area, which corresponds to Block 3 Lot 6, 7, 8, 9, 10, 17.01, 17.02, and 20 on Map X of this WMP document.

Water supply in the rest of West Amwell is provided exclusively by ground water via individual or onsite wells. Ground water is accessed through cracks, faults and other small-interconnected

opening in the subsurface rock. Because of the unique geological formations underlying West Amwell, availability of adequate supply is less reliable than in most parts of New Jersey. The exclusive use of individual onsite septic systems affects water supply in that adequate separation must be achieved in order to reduce the likelihood of long-term water supply contamination.

These specific water supply issues have shaped municipal planning in West Amwell for many years, especially with the most recent recertification of the Township Master Plan in 2003. The Township has moved since that time to ensure that development takes place at a pace dictated by these natural constraints, rather than move toward broad introduction of public water and sanitary sewer service. This approach, and the desire of municipal officials and the public at large to adopt local planning initiatives that are consistent the goals of the 2003 Master Plan, have led West Amwell to seek this WMP update.

#### United Water Lambertville

The most recent Consumer Confidence Report for United Water Lambertville (www.unitedwater.com/uwtr/pdfs/gLambertville.pdf) says the utility supplies water for domestic use and fire protection to residents of the City of Lambertville and a portion of West Amwell Township. As of Dec. 31, 2005, the company serviced approximately 100 residential customers in West Amwell. United Water has one supply and production facility, located off route 518 in West Amwell, about 1.2 miles east of Lambertville. The water supply comes from a spring-fed, earthen surface water reservoir with a total source capacity of about 40 million gallons.

#### 5. Environmental Constraints Analysis

Through this WMP update, West Amwell is seeking to remove its sewer service area. West Amwell does not envision any future sewering of properties, so this section in not applicable.

#### 6. Riparian Corridor Analysis

In 2005, West Amwell updated its Stream Corridor Ordinance to be completely consistent with state goals and objectives for riparian corridor protection. Alexauken Creek is a Category 1 stream in West Amwell, and the municipal ordinance recognizes the state's 300-foot buffer. Thee are no other trout production streams in West Amwell, but the municipal ordinance contains significant protections that account for increasing levels of potential impacts as development increases in intensity. For example, all existing residences and a small number of undeveloped properties of six acres and under on non-C1 streams have a 75-foot buffer. Undeveloped properties greater than six acres on non-C1 streams are assigned a 100-foot buffer. Non-C1 streams that are part of an application for subdivision or site plan approval would receive a 150-foot buffer.

#### 7. Endangered/Threatened Species Analysis

Threatened and Endangered Species habitats with ranks 3, 4 and 5 are noted on Map X. There is no project associated with this WMP update, so this section is not applicable.

#### 8. Alternatives Analysis

This section is also not applicable to our WMP update.

#### 9. Any Others

Not applicable.

# DISCUSSION OF EXISTING AND FUTURE DOMESTIC AND INDUSTRIAL TREATMENT FACILITIES

The previous Wastewater Management Plan proposed sewer service areas for higher density residential zones as well as industrial and office zones. The Township has since amended the Township Master Plan and Zoning Ordinance to eliminate the higher density residential zones, and therefore eliminating the need for a sewer service area. Facilities tables are included in this section for the following three permitted sites.

**Breen Color Concentrates, Inc.,** located on the south side of Route 179 approximately one mile east of the Lambertville City limits, requested to have its NJPDES permit for industrial non-processed cooling water rescinded in 1997. The NJDEP Division of Water Quality has confirmed that this site no longer discharges to ground water.

West Amwell Township Elementary School is housed in a 23,000 square foot building on 6.3 acres along Route 179. It has a NJPDES permit for its individual subsurface sewage disposal system. The school educates grades K-6 and takes students from West Amwell only, as well as a small number of tuition students for special education classes. There are 13 classrooms, two offices, one multi-purpose room, one nurse's office and one kitchen. According to the NJ Department of Education, the school has a functional capacity of 298 students. Enrollments have declined over the years, from 313 students in 1970, to 253 in 2006-07, according to the Cohort-Survival Enrollment Projection Worksheet that has been submitted to the Department of Education. These data show that enrollments fluctuating from 188 in 1999-2000, to 190 in 2000-01; 174 in 2001-02; 198 in 2002-03; 219 in 2003-04; 229 in 2004-05; and 234 in 2005-06. Schoolchildren from two recent residential developments have been enrolling in the school, and projections show expected enrollments of 253 in 2006-07; 249 in 2007-08; 266 in 2008-09; and 259 in 2009-2010.

South Hunterdon Regional High School is located on a 53.62-acre tract at the corner of Rocktown-Lambertville Road and Mount Airy-Harbourton Road. The school was required to upgrade its subsurface sewerage disposal system in recent years, which involved obtaining treatment works and NJPDES permits. In addition, the school has embarked on a two-year renovation project. At the end of this project the school will have a capacity of 500 students. According to the NJ Department of Education data, enrollments have declined somewhat over the years, from 353 students in 1993-94, to 391 in 1999-00, to 345 in 2006-07. According to the Cohort-Survival Enrollment Projection Worksheet that has been submitted to the Department of Education, the school expects enrollments of 336 in 2007-08; 337 in 2008-09; and 367 in 2009-2010.

Neither school has 20-year enrollment projections. The Elementary School is in the process of reviewing its long-range planning. Clearly, however, the current capacity of public schools serving West Amwell is adequate to serve current expected enrollments. Growth projections must continue to be looked at carefully. West Amwell has experienced moderate growth in the last two decades. Should that growth increase with new development leading to increased school enrollments, then the impacts of expanded facilities on existing treatment capabilities would have to be reviewed.

The ESC School, located on Route 179, discharges less than 2,000 gpd and is not a facility that is subject to review under this WMP.

The remainder of the Township will continue to be served by individual subsurface sewage disposal systems. These systems shall be designed and installed to comply with the applicable regulations of the State of New Jersey as outlined in NJAC 7:9A. The systems shall be of the type and size allowing individual owners to act as the sole agent responsible for the operation and maintenance of these systems.

Statewide water quality rules require the following conditions in WMPs:

- 1. All existing, new, or expanded industrial pretreatment facilities requiring Significant Indirect User (SIU) permits and/or Treatment Works Approvals, and are located within the specific sewer service area, are deemed consistent.
- 2. 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 become 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).
- 3. 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.

# Table 1 FACILITIES TABLE FOR WEST AMWELL ELEMENTARY SCHOOL

1.	Existing or proposed facility		Existing		
2.	NJPDES Permit Number	- Additional Control of the Control	General permit #NJ0130281/DGW #NJG0134520		
3.	Discharge to ground water (DGW)	or surface water (DSW):	DGW		
4.	Name of receiving water or aquifer		Tributary to the Alexauken Creek		
5.	Classification of receiving water		Category One		
6.	Owner of facility	7-7-7-10-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	West Amwell Board of Education		
7.	Operator of facility		West Amwell Board of Education		
8.	Co-Permittee of facility (where app	olicable)	N/A		
9.	Location of facility:				
*****	a. Municipality and County		West Amwell Township		
	b. Street address		1417 Rt.179, Lambertville, NJ 08530		
	c. Block(s) and Lot(s)		Block 5 Lot 22		
10.	Location of discharge (i.e. degrees, minutes, seconds)		a. Longitude approx. 74° 55'		
			b. Latitude approx. 40° 23"		
11.	Present permitted flow	TOTAL CONTROL OF THE	5,250 gpd (253 students; uses cafeteria, but not showers)		
12.	Summary of wastewater flow recei for DSW or a daily maximum flow	ved/to be received expressed in for DGW.	n million gallons per day (MGD) and as an annual average flow		
		West Amwell			
	77	Wastewater Flow (MG			
	School flow	2006	2026		
	Residential flow	3,795 gpd	4,470 gpd		
	Commercial flow	0	0		
	Industrial flow	0	0		
	Infiltration/Inflow	0	0		
	Total for West Amwell Twp.	0	0		
L	1 total for west Amwell I wp.	U	<u>U</u>		

# Table 2 FACILITIES TABLE FOR SOUTH HUNTERDON REGIONAL HIGH SCHOOL

1.	Existing or proposed facility	Existing					
2.	NJPDES Permit Number		General permit #NJ0130281 DGW NJG0131261				
3.	Discharge to ground water (DGV	V) or surface water (DSW):	DGW				
4.	Name of receiving water or aquif	er:	Tributary to the Alexauken Creek				
5.	Classification of receiving water:		Category One				
6.	Owner of facility:		South Hunterdon High School Board				
7.	Operator of facility:		South Hunterdon High School Board				
8.	Co-Permittee of facility (where a	pplicable):	N/A				
9.	Location of facility:						
	a. Municipality and Coun	ty	West Amwell Township				
	b. Street address		301 Mt. Airy Harbourton Road				
	c. Block(s) and Lot(s)		Block 11 Lot 16				
10.	Location of discharge (i.e. degree	s, minutes, seconds)	Longitude approx. 74° 55"				
			Latitude approx. 40° 23"				
11.	Present permitted flow:		10,250 gpd (345 students, cafeteria and showers)				
12.	Summary of wastewater flow reco	eived/to be received expressed in which for DGW.	n million gallons per day (MGD) and as an annual average flow				
	West Amwell Township						
		Wastewater Flow (MC	GD) (annual average)				
		2006	2026				
a "	School flow	6,900 gpd	10,000 gpd				
	Residential flow	0	0				

	West Amwell Township						
Wastewater Flow (MGD) (annual average)							
	2006	2026					
School flow	6,900 gpd	10,000 gpd					
Residential flow	0	0					
Commercial flow	0	0					
Industrial flow	0	0					
Infiltration/Inflow	0	0	1000				
Total for West Amwell Twp.	0	0					

## BASIS FOR THE SERVICE AREA DELINEATIONS

#### Zoning

The West Amwell Township Committee amended its Zoning Map by ordinance in September 2004 (Map 4). The current ordinance is reasonably consistent with the Township Master Plan, revised in October 2003. Typical development land use and the allowed development densities for the various zones are as follows:

### Sourland Regional Planning District (SRPD-8)

This zone permits one dwelling unit on a minimum eight-acre lot and primarily comprises the Sourland Ridge area in West Amwell. This zoning designations is intended to protect the environmentally sensitive Sourland area of the Township, which is the prominent contiguous forested area generally bisecting West Amwell. It is noteworthy for its groundwater and septic constraints, due to the underlying geology of diabase rock. This zone starts at the Delaware River and continues northeastward between Rocktown-Lambertville Road, and Route 518 and Rock Road, expanding as the underlying diabase area expands as it approaches Route 31, which is the northeastern boundary of the Township.

In addition to the Sourland area, this zone also contains the United Water Company Reservoir property (Block 16, Lot 3 and Block 17, Lot 13 – 451 acres) located between Rocktown-Lambertville Road and Route 518 in the westerly central portion of the Township. Almost all of this property was preserved by state Green Acres acquisition in recent years. The Township has preserved other areas in the eastern part of this zone, but significant portions of this environmentally sensitive zone remain vulnerable to development.

This zone is characterized by headwaters and significant tributaries of Alexauken Creek, which in 2004 was designated by the state as a Category One stream. It also contains segments of Swan Creek (FW2-NT), one of which feeds the United Water reservoir. In fact, this portion of the Swan Creek watershed merges with a portion of the Alexauken Creek watershed on private land in the heart of West Amwell's Sourland area where tributaries of both streams coincide.

Single-family detached dwellings are the primary permitted uses, along with customary and conventional farming operations, including farm stands for the sale of produce and other products produced on the farm. Other permitted uses include private garage space for two motor vehicles for the first 10,000 square feet of lot area, and, thereafter, one garage space for each additional 15,000 square feet of lot area, up to a maximum of four such spaces; other customary uses and buildings, provided that such uses and buildings are incidental to the principal use and do not include any activity commonly conducted as a business; accessory buildings limited to a maximum of 500 square feet in size, or up to a maximum of 1,200 square feet in size if the required setbacks for a principal dwelling are met; accessory dwellings designed for domestic, household or farm workers, provided that the total number of dwelling units on the lot shall not exceed one unit for each 10 acres of lot area and that each dwelling unit meets all setback and yard requirements applicable to principal buildings;

and a home occupation, as defined in the ordinance, in a single-family detached dwelling.

Conditional uses include public utility installations, riding academies, bed-and-breakfast guesthouses, landscape contracting and plant nurseries, places of worship, and community residences for the developmentally disabled and community shelters for victims of domestic violence housing no more than 15 people.

Clustering is permitted with a minimum two-acre lot size and there is a limited mini-cluster option.

### **Rural Residential South District (RR-6)**

This zone permits one dwelling unit on a minimum six-acre lot. The zone lies in the southern portion of the Township south of Route 518, and features large farms and single-family homes in a gently sloping a valley area drained by Moores Creek, which is a high quality waterway classified by the state as FW2-TM. The far western section of this zone also contains a segment of Peters Brook, which flows into Stony Brook in the Millstone watershed area. West Amwell has preserved significant farmland tracts in its RR-6 zone, which shares similar geologic characteristics with the Sourland zone, presenting serious constraints for groundwater availability and septic suitability. The zone also includes the Mountainview neighborhood off Route 518, an older development of about 30 homes on smaller lots served by private wells and septic systems.

Permitted uses are the same as those in the SRPD. Conditional uses include public utility installations, riding academies, bed-and-breakfast guesthouses, landscape contracting and plant nurseries, places of worship, golf courses, and community residences for the developmentally disabled and community shelters for victims of domestic violence housing no more than 15 people.

Clustering is permitted with an average 1.25-acre lot size and there is a limited mini-cluster option.

# Rural Residential Central District (RR-5)

This zone permits one dwelling unit on a minimum five-acre lot in an area extending north and west of the SRPD and Rocktown-Lambertville Road to State Highway 179, excluding a small Highway Commercial zone in the western end of the Township and the R-9 Village Residential zone. The Township has preserved significant areas in the eastern part of this zone. The western section lies within a sewer service area that West Amwell Township seeks to remove through this WMP revision proposal. Geologic constraints on private well and septic are generally less than those found in the SRPD and RR-6 zones, but are still present, according to the hydrogeologic report that is part of the Township's 2003 Master Plan.

The zone contains larger tributaries of Alexauken Creek (C1), flowing from headwaters in the SRPD zone, and it contains segments of Swan Creek (FW2-NT) that eventually flow

through Lambertville and into the Delaware River. In the farthest northwestern corner of this zone there is a headwaters segment of Back Brook, which flows into East Amwell and eventually into the South Branch Raritan watershed.

Permitted uses are the same as those in the SRPD and RR-6 zones. Conditional uses include public utility installations, riding academies, bed-and-breakfast guesthouses, landscape contracting and plant nurseries, places of worship, golf courses, and community residences for the developmentally disabled and community shelters for victims of domestic violence housing no more than 15 people.

Clustering is permitted with an average 1.25-acre lot size and there is a limited mini-cluster option.

#### Rural Residential North District (RR-4)

This zone permits one dwelling unit on a minimum four-acre lot in an area extending from State Highway 179 northward to U.S. Route 202 and the municipal border with Delaware Township, excluding a sizable Light Industrial zone to the east and to the west the small Highway Commercial zone along Route 179, the R-9 Village Residential zone (Connaught Hill), and the R1-A zone (the development on Music Mountain). The western section lies within a sewer service area that West Amwell Township seeks to remove through this WMP revision proposal. Geologic constraints on private well and septic are generally less than those found in the SRPD and RR-6 zones, but are still present, according to the hydrogeologic report that is part of the Township's 2003 Master Plan. With the exception of the large Amwell Valley Conservancy area in the northeastern-most corner, this zone has seen limited preservation efforts. It contains larger tributaries and the main stem of Alexauken Creek (C1), and significant groundwater recharge areas near the municipal border with Delaware Township and Lambertville.

Permitted uses are the same as those in the SRPD, RR-6 and RR-5 zones. Conditional uses include public utility installations, riding academies, bed-and-breakfast guesthouses, landscape contracting and plant nurseries, places of worship, golf courses, and community residences for the developmentally disabled and community shelters for victims of domestic violence housing no more than 15 people.

Clustering is permitted with an average 1.25-acre lot size and there is a limited mini-cluster option.

#### R-1A Zone

This zone permits single-family detached dwellings and is located on the north side of Route 179 adjacent to the Lambertville municipal boundary. This zone permits a maximum gross density of 0.4 du/ac with a minimum of 40,000 s.f. lots with well and septic. Forty percent of the tract is open space, primarily allocated for active or passive recreation or utilities.

#### Village Residential Zone (R-9)

This zone permits single-family residential units and group or community residences. Conditional uses permit childcare centers and pre-schools, churches and public schools. This area is located on the south side of Route 179 in the area adjoining Lambertville and locally known as the "Commons" or "Connaught Hill." The ordinance permits approximately 0.7 dwelling units per acre. The existing lots are very small in size and there are no large vacant parcels remaining within this zone. Therefore, any existing or proposed dwellings can be serviced by individual subsurface sewerage disposal systems.

#### Highway Commercial Zone (HC)

This zone permits a variety of nonresidential land uses in appropriate locations and at appropriate development intensities. Highway-oriented commercial, retail, office and warehouse uses can serve to help stabilize the local tax base and provide needed jobs and services. In some cases highway commercial uses can be utilized in conjunction with limited residential opportunities, including affordable housing opportunities. There are two Highway Commercial zones in the Township: along both sides of Route 179 to the west of Mount Airy; and along Route 29 in the southwest corner of the Township.

The ordinance discourages the development of freestanding strip type commercial uses. It is suggested that a more unified retail type complex be developed in these areas. The size of the existing lots and zone depth along Route 29 and Route 179 would probably prevent the future development of any single substantial retail project. The minimum lot size is two acres and a Floor Area Ratio (FAR) of 15 percent would restrict future individual projects to buildings of approximately 15,000 square feet. The limited size of the lots in these zones would allow proposed uses to be served by individual subsurface sewage disposal systems with planning flow less than 2,000 gpd.

Permitted uses in the Highway Commercial zones include retail and wholesale trade establishments; business, professional and medical offices; banks and fiduciary institutions; bowling alleys and similar forms of indoor commercial recreation; restaurants; personal service establishments; scientific or research laboratories devoted to research, design and/or experimentation, subject to performance standards; warehousing and distribution activities carried on in a fully enclosed building and where such uses are also associated with office or retail uses; fairs, bazaars, carnivals, rummage sales and similar functions involving fundraising activities sponsored and conducted by any nonprofit, religious, charitable, philanthropic, eleemosynary, or public service organization such as volunteer fire or first aid companies and parent-teacher organizations; funeral homes; child-care centers; private garage space for the storage of commercial vehicles utilized in conjunction with a permitted use; off-street parking for the use of patrons and/or employees; and signs.

Conditional uses include public utility installations; gasoline service stations with convenience stores; farmers' markets; a veterinary office or clinic; hospitals; and places of worship.

#### **Limited Highway Commercial Zone (LHC)**

The Limited Highway Commercial zone permits a limited variety of nonresidential land uses in appropriate locations and at appropriate development intensities given developmental and environmental constraints in this area. Highway-oriented commercial, retail and office uses can serve to help stabilize the local tax base and provide needed jobs and services. In some cases commercial uses can be utilized in conjunction with limited residential opportunities, including affordable housing opportunities.

This zone lies along the south side of Route 31 on the eastern end of the Township, extending from Rocktown-Lambertville Road to an area between Route 579 and Woodsville Road. The Township reduced the potential depth of this commercial area in the 2004 Zoning Ordinance amendments.

Permitted uses include: retail and wholesale trade establishments; business, professional and medical offices, banks and fiduciary institutions; bowling alleys and similar forms of indoor commercial recreation; restaurants; personal service establishments; fairs, bazaars, carnivals, rummage sales and similar functions involving fund-raising activities sponsored and conducted by any nonprofit, religious, charitable, philanthropic or eleemosynary organization or any public service organization such as volunteer fire or first aid companies and parent-teacher organizations; funeral homes; and child-care centers.

Permitted accessory uses include: private garage space for the storage of commercial vehicles utilized in conjunction with a permitted use; off-street parking for the use of patrons and/or employees; and signs. Conditional uses include: public utility installations; farmers markets; veterinary office or clinic; and places of worship.

#### Neighborhood Commercial Zone (NC)

The Neighborhood Commercial zone permits retail business and personal service establishments and is limited to one area of the Township, located in the northeast quadrant of the intersection of Route 518, Rock Road and Hunter Road. The limited scope of this zone would dictate that proposed uses could be served by individual subsurface sewage disposal systems.

#### Light Industrial (LI)

The Light Industrial District permits light industrial, warehousing and distribution activities in an area with regional access, and where similar land uses currently exist, and where exposure to existing and future residential areas is limited. This zone is located along Route 179, starting near the Duke Energy facility on Queen Road and extending to Bowne Station Road, then extending eastward between U.S. Route 202 and State Highway 179 to the municipal boundary with East Amwell Township.

Permitted uses include customary and conventional farming operations, including farm stands for the sale of produce and other products produced on the farm; scientific or research laboratory devoted to design and/or experimentation; fabrication, processing or assembly of

goods and materials; manufacture, compounding, processing, packaging or treatment of beverages, food, candy, cosmetics, dairy products, drugs, ice, perfumes, pharmaceuticals, plastics, toilet supplies and similar products; finishing or assembly of articles made from previously prepared or refined materials such as bone, cellulose, cork, feathers, fiber, glass, gums, hair, horn, leather, metals, paper, plastics, shell, stone, textiles, leaf products and wood; warehousing and distribution activities carried on in a fully enclosed building; corporate offices; neighborhood retail sales and services that typically serve the needs of the employees of the industries or offices locating within this zone; and child-care centers.

Permitted accessory uses include private garage space necessary to store any vehicle on the premises and utilized in conjunction with the permitted use; off-street parking space for employees and/or visitors; customary farm buildings for the storage of products or equipment located on the same parcel as the principal uses; accessory dwellings for farm workers; accessory dwellings to a permitted industrial use deemed necessary by the Planning Board, such as the quarters for a night watchman; recreational facilities for the benefit of the employees, such as pathways, an exercise trail, softball fields or indoor fitness center; and signs.

Conditional uses include public utilities. Prohibited uses include the manufacture of heavy chemicals, such as but not limited to acids and other corrosives, ammonia, caustic soap and sulfuric acid; manufacture of basic or semifinished chemicals such as cellulose products, resins, dye stuffs, glue, vegetable, animal or mineral fats or oils, explosives, combustible gases, soaps and detergents, fertilizers, asphalt and tar products; manufacture or production of metals and alloys in ingot form; the manufacture or production of cement, plaster, cork and their constituents, matches, paints, oils, varnishes, lacquer, rubber or rubber products; the slaughtering or processing of animals or fowl; and the processing, sale, storage or reclamation of junk of all kinds, including automobile wrecking and storing.

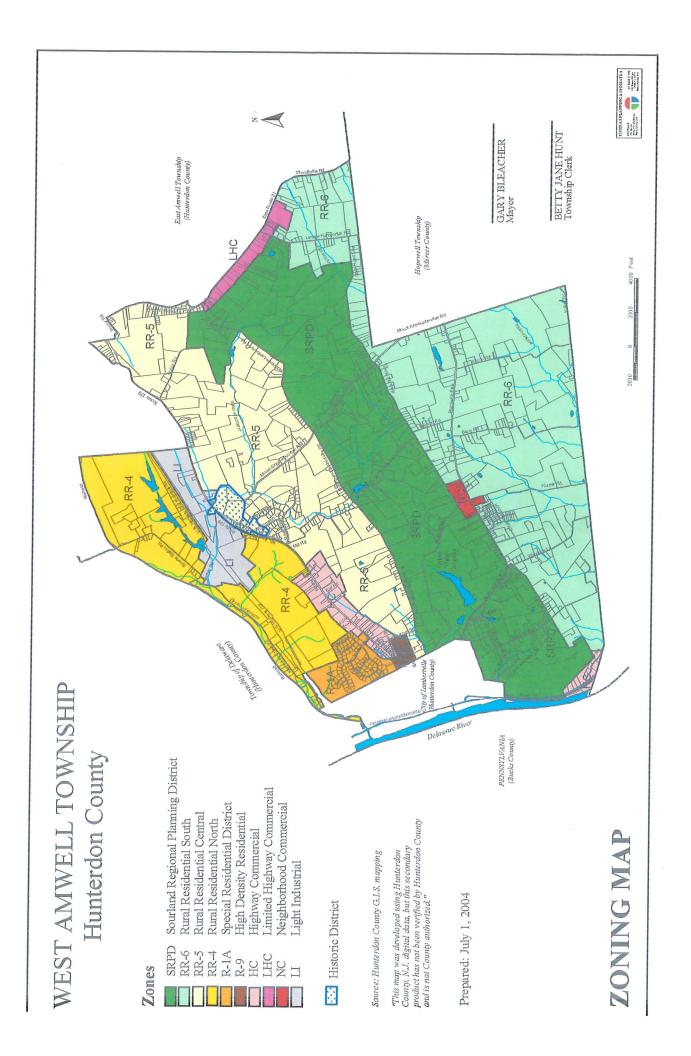
Table 4
ZONING SUMMARY

# Schedule of Area, Height and Building Requirements Residential Zones

Map Symbol	Interior Lot M Area Lo (square feet)	linimum ot Width (feet)	Minimu Front Yard	m Yard Wie Side Yards	Rear	Maxir Building	Height	Maximum Impervious
SRPD	348,480	350	150		Yard 150	(stories)	(feet)	Coverage
RR-6	261,360			60	150	21/2	35	10%
	,	300	150	60	150	21/2	35	12%
RR-5	217,800	250	100	50	100	21/2	35	15%
RR-4	174,240	200	100	50	100	21/2	35	15%
R-1A (built out)	40,000	150	50	25	50	21/2	35	20%
R-9	31,250	125	25	25	50	21/2	35	20%

Map Symbol	Lot M Area (square feet)	inimum Lot Width (feet)		e <b>sidentia</b> n Yard Wid Side Yards	l Zones Ith (feet) Rear Yard		ximum ng Height es) (feet)	Maximum Impervious Coverage	Max. FAR
НС	87,120	250	100	30	100	21/2	35	50%	.15
LHC	65,340	200	75	20	75	21/2	35	50%	.15
NC	43,560	150	25	15	25	21/2	35	60%	.20
L1	217,800	250	100	25	100	21/2	35	50%	.15

Source: Land Development Ordinance of the Township of West Amwell (Schedules one and three)



### **OPEN SPACE INVENTORY** TOWNSHIP OF WEST AMWELL

Block	/ NON-PRO Lot	Acres	Owner	Facility / Project Name	Public Access	Property Class (2)
6	4	101.3	AVC	AMWELL VALLEY CONS.	No	3B
6	5	13.7	AVC	AMWELL VALLEY CONS.	No	3B
7	5	14.6	AVC	AMWELL VALLEY CONS.	No	3A,B
7	6	97.3	AVC	AMWELL VALLEY CONS.	No	3A,B
7	7	311.6	AVC	AMWELL VALLEY CONS.	No	3A,B
7	14.01	10.1	AVC	AMWELL VALLEY CONS.	No	3B
7	17	44.9	AVC	AMWELL VALLEY CONS.	No	3B
7	20	15.5	AVC	AMWELL VALLEY CONS.	No	3B
13	6	41.7	CHAS, RUNKLE	RUNKLE FARM	No	3B
13	6.01	20.5	CHAS. RUNKLE	RUNKLE FARM	Yes	3B
13	31	80.0	RINGUS	DIAMOND CREEK FARM	Yes	3B
13	32	10.0	RINGUS	DIAMOND CREEK FARM	Yes	1
13	45	23.5	FULPER	HOME FARM II	No	3B
13	76	45.0	BROWN	NONE	Yes	3A,B
16	17.01	38.5	ASHTON	NONE	Yes	3A
19	5	93.0	FULPER	STOY FARM I	No	3A,B
19	5.01	34.0	FULPER	STOY FARM II	No	3B
20	2	47.8	FULPER	HEIFER FARM I	No	3A,B
20	2.01	40.8	FULPER	HEIFER FARM II	No	3A,B
20	2.02	28.5	FULPER	FULPER HEIFER	No	3A,B
20	3	153.0	"ADAMSON	FOREVER FARM	Yes	3A,B
20	5	103.8	PERKOWSKI	NONE	Yes	3A,B
20	5.02	42.1	PERKOWSKI	NONE	Yes	3B
21	38	67.0	FULPER	HOME FARM I	No	3A,B
21	39	87.5	BLANCHE	NONE	Yes	3A,B
21	40	50.0	BLANCHE	NONE	Yes	3B
24	1.02	0.6	BLK RIV & WEST	D&R CANAL STATE PARK	Yes	5A
24	2	8.1	UNKNOWN	D&R CANAL STATE PARK	Yes	1
24	4	3.7	UNKNOWN	D&R CANAL STATE PARK	Yes	1
25	i	35.5	DONDERO	NONE	Yes	3A,B
26	26/27/28	8.0	D&R GREENWAY	GULMANTOVICZ	Yes	1
30	3.04	41.5	D&R GREENWAY	WAGNER	Yes	15F
30	12	62.0	HUNTER	HUNTER FARM	Yes	3A,B
30	14	104.0	MAZUR	FIDDLER'S CREEK FARM	Yes	3B
30	15	20.8	DROBNIS	NONE	Yes	3A,B
30	15.01	19.9	DROBNIS	NONE	Yes	3A,B
30	15.02	19.7	DROBNIS	NONE	Yes	3A,B
31	1	57.0	RATTIGAN	NONE	Yes	3A,B
31	1.03	9.5	RATTIGAN	NONE	No	3B
31	7	38.0	HUNTER	NONE	Yes	3B
31	14	105.0	MAZUR	FIDDLER'S CREEK FARM	No	3B
31	15	12.5	HUNTER	NONE	Yes	3B
32	7	10.4	ATCHLEY	NONE	No	3A,B
32	7.04	10.4	ATCHLEY	NONE	No	3B
32	9	23.0	КАМРН	COUNTY CORNERS FARM	No	3B
33	8	82.2	NEWHOUSE	GREENLANDS FARM	No	3A,B
33	9	35.0	KAMPH	COUNTY CORNERS FARM	No	3A,B

SUBTOTAL 2,322.8

TOTAL 4,184.9

# OPEN SPACE INVENTORY TOWNSHIP OF WEST AMWELL

Prepared: 10/17/2006

#### PROPERTY CLASS ACREAGE

Property	
Class	Acres
1	29.8
15C	1,862.1
3A	38.5
3B	780.1
3A,B	1,432.3
5A	0.6
15F	41.5
Total	4,184,9

# OPEN SPACE INVENTORY TOWNSHIP OF WEST AMWELL

WEST	AMWEL	LTON	NICHID
WEST	AIVIVIL	a iuw	NOTHE

Block	Lot	Acres	Owner	Facility / Project Name	Public Access	Property Class (1)
2	1	0.8	West Amwell Township	NONE	Yes	15C
2	3	17.6	West Amwell Township	NONE	Yes	15C
2	4	0.1	West Amwell Township	NONE	Yes	15C
2	5.01	5.1	West Amwell Township	NONE	Yes	15C
3	20.01	97.4	West Amwell Township	NONE	Yes	15C
3.03	2	5.8	West Amwell Township	NONE	Yes	15C
3.05	1	7.2	West Amwell Township	NONE	Yes	15C
4	1.01	21.5	West Amwell Township	TITUS MEADOWS	Yes	15C
11	18	103.0	West Amwell Township	MUNICIPAL PROPERTY	Yes	15C
12	29	2.2	West Amwell Township	NONE	Yes	15C
28	19	14.7	West Amwell Township	HEWITT PARK	Yes	15C
32	7.03	55.0	West Amwell Township	ATCHLEY FARM	No	15C

SUBTOTAL 330.4

HUNTERDON COUNTY

Block	Lot	Acres	Owner	Facility / Project Name	Public Access	Property Class (1)
13	29	51.0	Hunterdon County	RAMBERG	Yes	15C
14	1.01	28.5	Hunterdon County	RAMBERG	Yes	15C
14	2	9.2	Hunterdon County	DALLAGO	Yes	15C ·
14	10	163.6	Hunterdon County	DALLAGO	Yes	15C
14	36	0.3	Hunterdon County	DALLAGO	Yes	15C
Ci	UDTOTAL	252 6				

N.J.D.E.P

N.J.D.E.P.						
Block	Lot	Acres	Owner	Facility / Project Name	Public Access	Property Class (1)
12	13.01	15.0	NJDEP	PECCARELLI	Yes	15C
13	7	52.8	NJDEP	ALEXAUKEN CREEK WMA	Yes	15C
13	25	76.2	NJDEP	ALEXAUKEN CREEK WMA	Yes	15C
13	27	31.7	NJDEP	ALEXAUKEN CREEK WMA	Yes	15C
13	43	69.4	NJDEP	ALEXAUKEN CREEK WMA	Yes	15C
13	54	58.6	NJDEP	ALEXAUKEN CREEK WMA	Yes	15C
13	55	69.0	NJDEP	ALEXAUKEN CREEK WMA	Yes	15C
13	74	38.7	NJDEP	ALEXAUKEN CREEK WMA	Yes	15C
13	75	37.2	NJDEP	ALEXAUKEN CREEK WMA	Yes	15C
16	3	310.0	NJDEP	UNITED WATER	Yes	15C
16	5.01	15.0	NJDEP	BURGARD	Yes	15C
17	13	135.0	NJDEP	UNITED WATER	Yes	15C
17	17.02	49.0	NJDEP	RUTGERS	Yes	15C
17	20.02	14.0	NJDEP	KIM	Yes	15C
17	24	10.0	NJDEP	HUNTER WOODLOT	Yes	15C
17	25	42.6	NJDEP	BURKE	Yes	15C
20	2.03	28.6	NJDEP	HEIFER FARM	Yes	15C
21	8	31.5	NJDEP	ALEXAUKEN CREEK WMA	Yes	15C
21	28	69.3	NJDEP	ALEXAUKEN CREEK WMA	Yes	15C
21	51	57.0	NJDEP	ALEXAUKEN CREEK WMA	Yes	15C
24	1.01	4.9	NJDEP	D&R CANAL STATE PARK	Yes	15C
24	3	4.7	NJDEP	D&R CANAL STATE PARK	Yes	15C
26	7	54.0	NJDEP	SUPREME 10	Yes	15C
28	7	5.0	NJDEP	UNITED WATER	Yes	15C

SUBTOTAL 1,279.2