Salem County Wastewater Management Plan

Municipality	Status	Municipality	Status
Alloway Township	Included	Upper Pittsgrove Township	Included
Carneys Point Township	Included	Woodstown Borough	Included
Elmer Borough	Included		
Elsinboro Township	Included		
Lower Alloways Creek Township	Included		
Mannington Township	Included		
Oldmans Township	Included		
Penns Grove Borough	Included		
Pennsville Township	Current		
Pilesgrove Township	Included		
Pittsgrove Township	Included		
Quinton Township	Included		
Salem City	Included		

Amending the Following Areawide Water Quality Management Plans:

Lower Delaware Water Quality Management Planning Area

Submitted by the Board of Chosen Freeholders of the County of Salem
Date of Current Submittal: _____

Approved by the New Jersey Department of Environmental Protection:
Date of Approval: _____

Prepared By:

SICKELS & ASSOCIATES, INC.
833 KINGS HIGHWAY
WOODBURY, NEW JERSEY 08096
(PHONE: 856-848-6800)

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I. Introduction

The purpose of this document is to provide a comprehensive Wastewater Management Plan (WMP) for Salem 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 Lower Delaware Water Quality Management Planning Area via the plan amendment procedure at N.J.A.C. 7:15-3.

The Future Wastewater Service Area (FWSA) was determined through a methodical process in collaboration with the NJDEP, County and the municipalities identified within this report. The FWSA map was adopted with corrections by the Department on September 19, 2013.

In 2008, the New Jersey Department of Environmental Protection adopted major amendments to the Water Quality Management Planning rules, N.J.A.C. 7:15-1 et seq. The amended rules gave each county Board of Chosen Freeholders responsibility for preparing wastewater management plans for all municipalities within its county. In addition to changing the entities responsible for preparing wastewater management plans, the 2008 rules added significant new requirements for plan contents. County plans were to include a distinct chapter for each municipality within the county and were to be submitted as a whole to DEP no later April 7, 2009. Most significantly, if the plan submission deadline was not met, the rules called for withdrawal of wastewater service area designations. The deadline for submission was subsequently extended until April 7, 2011 by Administrative Order No. 2010-03 signed by Commissioner Martin on March 24, 2010.

In April of 2011, few, if any, counties had submitted a county-wide plan. The resultant withdrawal of wastewater service area designations mandated by the rules was having a detrimental impact on much of the new development proposed in the State at a time when the economy was beginning to show signs of recovery after the recent recession. In response, legislation was introduced in December of 2011, swiftly adopted by the Assembly and Senate, and signed into law by Governor Christie on January 17, 2012.

P.L. 2011, c. 203, stipulates that no wastewater service area designation be withdrawn but shall remain in effect for 180 days following enactment of the law. Wastewater planning agencies were then required to submit at least that portion of a wastewater management plan designating a sewer service area within that same 180 day period, or by July 17, 2012. The law also gave planning agencies the ability to submit other portions of a wastewater management plan in additions to the portion designating a sewer service area and granted DEP explicit authority to adopt portions of a plan. Furthermore, the legislation allowed DEP to approve inclusion of areas within a sewer service area despite the fact that existing treatment plants may not have the assured capacity to treat wastewater from that area without infrastructure improvements or permit modifications. P.L. 2011, c. 203 was to expire on January 17, 2014.

The FWSA map was adopted with corrections by the Department on September 19, 2013, as the first phase of development of the county-wide wastewater management plan. In order to afford municipalities the protection offered by P.L. 2011, c. 203, Salem County prepared a second phase of the county-wide WMP consisting of a build-out analyses and capacity analysis for 15 municipalities. In addition, the County proposed corrections to the FWSA map adopted in September 2013. These documents were submitted to DEP with the expectation that adoption would occur prior to the expiration of the Act, however In January 2014, P.L. 2011, c. 203, was amended, supplemented and enacted as P.L. 2013, c. 188 (hereafter P.L. 2013, c.188), modifying the WQM Planning process. P.L. 2013, c.188 shall expire on January 17, 2016, or upon the reauthorization and adoption of WQM Planning rules N.J.A.C 7:15 et. seq.), whichever may come first. Similarly to the P.L. 2011, c. 203, Section 9 of P.L. 2013, c. 188 provides that upon adoption of the designation of a sewer service area pursuant to the WQM Planning rules, portions of the WMP may be submitted for review and subsequent adoption, in phases in a sequential or other manner deemed timely or expedient by the Department.

This WMP includes for adoption those nitrate dilution analyses, which comply with N.J.A.C. 7:15-5.25(e)iv –v and proposed adjustments to the FWSA map. The nitrate dilution analyses were received and reviewed by the Department. The Department determined that some of the analyses did not meet the nitrate standard. Consequently, the analyses that did not comply with the standard were removed WMP and provided within Appendix "A" for reference. The analyses provided within Appendix "A" does not include an adjustment to the zoning in order to achieve consistency between zoning and the allowable number of additional equivalent dwelling units at build-out in the undeveloped and underdeveloped areas, therefore, they do not comply with N.J.A.C. 7:15-5.25(e)iv –v. However, as the analyses were required to be completed, they have been included in the Appendices to inform future planning efforts.

Alternative Assignment of Wastewater Management Planning Responsibility

As of the date of submittal, wastewater management planning responsibility for the full County remains with the County Board of Chosen Freeholders and no alternative assignments have occurred pursuant to NJAC 7:15-5.13.

The Salem County Board of Chosen Freeholders has coordinated with various municipalities and Consultants to obtain information for inclusion within the WMP. Sickels & Associates prepared the WMP utilizing the available documentation provided by these sources and prepared supplemental mapping, calculations and narratives in collaboration with the County of Salem. Any proposed revisions or amendments to this wastewater management plan shall be submitted to the County of Salem for review.

Status of Previous Approved Local and Regional WMPs Affected by the County WMP

The County WMP incorporates or replaces part or all of a variety of previously approved WMPs prepared by municipalities, wastewater authorities, or the county itself. The WQMP rule provides that any WMP previously approved by NJDEP may remain in force and effect until six (6) years from that approval date or until superseded by a subsequent WMP. In the County, the previously approved WMPs listed in Table 1-1 are still considered current, until the expiration date. However, adoption of this County WMP supersedes the Salem City, Alloway Township, and Quinton Township WMP. The County WMP incorporates the wastewater service areas and facility tables from these current WMPs.

A municipal chapter for Pennsville Township has been prepared for inclusion within the Salem County WMP. The information provided is for reference only and is based on the previously approved plan. The municipality has not made any revisions or amendments to the previously approved plan as a part of this submission of the Salem County Wastewater Management Plan.

Table 1-1. Current WMPs

WMP Planning Area	Municipality	Expires
Pennsville Sewerage Authority	Pennsville Township	June 30, 2016 (Incorporated upon adoption)
Salem, Alloway & Quinton WMP	Alloway Township, Portions of Mannington Twp and Elsinboro, Quinton Twp., and Salem City	June 30, 2016 (Superseded by this WMP)

In addition to the municipality listed above, this County WMP includes chapters for each municipality, except where the municipality and any relevant wastewater agency did not provide sufficient information to the County for preparation of its chapter. Development that relies on discharges to ground water of 2,000 gpd or less is allowed, but will be required to comply with relevant NJDEP rules including nitrate dilution analysis where the proposed development exceeds an aggregate greater than 2,000 gpd in projected flow or requires a NJDEP permit or approval subject to N.J.A.C. 7:15-4.

Overview of County

Salem County has a total of 15 municipalities. There aren't any discernable development patterns that can be generalized for the County as a whole, as each municipality has its own characteristics with regard to land use and development patterns. Some of the municipalities have been developed extensively in urban areas and other areas with higher population densities, which contain a mix of residential, commercial and industrial development. Whereas other portions of the County with lower population densities, are sparsely or largely undeveloped containing mostly agricultural and rural residential uses or small residential villages. Commercial development is generally located in close proximity to highways, state and county roadways and more easily accessible areas.

Table 1-2 below provides a summary of the geographical characteristics of each municipality within Salem County.

Table 1-2. Geography of County

Municipality	Municipal Area	Geography of Municipality * (census bureau)				Municipal Area
	(GIS Data)	Land	Land Area	Water	Water Area	(census data)
	(Acres) (*)	(Acres)	(Percent)	(Acres)	(Percent)	(Acres)
Alloway	21,703	20,992	98.9%	192	0.9%	21,229
Carneys Point	11,431	11,200	98.6%	192	1.7%	11,360
Elmer	585	576	102.3%	0	0.0%	563
Elsinboro	8,427	7,872	92.3%	704	8.3%	8,531
Lower Alloways Creek	30,801	18,048	59.0%	1,792	5.9%	30,602
Mannington	24,232	22,272	90.6%	2,304	9.4%	24,589
Oldmans	12,814	12,800	98.5%	192	1.5%	12,992
Penns Grove	583	576	96.8%	0	0.0%	595
Pennsville	15,901	14,784	95.5%	1,088	7.0%	15,475
Pilesgrove	23,524	22,336	99.6%	64	0.3%	22,415
Pittsgrove	29,273	28,928	98.4%	448	1.5%	29,395
Quinton	15,524	15,488	98.6%	256	1.6%	15,709
Salem	1,761	1,664	92.9%	128	7.1%	1,792
Upper Pittsgrove	25,844	25,856	99.9%	64	0.2%	25,894
Woodstown	1,034	1,036	100.0%	0	0.0%	1,036
Salem County	223,438	204,428	94.5%	7,424	3.4%	216,243

NOTE (*): GIS Mapping information utilized for municipal areas.

Overview of Current Wastewater Services and Wastewater Responsibilities

The County has identified a Future Wastewater Service Area (FWSA) intended to meet the goals and objectives of each municipal master plan. The current community wastewater systems serve approximately 9% percent of the total County area and 49% percent of the total County population, within the FWSA area reflected on Map No.3. Sewer service areas may include industrial businesses that discharge process wastewater to the collection system for treatment by a facility not owned by that business.

Salem County is primarily served by seven (7) wastewater treatment facilities, which are identified in Chapter 6 of this report. These facilities provide wastewater service to eleven (11) Municipalities. The capacity and associated flow for each municipality has been reviewed and summarized below with further details being provided within each municipal chapter. Existing sanitary sewer infrastructure within the currently served SSA has been identified and is located on Map No.2. There are no combined sewers within the County.

Table 1-3 below provides a summary of the estimated percentage of the FWSA being served by public community wastewater treatment facilities within each municipality as well as overall totals for Salem County.

Table 1-3. Percentage of County Served by FWSA

Municipality	Total Municipal Area (Acres)	FWSA (Acres)	Area within Municipality Served (% of county area)
Alloway	21,703	1,167	5.4%
Carneys Point	11,431	6,486	56.7%
Elmer	585	472	80.7%
Elsinboro	8,427	5	0.1%
Lower Alloways Creek	30,801	942	3.1%
Mannington	24,232	438	1.8%
Oldmans	12,814	1,980	15.5%
Penns Grove	583	583	100%
Pennsville	15,901	4,983	31.3%
Pilesgrove	23,524	257	1.1%
Pittsgrove	29,273	444	1.5%
Quinton	15,524	477	3.1%
Salem	1,761	1,212	68.8%
Upper Pittsgrove	25,844	63	0.2%
Woodstown	1,034	970	93.8%
Salem County	223,438	20,476	9.2%

Table 1-4 below provides a summary of the estimated number of persons being serviced by public community wastewater treatment facilities within each municipality as well as overall totals for Salem County.

Table 1-4. Estimates # of Persons Served by Sanitary Sewer

Municipality	2010 US Census Municipality Population	Persons Served with Sanitary Sewer	Persons Served with Sewer (% of Munic.)	Persons Served with Sewer (% of County)
Alloway	3,467	684	19.73%	1.04%
Carneys Point	8,049	5,296	65.80%	8.01%
Elmer	1,395	0	0.00%	0.00%
Elsinboro	1,036	14	1.35%	0.02%
Lower Alloways Creek	1,770	624	35.25%	0.94%
Mannington	1,806	159	8.8%	0.24%
Oldmans	1,773	300	16.92%	0.45%
Penns Grove	5,147	5,147	100.00	7.79%
Pennsville	13,409	10,867	81.04%	16.44%
Pilesgrove	4,016	125	3.11%	0.19%
Pittsgrove	9,393	0	0.00%	0.00%
Quinton	2,666	673	25.24%	1.02%
Salem	5,146	5,146	100.00%	7.79%
Upper Pittsgrove	3,505	0	0.00%	0.00%
Woodstown	3,505	3,505	100.00%	5.30%
Salem County	66,083	32,540		49.24%

Note: Data regarding the estimated population served by water / sewer was obtain from the utilities as well as DEP online sources.

Overview of Current Water Services and Water Supply Responsibilities

The current community water supply systems, located within the County FWSA, serve approximately 9% percent of the total County area and 54% percent of the total County population. Salem County is primarily served by five (5) water supply facilities, which are identified in Chapter 7 of this report. These facilities provide potable water to fourteen (14) municipalities. The capacity and associated demand for each municipality has been reviewed and summarized below with further details being provided within each municipal chapter. Existing water supply infrastructure within the currently served SSA has been identified and is located on Map No. 1.

Table 1-5 below provides a summary of the estimated number of persons being serviced by public community waster supply systems within each municipality as well as overall totals for Salem County.

Table 1-5. Estimates # of Persons Served by Potable Water

Municipality	2010 US Census Municipality Population	Persons Served with Potable Water	Persons Served with Water (% of Munic.)	Persons Served with Water (% of County)
Alloway	3,467	0	0.00%	0.00%
Carneys Point	8,049	5,143	63.90%	7.78%
Elmer	1,395	1,395	100.00%	2.11%
Elsinboro	1,036	14	1.35%	0.02%
Lower Alloways Creek	1,770	75	4.24%	0.11%
Mannington	1,806	159	8.8%	0.24%
Oldmans	1,773	1,238	69.83%	1.87%
Penns Grove	5,147	5,147	100.00%	7.79%
Pennsville	13,409	11,188	83.44%	16.93%
Pilesgrove	4,016	125	3.11%	0.19%
Pittsgrove	9,393	1,852	19.72%	2.80%
Quinton	2,666	368	13.80%	0.56%
Salem	5,146	5,146	100.00%	7.79%
Upper Pittsgrove	3,505	506	14.44%	0.77%
Woodstown	3,505	3,505	100.00%	5.30%
Salem County	66,083	36,268		54.88%

Note: Data regarding the estimated population served by water / sewer was obtain from the utilities as well as DEP online sources.

Overview of Major Environmental, Regional and Local Considerations to Wastewater Services

Wastewater Management Planning is part of the continuing planning process required by the New Jersey Water Quality Planning Act (N.J.S.A. 58:11A-1 et seq.) and Section 208 of the federal Clean Water Act. The intent of the continuing planning process is to align federal, State, regional and local land use planning to ensure that these land use plans do not conflict with each other.

The provision of environmental infrastructure, in particular centralized sewer service, has a profound influence on development patterns and intensity. The wastewater management planning process is intended to assign an appropriate wastewater management treatment alternative to geographic areas based on environmental sensitivity and other land use planning objectives such as regional center-based development or farmland preservation. The extension of public sewers into areas designated for protection by federal, State, regional or local land use plans would be inconsistent with those protection objectives.

The adopted Water Quality Management Planning Rules (N.J.A.C. 7:15) generally exclude the extension of sewer service into large contiguous areas, defined as 25 acres or more, of wetlands, category one water buffers, Natural Heritage Priority Sites and/or endangered and threatened species

habitat. The extension of sewer service into these areas would encourage their development and thus conflict with the Department of Environmental Protection's statutory mandate to protect these resources.

It should be noted that under limited circumstances environmentally sensitive areas that meet the 25 acre threshold may be included in the sewer service area as necessary to preserve the investment in projects having already received certain local and State approvals, to relate sewer service areas to recognizable geographic features, or to accomplish center based development proposed by the local land use planning authority and approved by the Department of Environmental Protection for areas that have received plan endorsement from the state planning commission.

Additional regional and local land use planning objectives used in delineating appropriate areas for public sewer service are discussed in each of the municipal chapters of this WMP.

Overview of Major Water Resource Management Issues

Water purveyors who currently own and operate public community water supply systems within the County are identified in chapter 8. A depletive/consumptive water use analysis was prepared to determine if there is sufficient potable water supply to serve the projected development of each municipality within the FWSA. The FWSA potable water build-out analysis results indicate that a few of the water purveyors do not currently have sufficient water allocation to support future wastewater demands projected by the plan. These deficits in water allocation are more clearly defined in chapter 8.

The Township of Elsinboro has identified areas of existing development that are believed to have failing septic systems. Pursuant to 7:15-3.5(b)4.ix, a revision to an adopted SSA is allowed to provide for connection of an existing structure(s) with a malfunctioning subsurface sewage disposal system that is not currently within an approved sewer service area to an identified sewage treatment plant, provided the applicant demonstrates that it is not feasible to repair or replace the malfunctioning subsurface sewage disposal system under N.J.A.C. 7:9A-3.4 and the property where the existing structure is located is contiguous to the existing sewer line. In addition, upon review of these areas with the Department, the areas under consideration are within the coastal zone and regulated by CAFRA. Consequently, these areas have not been included as part of the FWSA at this time. The County is prepared to assist the Township with the regulatory issues presented by the CAFRA jurisdiction. The Township will pursue an approved SSA, through the amendment process, upon working through the regulatory planning approval process.

The County and the Township are currently working with the Department to identify documentation and reporting requirements necessary to substantiate the inclusion of these areas within the FWSA through the amendment process.

Other than the issues indicated above, the municipalities have not identified any additional issues regarding water quality or concerns with non-sewered areas**.**

Overview of Future Wastewater Services and Responsibilities

The County of Salem has identified the future wastewater service area necessary to implement the current goals and objectives of the municipalities Master Plan. Those areas have been reduced to account for the environmental constraints pertaining to wetlands, the habitats of Threatened and Endangered Species, Riparian Corridors, and C-1 Waters.

The FWSA delineated on Map No.3 consists of the existing sewer service area currently being served by wastewater facilities and developable areas identified for future sewer service, by each municipality. The remaining areas, not designated as a sewer service area will continue to be serviced by Individual Subsurface Sewerage Disposal Systems (ISSDS's) with wastewater flows less than or equal to 2,000 gpd.

Maps No. 2 and No. 3 identify areas presently served by public sewers and the appropriate areas to be served by public sewers in the future, based on the environmental, regional and local land use planning objectives discussed above and the areas that are currently built but do not currently have adequate wastewater treatment. These maps also identify sites that are served by an on-site treatment works that is regulated under a New Jersey Pollutant Discharge Elimination System permit (NJPDES). Each sewer service area is keyed to a specific sewage treatment plant which is the facility authorized under this plan to accept and treat wastewater from that sewer service area. Each sewage treatment plant identified in this plan has an accompanying facility table that provides information concerning that facility's owner, operator, permitted flow, existing flow, remaining permitted flow, projected build-out flow summarized by municipality.

Based on the build-out analysis of each sewer service area and the existing permitted capacity of the sewage treatment plants identified in this plan, future expansion of the current treatment works or identification of an alternative treatment facility will be required to meet the future wastewater generation needs for a few of the municipalities. Information regarding future wastewater projects and associated capacity is further defined in Chapter 6 of this document.

Summary of Significant Actions

Service Area Changes:

Amendments to the Water Quality Management Planning Rules adopted on July 7, 2008, 40 N.J.R. 4000(a), necessitated a modification to certain sewer service areas based on environmental sensitivity and local planning objectives as described in this document. In accordance with the regulatory requirements, undeveloped lands within the existing sewer service area have been removed based on the limits of environmental constrained areas. In addition, areas have been added based on local planning objectives. Maps No.2 and No.3 reflect the changes in sewer service area as a result of this wastewater management plan. Table 1-6 below provides a summary of the areas removed and/or added to the sewer service area within each municipality as well as overall totals for Salem County.

Pittsgrove Township has identified specific sites for use by Atlantic City Electric (Pepco). The location of the site is in a development corridor and in need of redevelopment. This site was selected by Atlantic City Electric after a rigorous site alternatives analysis. A pre-application was held with the Department to discuss the intended use of the facility and its inclusion within the FWSA. The proposed site is intended to be an operational facility for line operators and will serve as a staging area during major storm events.

Table 1-6. Summary of WMP Area Adjustments (*)			
Municipality	**SSA Area Removed (Acres)**	**SSA Area Added (Acres)**	**SSA Overall Area Adjustment (Acres)**
Alloway	136.4	52.1	-84.3
Carneys Point	3,211.3	583.6	-2,627.7
Elmer	13.5	471.6	458.1
Elsinboro	0.0	4.4	0.0
Lower Alloways Creek	221.7	434.6	212.9
Mannington	1.5	225.5	224.0
Oldmans	56.6	2,296.1	2,239.5
Penns Grove	0.0	2.5	2.5
Pennsville	0.0	0.0	0.0
Pilesgrove	1.2	221.1	219.9
Pittsgrove (**)	1.1	354.8	353.7
Quinton	257.7	30.1	-227.6
Salem	421.4	1.5	-419.9
Upper Pittsgrove	1.5	42.7	41.2
Woodstown	234.8	10.1	-224.7
Salem County	4,559	4,731	168

(*) This table reflects the changes from the previously adopted SSA in Salem County to the Salem County FWSA map adopted on September 19, 2013.
(**) "This WMP adds 145.2 acres of SSA to the currently adopted Salem County FWSA map for the PEPCO development"

All areas not proposed to be included in the FWSA sewer service areas in this WMP will be served by ISSDS's with 2,000 gpd or less flows.

The City of Salem is currently designated as a regional center with the Borough's of Woodstown and Elmer being designated as a town center according to the Office of Planning Advocacy website. No other municipalities have submitted for plan endorsement.

New or Expanded Wastewater Facilities:
Based on the FWSA sanitary build-out projections identified in Chapter 6, expansion of the existing treatment works or identification / construction of an alternative treatment facility will be required to meet the future wastewater generation needs of Carneys Point Township, Oldmans Township and the Borough of Elmer.

Pittsgrove Township has identified specific sites for use by Atlantic City Electric (Pepco), as indicated above. The identified Atlantic City Electric area will be proposing an onsite sewerage treatment plant to meet the needs of the warehouse / operational facility.

II. Existing Infrastructure and Demographic Information

This section addresses wastewater treatment facilities utilized by development within the County, whether the treatment works itself is located within or outside of the County.

Existing Areas Served by Wastewater Facilities

Map No.2 shows the areas actively served by existing wastewater facilities, and the tables in Section VII provide detailed information on each facility. "Actively served" means that the collection lines exist and that the property either is connected or has all regulatory approvals necessary to be connected.

The existing sewer service limits associated with each wastewater treatment facility are delineated on Map No.2. These areas were derived from existing sanitary sewer infrastructure currently constructed and/or approved. Mapping for the systems was provided by the municipality or prepared from available prints. The County consulted with staff from the wastewater treatment facility in an effort to verify the extent of the areas currently being served.

Sewer service areas may include industrial businesses that discharge process and/or sanitary wastewater to the collection system for treatment by a facility not owned by that business

Existing Public Wastewater Treatment Works

Table 2-1 lists the major domestic wastewater treatment facilities and the municipality or municipalities they serve. The wastewater districts, franchise areas and sewer service area and the associated treatment works, are depicted on Map No. 1.

Table 2-1. Wastewater Districts, Franchise Areas and Municipalities Served

Wastewater Utility	Municipalities Served
Carneys Point Sewerage Authority	Carneys Point and Oldmans Townships
Canton Village WWTP	Lower Alloways Creek Township (LAC)
Hancocks Bridge WWTP	Lower Alloways Creek Township (LAC)
Penns Grove Sewer Authority	Penns Grove Borough
Pennsville Sewerage Authority	Pennsville Township
Salem City Sewer & Water Utility	Salem City, Mannington Township, Elsinboro, Quinton & Alloway Townships
Woodstown Sewer Authority	Woodstown Borough, Pilesgrove & Mannington Townships
E.I. DuPont	DuPont Chambers Works
Energy Freedom Pioneers	Industrial Park, Oldmans Township
PSE&G	Salem NGS and Hope Creek NGS (LAC)

Major Transmission Piping and Pumping Stations

Map 2 shows the major interceptors, trunk lines and pumping stations within the various sewer service areas for public wastewater treatment facilities. There are currently no known issues regarding the restriction of flows that may preclude a wastewater treatment facilities ability to satisfy current permitted flow thresholds.

Existing On-site, Non-industrial Wastewater Facilities

These facilities serve single developments, sites or other properties under single ownership, but do not treat industrial flows. These facilities typically provide wastewater treatment for apartment complexes, commercial properties and businesses where regional sewerage is not available. Facility tables for all existing on-site, non-industrial treatment facilities that discharge to surface water or that discharge more than 2,000 gallons per day to ground water of domestic wastewater and are regulated under a NJPDES permit can be found in Section VII

Existing Industrial Treatment Works for Process Wastes and Sanitary Sewage

Some industrial land uses have independent wastewater treatment facilities that treat and discharge manufacturing process waste and/or sanitary sewage They may be discharged to ground water or to surface water. Facility tables for all existing industrial treatment works that discharge to surface water or that discharge more than 2,000 gallons per day to ground water of process or sanitary wastewater and are regulated under a NJPDES permit can be found in Section VII.

Wastewater Management Areas for Septic Systems and Other Small Treatment Works Not Discharging to Surface Waters

Remaining areas of the County, not otherwise identified as existing service areas for treatment facilities requiring a NJPDES permit, are included within a general wastewater management area for septic systems and other small treatment works that treat 2,000 gallons per day or less of wastewater and discharge to ground water.

Existing Areas Served by Public Water Supply Facilities

Map No.1 shows the areas actively served by existing public water supply facilities. On-site and private facilities are addressed within the municipal chapters. As with sewer service, “actively served” means that the distribution lines exist and that the property either is connected or has all regulatory approvals necessary to be connected with no further review.

The water service areas identified on Map No.1 were derived from existing potable water infrastructure currently constructed and/or approved. Mapping for the systems was provided by the water purveyor or prepared from available prints. The County consulted with staff from the water supplier in an effort to verify the extent of the areas currently being served.

Table 2-2 lists the public community water supply facilities and the municipality or municipalities they serve. The districts and franchise areas are depicted on Map No.1.

Table 2-2. Water Supply Districts, Franchise Areas and Municipalities Served	
Water Supply Utility	**Municipalities Served**
Elmer Water Department	Borough of Elmer
Pennsville Water Department	Pennsville Township
Salem City Water Department	Salem City, Mannington Township, Elsinboro & Quinton Townships
Woodstown Water Department	Woodstown Borough, Pilesgrove & Mannington Townships
New Jersey American Water	Carneys Point and Oldmans Townships, Borough of Penns Grove

III. Environmental and Other Land Features

This section includes a description and mapping of environmental features and public open space for the County. These features are significant to wastewater management planning for three reasons: they may influence the delineation of sewer service areas, they may reduce the potential future wastewater generation due to existing regulatory programs, or they may be subject to federal grant limitations that prohibit the extension of sewer service into these areas. Some of this mapping has been used in the development of a map of environmentally sensitive areas where the extension of sewer service areas is restricted (see Delineation of Sewer Service Areas, below).

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 information described below with regard to the mapping of sewer service areas and Environmentally Sensitive Areas was obtained from various sources. Table 3-1 below highlights the information and sources used to delineate environmentally constrained areas

Surface Waters and Classifications - Map No.5A shows the surface waters (FW2NTC1/SE1 and FW2NT/SE1) as mapped by NJDEP based on 1995/97 aerial photography. This was the most current mapping of surface waters for which surface water quality standards classifications were available. Information with regard to the number of miles of streams, along with the area of ponds, lakes are included within each municipal chapter.

Riparian Zones - Map No.5C shows riparian zones or buffers that are established along all surface waters under the following of regulations: Flood Hazard Area Control Act Rules, the Highlands Water Protection and Planning Act Rules, the Stormwater Management Rules, and the Water Quality Management Planning Rules and through municipal ordinances. FW1 waters are nondegradation waters in which no change from natural quality shall be allowed. Category One (C-1) waters, their tributaries and all Highlands waters are afforded a 300-foot buffer. The riparian zone adjacent to trout production waters and all upstream waters, including tributaries, is 150-feet. The riparian zone adjacent to trout maintenance waters and those that contain documented habitat for threatened and endangered species (that are not C-1 waters), which is critically dependent on the water body for survival and upstream tributaries within one mile is 150-feet. The riparian zone of a segment of water flowing through acid producing soils is 150 feet. The riparian zone adjacent to all other surface waters is 50-feet. These regulatory programs limit most development within these riparian zones.

Surface waters that are designated Category One are listed in the Surface Water Quality Standards at N.J.A.C. 7:9B. The Department's "Surface Water Quality Standards" GIS data layer was utilized to determine these waters. The applicable 300-foot buffer has been applied to these waterways and removed from the proposed sewer service areas on the mapping. Lesser width buffers have not been graphically removed from the sewer service area but are not proposed for sewer service and have been removed during the build-out analysis.

Flood Prone Areas – Map No.5A shows the flood prone areas as mapped by NJDEP based on a combination of FEMA, NJDEP and aerial photography data. These areas may be subject to federal 201 grant limitations that prohibit the extension of sewers to serve development in these areas.

Wild and Scenic Rivers and Corridors –There aren't any wild and scenic rivers in the County.

Freshwater Wetlands -- Freshwater wetlands as mapped by the NJDEP are shown in Map No.5B. Freshwater Wetlands are regulated under the Freshwater Wetlands Protection Act Rules, which place stringent limits on development within these areas.

Coastal Wetlands – Maps No.5A and 5B shows the extent of wetlands regulated under the Wetlands Act of 1970. This regulatory program and the Rules on Coastal Zone Management significantly restrict the development potential of these areas.

Public Open Space and Recreation Areas – Map No.5B shows the land areas currently protected from development as public open space, and also shows other recreational areas that are owned and operated by land trusts, non-profit associations, and for-profit recreational businesses. Such properties are limited to those of 10 acres or more in size for mapping clarity. These areas are not expected to support additional development. Where future facilities may be developed on open space they are noted in the appropriate municipal chapter. While smaller dedicated open spaces may exist, they do not have a significant effect on the delineation of wastewater service areas or the future generation of wastewater flow.

Preserved Agricultural Areas and Other Conservation Easements on Private Lands –Map No.5C shows the land areas currently protected from development as agricultural lands from which the development rights have been retired by purchase, donation, lot size averaging, open space or conservation development, non-contiguous transfer of development credits, or Transfer of Development Rights, to the extent that data are available. These areas are not anticipated to support significant additional wastewater generating development.

Suitable Habitat for Threatened and Endangered Species – Map No.5B and 5C shows the areas identified by the NJDEP as being suitable habitat for threatened and endangered species, Ranks 3, 4 and 5, through the Landscape Project Version 2.1. Four of the five available habitat types were used – forests, forested wetlands, emergent wetlands and grasslands. The coastal beaches and dunes habitat type is not applicable to the County. In addition, the bald eagle foraging and the wood turtle habitat mapping were used as a species-specific mapped products under Rank 5 and Rank 3, respectively. Based on guidance from NJDEP, urban peregrine falcon habitat mapping was not used. The County has not verified the mapping of these areas. This mapping was primarily used in the delineation of sewer service areas as described in the next section.

Natural Heritage Priority Sites – Map No.5C shows the natural heritage priority sites mapped by NJDEP as of the date of this WMP. This mapping was primarily used in the delineation of sewer service areas as described in the next section.

Table 3-1: Information Sources for Environmentally Constrained Areas

Category	Source	Source Location	Original Date	Date Last Revised
Wetlands	NJDEP	www.state.nj.us/dep/gis	11/9/99	
Floodplains	FEMA	www.msc.fema.gov/webmap/	1/9/03	
Stream Corridors	NJDEP	www.state.nj.us/dep/gis	8/1/08	12/1/10
Threatened & Endangered	NJDEP	www.njfishandwildlife.co	11/1/09	2/13/09
Parks, Preserves, & Open Space	Green Acres Recreation	www.state.nj.us/dep/gis	2/13/09	
Preserved Agricultural Lands	NJ SADC	www.nj.gov/agriculture/sa	1/25/11	
Surface Water Quality Standards	NJDEP	www.state.nj.us/dep/gis	10/1/07	1/19/11
National Heritage Priority Sites	NJDEP	www.state.nj.us/dep/gis	2/13/09	

IV. Delineation of Sewer Service Areas and Planning Integration

The WQMP rules at NJAC 7:15-5.22 require coordination with and solicitation of comments or consent from certain agencies, entities and plans, and consistency with other plans. This section addresses those requirements. This chapter provides the method used to delineate future sewer service areas based on the mapping of significant environmentally sensitive areas, and consistency with other regional plans.

Environmentally Sensitive Areas

Under the Water Quality Management Planning Rules, large contiguous environmentally sensitive areas, generally defined as 25 acres or greater in size should be excluded from sewer service areas except under certain circumstances such as providing service to development that has already secured prior approvals or center based development approved by the Department of Environmental Protection through the Plan Endorsement process. This analysis was performed using the following process:

1. Identify areas (to the extent that GIS interpretations are available) where pre-existing grant conditions and requirements (from Federal and State grants or loans for sewerage facilities) provide for restriction of sewer service to environmentally sensitive areas, and then delete areas (if any) where a map revision or grant waiver has been approved by USEPA. Note: 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.

2. Merge the GIS layers for wetlands, Category One riparian zones, Natural Heritage Priority Sites, and Threatened and Endangered Species habitats, and any others used by the County areas into a single composite GIS coverage.

3. Identify and delete any composite areas less than 25 acres in size from the map of environmentally constrained areas. The resulting map shows the final environmentally sensitive areas, which is used to eliminate the potential for sewer service areas except where sewer service already exists, or exceptions are allowed for infill development or approved endorsed plans. It is noted for public information purposes that the excluded areas will be protected through other NJDEP regulatory programs such as the Flood Hazard Area Control Act and Freshwater Wetlands Act rules, and may be protected by municipal ordinances as well.

4. In accordance with NJAC 7:15-5.24(c), lands within Coastal Fringe, Coastal Rural, and Coastal Environmentally Sensitive Planning Areas are not included in the adopted SSA, with some exceptions. Areas previously designated as SSA, where wastewater collection infrastructure currently exists and where sewerage producing structures are connected to the system, remain in the SSA. In previously designated SSA, the SSA designations remain limited instances where the lots are considered infill development or to remove undulations in the FWSA boundary as necessary to create a linear boundary that relates to recognizable geographic features in accordance with NJAC 7:15-5.20(b)2.

Sewer Service Areas in Environmentally Sensitive Areas

The WQMP rules allow for inclusion of environmentally sensitive areas under limited conditions. The following modifications were considered for the County WMP:

Where a development has secured approval under the Municipal Land Use Law and possesses a valid wastewater approval, the site may be included in the sewer service area if consistent with that valid wastewater approval. This information was gathered in consultation with municipalities. The general locations of these developments would be indicated on Map #3 and keyed to a list of qualifying developments.

Where a project has an approved site-specific water quality management plan and wastewater management plan amendment from the Department the project may be included in the wastewater management plan consistent with that approved site specific amendment for a period of six years from the date the amendment was adopted. The general locations of these developments would be indicated on Map #3 and are keyed to a list of qualifying developments in each municipal chapter. However, there hasn't been any site specific amendments identified at this time.

Where environmentally sensitive areas are bordered on either side by areas with existing sewer service, and where the infill development would generate 2,000 gpd or less of sewage based on existing zoning and where the area to be included does not include habitat critical to the recovery potential or the survival of a local population of an endangered or threatened species.

Where sewer service is necessary to support for center based development under an "endorsed plan" (through the State Planning Commission relative to the State Development and Redevelopment Plan) and would not remove habitat critical to endangered or threatened species. Where such modifications have been made, they are noted in the individual municipal chapters.

Where necessary to create a linear boundary that related to recognizable geographic features and would not remove habitat critical to the recovery potential or the survival of a local population of an endangered or threatened species.

Exceptions to the Use of Geographic or Political Boundaries

The FWSA boundary was derived from existing sanitary sewer infrastructure currently constructed or approved, municipal zoning delineations and collaboration with the DEP regarding environmentally constrained areas. These boundaries generally hold tightly to the geographical boundary of the municipality.

Coastal Zone Management

New Jersey's coastal zone has been established pursuant to the federal Coastal Zone Management Act of 1972 and was federally approved in 1978. The Rules on Coastal Zone Management (N.J.A.C. 7:7E) establish the substantive rules of the Department of Environmental Protection regarding the use and development of coastal resources. These rules provide the basic policy direction for planning actions undertaken by the Department of Environmental Protection in the Coastal Zone as per section 306 of the federal Coastal Zone Management Act. Planning decisions affecting New Jersey's coastal zone under the New Jersey Water Quality Planning Act and section 208 of the federal Clean Water Act must be consistent with the New Jersey's coastal zone management program.

The Rules on Coastal Zone Management include identification of 48 Special Areas requiring special management consideration. In addition to the four environmental features previously identified, the Rules on Coastal Zone Management generally prohibit development on beaches, dunes and in coastal high hazard areas. These areas have also been excluded from sewer service under this wastewater management plan because providing centralized sewer service would encourage a development pattern inconsistent with the environmental sensitivity, recreational importance, and risk to life and property in these areas.

The Rules on Coastal Zone Management further define planning areas within the coastal zone designed to shape future development patterns along the coast. Among the five coastal planning areas the Coastal Fringe, Coastal Rural and Coastal Environmentally Sensitive Planning Areas are identified as areas to encourage growth in compact centers and to maintain low density and low intensity development outside of those centers. The extension of centralized sewer service in these planning areas is inconsistent with the growth and protection objectives of New Jersey's Costal Zone Management program and therefore, these coastal planning areas have been excluded from sewer service areas.

Proposed developments tying into existing and proposed sewer service areas which require coastal permits must demonstrate compliance with all applicable sections of the Coastal Zone Management rules including, but not limited to, Wetlands (N.J.A.C. 7:7E-3.27), Wetlands Buffers (N.J.A.C. 7:7E-3.38), Secondary Impacts (N.J.A.C. 7:7E-6.3), Public Facility Use Policies (N.J.A.C 7:7E-7.6), Water Quality (N.J.A.C. 7:7E-8.4), Ground Water Use (N.J.A.C. 7:7E-8.6) and the policies under General Land Areas rules, Subchapters 5, 5A and 5B.

Coordination with the Coastal Zone Management Program (if applicable)

The Township of Elsinboro has identified areas of existing development that are believed to have failing septic systems. Pursuant to 7:15-3.5(b)4.ix, a revision to an adopted SSA is allowed to provide for connection of an existing structure(s) with a malfunctioning subsurface sewage disposal system that is not currently within an approved sewer service area to an identified sewage treatment plant, provided the applicant demonstrates that it is not feasible to repair or replace the malfunctioning subsurface sewage disposal system under N.J.A.C. 7:9A-3.4 and the property where the existing structure is located is contiguous to the existing sewer line. In addition, upon review of these areas with the Department, the areas under consideration are within the coastal zone and regulated by CAFRA. Consequently, these areas have not been included as part of the FWSA at this time. The County is prepared to assist the Township with the regulatory issues presented by the CAFRA jurisdiction. The Township will pursue an approved SSA, through the amendment process, upon working through the regulatory planning approval process.

The County and the Township are currently working with the Department to identify documentation and reporting requirements necessary to substantiate the inclusion of these areas within the FWSA through the amendment process.

Delaware River Basin Commission

The Delaware River Basin Commission regulates the discharge of pollutants into, and the withdrawal of water from, the Delaware River Basin; therefore, wastewater and water supply decisions affecting the Delaware River Basin must be coordinated with the Commission.

Coordination with the Delaware River Basin Commission

Through the WMP process, Salem County has provided public notice of the FWSA map adoption to the DRBC.

Coordination with Municipalities, Sewer Authorities and Water Utilities

Table 4-1 identifies the municipalities, wastewater and water utilities that have been consulted during the preparation of the County WMP. The County generally consulted with various municipalities and utilities through the process by phone, email and/or meetings. Meetings were held with applicable municipalities to discuss the FWSA to be delineated and present preliminary comments provided from the Department. In addition, municipal staff or designated professional were consulted to verify existing system information, further define areas currently served and areas to be served in the future as well as water and sewer buildout analysis. Notices for public information sessions and the adoption of the FWSA mapping were also provided by the County.

Table 4-1: Municipalities and Utilities Contacted During WMP Process

Municipality	Wastewater Utilities	Water Supply Utilities
Alloway Township	Salem City Sewer Department	Salem City Water Department
Carneys Point Township	Carneys Point Sewerage Authority	New Jersey American Water
Elmer Borough		Elmer Water Department
Elsinboro Township	Salem City Sewer Department	Salem City Water Department
Lower Alloways Creek Township	Lower Alloways Creek Township	
Mannington Township	Salem City Sewer Department	Salem City Water Department
Oldmans Township	Carneys Point Sewerage Authority	New Jersey American Water
Penns Grove Borough	Penns Grove Sewer Authority	New Jersey American Water
Pennsville Township	Pennsville Sewerage Authority	Pennsville Water Department
Pilesgrove Township	Woodstown Sewer Authority (WSA)	Woodstown Water Department
Pittsgrove Township		
Quinton Township	Salem City Sewer Department	Salem City Water Department
Salem City	Salem City Sewer Department	Salem City Water Department
Upper Pittsgrove Township		
Woodstown Borough	Woodstown Sewer Authority (WSA)	Woodstown Water Department

Proposed Wastewater Service Areas

Map No.3 delineates the Future Wastewater Service Areas for the County WMP, based on the following:

Existing or previously approved WMPs, that have been incorporated into this WMP;

Environmental, and local land use planning objectives discussed within this report and further clarified within the municipal chapters prepared as part of this WMP.

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.

The remaining areas, not designated as a sewer service area will continue to be serviced by Individual Subsurface Sewerage Disposal Systems (ISSDS's) with wastewater flows less than or equal to 2,000 gpd.

V. Future County Wastewater and Water Demand

This chapter describes the build-out methodology used to project future wastewater treatment demand for future sewer service areas and general wastewater management service areas within the County WMP.

In general, zoning, as described below, was applied to the developable area within the sewer service area after removing those areas where development is not expected to occur: These areas consist of small irregular polygons, open space, wetlands, steep slopes and riparian zones. All projected flows were separated into residential, commercial, and industrial components. Total projected build-out flow for residential, commercial and industrial development was determined based on the available developable land and current zoning ordinances for the municipality within areas proposed as the future sewer service area.

For example, single-family residential development is assumed to consist of houses having three or more bedrooms per house, and each projected new house is multiplied by 300 gallons per day to predict the future wastewater generated. For non-residential land uses the anticipated floor area is multiplied by 0.1 gallon per day to predict future wastewater generation. The specific criteria utilized for build-out flow calculations are more clearly defined in each municipal chapter.

The build-out in the non-sewer service area was calculated by applying the zoning over all undeveloped land except polygons too small to support additional development**.** The number of residential units and non-residential floor area were then multiplied by the wastewater planning flow estimates in either N.J.A.C. 7:14A or 7:9A as appropriate.

The build-out method used for the wastewater demand was also used to predict future water supply demand, except that the flow multiplier used to predict future water supply demand is slightly higher than that used for wastewater demand. This takes water uses that do not produce sewerage flow, e.g. watering plants, into account. The results of the analysis are presented in both the municipal chapters and in the facility tables.

Conformance and Nonconformance with Zoning and Prior Land Use Approvals

Where the WMP build-out deviates from either current zoning or prior land use approvals, such deviation and the reasons for the deviation are explained in the affected municipal chapter(s). No deviations from current zoning have been identified for inclusion within the WMP.

Municipal Zoning

The County has collected all available information on municipal zoning using digital sources. A composite zoning map for the County has not been developed because municipal zoning ordinances are not uniform in their nomenclature or definitions. Consequently, zoning information provided is specific for each municipality and is referenced in the municipal chapters. The zoning information presented within the municipal chapters was utilized for identifying “SSA developable area” for each applicable municipality and the preparation of the build-out analyses.

"SSA Developable Area" includes both undeveloped and underdeveloped parcels within the proposed sewer service area. "Undeveloped" parcels are those where no development exists and the land has not been restricted from development through dedicated open space or agricultural preservation programs. "Underdeveloped" parcels are those where some level of development exists, but at a density less than allowed by zoning and where deed restrictions do not prevent further development.

Calculating Future Wastewater and Water Supply Needs and Capacity

Using the Countywide information provided above regarding existing wastewater and water supply facilities, sewer service area delineation, environmentally sensitive areas, and municipal zoning to project build-out or 20 year growth projections for the listed urban municipalities, an analysis of wastewater and water supply demands was performed to determine whether existing infrastructure capacity or zoning is the constraining factor.

There are two methods used for projecting future wastewater management needs: a 20-year projection for urban municipalities or a build out based on existing zoning for non-urban municipalities.

Municipal Demand Projections in Urban Municipalities

The Water Quality Management Planning rules define urban municipalities as those municipalities where 90 percent of the municipality's developable land area appears as "Urban" as designated in the NJDEP's 1995/97 and 2002 Lands Use/Land Cover geographical information systems database. The Department allows that areas such as water and permanently deed restricted open space not be included as developable. **Table 5-1** lists the municipalities that meet NJDEP's definition of urbanized municipality. In these municipalities it is assumed that redevelopment of previously developed portions of the municipality will make up the majority of the future wastewater management needs. Therefore, an application of zoning to the undeveloped and developable land area of the municipality in these municipalities may underestimate their future wastewater management needs. In these municipalities a 20-year wastewater projection is based on population and employment projections

Table 5-1. Determination of Urbanized Municipalities

Municipality	% Urban	% Preserved	% Developable	Urbanized? Yes/No
Penns Grove Borough	96%	2%	2%	Yes

The Borough of Penns Grove is an urban-based municipality bounded by the Delaware River (to the west), and Carneys Point Township (to the north, east, and south). Penns Grove encompasses a total area of 583 acres (0.91 square miles). This municipality has been developed extensively and has the highest population density in Salem County (approximately 5,654 people/sq mi), according to (2010) U.S. Census data.

Future wastewater is calculated from the population and employment projections by multiplying the projected increase in population by 75 gallons per day per person and the projected increase in employment by 25 gallons per day per person. Penns Grove Borough's population and employment 20-year projection was taken from an estimate made by the South Jersey Transportation Planning Organization (SJTPO), which employed data from historical U.S. Censuses. Further information regarding population data is provided within the municipal chapters.

Table 5-2 provides an analysis of the population projection for the listed urban municipalities through the next 20 years. The flows contributed from residential, commercial, and industrial production are expected to remain stable.

Table 5-2. Urban Municipalities 20 Year Population, Employment and Wastewater Flow Projections						
Municipality		Current (2010)	20 Years (2030)	Projected Flows		% Change
				# of People	Flow (mgd)	
Penns Grove Borough	Population	5147	5776	629	0.047	12.22
	Employment	1119	1295	176	0.004	15.73
	Flow (mgd)	0.405	0.457		0.052	12.73

Municipal Demand Projections in Non-urban Municipalities

In the remaining municipalities it is anticipated that development of vacant land will be the predominant factor in determining future wastewater treatment needs. Further, because external market and economic forces, such as interest rates, are a dominant factor in determining the rate of construction, this analysis assesses the ability to provide wastewater treatment while protecting surface and ground water quality for the entire projected build-out allowable by zoning. There are two separate methods employed for calculating future wastewater generation at build-out depending on the wastewater service area designation.

Future Wastewater from Non-Urban Municipalities' Sewer Service Areas

In designated sewer service areas the following features have been removed prior to the application of zoning to the undeveloped land area because they are unlikely to generate wastewater in the future: wetlands, riparian zones, permanently preserved farmland, permanently preserved open space, steep slopes, floodplains, and cemeteries. The existing zoning is then applied to the remaining developable land area within the sewer service area(s) to project a build out condition for use in estimating the future wastewater management needs of each sewer service area. A summary of the build-out analysis for each municipality is presented in the municipal chapters. The build-out data is then converted to a projected future wastewater flow by applying the planning flow criteria from N.J.A.C. 7:14A based on the type of development projected.

For example, single-family residential development is assumed to consist of houses having three or more bedrooms per house, and each projected new house is multiplied by 300 gallons per day to predict the future wastewater generated. For non-residential land uses the anticipated floor area is multiplied by 0 .1 gallon per day to predict future wastewater generation.

The projected wastewater data is also aggregated by wastewater treatment plant in chapter VI and presented in facility tables in chapter VII for comparison to the existing permitted capacity of each facility.

Table 5-3 provides a breakdown of the acreage of land available for development (i.e., either undeveloped or underdeveloped, and not constrained due to environmentally sensitive areas) within each general zone of the municipality, based on the FWSA build-out analysis. *The basis for projecting residential, commercial and industrial flows is generally defined above. Any specific deviations from this method are further described within the applicable municipal chapter.*

Table 5-3. Additional Development at Build-out

Municipality	FWSA Developable Area (Acres)	Number of Potential Units			Total Units
		Residential	Commercial	Industrial	
Alloway Township	222.0	98	14	n/a	112
Carneys Point Township	3,026.3	2,727	3,038	55	5,820
Elmer Borough	402.65	577	n/a	n/a	577
Elsinboro Township	Not proposing FWSA at this Time				
Lower Alloways Creek Township	174	348	n/a	n/a	348
Mannington Township	51	233	1	n/a	234
Oldmans Township	1,334	822	288	33	1,143
Penns Grove Borough	N/A: Borough is an urban municipality.				
Pennsville Township	N/A: Township WMP is already adopted.				
Pilesgrove Township	Refer to report.	127	60,000 SF	n/a	128
Pittsgrove Township	Proposing FWSA to Include Pepco Site at this time. Refer to municipal chapter.				
Quinton Township	238.8	214	5	n/a	219
Salem City	261.3	1,081	16	221	1,318
Upper Pittsgrove Township	Not proposing FWSA at this Time				
Woodstown Borough	88.9	212	23	114	349

Septic System Development Within the Sewer Service Areas

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 (N.J.S.A. 58:11-23) or individual Treatment Works Approval or New Jersey Pollutant Discharge Elimination System Permits (under N.J.A.C. 7:14A). It also applies to ISSDS, which require only local approvals. Compliance with the connection requirement will be demonstrated through adoption of a municipal or sewerage authority ordinance, which requires abandonment of the septic and connection to the sewer system once it becomes available.

Collection System Construction Within the Sewer Service Areas (if applicable)

Where an area is designated for sewer service but the required trunk line or collection main has not yet been constructed, some local entities require that dry sewer lines be constructed within each new development. The developments will be connected to the sewer system as line capacity is constructed. *M*unicipalities that have such an ordinance are identified in Chapter VI and Chapter IX below.

Future Wastewater Outside of Sewer Service Areas

*** Nitrate dilution analyses sections are included for the City of Salem, Woodstown Borough, and Pennsgrove Township, however a full analysis for each municipality was not required. Pennsgrove's SSA extends to the municipal boundary, leaving no areas designated for ground water discharges, while both the City of Salem and Woodstown Borough also have no developable land outside of the SSA which is not constrained by environmentally sensitive areas.

P.L. 2011, c. 203, as amended by P.L. 2013, c. 188, allows the wastewater management planning agency to prepare and submit, and the Department to accept, and adopt other portions of a wastewater management plan in addition to those portions that provide for the designation of a sewer service area, however the phased portions submitted must still comply with the Water Quality Management Planning rules at N.J.A.C. 7:15-5.25. Please note that nitrate dilution analyses are included in this plan amendment for Woodstown Borough, Salem City, and Pennsgrove Township, while said analyses for the remaining municipalities are included for reference only in Appendix A. The remaining municipalities' did not have sufficient zoning to comply with the nitrate standards, and have not yet taken measures to ensure compliance.

Non-degradation Areas

Areas located within the watershed of a Freshwater One (FW1) stream, as classified in the Surface Water Quality Standards, and/or that have Class 1-A ground water (Ground Water of Special Ecological Significance), as classified in the Ground Water Quality Standards, are identified as "Non-degradation water area based on the Surface Water Quality Standards at N.J.A.C. 7:(B, and/or the Ground Water Quality Standards at N.J.A.C. 7:9-6". Where this requirement has been studied and reviewed as part of the WMP process this classification appears on **Map 3**. Non-degradation water areas shall be maintained in their natural state (set aside for posterity) and are subject to restrictions including, but not limited to, the following: 1) DEP will not approve any pollutant discharge to ground water nor approve any human activity which results in a degradation of natural quality except for the upgrade or continued operation of existing facilities serving existing development. For additional information please see the Surface Water Quality Standards at N.J.A.C. 7:9B, and/or the Ground Water Quality Standards at N.J.A.C. 7:9-6.

VI. Analysis of Capacity to Meet Future Wastewater Needs

This chapter provides an assessment of whether there is sufficient wastewater treatment capacity to meet the needs of the County based on the projections described above. For sewer service areas this requires the aggregation of municipal wastewater projections by sewage treatment plant and a comparison of the projected future demand to the existing permitted capacity of the sewage treatment plant. Instances where a sewage treatment plant does not currently have sufficient remaining capacity to meet the wastewater needs of the FWSA area are specifically identified within the municipal chapters.

As previously noted, nitrate dilution analyses methods and results are included in this plan amendment for Woodstown Borough, Salem City, and Pennsgrove Township, while said analyses for the remaining municipalities are included for reference only in Appendix A.

Table 6-1 provides a breakdown of future wastewater flows by service area and by general development category for the County, based on the development projections provided above. The final column determines whether facility capacity is or is not adequate for the projected flows. Where capacities are inadequate, the issue is addressed in later sections.

Table 6-1. Future Wastewater Planning Flows By Facility											
Domestic Wastewater Treatment Facility or FWSA Alternative	**Municipality conveying wastewater to Facility**	**Facility Permitted Flow (MGD)**	**Existing Flows (MGD)**	**Projected Residential Dwelling Units**	**Projected Residential Flow (MGD)**	**Projected Industrial Units (sq ft)**	**Projected Industrial Flow (MGD)**	**Projected Commercial Units (sq ft)**	**Projected Commercial Flow (MGD)**	**Total Future Planning Flows (MGD)**	**Excess (or Deficit) Facility Capacity (MGD)**
Carneys Point WWTP		**1.300**	**1.069**							**3.554**	**-3.323**
	Carneys Point Township		1.048	2,727	0.732	55	0.069	3,038	1.391	2.192	
	Oldmans Township		0.021	822	0.247	33	0.216	288	0.900	1.362	
Caton Village WWTP		**0.500**	**0.140**							**0.320**	**0.040**
	Lower Alloways Creek			105	0.320	n/a	n/a	n/a	n/a	0.320	
Hancocks Bridge WWTP		**0.500**	**0.110**							**0.290**	**0.100**
	Lower Alloways Creek			243	0.290	n/a	n/a	n/a	n/a	0.290	
Penns Grove WWTP	**Based on Population**	**0.750**	**0.405**							**0.052**	**0.293**
(Urban Designation)	Penns Grove Borough			629	0.047	n/a	n/a	176	0.005	0.052	
Pennsville WWTP (*)	Based on Approved WMP.	**1.875**	**1.366**							**0.287**	**0.222**
	Pennsville Township		1.355	n/a	0.073	n/a	0.018	n/a	0.192	0.283	
	Carneys Point Township		0.011	n/a	0.000	n/a	n/a	n/a	0.004	0.004	
Salem City WWTP		**1.400**	**0.696**							**0.513**	**0.191**
	Salem City		0.547	1,081	0.324	221	0.049	16	0.005	0.378	
(Agreement with Salem)	Alloway Township	0.064	0.016	98	0.029	n/a	n/a	14	0.005	0.034	
(Agreement with Salem)	Quinton Township	0.063	0.027	214	0.064	n/a	n/a	5	0.033	0.097	
(Mannington Mills Agreement)	Mannington Township	0.1225*	0.104	224	0.004	n/a	n/a	1	0.001	0.005	
	Elsinboro Township	0.001	0.001	n/a	n/a	n/a	n/a	n/a	n/a	0.000	
Woodstown WWTP		**0.530**	**0.346**							**0.152**	**0.032**
	Woodstown Borough		0.237	212	0.061	114	0.041	23	0.019	0.120	
(Flows for School)	Pilesgrove Township		0.034	n/a	0.005	n/a	n/a	n/a	n/a	0.005	
(Remaining Allocated Flow)	Mannington Township		0.076	n/a	0.027	n/a	n/a	n/a	n/a	0.027	
FWSA Area (Alternative)		**0.00**	**0.00**							**0.142**	**-0.142**
	Elmer Borough			577	0.108	N/A	N/A	1.00	0.034	0.142	
FWSA Area (Site Specific)		**0.00**	**0.00**							**0.012**	**-0.012**
Pepco Site	Pittsgrove Township			N/A	N/A	N/A	N/A	1.00	0.012	0.012	

Adequacy of Sewage Treatment Plant Capacity

Details of the projections are included within the municipal chapters, which also address any needs for new or expanded treatment facility discharges. The facility tables in Section VII provide detailed information on the planning flows for each new and expanded treatment facility. The following facilities will require new or expanded capacity to accommodate the FWSA:

Table 6-2. New and Expanded Treatment Facilities

Facility / Municipality	Domestic (D) or Industrial (I)	DGW/ DSW	Existing Permitted Flow (MGD)	Future Flow Projection (MGD)
Carneys Point Township			1.3	2.192
Oldmans Township			Served by CPSA	1.362
Borough of Elmer	D	TBD	0	0.142
Pittsgrove Township	(Future Pepco Facility)	DSW	0	0.012

Analysis and Selection of Treatment Alternatives

The FWSA sanitary build-out analysis results indicate that Oldmans Township and the Borough of Elmer will need to identify alternative facilities to receive wastewater to support future wastewater management needs projected by the plan. Carneys Point Township will also need to either expand existing treatment facilities or identify alternative facilities to support projected flows from this municipality, as there is marginal capacity for growth in the future. Due to the current economic climate, projected growth rate of the population and the anticipated short-term need for additional capacity, the municipality is not proposing new or expanded facilities at this time.

These municipalities will begin to review the potential process improvements and available treatment alternatives based on the direction of their governing body. It is anticipated that the municipalities would consider the Gloucester-Salem County Regional Alternative to meet future development needs.

The Salem County Pollution Control Financing Authority conducted a sanitary sewer study in an effort to conceptualize a regional sewage system plan for the County. The intent of the plan is to convey sanitary sewer to a newly constructed treatment facility to be located on the Dupont Chambers Works property in Carneys Point Township. The planning of this effort is ongoing and currently in the environmental assessment and preliminary engineering stage of development.

Compliance with Environmental Protection Standards

The County WMP must ensure that proposed wastewater service areas are in the proper areas and will minimize or eliminate primary and secondary environmental impacts. The identification of appropriate wastewater service areas begins with the analysis of environmentally sensitive areas discussed above. Added to this result are the build-out analyses. The result is a determination of what areas are both zoned for and appropriate for sewer service, and which areas are not appropriate for sewers due to zoning, environmentally sensitive areas, or both.

The FWSA map was adopted by the Department on September 19, 2013. The area has been identified based on the environmental constraints “Landscape Project GIS Layers” available from the Department. The treatment facilities for the defined FWSA do not guarantee that

sufficient wastewater treatment capacity will be available for the complete build-out of the area, at this time. However, there are other environmental considerations regarding pollutant loadings, water supply and other factors. In some cases (e.g., riparian zones and steep slopes) the WQMP rules require that municipal ordinance ensure protection of these areas regardless of their wastewater service area.

Further, the WQMP rules establish that avoidable development within these areas is inconsistent with the Statewide Water Quality management plans and the Department cannot issue any permits or approvals for development of these areas. Table 6-4 below provides the status of adoption of the required municipal ordinances.

TMDLs and Watershed Restoration/Regional Stormwater Management Plans

The Department received a plan prepared by Rutgers University entitled "Upper Salem River Watershed Restoration and Protection Plan", dated April 2013. The Upper Salem River watershed drains to the Delaware River and encompasses 15 square miles, including 20 miles of rivers and streams and lakes. The plan primarily identified one (1) lake (Memorial Lake in Woodstown Borough). However, other lakes within the wathershed include East Lake, Avis Mill Pond, Slabtown Lake and Fox Mill Lake. Several smaller dammed impoundments throughout the watershed are utilized for flood control. This watershed contains sections of Upper Pittsgrove Township, Pilesgrove Township, and Woodstown Borough located within in Salem County.The plan included a comprehensive watershed characterization and assessment and a management plan to address water quality impairments for the Upper Salem River watershed. TMDL's were identified within the report for fecal coliform and total phosphorus (TP). Fecal coliform TMDL requires an 84% reduction with the total phosphorus (TP) TMDL requiring an 88% reduction. Since the Salem River drains to Memorial Lake, the applicable lake water quality criterion of 0.05 mg/L was used for the TP TMDL.

In addition to the above referenced watershed, a plan was received for Seeleys Pond Sunset Lake located In Upper Deerfield Township, Cumberland County within the Upper Cohansey River Watershed. This watershed contains headwater within sections of Alloway Township and Upper Pittsgrove Township, Pittsgrove Township located within in Salem County. TMDL's were identified within the report for fecal coliform and total phosphorus (TP). Fecal coliform TMDL requires an 66% reduction with the total phosphorus (TP) TMDL requiring an 92% reduction, which is the lake standard, which applies because the Cohansey River drains to Sunset Lake. Also, Parvin Lake in Pittsgrove Township has a fecal coliform TMDL. However, there aren't any restoration projects associated with this adopted TMDL.

Nonpoint and stormwater sources are the primary contributor to fecal coliform from sources such as geese, agricultural practices, and domestic pets to the drinking water. Nonpoint sources also include steady inputs from sources such as failing sewerage conveyance systems and failing or inappropriately located septic systems. However, because the total source contribution from wastewater treatment plants is an insignificant fraction of the total load, these pathogen TMDL's will not impose any change in current effluent limits at wastewater treatment facilities.

Management measures for such sources include the measures already required as part of the municipal stormwater permits as well as more targeted measures that are source appropriate such as the restoration of riparian buffers and other best management practices. Table 9-2 reflects Stormwater management plan ordinances that have been adopted by the Municipalities within Salem County.

The plans have been reviewed by the Department and determined that it sufficiently addresses the USEPA's requirements for watershed restoration plans. In addition, it has adequately identified and prioritized specific projects to be implemented for improved water quality. Projects have been prioritized based on percent removal of pollutants, need on a subwatershed basis, impact on the watershed's discharge quality, overall cost-effectiveness, and best professional judgment.**Environmental Protection Ordinances**

Table 6-4 addresses the status of municipal ordinances regarding the protection of steep slopes, riparian zones and the maintenance of septic systems as addressed in the municipal chapters. The applicable ordinances are referenced within Chapter 9and municipal chapters.

Table 6-4. Status of Municipal Ordinances and Master Plan*

Municipality	Master Plan	Zoning Ordinance & Map	Stormwater Ordinance (Groundwater Recharge Maintenance)	Riparian Zone Ordinance	Septic Connection in Sewer Service Areas
Alloway Township	Y	Y	Y	Y	Y
Carneys Point Township	Y	Y	Y	P	Y
Elmer Borough	Y	Y	Y	P	
Elsinboro Township	Y	Y	Y	P	
Lower Alloways Creek Township	Y	Y	Y	Y	Y
Mannington Township	Y	Y	Y	P	
Oldmans Township	Y	Y	Y	P	
Penns Grove Borough	N	Y	Y	P	
Pennsville Township	Y	Y	Y	Y	Y
Pilesgrove Township	Y	Y	Y	P	
Pittsgrove Township	Y	Y	Y	P	
Quinton Township	Y	Y	Y	Y	Y
City of Salem	Y	Y	Y	P	Y
Upper Pittsgrove Township	Y	Y	Y	P	
Woodstown Borough	Y	Y	Y	Y	Y

***Y** means that the master plan is within its 10 year update period, or that the ordinance has been adopted and is in compliance with NJAC 7:15.*

***P** means the ordinance is has been drafted for compliance with NJAC 7:15 and is currently progressing towards adoption. The ordinance must be adopted prior to WMP/WMP chapter adoption.*

VII. Wastewater Facility Tables

The wastewater facility tables for all sanitary and/or process wastewater discharge to surface water facilities and those sanitary and/or process wastewater discharge to groundwater facilities discharging greater than 2,000 gallons per day (i.e., requiring NJPDES permits) are listed in Table 7-1 below.

Table #7-1	**Summary of NJPDES Facility information (From Available DEP Sources, August, 2012)**			
Table #	**NJPDES**	**Facility Name**	**DIS TYPE**	**Municipality**
	Alloway Township			
1	NJ0054283	Alloway Township Landfill - (Closed)	GWIND	Alloway
2	NJ0102113	Salem County Solid Waste Facility	GWIND	Alloway
3	NJG0086959	Yogi Bear Jellystone @ Tall Pines Resort	T1	Alloway
4	NJG0088781	Roosevelt Scout Reservation	T1	Alloway
	Carneys Point Township			
5	NJ0021601	Carney's Point Twp SA	SW	Carneys Point
6	NJ0073750	Carneys Point Gen Plant	GWIND	Carneys Point
7	NJ0128996	Carneys Point Generating Plant	GWIND	Carneys Point
8	NJG0100641	Westwood Villa	T1	Carneys Point
9	NJG0165565	Deepwater Diner	T1	Carneys Point
	Elmer Borough			
10	NJ0099571	Elmer Community Hospital	GWIND	Elmer
	Lower Alloways Creek Township			
11	NJ0050423	Lower Alloways Ck - Hancocks Bridge	SW	Lower Alloways Creek
12	NJ0062201	Lower Alloways Ck - Canton Village	SW	Lower Alloways Creek
13	NJG0112666	Meadowview Acres Campground	T1	Lower Alloways Creek
14	NJ0005622	PSE&G - Salem NGS	SW	Lower Alloways Creek
15	NJ0025411	PSE&G - Hope Creek NGS	SW	Lower Alloways Creek
	Oldmans Township			
16	NJ0004286	Polyone Corp - Pedricktown	SW	Oldmans
17	NJ0024635	Fort Dix - Pedricktown Sup Fac	SW	Oldmans
18	NJ0137707	Oldmans Township School	T1	Oldmans
19	NJG0100684	295 Auto Truck Plaza Inc	T1	Oldmans
	Penns Grove Borough			
20	NJ0024023	Penns Grove SA	SW	Penns Grove
	Pennsville Township			
21	NJ 00056499	Pennsville Township Landfill	GWIND	Pennsville
22	NJ0005100	E I DuPont - Chamber Works	SW	Pennsville
23	NJ0021598	Pennsville SA	SW	Pennsville
24	NJ0068705	Pennsville Twp - Heron Wtp	SW	Pennsville
25	NJ0068730	Pennsville Twp - Water St Wtp	SW	Pennsville
26	NJG0133159	Fort Mott State Park	T1	Pennsville

	Pilesgrove Township			
27	NJ0004308	Waddington-Richman Inc	SW	Pilesgrove
28	NJ0100218	Waddington-Richman Inc	GWIND	Pilesgrove
29	NJG0136221	Four Seasons Campground	T1	Pilesgrove
	Pittsgrove Township			
30	NJ0099678	Harding Woods Inc	GWIND	Pittsgrove Twp
31	NJ0090221	Arthur Shalick High School	GWIND	Pittsgrove Twp
32	NJ0157716	Daytop of NJ	GWIND	Pittsgrove Twp
33	NJG0066214	Picnic Grove Mobile Homes	T1	Pittsgrove Twp
34	NJG0084883	The Villages I	T1	Pittsgrove Twp
35	NJG0108405	Holly Tree Acres Trailer Home	T1	Pittsgrove Twp
36	NJG0129577	Centerton Country Club	T1	Pittsgrove Twp
37	NJG0133167	Parvin State Park	T1	Pittsgrove Twp
38	NJG0158496	Rainbow Center	T1	Pittsgrove Twp
39 (*)	NJ006184	B&B Poultry Co., Inc.	D-STP	Pittsgrove Twp
39A (**)	N/A	Pepco Site (Future Facility).	D-STP	Pittsgrove Twp
	Quinton Township			
40	NJ0054909	Quinton Township Landfill- (Closed)	GWIND	Quinton
	Salem City			
41	NJ0024856	Salem City WWTP	SW	Salem City
42	NJ0035742	Salem City WTP	SW	Salem City
	Upper Pittsgrove Township			
43	NJ0099198	Burlington Beef	GWIND	Upper Pittsgrove Twp
44	NJ0169889	WaWa	T1	Upper Pittsgrove Twp
45	NJ0100625	Upper Pittsgrove TWP Elementary School	GWIND	Upper Pittsgrove Twp
46	NJG0084603	Country Club Estates	T1	Upper Pittsgrove Twp
47	NJG0133493	Appel Farm Arts & Music Ctr	T1	Upper Pittsgrove Twp
48	NJG0132624	Point 40 Diner	T1	Upper Pittsgrove Twp
49	NJG0170208	Mater Dei Nursing Home	T1	Upper Pittsgrove Twp
50	NJG0170992	Bancroft Neurohealth - Mullica Hill Campus	T1	Upper Pittsgrove Twp
	Woodstown Borough			
51	NJ0022250	Woodstown Wastewater Treatment Plant	SW	Woodstown
(*) Note:	**This is an SIU Permit that conveys industrial wastewater to the LSA (NJ0025364)**			
(**) Note:	**This is a future site located in Pittsgrove Township being proposed by Atlantic City Electric.**			

A copy of each of the facilities tables identified within the above summary table is provided below. Each facility is listed in accordance with its corresponding table number.

Table 1	
1. Name of Facility:	**AllowayTownship Landfill- (CLOSED)**
2. New Jersey Pollutant Discharge Elimination System Permit Number:	NJ0054283
3. Discharge to ground water (DGW)	DGW
4. Owner of facility:	Alloway Township
5. Operator of facility:	Alloway Township.
6. Location of facility:	
a. Municipality & County	Alloway Township, Salem County
b. Street address	Thomas Road and Alloway Friesburg Road
c. Block(s) and Lot(s)	Block 100 Lot 6
7. Location of discharge (i.e. degrees, minutes, seconds):	a. Longitude 75º 32' 41" b. Latitude 39º 38' 17" or
	c. State Plane Coordinates x- 262831.399 y- 256945.877
8. Summary of population served identifying all wastewater generating uses:	Current (Year 2010) Population N/A
School: (students and staff, specify cafeteria, lab, etc.)	
Institution: (beds)	
Restaurant: (seats)	
Commercial: (square footage)	
Campground: (sites, specify laundry, store, bathhouses	
Other:	
Design Flow (MGD)	N/A

Table 2		
Name of Facility:	**Salem County Solid Waste Facility**	
1. Existing or proposed facility:	Existing	
2. New Jersey Pollutant Discharge Elimination System Permit Number:	NJ 0102113	
3. *Discharge to ground water (DGW) or surface water (DSW):	N/A, Landfill, leachate trucked off-site*	
4. *Receiving water or aquifer:	N/A	
5. Classification of receiving water or aquifer:	N/A	
6. Owner of facility:	Salem County Solid Waste Facility	
7. Operator of facility:	Salem County Solid Waste Facility	
8. Co-Permittee of facility *(where applicable*):	N/A	
9. Location of facility:		
a. Municipality & County	Alloway, Salem County	
b. Street address	52 MCKILLIP RD ALLOWAY, NJ 08302	
c. Block(s) and Lot(s)	Block 8, Lot 1	
10. Location of discharge (i.e. degrees, minutes, seconds):	a. Longitude 75°22'35" b. Latitude 39°35'20"	
	c. State Plane Coordinates x245152, y 276397	
11. Present permitted flow or permit condition (DSW) or daily maximum (DGW):	N/A	
*12. Summary of population served/to be served including major seasonal fluctuations:	Current (Year 2010) Population	Build-out or 20-Year Future (Year 2030)*** *specify one as applicable*
Total	N/A	Information not available
* **13. Summary of wastewater flow received/to be received as a 30-day average flow for DSW or a daily maximum flow for DGW:	Current (Year 2010) Flow (in MGD)	Build-out*** ~~or 20-Year Future (Year 2030)~~ (in MGD) *specify one as applicable*
Residential flow		
Commercial flow		
Industrial flow		
Infiltration/Inflow		
Facility Total	**0.0024**	Information not available

Table 2 (continued)	
Name of Facility:	**Salem County Solid Waste Facility**

Notes:

The Salem County Solid Waste Facility is a sanitary landfill located in the northern portion of Alloway Township, which serves the needs of all of Salem County. The facility is owned and operated by the Salem County Utilities Authority. The operation of the facility is authorized by NJDEP Solid Waste Facility Permit No. 1701B. The facility is located on a 252-acre site consisting of a 39 acre permitted landfill area and associated support facilities. The landfill is being developed in 5-acre cells, as landfill capacity is needed. At the conclusion of 1998, approximately 20 acres of the landfill had been constructed.

* The leachate is collected in pipes and drains to the leachate pump station. The leachate is then pumped into a 200,000-gallon leachate storage tank, and hauled off-site for treatment to the Delaware County Regional Water Quality Control Authority treatment facility (DelCORA) in Chester, PA. Approximately (4) 6,000-gallon trucks are used (via C & H Disposal) to transport the leachate Monday through Saturday, although the amount fluctuates depending on how wet it has been. This can be seen as an average of 24,000 gallons per-day that is transported to DelCORA.

** Infiltration/Inflow (I/I): Existing I/I should be identified. However, additional future I/I may not be projected. (The NJPDES Treatment Works Approval regulations make numerical allowances for I/I.) The existing I/I can be carried-over and accounted for in the total future wastewater flow.

***Expansion of this facility is planned, but future planning information and future flow information is not available at this time.

Table 3	
1. Name of Facility:	**Yogi Bear Jellystone @ Tall Pines Resort**
2. New Jersey Pollutant Discharge Elimination System Permit Number:	NJG0086959
3. Discharge to ground water (DGW)	DGW- T1
4. Owner of facility:	TP Campground Inc
5. Operator of facility:	TP Campground Inc
6. Location of facility:	
a. Municipality & County	Alloway Township, Salem County
b. Street address	49 Beal Road, Elmer, NJ 08318
c. Block(s) and Lot(s)	Block 103, Lots 1, 3.01
7. Location of discharge (i.e. degrees, minutes, seconds):	a. Longitude 75°16'38" b. Latitude 39°32'28" or
	c. State Plane Coordinates x 271543; y 260111
8. Summary of population served identifying all wastewater generating uses:	Current (Year 2010) Population
School: (students and staff, specify cafeteria, lab, etc.)	
Institution: (beds)	
Restaurant: (seats)	
Commercial: (square footage)	
Campground: (sites, specify laundry, store, bathhouses	262 sites. 3 bathhouses, 2 RV waste disposal stations, 1 laundry room*
Other:	
Facility Total	
Design Flow (MGD)	0.002

Notes:

* The facility maintains 262 campsites on 113 acres of land. The facility includes campsites with RV sewer hook-ups, three (3) bathhouses, two (2) RV waste disposal stations, and laundry room. The system includes an unknown number of septic tanks and disposal fields. The system authorized by this permit is for sanitary waste only.

Table 4	
1. Name of Facility:	**Roosevelt Scout Reservation**
2. New Jersey Pollutant Discharge Elimination System Permit Number:	NJG0088781
3. Discharge to ground water (DGW)	DGW- T1
4. Owner of facility:	Southern NJ Council BSA
5. Operator of facility:	Southern NJ Council BSA
6. Location of facility:	
a. Municipality & County	Alloway Township, Salem County
b. Street address	Watson Mill Road, Alloway, NJ 08001-0000
c. Block(s) and Lot(s)	Block 36, Lots 6, 10, 10.1, 19.01, 26
7. Location of discharge (i.e. degrees, minutes, seconds):	a. Longitude 75°17'11" b. Latitude 39°34'34" or
	c. State Plane Coordinates x 269439; y 271749
8. Summary of population served identifying all wastewater generating uses:	Current (Year 2010) Population
School: (students and staff, specify cafeteria, lab, etc.)	
Institution: (beds)	
Restaurant: (seats)	
Commercial: (square footage)	
Campground: (sites, specify laundry, store, bathhouses	230 scouts, 20 pit latrines, 7 field drains serving 7 buildings*
Other:	
Design Flow	0.002

Notes:

* This facility consists of a Boy Scout resident camp for approximately 230 scouts covering 123 acres. The camp is only open for 7 weeks each summer. The on-site sanitary facilities include 20 pit latrines at campsites and activity areas and 7 field drains serving 7 buildings. The system authorized by this permit is for sanitary waste only.

Table 5		
Name of Facility:	**Carneys Point Township SA**	
1. Existing or proposed facility:	Existing	
2. New Jersey Pollutant Discharge Elimination System Permit Number:	NJ 0021601	
3. Discharge to ground water (DGW) or surface water (DSW):	DSW- A	
4. Receiving water or aquifer:	Delaware River	
5. Classification of receiving water or aquifer:	Mainstem Delaware-Zone 5	
6. Owner of facility:	Carneys Point Township Sewerage Authority	
7. Operator of facility:	Carneys Point Township Sewerage Authority	
8. Co-Permittee of facility *(where applicable*):	N/A	
9. Location of facility:		
a. Municipality & County	Carneys Point Twp, Salem County	
b. Street address	Cleveland & E Streets Carneys Point, NJ 08069	
c. Block(s) and Lot(s)	Block 157, Lot 2	
10. Location of discharge (i.e. degrees, minutes, seconds):	a. Longitude 75°21'32" b. Latitude 39°42'40" or	
	c. State Plane Coordinates x 217730; y 321273	
11. Present permitted flow or permit condition (DSW) or daily maximum (DGW):	1.3 MGD	
*12. Summary of population served/to be served including major seasonal fluctuations:	Current (Year 2010) Population	~~Build-out or~~ 20-Year Future (Year 2030)**** specify as applicable
Municipality: Carneys Point	2,596	6,139
Municipality: Oldmans Twp	300	304
Total	**2,896**	**6,443**
*13. Summary of wastewater flow received/to be received as a 30-day average flow for DSW or a daily maximum flow for DGW:	Current (Year 2010) Flow (in MGD)	Build-out**** ~~or 20-Year Future (Year 2030)~~ specify as applicable (in MGD)
Municipality:	Carneys Point	Carneys Point
Residential flow	0.662	1.394
Commercial flow	0.320	1.711
Industrial flow	0.066	0.135
Infiltration/Inflow	N/A	N/A
Municipal Total	1.048	3.24

Table 5 (continued)		
Name of Facility:	**Carneys Point Township SA**	
Municipality:	Oldmans Twp	Oldmans Twp
Residential flow	0.015	0.262
Commercial flow	0.006	0.906
Industrial flow	0	0.216
Infiltration/Inflow	N/A	N/A
Municipal Total	0.021	1.384
Facility Total	**1.069**	**4.624**

* Infiltration/Inflow (I/I): Existing I/I should be identified. However, additional future I/I may not be projected. (The NJPDES Treatment Works Approval regulations make numerical allowances for I/I.) The existing I/I can be carried-over and accounted for in the total future wastewater flow.

**Data regarding the estimated population served by 2030 is based on population projections and the anticipated number of new connections. The summary of wastewater flow represents build-out projections within the adopted FWSA. The complete build-out may not be realized by 2030, based on the population projections.

Table 6		
Name of Facility:	**Carneys Point Gen Plant (Revoked)**	
1. Existing or proposed facility:	Existing	
2. New Jersey Pollutant Discharge Elimination System Permit Number:	NJ 0073750	
3. Discharge to ground water (DGW) or surface water (DSW):	DSW	
4. Receiving water or aquifer:	Delaware River via Whooping John Creek	
5. Classification of receiving water or aquifer:	Zone 5	
6. Owner of facility:	Carneys Point Generating Plant	
7. Operator of facility:	Carneys Point Generating Plant	
8. Co-Permittee of facility *(where applicable*):	N/A	
9. Location of facility:		
a. Municipality & County	Carneys Point, Salem County	
b. Street address	500 Shell Road Carneys Point, NJ 080692926	
c. Block(s) and Lot(s)	Block 185, Lot 1	
10. Location of discharge (i.e. degrees, minutes, seconds):	a. Longitude 75°29'04" b. Latitude 39°41'32"	
	c. State Plane Coordinates x 214722.06976; y 314506.23557	
11. Present permitted flow or permit condition (DSW) or daily maximum (DGW):	N/A	
13. Summary of wastewater flow received/to be received as a 30-day average flow for DSW or a daily maximum flow for DGW:	Current (Year 20__) Flow (in MGD)	Build-out or 20-Year Future (Year 20__) (in MGD) *specify one*
Commercial flow		
Industrial flow		
Infiltration/Inflow		
Facility Total	**N/A**	**N/A**

* Infiltration/Inflow (I/I): Existing I/I should be identified. However, additional future I/I may not be projected. (The NJPDES Treatment Works Approval regulations make numerical allowances for I/I.) The existing I/I can be carried-over and accounted for in the total future wastewater flow.

Table 7		
Name of Facility:	**Carneys Point Generating Plant**	
1. Existing or proposed facility:	Existing	
2. New Jersey Pollutant Discharge Elimination System Permit Number:	NJ 0128996	
3. Discharge to ground water (DGW) or surface water (DSW):	DGW	
4. Receiving water or aquifer:		
5. Classification of receiving water or aquifer:		
6. Owner of facility:	Carneys Point Generating Plant	
7. Operator of facility:	Carneys Point Generating Plant	
8. Co-Permittee of facility *(where applicable*):	N/A	
9. Location of facility:		
a. Municipality & County	Carneys Point, Salem County	
b. Street address	500 Shell Road Carneys Point, NJ 08069	
c. Block(s) and Lot(s)	Block 185, Lot 1	
10. Location of discharge (i.e. degrees, minutes, seconds):	a. Longitude 75°29'12" b. Latitude 39°41'24" or	
	c. State Plane Coordinates x 214483, y 313545	
11. Present permitted flow or permit condition (DSW) or daily maximum (DGW):	0 MGD	
*12. Summary of population served/to be served including major seasonal fluctuations:	Current (Year 2010) Population	Build-out or 20-Year Future (Year 2030) *specify one as applicable*
Total	0	N/A
*13. Summary of wastewater flow received/to be received as a 30-day average flow for DSW or a daily maximum flow for DGW:	Current (Year 2010) Flow (in MGD)	Build-out or 20-Year Future (Year 2030) as applicable (in MGD)
Residential flow	0	
Commercial flow	0	
Industrial flow	0	
Infiltration/Inflow	0	
Facility Total	**0**	**N/A**

* Infiltration/Inflow (I/I): Existing I/I should be identified. However, additional future I/I may not be projected. (The NJPDES Treatment Works Approval regulations make numerical allowances for I/I.) The existing I/I can be carried-over and accounted for in the total future wastewater flow.

**All process and sanitary wastewater flows go to DuPont Chambers Works in Pennsville Township.

Table 8	
1. Name of Facility:	**Westwood Villa (Formerly Handy's Mobile Home Park)**
2. New Jersey Pollutant Discharge Elimination System Permit Number:	NJG0100641
3. Discharge to ground water (DGW)	DGW- T1
4. Owner of facility:	Navillus Group
5. Operator of facility:	Navillus Group
6. Location of facility:	
a. Municipality & County	Carneys Point, Salem County
b. Street address	57 E. Quillytown, Road Carneys Point, NJ 08069
c. Block(s) and Lot(s)	Block 239, Lot 4
7. Location of discharge (i.e. degrees, minutes, seconds):	a. Longitude 75°24'17" b. Latitude 39°41'12" or
	c. State Plane Coordinates x 237276; y 311590
8. Summary of population served identifying all wastewater generating uses:	Current (Year 2010) Population
School: (students and staff, specify cafeteria, lab, etc.)	
Institution: (beds)	
Restaurant: (seats)	
Commercial: (square footage)	
Campground: (sites, specify laundry, store, bathhouses	46 sites*
Other:	
Design Flow (MGD)	0.0046

Notes:

This facility consists of a 10-acre site with 46 mobile homes served by 42 septic systems.

Table 9	
1. Name of Facility:	**Deepwater Diner**
2. New Jersey Pollutant Discharge Elimination System Permit Number:	NJG0165565
3. Discharge to ground water (DGW)	DGW- T1
4. Owner of facility:	RKDJ Realty LLC.
5. Operator of facility:	RKDJ Realty LLC.
6. Location of facility:	
a. Municipality & County	Carneys Point, Salem County
b. Street address	455 Shell Road Carneys Point, NJ 08069
c. Block(s) and Lot(s)	Block 193, Lot 7
7. Location of discharge (i.e. degrees, minutes, seconds):	a. Longitude 75°29'03" b. Latitude 39°41'31" or
	c. State Plane Coordinates x 215195 y 314246
8. Summary of population served identifying all wastewater generating uses:	Current (Year 2010) Population
School: (students and staff, specify cafeteria, lab, etc.)	
Institution: (beds)	
Restaurant: (seats)	120 seats*
Commercial: (square footage)	
Campground: (sites, specify laundry, store, bathhouses	
Other:	
Design Flow (MGD)	0.0042

Notes:

The Deepwater Diner is an existing restaurant and has a capacity of 120 seats. The system has a 1-2000 gallon septic tank, 1-1000 gallon septic tank, 4-1000 gallon grease tanks, 1-1000 gallon dosing tank with two pumps and a 33 x 95 feet disposal field.

Table 10		
Name of Facility:	**South Jersey Hospital**	
1. Existing or proposed facility:	Existing	
2. New Jersey Pollutant Discharge Elimination System Permit Number:	NJ 0099571	
3. Discharge to ground water (DGW) or surface water (DSW):	DGW- K01K	
4. Receiving water or aquifer:	Bridgeton	
5. Classification of receiving water or aquifer:	II-A	
6. Owner of facility:	South Jersey Hospital/Inspira Medical Centers	
7. Operator of facility:	South Jersey Hospital/Inspira Medical Centers	
8. Co-Permittee of facility *(where applicable*):	N/A	
9. Location of facility:		
a. Municipality & County	Elmer Borough, Salem County	
b. Street address	501 Front Street Elmer, NJ 08318-1090	
c. Block(s) and Lot(s)	Block 12, Lot 2.11, 12, 13, 14 (B53, L12 in Upper Pitts)	
10. Location of discharge (i.e. degrees, minutes, seconds):	a. Longitude 75°10'45" b. Latitude 39°35'18" or	
	c. State Plane Coordinates x 300476; y 275250	
11. Present permitted flow or permit condition (DSW) or daily maximum (DGW):	0.024	
*12. Summary of population served/to be served including major seasonal fluctuations:	Current (Year 2010) Population	Build-out or 20-Year Future (Year 20__) *specify one as applicable*
Total	54 patients, 90 staff	100 patients, 200 staff
*13. Summary of wastewater flow received/to be received as a 3-day average flow for DSW or a daily maximum flow for DGW:	Current (3/2010-2/2011) Flow (in MGD)	Build-out or 20-Year Future (Year 20__) as applicable (in MGD)
Residential flow		
Commercial flow		
Industrial flow		
Infiltration/Inflow		
Facility Total	**0.015**	**0.050**

* Infiltration/Inflow (I/I): Existing I/I should be identified. However, additional future I/I may <u>not</u> be projected. (The NJPDES Treatment Works Approval regulations make numerical allowances for I/I.) The existing I/I can be carried-over and accounted for in the total future wastewater flow.

Table 11		
Name of Facility:	**Lower Alloways Ck – Hancocks Bridge**	
1. Existing or proposed facility:	Existing	
2. New Jersey Pollutant Discharge Elimination System Permit Number:	NJ 0050423	
3. Discharge to ground water (DGW) or surface water (DSW):	DSW- A	
4. Receiving water or aquifer:	Alloways Creek	
5. Classification of receiving water or aquifer:	SE1(C2) - tidal tributary to Zone 5	
6. Owner of facility:	Lower Alloways Creek Township	
7. Operator of facility:	Lower Alloways Creek Township	
8. Co-Permittee of facility *(where applicable*):	N/A	
9. Location of facility:		
a. Municipality & County	Lower Alloways Creek Township, Salem County	
b. Street address	Poplar Street Hancocks Bridge, NJ 08038-0000	
c. Block(s) and Lot(s)	Block 5, Lot 12.01	
10. Location of discharge (i.e. degrees, minutes, seconds):	a. Longitude 75°27'39" b. Latitude 39°30'31" or	
	c. State Plane Coordinates x 221065; y 247376	
11. Present permitted flow or permit condition (DSW) or daily maximum (DGW):	0.05 MGD	
*12. Summary of population served/to be served including major seasonal fluctuations:	Current (Year 2010) Population	~~Build-out or~~ 20-Year Future (Year 2030)** *specify one as applicable*
Total	275	275
*13. Summary of wastewater flow received/to be received as a 30-day average flow for DSW or a daily maximum flow for DGW:	Current (Year 2010) Flow (in MGD)	Build-out** ~~or 20-Year Future (Year 20__)~~ (in MGD) *specify one as applicable*
Residential flow	0.011	0.040
Commercial flow	N/A	N/A
Industrial flow	N/A	N/A
Infiltration/Inflow	N/A	N/A
Facility Total	**0.011**	**0.040**

* Infiltration/Inflow (I/I): Existing I/I should be identified. However, additional future I/I may not be projected. (The NJPDES Treatment Works Approval regulations make numerical allowances for I/I.) The existing I/I can be carried-over and accounted for in the total future wastewater flow.

**Data regarding the estimated population served by 2030 is based on population projections and the anticipated number of new connections. The summary of wastewater flow represents build-out projections within the adopted FWSA. The complete build-out may not be realized by 2030, based on the population projections.

Table 12		
Name of Facility:	**Lower Alloways Ck – Canton Village**	
1. Existing or proposed facility:	Existing	
2. New Jersey Pollutant Discharge Elimination System Permit Number:	NJ 0062201	
3. Discharge to ground water (DGW) or surface water (DSW):	DSW- A	
4. Receiving water or aquifer:	Stow Creek	
5. Classification of receiving water or aquifer:	SE1(C2) - tidal tributary to Zone 6	
6. Owner of facility:	Lower Alloways Creek Township	
7. Operator of facility:	Lower Alloways Creek Township	
8. Co-Permittee of facility *(where applicable*):	N/A	
9. Location of facility:		
a. Municipality & County	Lower Alloways Creek Twp, Salem County	
b. Street address	Main Street Lower Alloways Creek Twp, NJ 08079	
c. Block(s) and Lot(s)	Block 42, Lot 2.02	
10. Location of discharge (i.e. degrees, minutes, seconds):	a. Longitude 75°24'11" b. Latitude 39°27'45"	
	c. State Plane Coordinates x 237192; y 230416	
11. Present permitted flow or permit condition (DSW) or daily maximum (DGW):	0.05 MGD	
*12. Summary of population served/to be served including major seasonal fluctuations:	Current (Year 2010) Population	~~Build-out or~~ 20-Year Future (Year 2030) *specify one as applicable*
Total	349	349
*13. Summary of wastewater flow received/to be received as a 30-day average flow for DSW or a daily maximum flow for DGW:	Current (Year 2010) Flow (in MGD)	Build-out ~~or 20-Year Future (Year 20__)~~ (in MGD) *specify one as applicable*
Residential flow	0.014	0.046
Commercial flow	N/A	N/A
Industrial flow	N/A	N/A
Infiltration/Inflow	N/A	N/A
Facility Total	**0.014**	**0.046**

*Infiltration/Inflow (I/I): Existing I/I should be identified. However, additional future I/I may <u>not</u> be projected. (The NJPDES Treatment Works Approval regulations make numerical allowances for I/I.) The existing I/I can be carried-over and accounted for in the total future wastewater flow.

**Data regarding the estimated population served by 2030 is based on population projections and the anticipated number of new connections. The summary of wastewater flow represents build-out projections within the adopted FWSA. The complete build-out may not be realized by 2030, based on the population projections.

Table 13	
1. Name of Facility:	**Meadowview Acres Campground**
2. New Jersey Pollutant Discharge Elimination System Permit Number:	NJG0112666
3. Discharge to ground water (DGW)	DGW- T1
4. Owner of facility:	Estate of Traae Robert A
5. Operator of facility:	Barbara Carlson (Executor/Daughter)
6. Location of facility:	
a. Municipality & County	Lower Alloways Creek Township, Salem County
b. Street address	73 Buckhorn Road Lower Alloways Creek, NJ 08079
c. Block(s) and Lot(s)	Block 42, Lot 5.03
7. Location of discharge (i.e. degrees, minutes, seconds):	a. Longitude 75°23'46" b. Latitude 39°27'48" or
	c. State Plane Coordinates x 239022; y 231081
8. Summary of population served identifying all wastewater generating uses:	Current (Year 2010) Population
School: (students and staff, specify cafeteria, lab, etc.)	
Institution: (beds)	
Restaurant: (seats)	
Commercial: (square footage)	
Campground: (sites, specify laundry, store, bathhouses	20 sites, 1 laundry room*
Other:	
Design Flow (MGD)	0.016

Notes:

The facility has a total of 20 campsites and a laundry facility. There are a total of two septic tanks discharging to seven disposal beds at the facility. The systems authorized under this permit are for the discharge of sanitary waste only.

Owner Contact Info: Barbara Carlson, 112 Buckhorn Road, Salem, NJ 08079, 856.935.0461

Table 14		
Name of Facility:	**PSE&G – Salem NGS**	
1. Existing or proposed facility:	Existing	
2. New Jersey Pollutant Discharge Elimination System Permit Number:	NJ 0005622	
3. Discharge to ground water (DGW) or surface water (DSW):	DSW- B	
4. Receiving water or aquifer:	Delaware River	
5. Classification of receiving water or aquifer:	Mainstem Delaware-Zone 5	
6. Owner of facility:	PSEG Nuclear LLC	
7. Operator of facility:	PSEG Nuclear LLC, Salem Generating Station	
8. Co-Permittee of facility *(where applicable*):	N/A	
9. Location of facility:		
a. Municipality & County	Lower Alloways Creek Twp, Salem County	
b. Street address	Alloway Creek Neck Road Hancocks Bridge, NJ 08038	
c. Block(s) and Lot(s)	Block 26, Lot 4	
10. Location of discharge (i.e. degrees, minutes, seconds):	a. Longitude 75°31'16" b. Latitude 39°27'42" or	
	c. State Plane Coordinates x204221; y 230375	
11. Present permitted flow or permit condition (DSW) or daily maximum (DGW):	3000 MGD	
13. Summary of wastewater flow received/to be received as a 30-day average flow for DSW or a daily maximum flow for DGW:	Current (Year 2010) Flow (in MGD)	Build-out ~~or 20-Year Future (Year 20__) (in MGD)~~ *specify one*
Commercial flow		
Industrial flow		
Infiltration/Inflow		
Facility Total	**0.0027**	**0.0030**

* Infiltration/Inflow (I/I): Existing I/I should be identified. However, additional future I/I may <u>not</u> be projected. (The NJPDES Treatment Works Approval regulations make numerical allowances for I/I.) The existing I/I can be carried-over and accounted for in the total future wastewater flow.

**The wastewater generated from this facility is non-contact cooling water.

Table 15		
Name of Facility:	**PSE&G – Hope Creek NGS**	
1. Existing or proposed facility:	Existing	
2. New Jersey Pollutant Discharge Elimination System Permit Number:	NJ 0025411	
3. Discharge to ground water (DGW) or surface water (DSW):	DSW-B	
4. Receiving water or aquifer:	Delaware River	
5. Classification of receiving water or aquifer:	Mainstem Delaware-Zone 5	
6. Owner of facility:	PSE&G Nuclear LLC	
7. Operator of facility:	PSE&G Nuclear LLC	
8. Co-Permittee of facility *(where applicable*):	N/A	
9. Location of facility:		
a. Municipality & County	Lower Alloways Creek Township, Salem County	
b. Street address	Artificial Island, Foot of Buttonwood Road Lower Alloways Creek NJ, 08038	
c. Block(s) and Lot(s)	Block 26, Lot 4	
10. Location of discharge (i.e. degrees, minutes, seconds):	a. Longitude 75°31'16" b. Latitude 39°27'42" or	
	c. State Plane Coordinates x 204221; y 230375	
11. Present permitted flow or permit condition (DSW) or daily maximum (DGW):	48 MGD	
13. Summary of wastewater flow received/to be received as a 30-day average flow for DSW or a daily maximum flow for DGW:	Current (Year 2013) Flow (in MGD)	Build-out or 20-Year Future (Year 20__) (in MGD) *specify one*
Commercial flow		
Industrial flow		
Infiltration/Inflow		
Facility Total	**46.08**	**48.00**

* Infiltration/Inflow (I/I): Existing I/I should be identified. However, additional future I/I may <u>not</u> be projected. (The NJPDES Treatment Works Approval regulations make numerical allowances for I/I.) The existing I/I can be carried-over and accounted for in the total future wastewater flow.

**The discharge flow from DSN 461A consists of cooling tower blowdown (46.7 MGD) with minor waste stream contributions from the Low Volume and Oily Waste System (DSN 461C, 0.04MGD), liquid radioactive waste system (DSN 461B, 0.06 MGD), and the Sewage Treatment System (DSN 462B, 0.01 MGD).

Table 16		
Name of Facility:	**Mexichem Specialty Resins, Inc.**	
1. Existing or proposed facility:	Existing	
2. New Jersey Pollutant Discharge Elimination System Permit Number:	NJ 0004286	
3. Discharge to ground water (DGW) or surface water (DSW):	DSW -B	
4. Receiving water or aquifer:	Zone 5 of the Delaware River	
5. Classification of receiving water or aquifer:	Mainstem Delaware-Zone 5	
6. Owner of facility:	Mexichem Specialty Resins, Inc.	
7. Operator of facility:	Mexichem Specialty Resins, Inc.	
8. Co-Permittee of facility *(where applicable*):		
9. Location of facility:		
a. Municipality & County	Oldmans Township, Salem County	
b. Street address	Rt 130 & Porcupine Road Pedricktown, NJ 08067	
c. Block(s) and Lot(s)	Block 38, Lot 12	
10. Location of discharge (i.e. degrees, minutes, seconds):	a. Longitude 75°25'15" b. Latitude 39°45'56" or	
	c. State Plane Coordinates x 233399 ; y 340859	
11. Present permitted flow or permit condition (DSW) or daily maximum (DGW):	2.1MGD	
13. Summary of wastewater flow received/to be received as a 30-day average flow for DSW or a daily maximum flow for DGW:	Current (Year 2007 Flow (in MGD)	Build-out ~~or 20-Year Future (Year 20__) (in MGD)~~ *specify one*
Commercial flow		
Industrial flow		
Infiltration/Inflow		
Facility Total	**0.4**	**2.1**

* Infiltration/Inflow (I/I): Existing I/I should be identified. However, additional future I/I may <u>not</u> be projected. (The NJPDES Treatment Works Approval regulations make numerical allowances for I/I.) The existing I/I can be carried-over and accounted for in the total future wastewater flow.

**The facility discharges treated industrial wastewater with some sanitary wastewater. The majority of the process wastewater is generated from the manufacture of polyvinyl resins and compounds and acrylic latex. In addition, utility water consisting of well water treatment backwash and regenerate, recycle/reuse filter backwash, stream generation blowdown and cooling tower blowdown are also discharged. Sanitary wastewater is pretreated before being combined with the process wastewater in the main treatment plant.

Table 17		
Name of Facility:	**Fort Dix – Pedricktown Sup Fac**	
1. Existing or proposed facility:	Existing	
2. New Jersey Pollutant Discharge Elimination System Permit Number:	NJ 0024635	
3. Discharge to ground water (DGW) or surface water (DSW):	DSW- A	
4. Receiving water or aquifer:	Delaware River	
5. Classification of receiving water or aquifer:	Mainstem Delaware-Zone 5	
6. Owner of facility:	Energy Freedom Pioneers Inc	
7. Operator of facility:	Energy Freedom Pioneers Inc	
8. Co-Permittee of facility *(where applicable*):	N/A	
9. Location of facility:		
a. Municipality & County	Oldmans Township, Salem County	
b. Street address	Rt 130 Former Camp Pedricktown Bldg 530 Pedricktown, NJ 08046	
c. Block(s) and Lot(s)	Block 45, Lot 5.02	
10. Location of discharge (i.e. degrees, minutes, seconds):	a. Longitude 75°26'47" b. Latitude 39°45'07" or	
	c. State Plane Coordinates x 226030; y 335977	
11. Present permitted flow or permit condition (DSW) or daily maximum (DGW):	0.03 MGD	
*12. Summary of population served/to be served including major seasonal fluctuations:	Current (Year 2014) Population	Build-out or 20-Year Future (Year 20__)** *specify one as applicable*
Total	50	Information not available
*13. Summary of wastewater flow received/to be received as a 3-day average flow for DSW or a daily maximum flow for DGW:	Current (Year 2010) Flow (in MGD)	Build-out or 20-Year Future (Year 20__) as applicable (in MGD)**
Residential flow		
Commercial flow		
Industrial flow		
Infiltration/Inflow		
Facility Total	**0.0112**	Information not available

* Infiltration/Inflow (I/I): Existing I/I should be identified. However, additional future I/I may not be projected. (The NJPDES Treatment Works Approval regulations make numerical allowances for I/I.) The existing I/I can be carried-over and accounted for in the total future wastewater flow.

**Information regarding any future planned expansion is not available at this time.

Table 18	
1. Name of Facility:	**Oldmans Township School**
2. New Jersey Pollutant Discharge Elimination System Permit Number:	NJ0137707
3. Discharge to ground water (DGW)	DGW- T1
4. Owner of facility:	Oldmans Township Board of Education
5. Operator of facility:	Oldmans Township Board of Education
6. Location of facility:	
a. Municipality & County	Oldmans Township, Salem County
b. Street address	10 Freed Rd, Pedricktown NJ, 08067
c. Block(s) and Lot(s)	Block 9, Lot 5
7. Location of discharge (i.e. degrees, minutes, seconds):	a. Longitude 75°24'14" b. Latitude 39°45'18" or
	c. State Plane Coordinates x 238094 ; y 336669
8. Summary of population served identifying all wastewater generating uses:	Current (Year 2010) Population
School: (students and staff, specify cafeteria, lab, etc.)	231 students, 36 teachers, cafeteria
Institution: (beds)	
Restaurant: (seats)	
Commercial: (square footage)	
Campground: (sites, specify laundry, store, bathhouses	
Other:	
Design Flow (MGD)	0.009045

Table 19	
1. Name of Facility:	**295 Auto Truck Plaza Inc.**
2. New Jersey Pollutant Discharge Elimination System Permit Number:	NJG0100684
3. Discharge to ground water (DGW)	DGW- T1
4. Owner of facility:	Exit 7 Operating Corp.
5. Operator of facility:	Exit 7 Operating Corp.
6. Location of facility:	
a. Municipality & County	Oldmans Township, Salem County
b. Street address	185 Straughns Mill Road, Pedricktown NJ, 08067
c. Block(s) and Lot(s)	Block 28, Lot 30.01
7. Location of discharge (i.e. degrees, minutes, seconds):	a. Longitude 75°24'13" b. Latitude 39°43'49" or
	c. State Plane Coordinates x 237431; y 327711
8. Summary of population served identifying all wastewater generating uses:	Current (Year 2010) Population
School: (students and staff, specify cafeteria, lab, etc.)	
Institution: (beds)	
Restaurant: (seats)	
Commercial: (square footage)	10,148 sq. ft
Campground: (sites, specify laundry, store, bathhouses	
Other:	
Design Flow (MGD)	0.0065

Table 20		
Name of Facility:	**Penns Grove SA**	
1. Existing or proposed facility:	**Existing**	
2. New Jersey Pollutant Discharge Elimination System Permit Number:	NJ 0024023	
3. Discharge to ground water (DGW) or surface water (DSW):	DSW- A	
4. Receiving water or aquifer:	Delaware River	
5. Classification of receiving water or aquifer:	Mainstem Delaware-Zone 5	
6. Owner of facility:	Penns Grove Sewerage Authority	
7. Operator of facility:	Penns Grove Sewerage Authority	
8. Co-Permittee of facility *(where applicable*):	N/A	
9. Location of facility:		
a. Municipality & County	Penns Grove Township, Salem County	
b. Street address	Beach Ave & Mill Street Penns Grove, NJ 08069	
c. Block(s) and Lot(s)	Block 118, Lot 2	
10. Location of discharge (i.e. degrees, minutes, seconds):	a. Longitude 75°28'27" b. Latitude 39°43'43" or	
	c. State Plane Coordinates x 218278; y 327384	
11. Present permitted flow or permit condition (DSW) or daily maximum (DGW):	0.75 MGD	
*12. Summary of population served/to be served including major seasonal fluctuations:	Current (Year 2010) Population	~~Build-out or~~ 20-Year Future (Year 2030)** *specify one as applicable*
Total	5,147	5,776
*13. Summary of wastewater flow received/to be received as a 30-day average flow for DSW or a daily maximum flow for DGW:	Current (Year 2010) Flow (in MGD)	Build-out** ~~or 20-Year Future (Year 2030)~~ (in MGD) *specify one as applicable*
Residential flow	0.360	0.407
Commercial flow	0.045	0.050
Industrial flow	0	0
Infiltration/Inflow	N/A	N/A
Facility Total	**0.405**	**0.457**

*Infiltration/Inflow (I/I): Existing I/I should be identified. However, additional future I/I may <u>not</u> be projected. (The NJPDES Treatment Works Approval regulations make numerical allowances for I/I.) The existing I/I can be carried-over and accounted for in the total future wastewater flow.

**Data regarding the estimated population served by 2030 is based on population projections and anticipated number of new connections. The summary of waste water represents build-out projections within the adopted FSWA. This complete build-out may not be realized by 2030, based on the population projection.

Table 21	
1. Name of Facility:	**Pennsville Township Landfill**
2. New Jersey Pollutant Discharge Elimination System Permit Number:	NJ00056499
3. Discharge to ground water (DGW)	DGW
4. Owner of facility:	Pennsville Township
5. Operator of facility:	Pennsville Township
6. Location of facility:	
a. Municipality & County	Pennsville Township, Salem County
b. Street address	Industrial Park Road, Pennsville, NJ
c. Block(s) and Lot(s)	Block 4801, Lots 5 & 7
7. Location of discharge (i.e. degrees, minutes, seconds):	a. Longitude 75º 32' 41" b. Latitude 39º 38' 17" or
	c. State Plane Coordinates x 197926, y294814
8. Summary of population served identifying all wastewater generating uses:	Current (Year 2010) Population
School: (students and staff, specify cafeteria, lab, etc.)	
Institution: (beds)	
Restaurant: (seats)	
Commercial: (square footage)	
Campground: (sites, specify laundry, store, bathhouses	
Other:	Information not available*
Design Flow (MGD)	Information not available*

Notes: *The Pennsville Township Landfill is closed. Population and design flow is not available at this time.

Table 22		
Name of Facility:	**E I DuPont – Chamber Works**	
1. Existing or proposed facility:	Existing	
2. New Jersey Pollutant Discharge Elimination System Permit Number:	NJ 0005100	
3. Discharge to ground water (DGW) or surface water (DSW):	DSW- B	
4. Receiving water or aquifer:	Delaware River	
5. Classification of receiving water or aquifer:	Mainstem Delaware-Zone 5	
6. Owner of facility:	El DuPont De Nemours & Co	
7. Operator of facility:	El DuPont De Nemours & Co	
8. Co-Permittee of facility *(where applicable*):	N/A	
9. Location of facility:		
a. Municipality & County	Pennsville and Carney's Point, Salem County	
b. Street address	67 Canal Road Pennsville, NJ 08023	
c. Block(s) and Lot(s)	Block 301, Lots 1 and 3	
10. Location of discharge * (i.e. degrees, minutes, seconds):	a. Longitude 75º29'49" b. Latitude 39º41'04"	
	c. State Plane Coordinates x 211657; y 311564	
11. Present permitted flow or permit condition (DSW) or daily maximum (DGW):	62.6 MGD	
13. Summary of wastewater flow received/to be received as a 30-day average flow for DSW or a daily maximum flow for DGW:	Current (Year 2010) Flow (in MGD)	Ultimate Build-out
Commercial flow	0.22	N/A
Industrial flow	11.0	N/A
Infiltration/Inflow	14.0	N/A
Facility Total	**25.22**	**N/A**

Notes:

The terminus of the wastewater treatment portion of the plant is at Outfall Designator 662A. There is no separate permitted flow here. Effluent from 662A mixes with non-process wastewater from B-Basin, internal monitoring point DSN 322 (which consists of non-contact cooling water, stormwater runoff, steam condensate, and river water) where it mixes with Tank T-3. At Tank T-3 effluent from DSN 662A mixes with water from B-Basin prior to being discharged at DSN 001A.

Table 23		
Name of Facility:	**Pennsville SA**	
1. Existing or proposed facility:	Existing	
2. New Jersey Pollutant Discharge Elimination System Permit Number:	NJ 0021598	
3. Discharge to ground water (DGW) or surface water (DSW):	DSW- A, AS	
4. Receiving water or aquifer:	Delaware River	
5. Classification of receiving water or aquifer:	Mainstem Delaware-Zone 5	
6. Owner of facility:	Pennsville Sewerage Authority	
7. Operator of facility:	Pennsville Sewerage Authority	
8. Co-Permittee of facility *(where applicabl*e):	N/A	
9. Location of facility:		
a. Municipality & County	Pennsville Township, Salem County	
b. Street address	183 Delaware Drive Pennsville NJ, 08070	
c. Block(s) and Lot(s)	Block 4802, Lot 2	
10. Location of discharge (i.e. degrees, minutes, seconds):	a. Longitude 75º 32' 32" b. Latitude 39º 38' 20"	
	c. State Plane Coordinates x 198504; y 294657	
11. Present permitted flow or permit condition (DSW) or daily maximum (DGW):	1.875 MGD	
*12. Summary of population served/to be served including major seasonal fluctuations:	Current (Year 2008) Population	~~Build-out or~~ 20-Year Future (Year 2028)** specify as applicable
Municipality: Pennsville	10,744	11,627
Municipality: Carneys Point	123[2]	123
Total	**10,867**	**11,750[1]**
*13. Summary of wastewater flow received/to be received as a 30-day average flow for DSW or a daily maximum flow for DGW:	Current (Year 2008) Flow (in MGD)	Build-out** ~~or 20-Year Future (Year 2028)~~ *specify as applicable* (in MGD)
Municipality:	Pennsville	Pennsville
Residential flow	1.066	1.1392[3]
Commercial flow	0.239	0.4312[3]
Industrial flow	0.050	0.0675[3]
Infiltration/Inflow	N/A	N/A
Municipal Total	1.355	1.6379
Municipality:	Carneys Point	Carneys Point
Residential flow	0.008	0.008
Commercial flow	0.003	0.007
Industrial flow	0.000	0.000

Table 23 (continued)		
Name of Facility:	**Pennsville SA**	
Infiltration/Inflow	N/A	N/A
Municipal Total	0.011	0.015
Facility Total	**1.366**	**1.6529**

* Infiltration/Inflow (I/I): Existing I/I should be identified. However, additional future I/I may not be projected. (The NJPDES Treatment Works Approval regulations make numerical allowances for I/I.) The existing I/I can be carried-over and accounted for in the total future wastewater flow.

**Data regarding the estimated population served by 2030 is based on population projections and anticipated number of new connections. The summary of waste water represents build-out projections within the adopted FSWA. This complete build-out may not be realized by 2030, based on the population projection.

(1) The population of the Township of Pennsville, as of the 2000 U.S. Census, was 13,194. It was estimated that 10,744 individuals (81.4%) are currently served by sanitary sewer facilities. The U.S. Census indicated 13,794 people resided in the Township in 1990. The population decrease over that 10 year period was approximately 4.3%. The Delaware Valley Regional Planning Commission (D.V.R.P.C.) forecasted the population growth in Salem County from 2000-2025 to be 7.6%. This translates into a projected population of 14,279 for the Township of Pennsville. These predictions were based on current available data. The percentage of population currently served by sanitary sewer facilities was also utilized for the future projection.

(2) It was estimated that 41 residential connections exist within Carney's Point. This translates into a projected 123 individuals being served by Pennsville's sanitary sewer facilities.

(3) The proposed build-out projections consisted of evaluating residential, commercial and industrial flow projections to the extent of development that could occur according to applicable zoning in developable areas. These flows are presented within the Environmental Assessment / Analysis Report.

Table 24		
Name of Facility:	**Pennsville Twp – Heron WTP**	
1. Existing or proposed facility:	Existing	
2. New Jersey Pollutant Discharge Elimination System Permit Number:	NJ 0068705	
3. Discharge to ground water (DGW) or surface water (DSW):	DSW- B	
4. Receiving water or aquifer:	Delaware River	
5. Classification of receiving water or aquifer:	Mainstem Delaware-Zone 5	
6. Owner of facility:	Pennsville Township	
7. Operator of facility:	Pennsville Township	
8. Co-Permittee of facility *(where applicable*):	N/A	
9. Location of facility:		
a. Municipality & County	Pennsville Township, Salem County	
b. Street address	50 Heron Ave Pennsville, NJ 08070	
c. Block(s) and Lot(s)	Block 1306, Lot 19	
10. Location of discharge (i.e. degrees, minutes, seconds):	a. Longitude 75º 30’ 10” b. Latitude 39º 39’ 56”	
	c. State Plane Coordinates x 209609; y 304375	
11. Present permitted flow or permit condition (DSW) or daily maximum (DGW):	Not Limited	
13. Summary of wastewater flow received/to be received as a 30-day average flow for DSW or a daily maximum flow for DGW:	Current Flow (in MGD)	Build-out (in MGD)
Commercial flow		
Industrial flow		
Infiltration/Inflow		
Facility Total	**N/A**	**N/A**

* Infiltration/Inflow (I/I): Existing I/I should be identified. However, additional future I/I may not be projected. (The NJPDES Treatment Works Approval regulations make numerical allowances for I/I.) The existing I/I can be carried-over and accounted for in the total future wastewater flow.

Note: No future expansion planned at this time.

Table 25		
Name of Facility:	**Pennsville Twp – Water St WTP**	
1. Existing or proposed facility:	Existing	
2. New Jersey Pollutant Discharge Elimination System Permit Number:	NJ 0068730	
3. Discharge to ground water (DGW) or surface water (DSW):	DSW- B	
4. Receiving water or aquifer:	Delaware River	
5. Classification of receiving water or aquifer:	Mainstem Delaware-Zone 5	
6. Owner of facility:	Pennsville Township	
7. Operator of facility:	Pennsville Township	
8. Co-Permittee of facility *(where applicable*):	N/A	
9. Location of facility:		
a. Municipality & County	Pennsville Township, Salem County	
b. Street address	6 Water Street Pennsville, NJ 08070	
c. Block(s) and Lot(s)	Block 1603, Lot 6	
10. Location of discharge (i.e. degrees, minutes, seconds):	a. Longitude 75º 30’ 43” b. Latitude 39º 39’ 59”	
	c. State Plane Coordinates x 207165; y 305047	
11. Present permitted flow or permit condition (DSW) or daily maximum (DGW):	Not Limited	
13. Summary of wastewater flow received/to be received as a 30-day average flow for DSW or a daily maximum flow for DGW:	Current (Year 20__) Flow (in MGD)	Build-out or 20-Year Future (Year 20__) (in MGD) *specify one*
Commercial flow		
Industrial flow		
Infiltration/Inflow		
Facility Total	**N/A**	**N/A**

* Infiltration/Inflow (I/I): Existing I/I should be identified. However, additional future I/I may <u>not</u> be projected. (The NJPDES Treatment Works Approval regulations make numerical allowances for I/I.) The existing I/I can be carried-over and accounted for in the total future wastewater flow.

Note: No future expansion planned at this time.

Table 26	
1. Name of Facility:	**Fort Mott State Park**
2. New Jersey Pollutant Discharge Elimination System Permit Number:	NJG0133159
3. Discharge to ground water (DGW)	DGW- T1
4. Owner of facility:	NJDEP State Park Service
5. Operator of facility:	NJDEP State Park Service
6. Location of facility:	
a. Municipality & County	Pennsville Township, Salem County
b. Street address	454 Fort Mott Road Pennsville, NJ 08070-0000
c. Block(s) and Lot(s)	Block 5301, Lot 3
7. Location of discharge (i.e. degrees, minutes, seconds):	a. Longitude 75°33'03" b. Latitude 39°36'18" or
	c. State Plane Coordinates x 196233; y 281949
8. Summary of population served identifying all wastewater generating uses:	Current (Year 2010) Population
School: (students and staff, specify cafeteria, lab, etc.)	
Institution: (beds)	
Restaurant: (seats)	
Commercial: (square footage)	
Campground: (sites, specify laundry, store, bathhouses	public restroom, office, maintenance garage, and dwelling*
Other:	
Design Flow (MGD)	0.00355

Notes:

This action is a renewal of the authorization under the NJPDES Septic System Discharge General Permit (NJ0130281).

The facility is a state park comprised of a large public restroom, office, maintenance garage, and dwelling. The facility is served by four (4) conventional septic systems. The systems authorized by this permit are for sanitary waste only.

Table 27		
Name of Facility:	**Waddington-Richman, Inc.**	
1. Existing or proposed facility:	Existing	
2. New Jersey Pollutant Discharge Elimination System Permit Number:	NJ 0004308	
3. Discharge to ground water (DGW) or surface water (DSW):	DSW- B	
4. Receiving water or aquifer:	Salem River via unnamed trib.	
5. Classification of receiving water or aquifer:	FW2-NT(C2)	
6. Owner of facility:	Waddington Richman Inc	
7. Operator of facility:	Waddington Richman Inc	
8. Co-Permittee of facility *(where applicable*):	N/A	
9. Location of facility:		
a. Municipality & County	Pilesgrove Township, Salem County	
b. Street address	849 Rt 40 Woodstown, NJ 08098-2840	
c. Block(s) and Lot(s)	Block 29, Lot 17	
10. Location of discharge (i.e. degrees, minutes, seconds):	a. Longitude 75°21'48" b. Latitude 39°39'28" or	
	c. State Plane Coordinates x 249118; y 301472	
11. Present permitted flow or permit condition (DSW) or daily maximum (DGW):	0.02 MGD	
13. Summary of wastewater flow received/to be received as a 30-day average flow for DSW or a daily maximum flow for DGW:	Current (Year 2007) Flow (in MGD)	Build-out or 20-Year Future (Year 20__) (in MGD) *specify one*
Commercial flow		
Industrial flow		
Infiltration/Inflow		
Facility Total	**NODI**	**NODI**

* Infiltration/Inflow (I/I): Existing I/I should be identified. However, additional future I/I may <u>not</u> be projected. (The NJPDES Treatment Works Approval regulations make numerical allowances for I/I.) The existing I/I can be carried-over and accounted for in the total future wastewater flow.

Table 28	
1. Name of Facility:	**Waddington-Richman Inc**
2. New Jersey Pollutant Discharge Elimination System Permit Number:	NJ0100218
3. Discharge to ground water (DGW)	DGW- T1
4. Owner of facility:	Waddington Richman Inc.
5. Operator of facility:	Waddington Richman Inc.
6. Location of facility:	
a. Municipality & County	Pilesgrove Township, Salem County
b. Street address	849 Rt 40 Woodstown, NJ 08098-2840
c. Block(s) and Lot(s)	Block 29, Lot 17
7. Location of discharge (i.e. degrees, minutes, seconds):	a. Longitude 75°21'50" b. Latitude 39°39'28" or
	c. State Plane Coordinates x 249118; y 301472
8. Summary of population served identifying all wastewater generating uses:	Current (Year 2010) Population
School: (students and staff, specify cafeteria, lab, etc.)	
Institution: (beds)	
Restaurant: (seats)	
Commercial: (square footage)	
Campground: (sites, specify laundry, store, bathhouses	
Other:	N/A*
Design Flow (MGD)	N/A*

*This permit was revoked.

Table 29	
1. Name of Facility:	**Four Seasons Campground**
2. New Jersey Pollutant Discharge Elimination System Permit Number:	NJG0136221
3. Discharge to ground water (DGW)	DGW- T1
4. Owner of facility:	Four Seasons Campground
5. Operator of facility:	Four Seasons Campground
6. Location of facility:	
a. Municipality & County	Pilesgrove Township, Salem County
b. Street address	158 Woodstown - Daretown Rd Pilesgrove Twp, NJ 08098
c. Block(s) and Lot(s)	Block 81, Lot 23
7. Location of discharge (i.e. degrees, minutes, seconds):	a. Longitude 75°16'24" b. Latitude 39°37'12" or
	c. State Plane Coordinates x 273991; y 286500
8. Summary of population served identifying all wastewater generating uses:	Current (Year 2010) Population
School: (students and staff, specify cafeteria, lab, etc.)	
Institution: (beds)	
Restaurant: (seats)	
Commercial: (square footage)	
Campground: (sites, specify laundry, store, bathhouses	487 sites*
Other:	
Design Flow (MGD)	0.002

Notes:

The facility consists of 387 sites for RV/Park model campers and 100 tent/tent trailer sites. Sewage is handled by 28 septic tanks and 2 disposal fields. The discharge authorized by this permit is for sanitary waste only.

No future expansion planned at this time.

Table 30	
1. Name of Facility:	**Harding Woods Inc**
2. New Jersey Pollutant Discharge Elimination System Permit Number:	NJ0099678
3. Discharge to ground water (DGW)	DGW- T1
4. Owner of facility:	Harding Woods Inc
5. Operator of facility:	Harding Woods Inc
6. Location of facility:	
a. Municipality & County	Pittsgrove Township, Salem County
b. Street address	187 Harding Highway Pittsgrove Twp, NJ 08318
c. Block(s) and Lot(s)	Block 201, Lot 2
7. Location of discharge (i.e. degrees, minutes, seconds):	a. Longitude 75°07'17" b. Latitude 39°35'27" or
	c. State Plane Coordinates x 317120; y 277645
8. Summary of population served identifying all wastewater generating uses:	Current (Year 2010) Population
School: (students and staff, specify cafeteria, lab, etc.)	
Institution: (beds)	
Restaurant: (seats)	
Commercial: (square footage)	
Campground: (sites, specify laundry, store, bathhouses	
Other:	319 unit mobile home park
Design Flow (MGD)	0.075

Notes: Harding Woods is a 319 unit mobile home park with an on-site treatment system.

Table 31		
Name of Facility:	**Arthur Shalick High School**	
1. Existing or proposed facility:	Existing	
2. New Jersey Pollutant Discharge Elimination System Permit Number:	NJ 0090221	
3. Discharge to ground water (DGW) or surface water (DSW):	DGW- T- Underground Injection Control -UIC	
4. Receiving water or aquifer:	Cohansey Sand Formation	
5. Classification of receiving water or aquifer:	I-PL	
6. Owner of facility:	Arthur Schalick High School	
7. Operator of facility:	Arthur Schalick High School	
8. Co-Permittee of facility *(where applicable*):	N/A	
9. Location of facility:		
a. Municipality & County	Pittsgrove Township, Salem County	
b. Street address	718 Centerton Road Pittsgrove Twp, NJ 08343-0000	
c. Block(s) and Lot(s)	Block 57, Lot 5	
10. Location of discharge (i.e. degrees, minutes, seconds):	a. Longitude 75°09'42" b. Latitude 39°31'43" or	
	c. State Plane Coordinates x 304914; y 253952	
11. Present permitted flow or permit condition (DSW) or daily maximum (DGW):	0.0225 MGD	
*13. Summary of population served/to be served including major seasonal fluctuations:	Current (Year 2010) Population	~~Build-out or~~ 26-Year Future (Year 2040)*** *specify one as applicable*
Total	1,461 students & staff**	1,473 students and staff
*14. Summary of wastewater flow received/to be received as a 3-day average flow for DSW or a daily maximum flow for DGW:	Current (3/2010-2/2011) Flow (in MGD)	Build-out ~~or 20-Year Future (Year 20__) as applicable~~ (in MGD)
Residential flow		
Commercial flow		
Industrial flow		
Infiltration/Inflow		
Facility Total	**0.002129**	**0.0329**

* Infiltration/Inflow (I/I): Existing I/I should be identified. However, additional future I/I may not be projected. (The NJPDES Treatment Works Approval regulations make numerical allowances for I/I.) The existing I/I can be carried-over and accounted for in the total future wastewater flow.

**Includes High School and Middle School populations.

*** Future population calculated using SJTPO's projection of 0.83% growth by 2040.

Table 32		
Name of Facility:	**Daytop of NJ**	
1. Existing or proposed facility:	Existing	
2. New Jersey Pollutant Discharge Elimination System Permit Number:	NJ 0157716	
3. Discharge to ground water (DGW) or surface water (DSW):	DGW- T- Underground Injection Control -UIC	
4. Receiving water or aquifer:	Cohansey Formation	
5. Classification of receiving water or aquifer:	II-A	
6. Owner of facility:	Daytop of NJ	
7. Operator of facility:	Daytop of NJ	
8. Co-Permittee of facility *(where applicable*):	N/A	
9. Location of facility:		
a. Municipality & County	Pittsgrove Township, Salem County	
b. Street address	4 Harding Highway Pittsgrove Twp, NJ 07945	
c. Block(s) and Lot(s)	Block 204, Lot 3,4,5	
10. Location of discharge (i.e. degrees, minutes, seconds):	a. Longitude 75°07'19" b. Latitude 39°35'40" or	
	c. State Plane Coordinates x 316827; y 277750	
11. Present permitted flow or permit condition (DSW) or daily maximum (DGW):	0.01225 MGD	
*12. Summary of population served/to be served including major seasonal fluctuations:	Current (Year 2010) Population	Build-out ~~or 20-Year Future (Year 20__)~~ *specify one as applicable*
Total	35 students	70 students
*13. Summary of wastewater flow received/to be received as a 3-day average flow for DSW or a daily maximum flow for DGW:	Current (3/2010-2/2011) Flow (in MGD)	Build-out or 20-Year Future (Year 20__) as applicable (in MGD)
Residential flow		
Commercial flow		
Industrial flow		
Infiltration/Inflow		
Facility Total	**0.00428**	**0.01225**

* Infiltration/Inflow (I/I): Existing I/I should be identified. However, additional future I/I may <u>not</u> be projected. (The NJPDES Treatment Works Approval regulations make numerical allowances for I/I.) The existing I/I can be carried-over and accounted for in the total future wastewater flow.

Table 33	
1. Name of Facility:	**Picnic Grove Mobile Homes**
2. New Jersey Pollutant Discharge Elimination System Permit Number:	NJG0066214
3. Discharge to ground water (DGW)	DGW- T1
4. Owner of facility:	Par 3 Management, LLC
5. Operator of facility:	Par 3 Management, LLC
6. Location of facility:	
a. Municipality & County	Pittsgrove Township, Salem County
b. Street address	Route 40, Pittsgrove Twp, NJ 08318
c. Block(s) and Lot(s)	Block 201, Lot 1
7. Location of discharge (i.e. degrees, minutes, seconds):	a. Longitude 75°07'35" b. Latitude 39°35'43" or
	c. State Plane Coordinates x 315685.042; y 277584.899
8. Summary of population served identifying all wastewater generating uses:	Current (Year 2010) Population
School: (students and staff, specify cafeteria, lab, etc.)	
Institution: (beds)	
Restaurant: (seats)	
Commercial: (square footage)	
Campground: (sites, specify laundry, store, bathhouses	
Other:	100 mobile home sites
Design Flow (MGD)	0.02

Notes: This facility consists of 100 mobile home sites which discharge to groundwater via multiple subsurface disposal systems.

Table 34	
1. Name of Facility:	**The Villages I**
2. New Jersey Pollutant Discharge Elimination System Permit Number:	NJG0084883
3. Discharge to ground water (DGW)	DGW- T1
4. Owner of facility:	Jim Sullivan Inc
5. Operator of facility:	Jim Sullivan Inc
6. Location of facility:	
a. Municipality & County	Pittsgrove Township, Salem County
b. Street address	388 Porchtown Road Pittsgrove Twp, NJ 08318
c. Block(s) and Lot(s)	Block 303, Lot 2
7. Location of discharge (i.e. degrees, minutes, seconds):	a. Longitude 75°06'21" b. Latitude 39°33'55" or
	c. State Plane Coordinates x 321100; y 267340
8. Summary of population served identifying all wastewater generating uses:	Current (Year 2010) Population
School: (students and staff, specify cafeteria, lab, etc.)	
Institution: (beds)	
Restaurant: (seats)	
Commercial: (square footage)	
Campground: (sites, specify laundry, store, bathhouses	21 sites*
Other:	
Design Flow (MGD)	0.0042

Notes:

This facility consists of 21 mobile homes, which are serviced by 7 septic tanks, 12 cesspools and 1 - 60 by 30 feet disposal bed.

Table 35	
1. Name of Facility:	**Holly Tree Acres Trailer Home**
2. New Jersey Pollutant Discharge Elimination System Permit Number:	NJG0108405
3. Discharge to ground water (DGW)	DGW- T1
4. Owner of facility:	Holly Tree Acres LLC
5. Operator of facility:	Holly Tree Acres LLC
6. Location of facility:	
a. Municipality & County	Pittsgrove Township, Salem County
b. Street address	109 Middle Drive Pittsgrove Twp, NJ 08318-4032
c. Block(s) and Lot(s)	Block 2701, Lot 109
7. Location of discharge (i.e. degrees, minutes, seconds):	a. Longitude 75°07'37" b. Latitude 39°29'47" or
	c. State Plane Coordinates x 315405; y 242773
8. Summary of population served identifying all wastewater generating uses:	Current (Year 2010) Population
School: (students and staff, specify cafeteria, lab, etc.)	
Institution: (beds)	
Restaurant: (seats)	
Commercial: (square footage)	
Campground: (sites, specify laundry, store, bathhouses	112 sites*
Other:	
Design Flow (MGD)	0.0224

Notes:

This facility is an existing 112 unit mobile home park, which discharges sanitary wastewater via 80 on-site septic systems. Maximum population served is 300 persons. A "typical" system at this site is comprised of a septic tank and seepage pit. Some units have their own system and other units share the septic system. The system authorized by this permit is for sanitary waste only.

Table 36	
1. Name of Facility:	**Centerton Country Club**
2. New Jersey Pollutant Discharge Elimination System Permit Number:	NJG0129577
3. Discharge to ground water (DGW)	DGW- T1
4. Owner of facility:	Centerton Hospitality Group LLC
5. Operator of facility:	Centerton Hospitality Group LLC
6. Location of facility:	
a. Municipality & County	Pittsgrove Township, Salem County
b. Street address	1022 Almond Road Pittsgrove Twp, NJ 08318
c. Block(s) and Lot(s)	Block 1802, Lot 1, 2.5
7. Location of discharge (i.e. degrees, minutes, seconds):	a. Longitude 75°09'20" b. Latitude 39°31'41" or
	c. State Plane Coordinates x 307618.2; y 251710.9
8. Summary of population served identifying all wastewater generating uses:	Current (Year 2010) Population
School: (students and staff, specify cafeteria, lab, etc.)	
Institution: (beds)	
Restaurant: (seats)	1000 seats*
Commercial: (square footage)	
Campground: (sites, specify laundry, store, bathhouses	
Other:	
Design Flow (MGD)	0.01

Notes:

The facility is an existing country club. It has restaurant and banquet facilities with a total seating capacity of 1000 seats.

Table 37	
1. Name of Facility:	**Parvin State Park**
2. New Jersey Pollutant Discharge Elimination System Permit Number:	NJG0133167
3. Discharge to ground water (DGW)	DGW- T1
4. Owner of facility:	NJDEP State Park Service
5. Operator of facility:	NJDEP State Park Service
6. Location of facility:	
a. Municipality & County	Pittsgrove Township, Salem County
b. Street address	701 Almond Road Pittsgrove, NJ 08318-3928
c. Block(s) and Lot(s)	Block 2801, Lot 2
7. Location of discharge (i.e. degrees, minutes, seconds):	a. Longitude 75°08'53" b. Latitude 39°30'43" or
	c. State Plane Coordinates x 313656; y 247317
8. Summary of population served identifying all wastewater generating uses:	Current (Year 2010) Population
School: (students and staff, specify cafeteria, lab, etc.)	
Institution: (beds)	
Restaurant: (seats)	
Commercial: (square footage)	
Campground: (sites, specify laundry, store, bathhouses	17 sites, including: cabins, maintenance buildings, a nature center, office, and dump station*
Other:	
Design Flow (MGD)	0.02025

Notes:

The facility is a state park comprised of (17) cabins, maintenance buildings, nature center, office, and dump station. The facility is served by seventeen (17) conventional septic systems. The systems authorized by this permit are for sanitary waste only.

Table 38	
1. Name of Facility:	**Rainbow Center**
2. New Jersey Pollutant Discharge Elimination System Permit Number:	NJG0158496
3. Discharge to ground water (DGW)	DGW- T1
4. Owner of facility:	American Health Corp
5. Operator of facility:	American Health Corp
6. Location of facility:	
a. Municipality & County	Pittsgrove Township, Salem County
b. Street address	849 Big Oak Road Pittsgrove, NJ 08318
c. Block(s) and Lot(s)	Block 2703, Lot 8
7. Location of discharge (i.e. degrees, minutes, seconds):	a. Longitude 75°07'20" b. Latitude 39°29'10" or
	c. State Plane Coordinates x 316516 y 238364
8. Summary of population served identifying all wastewater generating uses:	Current (Year 2010) Population
School: (students and staff, specify cafeteria, lab, etc.)	
Institution: (beds)	84 beds*
Restaurant: (seats)	
Commercial: (square footage)	
Campground: (sites, specify laundry, store, bathhouses	
Other:	
Design Flow (MGD)	0.0135

Notes:

This facility has 84 patients and 60 employees. The existing system consists of two disposal systems. One system, installed in 1970 has a total of nine(9) 1000-gallon septic tanks followed by a drain field. The 1982 system has a total of four (4) 4,300-gallon septic tanks followed by a pump station. One hundred percent (100%) of facility flow is directed to the 1982 system tanks from which the pump station directs flow to either the 1982 drain fields or to the head of the 1970 septic tanks and then by gravity to the 1970 drain field. Wastewater flow is manually alternated between the two systems every four(4) months.

Table 39		
Name of Facility:	**B&B Poultry Co., Inc**	
1. Existing or proposed facility:	Existing	
2. New Jersey Pollutant Discharge Elimination System Permit Number:	NJ 0061841	
3. Discharge to ground water (DGW) or surface water (DSW):	D- STP	
4. Receiving water or aquifer *:	N/A – Landis Sewerage Authority Sewage Treatment Plant	
5. Classification of receiving water or aquifer:	N/A	
6. Owner of facility:	B&B Poultry Co., Inc..	
7. Operator of facility:	B&B Poultry Co., Inc..	
8. Co-Permittee of facility *(where applicable*):	N/A	
9. Location of facility:		
a. Municipality & County	Pittsgrove, Salem County	
b. Street address	110 Almond Road Pittsgrove, NJ 08347	
c. Block(s) and Lot(s)	Block 2402, Lot 24	
10. Location of discharge (i.e. degrees, minutes, seconds):	N/A: Discharge to LSA STP	
11. Present permitted flow or permit condition (DSW) or daily maximum (DGW):	N/A	
13. Summary of wastewater flow received/to be received as a 30-day average flow for DSW or a daily maximum flow for DGW:	Current (Year 2011) Flow (in MGD)	Build-out ~~or 20-Year Future (Year 2031)~~ (in MGD) *specify one*
Commercial flow		
Industrial flow		
Infiltration/Inflow		
Facility Total	**0.1109**	**0.1650**

* Infiltration/Inflow (I/I): Existing I/I should be identified. However, additional future I/I may not be projected. (The NJPDES Treatment Works Approval regulations make numerical allowances for I/I.) The existing I/I can be carried-over and accounted for in the total future wastewater flow.

* The applicant operates a poultry slaughterhouse and preparation plant, SIC 2015. Approximately 115,000 gallons per day of wastewater from various processes is being discharged to LSA. The process wastewater is pretreated prior to discharge. The pretreatment system consists of screening, equalization, dissolved air floatation and skimming processes.

Table 39A		
Name of Facility:	**Pepco**	
1. Existing or proposed facility:	Proposed	
2. New Jersey Pollutant Discharge Elimination System Permit Number:	N/A (future facility)	
3. Discharge to ground water (DGW) or surface water (DSW):	N/A	
4. Receiving water or aquifer *:	N/A	
5. Classification of receiving water or aquifer:	N/A	
6. Owner of facility:	Pepco Holdings, Inc.	
7. Operator of facility:	Pepco Holdings, Inc.	
8. Co-Permittee of facility *(where applicable*):	N/A	
9. Location of facility:		
a. Municipality & County	Pittsgrove, Salem County	
b. Street address	Evelyn Avenue Pittsgrove, NJ	
c. Block(s) and Lot(s)	Block 3002, Lots 1, 2, 3, 4 Block 3001, Lots 1, 2, 11, 20, 21, 38, 39	
10. Location of discharge (i.e. degrees, minutes, seconds):	a. Longitude 75°05'54" b. Latitude 39°29'10"	
	c. State Plane Coordinates x 323261, y 238086	
11. Present permitted flow or permit condition (DSW) or daily maximum (DGW):	N/A	
13. Summary of wastewater flow received/to be received as a 30-day average flow for DSW or a daily maximum flow for DGW:	Current (Year 2014) Flow (in MGD)	Build-out ~~or 20-Year Future (Year 2031)~~ (in MGD) *specify one*
Commercial flow		
Industrial flow		
Infiltration/Inflow		
Facility Total	**N/A**	**0.012**

Note: This facility is a proposed future facility and therefore does not have a NJPDES permit number or permitted or current flows.

Table 40	
1. Name of Facility:	**Quinton Township Landfill**
2. New Jersey Pollutant Discharge Elimination System Permit Number:	NJ0054909
3. Discharge to ground water (DGW)	DGW- T1
4. Owner of facility:	Quinton Township
5. Operator of facility:	Quinton Township
6. Location of facility:	
a. Municipality & County	Quinton Township, Salem County
b. Street address	S Burden Hill Road Quinton, NJ 08072
c. Block(s) and Lot(s)	Block 34, Lots30, 23.01
7. Location of discharge (i.e. degrees, minutes, seconds):	a. Longitude 75°23'10" b. Latitude 39°31'29" or
	c. State Plane Coordinates x 242001, y 253008
8. Summary of population served identifying all wastewater generating uses:	Current (Year 2010) Population
School: (students and staff, specify cafeteria, lab, etc.)	N/A
Institution: (beds)	
Restaurant: (seats)	
Commercial: (square footage)	
Campground: (sites, specify laundry, store, bathhouses	
Other:	
Design Flow (MGD)	N/A

Table 41		
Name of Facility:	**Salem City WWTP**	
1. Existing or proposed facility:	Existing	
2. New Jersey Pollutant Discharge Elimination System Permit Number:	NJ 0024856	
3. Discharge to ground water (DGW) or surface water (DSW):	DSW- A	
4. Receiving water or aquifer:	Salem River	
5. Classification of receiving water or aquifer:	SE1(C2) - tidal tributary to Zone 5	
6. Owner of facility:	Salem City	
7. Operator of facility:	Salem City	
8. Co-Permittee of facility *(where applicable)*:	N/A	
9. Location of facility:		
a. Municipality & County	Salem City, Salem County	
b. Street address	19 S Front Street Salem, NJ 08079-0000	
c. Block(s) and Lot(s)	Block 46, Lots 1, 3, 5	
10. Location of discharge (i.e. degrees, minutes, seconds):	a. Longitude 75°28'38" b. Latitude 39°34'34" or	
	c. State Plane Coordinates x 216308; y 271025	
11. Present permitted flow or permit condition (DSW) or daily maximum (DGW):	1.4 MGD	
*12. Summary of population served/to be served including major seasonal fluctuations:	Current (Year 2010) Population (census)	~~Build-out or~~ 20-Year Future (Year 2030)** specify as applicable (SJTPO)
Municipality: Salem City	5,146	5,104
Municipality: Alloway Twp	684	881
Municipality: Quinton Twp	673	674
Municipality: Mannington Twp	121	142
Municipality: Elsinboro Twp	14	14
Total	6,638	6,815
*13. Summary of wastewater flow received/to be received as a 30-day average flow for DSW or a daily maximum flow for DGW:	Current (Year 2010) Flow (in MGD)	Build-out** ~~or 20-Year Future (Year 20__)~~ specify as applicable (in MGD)
Municipality:	Salem City	
Residential flow	0.469	0.793
Commercial flow	0.016	0.021
Industrial flow	0.062	0.111
Infiltration/Inflow	N/A	N/A
Municipal Total	0.547	0.925

Table 41 (continued)		
Name of Facility:	**Salem City WWTP**	
Municipality:	Alloway Township	
Residential flow	0.016	0.045
Commercial flow	0	0.005
Industrial flow	0	0
Infiltration/Inflow	N/A	N/A
Municipal Total	0.016	0.050
Municipality:	Quinton Township	
Residential flow	0.027	0.091
Commercial flow	0	0.033
Industrial flow	0	0
Infiltration/Inflow	N/A	N/A
Municipal Total	0.027	0.124
Municipality:	Mannington Township	
Residential flow	0	0.004
Commercial flow	0.104	0.105
Industrial flow	0	0
Infiltration/Inflow	N/A	N/A
Municipal Total	0.104	0.109
Municipality:	Elsinboro Township	
Residential flow	0.001	0.001
Commercial flow	0	0
Industrial flow	0	0
Infiltration/Inflow	N/A	N/A
Municipal Total	0.001	0.001
Facility Total	**0.695**	**1.209**

* Infiltration/Inflow (I/I): Existing I/I should be identified. However, additional future I/I may not be projected. (The NJPDES Treatment Works Approval regulations make numerical allowances for I/I.) The existing I/I can be carried-over and accounted for in the total future wastewater flow.

**Data regarding the estimated population served by 2030 is based on population projections and the anticipated number of new connections. The summary of wastewater flow represents build-out projections within the adopted FWSA. The complete build-out may not be realized by 2030, based on the population projections.

Table 42		
Name of Facility:	**Salem WTP**	
1. Existing or proposed facility:	Existing	
2. New Jersey Pollutant Discharge Elimination System Permit Number:	NJG0035742	
3. Discharge to ground water (DGW) or surface water (DSW):	DSW-B	
4. Receiving water or aquifer:	Tributary to Keasbey's Creek	
5. Classification of receiving water or aquifer:	FW2-NT/SE1(C2)	
6. Owner of facility:	Salem City	
7. Operator of facility:	Salem City	
8. Co-Permittee of facility *(where applicable*):	N/A	
9. Location of facility:		
a. Municipality & County	Salem City, Salem County	
b. Street address	520 Grieves Parkway Salem, NJ 08079-0000	
c. Block(s) and Lot(s)	Block 73, Lot 2	
10. Location of discharge (i.e. degrees, minutes, seconds):	a. Longitude 75°27'15" b. Latitude 39°33'37"	
	c. State Plane Coordinates x 216316; y 271033	
11. Present permitted flow or permit condition (DSW) or daily maximum (DGW):	0.0316 MGD	
13. Summary of wastewater flow received/to be received as a 30-day average flow for DSW or a daily maximum flow for DGW:	Current (Year 2007) Flow (in MGD)	Build-out or 20-Year Future (Year 20__) (in MGD) *specify one*
Commercial flow		
Industrial flow	0.02	
Infiltration/Inflow		
Facility Total	**0.02**	**N/A****

* Infiltration/Inflow (I/I): Existing I/I should be identified. However, additional future I/I may not be projected. (The NJPDES Treatment Works Approval regulations make numerical allowances for I/I.) The existing I/I can be carried-over and accounted for in the total future wastewater flow.

**Owner plans to close lagoons once the new WTP is completed and online. Note that the new WTP will discharge to the sanitary sewer system and therefore does not require a NJPDES permit.

***The facility uses surface water as source water and chlorinated water to backwash the filters. Wastewater consisting of filter backwash and clarifier blowdown is directed to settling lagoons #2 and #1 and discharged to an unnamed tributary of Keasbey's Creek.

Table 43		
Name of Facility:	**Burlington Beef**	
1. Existing or proposed facility:	Existing	
2. New Jersey Pollutant Discharge Elimination System Permit Number:	NJ 0099198	
3. Discharge to ground water (DGW) or surface water (DSW):	DGW- GW	
4. Receiving water or aquifer:	Cape May	
5. Classification of receiving water or aquifer:	II-A	
6. Owner of facility:	Henry Kohn Inc.	
7. Operator of facility:	Henry Kohn Inc.	
8. Co-Permittee of facility *(where applicable*):	N/A	
9. Location of facility:		
a. Municipality & County	Upper Pittsgrove Twp, Salem County	
b. Street address	30 Burlington Road Upper Pittsgrove Twp, NJ 08343-0000	
c. Block(s) and Lot(s)	Block 48, Lot 4	
10. Location of discharge (i.e. degrees, minutes, seconds):	a. Longitude 75°12'00" b. Latitude 39°37'13" or	
	c. State Plane Coordinates: x 294973; y 287396	
11. Present permitted flow or permit condition (DSW) or daily maximum (DGW):	N/A	
*12. Summary of population served/to be served including major seasonal fluctuations:	Current (Year 20__) Population	Build-out or 20-Year Future (Year 20__) *specify one as applicable*
Total		
*13. Summary of wastewater flow received/to be received as a 3-day average flow for DSW or a daily maximum flow for DGW:	Current (Year 2010) Flow (in MGD)	Build-out or 20-Year Future (Year 20__) as applicable (in MGD)
Residential flow		
Commercial flow		
Industrial flow		
Infiltration/Inflow		
Facility Total	**0.000818**	**0.000818**

* Infiltration/Inflow (I/I): Existing I/I should be identified. However, additional future I/I may not be projected. (The NJPDES Treatment Works Approval regulations make numerical allowances for I/I.) The existing I/I can be carried-over and accounted for in the total future wastewater flow.

Table 44	
1. Name of Facility:	**WaWa**
2. New Jersey Pollutant Discharge Elimination System Permit Number:	NJ0169889
3. Discharge to ground water (DGW)	DGW- T1
4. Owner of facility:	Wawa, Inc.
5. Operator of facility:	Wawa, Inc.
6. Location of facility:	
a. Municipality & County	Upper Pittsgrove Township, Salem County
b. Street address	Rt 40 and Pole Tavern Road, Elmer, NJ 08318
c. Block(s) and Lot(s)	Block 56, Lot 6
7. Location of discharge (i.e. degrees, minutes, seconds):	a. Longitude 75°13'44" b. Latitude 39°36'59" or
	c. State Plane Coordinates x 287178.285; y 285738.870
8. Summary of population served identifying all wastewater generating uses:	Current (Year 2010) Population
School: (students and staff, specify cafeteria, lab, etc.)	
Institution: (beds)	
Restaurant: (seats)	
Commercial: (square footage)	5,589 sq ft
Campground: (sites, specify laundry, store, bathhouses	
Other:	16 fueling stations
Design Flow (MGD)	0.0032

Table 45		
Name of Facility:	**Upper Pittsgrove Twp Elementary School**	
1. Existing or proposed facility:	Existing	
2. New Jersey Pollutant Discharge Elimination System Permit Number:	NJ 0100625	
3. Discharge to ground water (DGW) or surface water (DSW):	DGW- T- Underground Injection Control -UIC	
4. Receiving water or aquifer:	Cohansey Sand Formation of Tertiary Age	
5. Classification of receiving water or aquifer:	II-A	
6. Owner of facility:	Upper Pittsgrove Township Board of Education	
7. Operator of facility:	Upper Pittsgrove Township Board of Education	
8. Co-Permittee of facility *(where applicabl*e):	N/A	
9. Location of facility:		
a. Municipality & County	Upper Pittsgrove Township, Salem County	
b. Street address	235 Pine Tavern Road Upper Pittsgrove, NJ 08343	
c. Block(s) and Lot(s)	Block 38, Lot 9	
10. Location of discharge (i.e. degrees, minutes, seconds):	a. Longitude 75°12'06" b. Latitude 39°37'44"	
	c. State Plane Coordinates x 294528; y 290592	
11. Present permitted flow or permit condition (DSW) or daily maximum (DGW):	0.009	
*12. Summary of population served/to be served including major seasonal fluctuations:	Current (Year 2010) Population	~~Build-out or~~ 26-Year Future (Year 2040)** *specify one as applicable*
Total	600	616
**13. Summary of wastewater flow received/to be received as a 3-day average flow for DSW or a daily maximum flow for DGW:	Current (Year 2007) Flow (in MGD)	~~Build-out or~~ 26-Year Future (Year 2040) as applicable (in MGD)
Residential flow		
Commercial flow		
Industrial flow		
Infiltration/Inflow		
Facility Total	**0.001**	**0.001**

Notes: The school has no cafeteria or science laboratories and a maximum population of 600 students and staff, resulting in the generation of daily design volume of sanitary sewage of 9,000 gallons per day.

* Infiltration/Inflow (I/I): Existing I/I should be identified. However, additional future I/I may <u>not</u> be projected. (The NJPDES Treatment Works Approval regulations make numerical allowances for I/I.) The existing I/I can be carried-over and accounted for in the total future wastewater flow.

**Future population was calculated using SJTPO's projection of 2.6% growth by 2040.

Table 46	
1. Name of Facility:	**Country Club Estates**
2. New Jersey Pollutant Discharge Elimination System Permit Number:	NJG0084603
3. Discharge to ground water (DGW)	DGW- T1
4. Owner of facility:	Garden Homes Management Corp
5. Operator of facility:	Garden Homes Management Corp
6. Location of facility:	
a. Municipality & County	Upper Pittsgrove Township, Salem County
b. Street address	NJ State Highway Rt 40 Elmer, NJ 08318
c. Block(s) and Lot(s)	Block 5, Lot 55, 60
7. Location of discharge (i.e. degrees, minutes, seconds):	a. Longitude 75°07'48" b. Latitude 39°35'46" or
	c. State Plane Coordinates x 314626; y 278289
8. Summary of population served identifying all wastewater generating uses:	Current (Year 2010) Population
School: (students and staff, specify cafeteria, lab, etc.)	
Institution: (beds)	
Restaurant: (seats)	
Commercial: (square footage)	
Campground: (sites, specify laundry, store, bathhouses	80 sites*
Other:	
Design Flow (MGD)	0.002

Notes:

This is an existing mobile home park with 80 mobile homes. The park is serviced by 60 gravity fed septic systems with tanks ranging from 1000 to 2000 gallons. A home and bungalow onsite each have an individual gravity fed septic system. The total site capacity is 16000 gallons/day. The system authorized by this permit is for sanitary waste only.

Table 47	
1. Name of Facility:	**Appel Farm Arts & Music Ctr**
2. New Jersey Pollutant Discharge Elimination System Permit Number:	NJG0133493
3. Discharge to ground water (DGW)	DGW- T1
4. Owner of facility:	Appel Farm Arts & Music Center
5. Operator of facility:	Appel Farm Arts & Music Center
6. Location of facility:	
a. Municipality & County	Upper Pittsgrove Township, Salem County
b. Street address	Shirley – Elmer Road/Box 888 Elmer, NJ 08318
c. Block(s) and Lot(s)	Block 82, Lot 2, 3, 9
7. Location of discharge (i.e. degrees, minutes, seconds):	a. Longitude 75°11'50" b. Latitude 39°34'40" or
	c. State Plane Coordinates x 295610 y 271905
8. Summary of population served identifying all wastewater generating uses:	Current (Year 2010) Population
School: (students and staff, specify cafeteria, lab, etc.)	290 people during camping period (6/24-8/17)
Institution: (beds)	310 beds available for camp
Restaurant: (seats)	310 seats for camp
Commercial: (square footage)	
Campground: (sites, specify laundry, store, bathhouses	
Other: (conference/ educational center)	theater, art barn, grandma's house, office, dining hall/conference/infirmary, north dormitory, coop dormitory, south dormitory, new bunk house/new dining hall
Design Flow (MGD)	0.0035

Notes:

The facility is used for concerts and educational purposes in a campus-like setting. Although there are multiple buildings on the 176 acre site, only 9 buildings require septic systems (theater, art barn, grandma's house, office, dining hall/conference/infirmary, north dormitory, coop dormitory, south dormitory, new bunk house/new dining hall). There are sleeping accommodations for 275 people. The systems authorized by this permit are for sanitary waste only.

Table 48	
1. Name of Facility:	**Point 40 Diner**
2. New Jersey Pollutant Discharge Elimination System Permit Number:	NJG0132624
3. Discharge to ground water (DGW)	DGW- T1
4. Owner of facility:	GEV Inc
5. Operator of facility:	GEV Inc
6. Location of facility:	
a. Municipality & County	Upper Pittsgrove Township, Salem County
b. Street address	761 Route 40 Upper Pittsgrove, NJ 08434-0000
c. Block(s) and Lot(s)	Block 61, Lot 20
7. Location of discharge (i.e. degrees, minutes, seconds):	a. Longitude 75°13'47" b. Latitude 39°37'01" or
	c. State Plane Coordinates x 286566 y 286243
8. Summary of population served identifying all wastewater generating uses:	Current (Year 2010) Population
School: (students and staff, specify cafeteria, lab, etc.)	
Institution: (beds)	
Restaurant: (seats)	170 seats*
Commercial: (square footage)	
Campground: (sites, specify laundry, store, bathhouses	
Other:	
Design Flow (MGD)	0.0038

Notes:

The facility is a restaurant with a capacity of 170 patrons. The facility is served by (4) septic tanks, (2) grease traps, and discharge to a single disposal field. The system authorized by this permit is for sanitary waste only.

Table 49	
1. Name of Facility:	**Mater Dei Nursing Home**
2. New Jersey Pollutant Discharge Elimination System Permit Number:	NJG0170208
3. Discharge to ground water (DGW)	DGW- T1
4. Owner of facility:	Diocese of Camden
5. Operator of facility:	Diocese of Camden
6. Location of facility:	
a. Municipality & County	Upper Pittsgrove Township, Salem County
b. Street address	176 Route 40 Upper Pittsgrove, NJ 08344
c. Block(s) and Lot(s)	Block 5, Lot 38
7. Location of discharge (i.e. degrees, minutes, seconds):	a. Longitude 75°07'09" b. Latitude 39°35'38" or
	c. State Plane Coordinates x 317746; y 277946
8. Summary of population served identifying all wastewater generating uses:	Current (Year 2010) Population
School: (students and staff, specify cafeteria, lab, etc.)	
Institution: (beds)	64 beds*
Restaurant: (seats)	
Commercial: (square footage)	
Campground: (sites, specify laundry, store, bathhouses	
Other:	
Design Flow (MGD)	0.01019

Notes:

The facility consists of a nursing home with fifty-nine (59) staff members and sixty-four (64) beds. The facility contains six (6) 3,000-gallon and two (2) 1,500-gallon septic tanks, one (1) dosing tank and three (3) disposal fields.

Table 50	
1. Name of Facility:	**Bancroft Neurohealth – Mullica Hill Campus**
2. New Jersey Pollutant Discharge Elimination System Permit Number:	NJG 0170992
3. Discharge to ground water (DGW)	DGW- T1
4. Owner of facility:	Bancroft Inc.
5. Operator of facility:	Bancroft Inc.
6. Location of facility:	
a. Municipality & County	Upper Pittsgrove Township, Salem County
b. Street address	6 Commissioners Pike Upper Pittsgrove Twp, NJ 08062
c. Block(s) and Lot(s)	Block 29, Lot 4
7. Location of discharge (i.e. degrees, minutes, seconds):	a. Longitude 75°14'15" b. Latitude 39°39'40" or
	c. State Plane Coordinates x 284508 y 302347
8. Summary of population served identifying all wastewater generating uses:	Current (Year 20__) Population
School: (students and staff, specify cafeteria, lab, etc.)	
Institution: (beds)	42 resident patients, 100 staff*
Restaurant: (seats)	
Commercial: (square footage)	
Campground: (sites, specify laundry, store, bathhouses	
Other:	
Design Flow (MGD)	0.0078

Notes:

This is an existing residential hospital care facility with apartments, recreational, treatment and administrative offices. The above site is discharging to a total of 9 existing subsurface sewage disposal systems. There are three septic systems with a conventional tank and disposal field installation. The remaining sewage disposal systems are a varied combination of septic tanks, seepage pits and cesspool structures. There are two potable wells onsite according to the above referenced site map. Further information available about the current potable supply: PCWS ID# 1744003. NJDEP enforcement site visit June 17, 2008 verified that there are 42 resident patients and 100 staff.

Table 51		
Name of Facility:	**Woodstown Wastewater Treatment Plant**	
1. Existing or proposed facility:	Existing	
2. New Jersey Pollutant Discharge Elimination System Permit Number:	NJ 0022250	
3. Discharge to ground water (DGW) or surface water (DSW):	DSW- A	
4. Receiving water or aquifer:	Salem River	
5. Classification of receiving water or aquifer:	FW2-NT(C2)	
6. Owner of facility:	Woodstown Borough Sewerage Authority	
7. Operator of facility:	Woodstown Borough Sewerage Authority	
8. Co-Permittee of facility *(where applicabl*e):	N/A	
9. Location of facility:		
a. Municipality & County	Woodstown Borough, Salem County	
b. Street address	90 West Ave Woodstown, NJ 08098-0000	
c. Block(s) and Lot(s)	Block 40, Lot 43	
10. Location of discharge (i.e. degrees, minutes, seconds):	a. Longitude 75°19'52" b. Latitude 39°38'55" or	
	c. State Plane Coordinates x 261885; y 296857	
11. Present permitted flow or permit condition (DSW) or daily maximum (DGW):	**0.53 MGD**	
*12. Summary of population served/to be served including major seasonal fluctuations:	Current (Year 2010) Population (census)	~~Build-out or~~ 20-Year Future (Year 2030)** *specify as applicable* (SJTPO)
Municipality: Woodstown Borough	3,505	4,061
Municipality: Pilesgrove Township	126	136
Municipality: Mannington Township	88	104
Total	3,719	4,301
*13. Summary of wastewater flow received/to be received as a 30-day average flow for DSW or a daily maximum flow for DGW:	Current (Year 2010) Flow (in MGD)	Build-out** ~~or 20-Year Future (Year 20__)~~ *specify as applicable* (in MGD)
Municipality:	Woodstown	
Residential flow	0.120	0.181
Commercial flow	0.037	0.056
Industrial flow	0.080	0.121
Infiltration/Inflow	N/A	N/A
Municipal Total	0.237	0.358
Municipality:	Pilesgrove	
Residential flow	0.014	0.019

Table 51 (continued)		
Name of Facility:	**Woodstown Wastewater Treatment Plant**	
Commercial flow	0.020	0.020
Industrial flow	0	0
Infiltration/Inflow	N/A	N/A
Municipal Total	0.034	0.039
Municipality:	Mannington	
Residential flow	0	0.027
Commercial flow	0.076	0.076
Industrial flow	0	0
Infiltration/Inflow	N/A	N/A
Municipal Total	0.076	0.103
Facility Total	**0.347**	**0.500**

* Infiltration/Inflow (I/I): Existing I/I should be identified. However, additional future I/I may not be projected. (The NJPDES Treatment Works Approval regulations make numerical allowances for I/I.) The existing I/I can be carried-over and accounted for in the total future wastewater flow.

**Data regarding the estimated population served by 2030 is based on population projections and anticipated number of new connections. The summary of waste water represents build-out projections within the adopted FSWA. This complete build-out may not be realized by 2030, based on the population projection.

VIII. Future County Water Supply Availability Analysis

Availability of Water Supply

At the time of development of this document, the most recent adopted State Water Supply Plan is dated August, 1996. The plan includes Recommended Initiatives for Planning Areas Anticipated to be in Deficit. WMPs must not conflict with those regional water supply recommendations, and where specific actions are recommended, WMPs should support their implementation. The update to the State Water Supply Plan is expected to provide a useful tool in assessing potential water supply availability and identifying any 'fatal flaws' in future development projections. However, no timeframe has been identified for adoption of an updated Water Supply Plan.

Table 8-1 provides information regarding the current water allocation for each water purveyor within the county and the municipalities that they serve.

Table 8-1. Existing Potable Water Allocation By Facility

Water Purveyor	Municipality receiving water from Facility	Facility Water Allocation	
		(MGM)	(MGY)
Elmer Water Department		**10.00**	**80.00**
	Elmer Borough	10.00	80.00
New Jersey American Water Company		**70.40**	**753.00**
	Carneys Point Township		
	Oldmans Township		
	Penns Grove Borough		
Pennsville Water Department	**(*)**	**54.25**	**580.00**
(Based on Current WMP)	Pennsville Township		
Salem City Water Department		**93.00**	**900.00**
	Salem City		
	Mannington Township		
	Quinton Township		
	Elsinboro Township		
Woodstown Water Department		**19.00**	**174.10**
	Woodstown Borough		
(Flows for School)	Pilesgrove Township		
(Remaining Allocated Flow)	Mannington Township		

Sufficiency of Water Supply

Until such time that the NJ State Water Supply Plan is updated, the Department is not requiring a comparison analysis of estimated water availability to water supply demand outside of public water supply areas.

The estimated water supply demand associated with the build-out analysis is aggregated by the FWSA on a municipal basis. Water supply projections were prepared using a method similar to the sanitary sewer analysis provided. Water allocation values for each purveyor were compared to the existing demands as well of the future demands to determine whether the current water allocation is sufficient to support the plan.

The FWSA potable water build-out analysis results indicate that the water purveyor (NJAW), supplying Carneys Point Township, Oldmans Township and the Borough of Penns Grove, does not currently have sufficient water allocation to support future waster demands projected by the plan. The total monthly water allocation for the water system that serves these municipality's (70.4mgm/ 753mgy) is less than the water supply necessary to support existing demands and proposed development within the Carney Point, Oldmans Township and Penns Grove FWSA. The projected calculations were based on the proposed build-out projections and average daily demand values utilized within the regulations for each type of development.

Due to the current economic climate, projected growth rate of the population, and the anticipated short-term need for additional water supply, these municipalities are not seeking additional water supply at this time. As NJAW is only operating at 54% of their monthly allocation and approximately 60% of their annual diversion limit, the existing water capacity is sufficient to support existing demands and short-term development in the future, based on the current water utilization indicated above. However, it should be noted that NJAW system has additional water production capabilities and could supply more than the current allocation.

NJAW supplies water to Penns Grove Boro, Oldmans and Carneys Point Townships through its Penns Grove system, which receives water from its local sources, as permitted by the Department, and from the Tri-County pipeline, which was connected to the NJAW Penns Grove system in 2011. Therefore, NJAW could supply more than the current allocation if necessary. This may require NJAW to make adjustments or infrastructure improvements to its water system in order to supply additional water to the area. NJAW completed improvements in 2010 to interconnect their Penns Grove water system and Logan Township water system to allow for operational flexibility.

The above municipalities will need to implement measures to ensure adequate water supply as development within the FWSA is realized. These measures include working with the water purveyor in an effort to review the potential process improvements or identify alternative facilities to support the projected demands of the FWSA in its entirety as the population increases and development expands, based on the direction of their governing body. Salem County as well as the governing bodies of affected municipalities will work with the water purveyor in an effort to review the potential process improvements to support the projected demands of the FWSA in its entirety as the population increases and development expands.

Similarly, the Borough of Woodstown appears to have sufficient monthly allocation to accommodate the FWSA water build out, but the annual diversion may be exceeded if the complete FWSA build-out is realized. As development occurs within the Borough, the feasibility of water supply alternatives such as interconnection to NJAW, construction of new wells, and desalination could be evaluated, and are discussed in further detail in Woodstown's municipal chapter. Given the limited options, in order for the Borough to obtain adequate annual allocation to support the water supply demands of the existing and future sewer service area, a significant investment could be required on the part of Woodstown.

Table 8-2 provides a comparison of water current water allocation for each water purveyor within the county and the municipalities that they serve with the existing and future water demands.

Table 8-2. Future Potable Water Demand By Facility

Water Purveyor	Municipality receiving water from Facility	Facility Water Allocation		Existing Water Demand		Projected Future Water Demand		Total Future Water Demand		Facility Capacity (Excess or Deficit)	
		(MGM)	(MGY)	(MGM)	(MGY)	(MGM)	(MGY)	(MGM)	(MGY)	(MGM)	(MGY)
Elmer Water Department		**10.00**	**80.00**					4.90	59.75	**5.10**	**20.25**
	Elmer Borough	10.00	80.00	4.34	53.03	0.56	6.772	4.90	59.75		
New Jersey American Water Company		**70.40**	**753.00**	37.95	455	140	1,650	178.02	2,105	-107.62	-1,352.07
	Carneys Point Township			24.00	287.98	84.48	994.68	108.48	1,283		
	Oldmans Township			2.65	31.84	53.54	630.41	56.19	662.25		
	Penns Grove Borough			11.30	135.59	2.05	24.57	13.35	160.15		
Pennsville Water Department (*)		**54.25**	**580.00**					41.12	493.39	**13.13**	**86.61**
(Based on Current WMP)	Pennsville Township			30.90	370.75	10.22	122.64	41.12	493.39		
Salem City Water Department		**93.00**	**900.00**	24.03	288.38	15.61	183.81	39.64	472.19	**53.36**	**427.81**
	Salem City			18.30	219.61	15.45	181.85	33.75	401.46		
	Mannington Township			4.87	58.39	0.17	1.96	5.03	60.35		
	Quinton Township			0.84	10.11	0.00	0.00	0.84	10.11		
	Elsinboro Township			0.02	0.28	N/A	N/A	0.02	0.28		
Woodstown Water Department		**19.00**	**174.10**	11.54	138.45	5.06	59.52	16.6	197.97	**2.4**	**-23.87**
	Woodstown Borough			8.66	103.94	4.77	56.11	13.43	160.05		
(Flows for School)	Pilesgrove Township			1.42	17.00	0.16	1.83	1.58	18.83		
(Remaining Allocated Flow)	Mannington Township			1.46	17.51	0.84	9.86	2.30	27.37		

Note

(*): Pennsville Township information is based on the currently approved WMP.

IX. Municipal Wastewater Management Chapters

The Salem County Board of Chosen Freeholders has coordinated with various municipalities and Consultants to obtain information for inclusion within the WMP. Sickels & Associates prepared the WMP utilizing the available documentation provided by these sources and prepared supplemental mapping, calculations and narratives in collaboration with the County of Salem Department of Planning and Agriculture.

The County WMP incorporates or replaces part or all of a variety of previously approved WMPs prepared by municipalities, wastewater authorities, or the County itself. Separate municipal chapters have been prepared for inclusion within the Salem County WMP. The information provided within these chapters and is based on the previously approved plans and intended to further define the following:

1) *Individual mapping of each municipality.*

2) *Build-out methods used to prepare sanitary sewer and potable waterbuild-out analysis and associated tables for applicable municipalities.*

3) *A summary of the results of each analysis for the municipality including a narrative.*

4) *Any special considerations used in preparing the build-out for that municipality:*

Ordinance Information, Letter of Interpretation, Determinations

Municipal ordinances regarding Septic Development and Mandatory Connection in Sewer Service Areas are included. The status of such ordinances is as follows:

Table 9-1. Ordinances for Septic System Development in Sewer Service Areas

Municipality/Authority	Ordinance Name/Number	Adoption Date
Alloway Township	Ordinance #425	8-20-2009
Carneys Point Township	Ordinance 743	1-28-2004
Elmer Borough		
Elsinboro Township		
Lower Alloways Creek Township	Sewers Ord # 1984-13	6-4-1984
Mannington Township		
Oldmans Township		
Penns Grove Borough		x
Pennsville Township	Amended Ord. #A-7-2005 / A-34-2009	12-3-2009
Pilesgrove Township		
Pittsgrove Township		
Quinton Township	Ordinance #2008-03	3-5-2008
City of Salem	Required Connection §230.57	12-7-1987
Upper Pittsgrove Township		
Woodstown Borough	Borough Code Article III §75A-15	1-25-85

County certification letters for municipal stormwater management ordinances in compliance with NJAC 7:8 are included. The status of such ordinances is as follows:

Table 9-2. Ordinances for Municipal Stormwater Management			
Municipality	**Ordinance Name/Number**	**Municipal Adoption Date**	**County Approval Date**
Alloway Township	Municipal Stormwater Management Ord #390	02-09-2006	**(*)**
Carneys Point Township	Ordinance No. 770 Stormwater Management	12-14-2005	**(*)**
Elmer Borough	Stormwater Management Ordinance #2005-4	04-13-2005	**(*)**
Elsinboro Township	Municipal Stormwater Management Ord #2006-3	02-06-2006	**(*)**
Lower Alloways Creek Township	Stormwater Control Ordinance #2006-11	07-18-2006	**(*)**
Mannington Township	Stormwater Management Controls #06-11	10-05-2006	**(*)**
Oldmans Township	Municipal Stormwater Management Ord #2006-6	06-03-2006	**(*)**
Penns Grove Borough	Municipal Stormwater Management Ord#2006-23	09-05-2006	**(*)**
Pennsville Township	Municipal Stormwater Management Ord#A-32-2006	11-2-2006	**(*)**
Pilesgrove Township	Municipal Stormwater Management Ord #06-04	04-25-2006	**(*)**
Pittsgrove Township	Stormwater Controls for Major Development #5-2006	05-09-2006	**(*)**
Quinton Township	Municipal Stormwater Management Ord #2006-04	05-03-2006	**(*)**
City of Salem	Municipal Stormwater Management Ord #0605	03-06-2006	**(*)**
Upper Pittsgrove Township	Municipal Stormwater Management Ord #2006-4	05-09-2006	**(*)**
Woodstown Borough	Stormwater Management Ordinance #2006-618	03-28-2006	**(*)**

(*) Note: County approval dates would be in effect 90 days after a submission to the County.

Municipal ordinances regarding Riparian Zone Protection in compliance with NJAC 7:15 are included. The status of such ordinances is as follows:

Table 9-3. Ordinances for Riparian Zone Protection		
Municipality	**Ordinance Name/Number**	**Adoption Date**
Alloway Township	Stream Corridor Protection Ord #355	3-13-2003
Carneys Point Township		
Elmer Borough		
Elsinboro Township		
Lower Alloways Creek Township	Riparian Zone Ordinance: 2009-15	12-15-2009
Mannington Township		
Oldmans Township		
Penns Grove Borough		
Pennsville Township	Amended Ord. #A-7-2005 / A-33-2009	12-17-2009
Pilesgrove Township		
Pittsgrove Township		
Quinton Township	Stream Corridor Protection Ord # 2003-3	3-5-2003
City of Salem		
Upper Pittsgrove Township		
Woodstown Borough	Riparian Zones Ordinance 2010-3	03/09/10

(*) Note: Ordinances for Riparian Zone Protection are not required for phased adoption of the WMP.

Municipal ordinances regarding Steep Slope Protection in compliance with NJAC 7:15 are included. The status of such ordinances is as follows:

Table 9-4. Ordinances for Steep Slope Protection		
Municipality	**Ordinance Name/Number**	**Adoption Date**
Alloway Township		
Carneys Point Township		
Elmer Borough		
Elsinboro Township		
Lower Alloways Creek Township		
Mannington Township		
Oldmans Township		
Penns Grove Borough		
Pennsville Township		
Pilesgrove Township		
Pittsgrove Township		
Quinton Township		
City of Salem		
Upper Pittsgrove Township		
Woodstown Borough	Steep Slopes Ordinance 2010-4	03/09/10

Municipal ordinances regarding Master Plan and Zoning Ordinance adoption are included. The status of such ordinances is as follows:

Table 9-5. Zoning Ordinance and Municipal Master Plan Status		
Municipality	**Master Plan Date**	**Zoning Ordinance & Map Date**
Alloway Township	1975; 2007/08	2007
Carneys Point Township	September 2005	1989
Elmer Borough	1993	1979
Elsinboro Township	2007	1979
Lower Alloways Creek Township	1992; 2005	1997; amended 2001
Mannington Township	1978; 2006; 2007	1978
Oldmans Township	1990; 2007	1990
Penns Grove Borough	1980	1985
Pennsville Township	2002; 2009	2005
Pilesgrove Township	1992; 2004 - 08	1994
Pittsgrove Township	2000; 2005; 2007	1990
Quinton Township	1990; 2008	2008
City of Salem	1978	1994
Upper Pittsgrove Township	1990	2006
Woodstown Borough	1983; 2005 – 07	1990

X. Septic Management Plan

Introduction

Pursuant to the adoption of the new Water Quality Management Planning (WQMP) rules at N.J.A.C. 7:15-5.25(e)3, Water Quality Management Planning Agencies are required to implement a Septic Management Plan (SMP) for areas within their jurisdictions that are served by individual subsurface sewage disposal systems (ISSDS's).

A SMP can be implemented by the County WMP agency, County Health Department or individual municipalities. SMP's submitted for review must define the framework and procedures for the notification to property owners for routine maintenance of all ISSDS's within the County. Routine maintenance includes regular pumping out of the ISSDS's at an appropriate frequency

Effective data management is the only way that municipalities and counties can ensure that the septic systems are being permitted, installed, operated, and maintained according to the State regulations and recommended maintenance schedules and procedures. This is particularly true as more innovative and alternative types of on-site systems are encouraged and permitted. Also, as environmental quality monitoring is required, a central database is necessary to make it easy for managers to identify potential issues and address them in a timely fashion.

This chapter outlines Salem County's approach to initiating a Septic Management Program in accordance with the WQMP rules. The Program includes but is not limited to the following:

- Identify newly constructed and/or repaired ISSDS's within the County's municipalities;
- Create and maintain a database system to inventory ISSDS's and track routine maintenance;
- Establish a procedure for notifying system owners of the recommended maintenance;
- Provide educational and program information to all residents served by ISSDS's.

Septic Management Data Elements

Implementing a SMP is a straightforward process, which can be initiated at a basic level and expanded in the future to meet new regulatory requirements. The procedures can be established on a repeatable cycle and recorded using a spreadsheet or database program to organize ISSDS inventories and track maintenance activities. Data management historically consists of filing cabinets organized with paper records. This method is very useful for organizing data on a parcel-by-parcel basis and is much easier and less expensive to institute. It requires little capital expense or training of personnel when compared with more comprehensive systems.

The SCHD has historically utilized a manual filing system to maintain septic system information through the plan review, permit and inspection process. The following information is typically provided through this process:

- Permit Information
- General Site Information
- Site Evaluation Information
- Treatment System Information
- Inspection report Data

The information required to populate a SMP database is generally available within the existing files. However, additional data fields will be required for the monitoring septic system maintenance, tracking and notification processes. The following data will be collected and a

database system will be utilized to create an inventory of newly constructed and/or repaired ISSDS's within the County as part of the SMP.

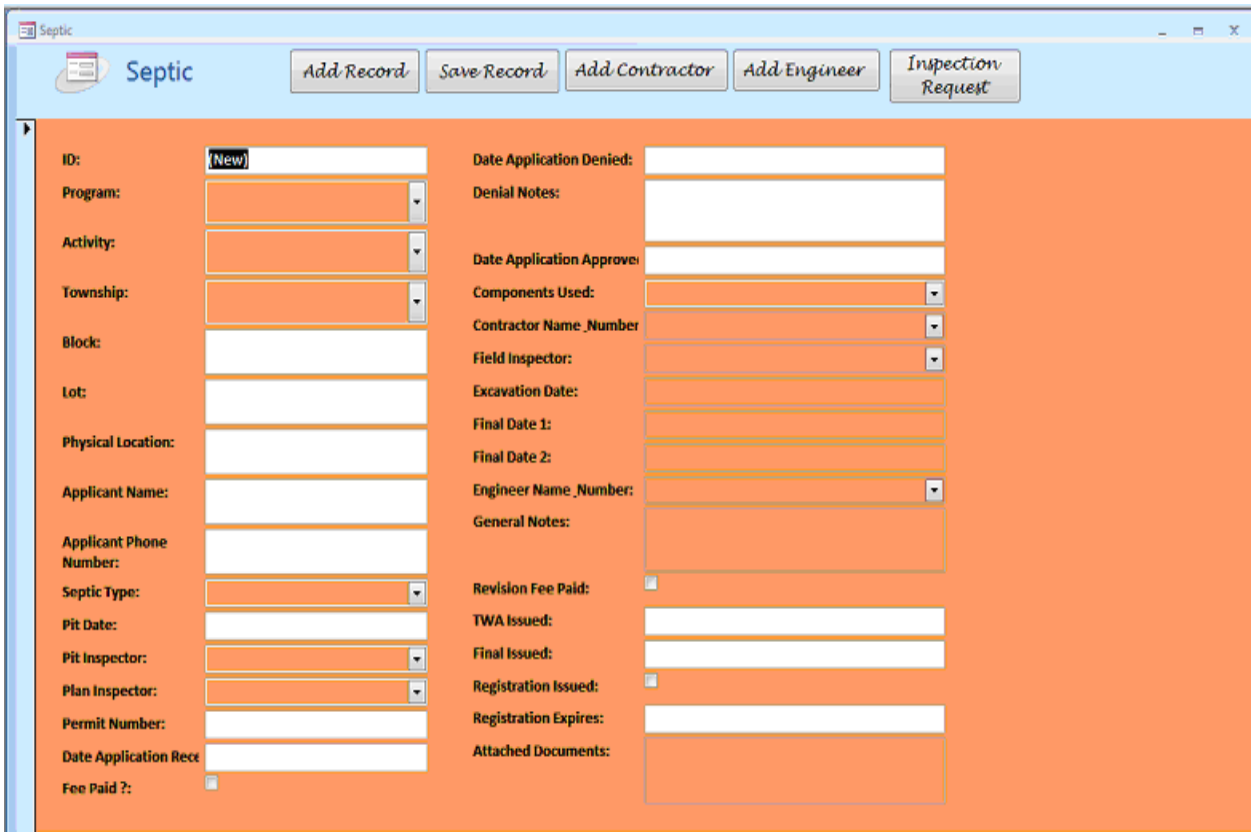
- Municipality where ISSDS is located
- Block / Lot of ISSDS
- Name of Responsible Party / Owner of system
- Address of Responsible Party / Owner of system
- System Pump Out Interval requirement (Initially set at 3 years)
- Date for sending notice (generally 3-6 months prior to end pump out interval
- Date of System Pump Out
- Date when pump out verification was received.

The details of setting up the database and logistics behind the notification process are currently under review by the County Planning Department and the Health Department. Database management requires being trained in the software applications and potentially an initial capital outlay to implement them. Depending on the volume of newly constructed ISSDS's as well as the number of existing systems throughout Salem County, the implementation of the SMP will likely require additional staffing or the reallocation of existing resources. Current fiscal constraints may require ISSDS's to be grouped in batches and incorporated into the SMP incrementally. This approach could divide the workload over a period of years and allow for scheduling of resources on a monthly or quarterly basis.

The means and methods for populating the existing inventory of ISSDS's, over a fixed period of time, are not being considered at this time. This greatly depends on the degree to which an inventory already exists and which entities possess the relevant information, such as the Health Department, planning boards, tax assessors, or others. In addition, current economic conditions and the budgetary constraints are also important factors that limit the completion of a comprehensive inventory of existing septic systems. The current plan to incorporate existing ISSDS's will include identifying existing systems during real estate transactions, if a compliance review of the system is requested. Systems that require a permit for repair or alteration will also be incorporated at the time of the permit application process.

Database Development

The Salem County Health Department is currently responsible for the review of applications and permitting for all ISSDS's within Salem County. The permits are reviewed in accordance with the State standards for the proper design and installation of a properly functioning septic system according to the rules found at N.J.A.C.7:9A-3.1 et seq. The SCHD utilizes an Access database to maintain the permit and related information regarding existing septic systems. This data includes general information regarding the dates of specific phases of the permit and construction process. A screen shot of one of the current database input fields are shown below.



File copies of plans, permit applications, inspection reports and related site specific information are not included within the database. This information is organized in a hardcopy format and filed accordingly. The database has been populated with information for newly constructed systems or existing systems that have been repaired or altered. Since the database was created approximately 3 years ago, in 2011, the SCHD has input preliminary information on 577 systems. Preliminary information is included for new systems, systems that required repair or alterations as well as Advanced Treatment Units (ATU's). A summary of the number of existing systems included within the database is identified in Table 10-1 below.

Table 10-1: Existing Septic Systems Monitored

No. Of Systems	Type of Application
194	New System
175	Repaired System
197	Alteration to System
11	Advanced Treatment Unit
577	Total No. Of System
192	Average Systems /year Logged

Management of information being entered into the system is considered either passive or active. Data for conventional septic systems is passive, which is characterized by the logging of parcel information and filing of permits and plans. Whereas, systems utilizing advanced technology units (ATU's) are more active. These systems are reviewed on an annual basis to monitor permit status and verify whether service and maintenance contracts are current and ensure compliance with permitting requirements.

The SCHD's existing database is currently structured to allow for basic information management of conventional septic systems and more active monitoring of systems with ATU's. Objects in the database include Tables, Forms and Reports. Tables are the basic components of the database. The Tables represent the underlying organizational structure for data. Forms are used for reviewing data on the computer screen and to facilitate data entry. As such, a form will typically display information from a single record at a time. The Reports are designed to organize and print out data. Database tools are available to perform queries of the data and can be utilized to identify systems that are nearing their recommended pump out period. Modifications to the SCHD's current system architecture would be required to include more comprehensive data management and notification process for conventional septic systems. Some of these fields include the following:

- Notification Sent Date:
- Maintenance Record Received Date:
- Follow up Notice Date
- Notes Field for logging calls with homeowner or service provider
- Create Specific reports to identify status of notification process
- Set Next Maintenance Period Date

Notification Process

Once those properties being served by ISSDS's are identified and inventoried, tracking of regular maintenance and pump out periods can be scheduled on quarterly basis. Staffing will be assigned to complete the task during predetermined periods.

Upon initiating the SMP, a notification will be sent describing the recommendations, including a pump-out schedule and providing educational material, as ISSDS's are entered into the database. Where the number of ISSDS's to be inventoried and tracked is small, the notification and pumping schedule can be the same for all. Notices will be grouped and sent out in manageable numbers each month or quarter, including over a multi-year period, with appropriately assigned pump-out schedules, thereby staggering the workload into smaller, more reasonable increments.

It is anticipated that the pump out period will be initially set at 3 years. The frequency of the pump-outs may be adjusted on a case-by-case basis, depending on the site-specific information that may be available, such as the size of the system and the number of people living in the dwelling.

Three to six months prior to the recommended pump out date, a helpful reminder will be sent to the responsible party recommending pump out and requesting confirmation that the system has been maintained. In an effort to improve the response from system owner, the County will also coordinate with licensed haulers to obtain confirmation that the systems have been maintained. Once proof of the pump-out is received (such as a copy of a receipt from a licensed hauler), the date will be noted and that ISSDS "account" will be deemed current until the next scheduled maintenance action.

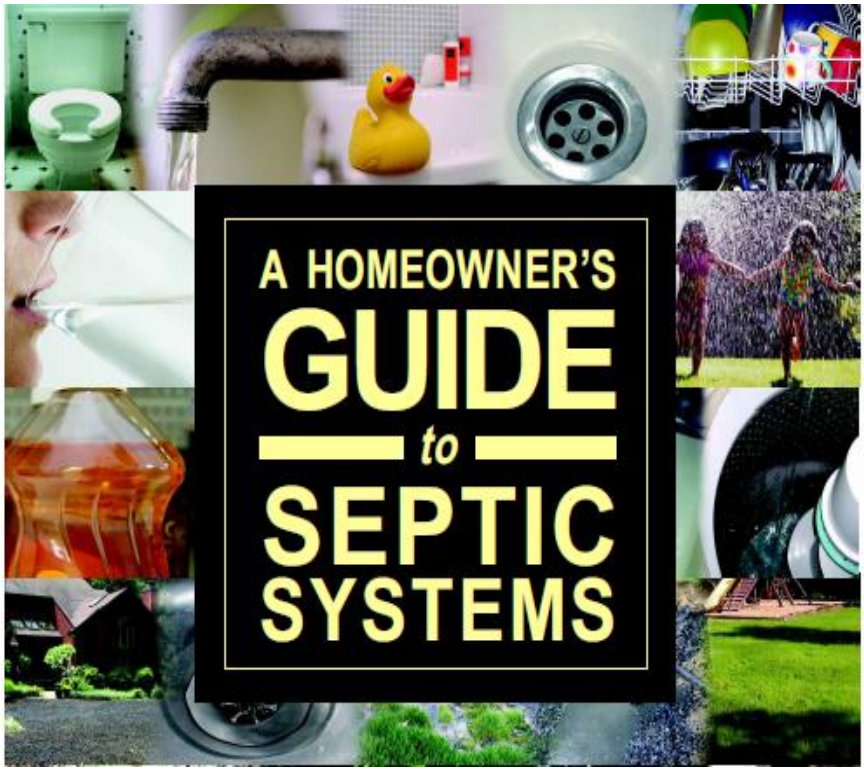
Only ISSDS's that discharge 2,000 gallons per day (gpd) or less are subject to the Septic Management Plan provisions of the WQMP rules found at N.J.A.C. 7:15. Onsite wastewater treatment systems that discharge greater than 2,000 gpd are regulated by the NJDEP through NJPDES permits.

Alternative Treatment Units

For systems that utilize ATU's, the Salem County Health Department currently has internal procedures in place to monitor the permit status and verify whether service contracts are current to ensure compliance with permitting requirements. Systems that do not comply with the permitting requirements are sent notices of violation and enforcement measures are implemented by the SCHD in accordance with the Water Pollution Control Act, when needed. The SCHD, does not, however, currently have the authority to enforce the requirements for maintaining conventional septic systems. Information received from the residents for populating the inventory database with maintenance information will rely on the public's willingness to respond to the notifications and provide verification that the system has been serviced.

Public Education

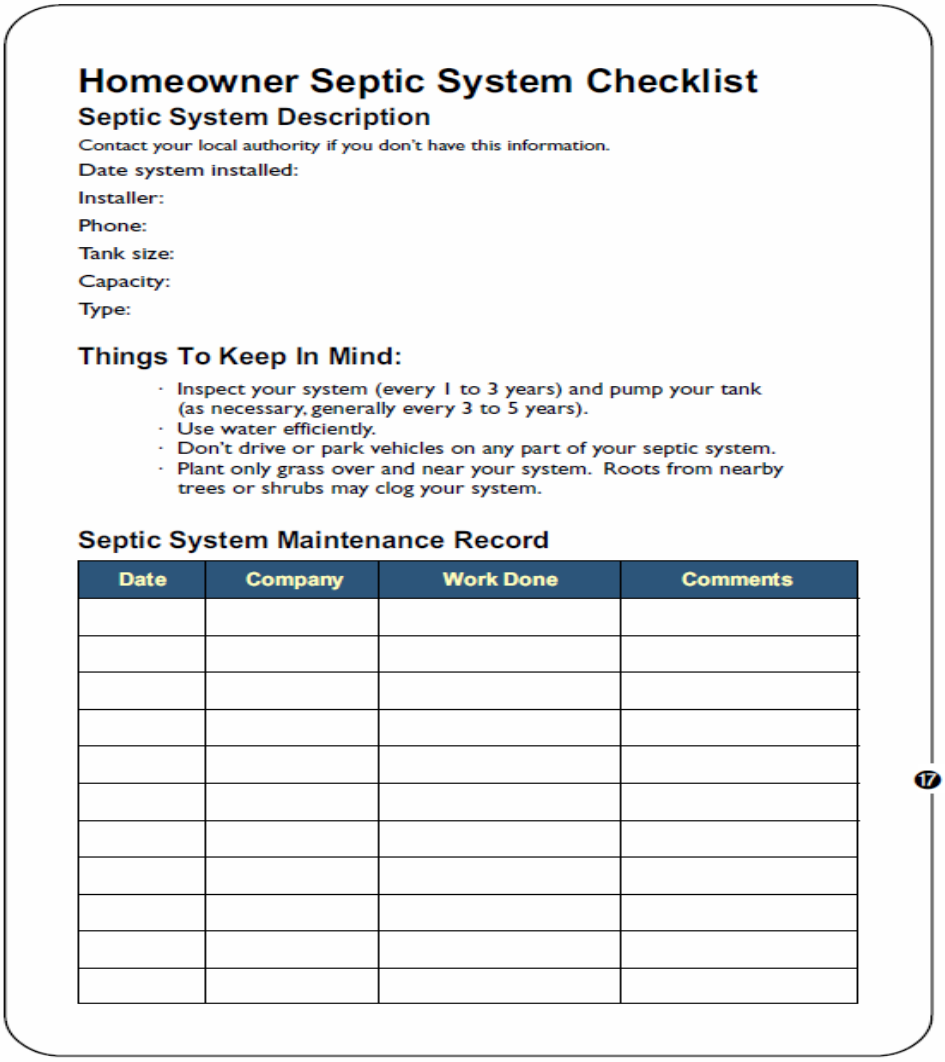
The SCHD provides system owners with educational material and references to additional resource material during the permit process. The information provided is included within the Homeowners Guide to Septic systems referenced below.



The Home Owners Guide to Septic Systems is a modification to the US EPA's Homeowner's Guide to Septic Systems (EPA document # EPA-832-B-02-005 December 2002). This information is intended for regular septic systems only, and not for Alternative Treatment Units.

The guide provides specific system owners with information on the following topics:

- Your Septic System is Your Responsibility
- Septic System Dos and Don'ts
- Rules and Regulations
- How Does It Work?
- Why Should I Maintain My Septic System?
- How Do I Maintain My Septic System?
- What Can Make My System Fail?



Homeowner Septic System Checklist

Septic System Description

Contact your local authority if you don't have this information.

Date system installed:

Installer:

Phone:

Tank size:

Capacity:

Type:

Things To Keep In Mind:

- Inspect your system (every 1 to 3 years) and pump your tank (as necessary, generally every 3 to 5 years).
- Use water efficiently.
- Don't drive or park vehicles on any part of your septic system.
- Plant only grass over and near your system. Roots from nearby trees or shrubs may clog your system.

Septic System Maintenance Record

Date	Company	Work Done	Comments

In addition to the above referenced guide, system owners are referred to other available sources of information. These resources include the following:

1. **NJDEP's non-point pollution control website**:
   a. http://www.nj.gov/dep/dwq/owmpmain.htm
2. **Local Health Department**:
   a. www.nj.gov/health/lh/directory/lhdselectcounty.htm
3. **New Jersey DEP, Onsite Wastewater Management Program**:
   a. www.nj.gov/dep/dwq/sep_site.htm
4. **EPA Onsite/Decentralized Management Homepage**:
   a. www.epa.gov/owm/onsite
5. **National Small Flows Clearinghouse**:
   a. www.nesc.wvu.edu
6. **Rural Community Assistance Program**:
   a. www.rcap.org
7. **National Onsite Wastewater Recycling Association, Inc**.:
   a. www.nowra.org
8. **Septic Yellow Pages**:
   a. www.septicyellowpages.com
9. **National Association of Wastewater Transporters**:
   a. www.nawt.org
10. **Clean Water New Jersey:**
    a. **www**.cleanwaternj.org

Program Staffing Requirements

Implementation of a septic management plan and the selection of a database must also take into consideration other realities, such as available budget, staff availability, staff time, training, and the true needs of the management program. As a management entity takes on more of the requirements of an active program, the need to maintain, monitor, and report on system information has the potential to increase dramatically.

Salem County has a population of approximately 66,000 residents, based on 2010 Census data. Seven (7) wastewater treatment facilities, identified in Chapter 6, Table 6-1 of the County WMP, currently provide treatment for approximately 50% of the residents within the County. As a result, it is estimated that 33,000 residents are currently utilizing individual subsurface sewage disposal systems. This equates to approximately 11,000 to 12,000 systems, assuming 2.75 – 3 persons per household.

The staffing required to initially populate the database with comprehensive information of all existing ISSDS's within Salem County is significant and is not being proposed at this time. It is estimated that the time required to locate the files, review the information and input the various fields of data into the system could take 30-60 minutes per system, depending on how extensive the details of the system may be for each application. The inclusion of septic tank design information, the number of residents per home etc., require more than a cursory review. This could result in the need for 6,000-12,000 staff hours for initially populating the comprehensive database.

Once a completed database is in place, the notification process could require 1 day per month when sending out 1,000 notices per month over the course of a year. Follow up for the verification of maintenance and updating the database could potentially require the addition of a full time employee, based on the 1,000 notices per month and spending even 5-10 minutes per notice for tracking per month.

As indicated in previous sections above, the means and methods for populating existing inventory of ISSDS's, over a fixed period of time, are not being considered at this time. The initial capital required to populate the database with existing system information and staff resources to maintain, monitor and report on system information are not available. The current plan to incorporate an existing system will include identifying existing systems that require a permit for repair or alterations at the time of the permit application process.

The SCHD has currently populated the database with approximately 577 systems. However, only those utilizing ATU's are being monitored annually for compliance with operating permit conditions. The current number of systems within the database equates to 192 systems being added to the database on an annual basis, according to Table 10-1 above.

Considering the information currently available and the average number of systems that have been entered into the database, the following table 10-2 reflects the projected number systems that could be added to the database over a 6-year planning period. The database information will be reevaluated and an updated table will be provided when the WMP is renewed. Also, included are the estimated additional staff hours that would be necessary to initiate the SMP.

Table 10-2: Projected Database Staffing Requirements

Year No.	No. Of Systems added Per Year	Number of systems Logged	Notices Sent per Quarter (*)	Staffing Hours/Quarter Required (**)
1		577	48	8
2	192	769	64	11
3	192	961	80	13
4	192	1153	96	16
5	192	1345	112	19
6	192	1537	128	21

(*) Assumes 12 quarters over a 3 year Maintenance Period

(**) Assumes 10 minutes per application for notice, follow up and database management

Conclusion

The Septic Management Plan outlined above reflects Salem County's approach to initiating a SMP in accordance with the WQMP requirements. This includes but is not limited to the following:

- Modifying the SCHD's existing database to include additional fields for information related to notification for maintenance of conventional septic system; (it is now up to the individual homeowner to monitor and maintain the system after approval by the HD)
- Identify newly constructed and/or repaired ISSDS's within each municipality of the County.
- Maintain the database system to inventory ISSDS's and track routine maintenance;
- Establish a procedure for notifying system owners of the recommended maintenance;
- Provide educational and program information to all residents served by ISSDS's that will provide guidance on maintenance of the septic system and frequency of pump outs)
- Prepare and print annual report of compliance: (County working with NJDEP to implement electronic reporting system consistent with N.J.A. C. 7:9A-3.15)

The proposed Septic Management Plan is an initial step toward identifying existing ISSDS's within Salem County. Based on the above projections in Table 10-2, the staffing required to setup and initiate the initial phase of the septic management plan would require approximately 3 staff days per quarter, over a 6-year planning period. However, based on the estimated number of existing systems within the County, the reality is that management of this program and maintenance of the database could grow to be a significant commitment of County resources. Salem County does not currently have the financial and/or staffing resources to follow through with this unfunded mandate or the authority to enforce it.

The Salem County Health Department (SCHD) is dedicated to the promotion and protection of the public's health as well as the enforcing laws and regulations that protect the health and ensure the safety of the public. As indicated in previous sections above, the SCHD does not currently have the authority to enforce the requirements for maintaining conventional septic systems. Consequently, this program will rely of the system owner's willingness to voluntarily respond to notices send by the SCHD and on the results of an ongoing public education effort. A copy of the anticipated notice to residents within Salem County is provided on the next page. The results of this program will be reviewed and recommendations for program improvements will be incorporated with future WMP revisions.

Notification to Residents

Dear Salem County homeowner,

We need your help.

Have you ever caught a glimpse of a bald eagle gliding over the Mannington Meadows in search of prey? Ever drop a fish hook into one of Salem County's beautiful streams or lakes? Maybe you wait for hummingbirds to migrate here every Spring? Protecting the quality of our water in Salem County is critical to preserving our rural character. Preventing pollution of our surface water and underground aquifers is our priority.

And, this is where you can help.

Salem County is launching a voluntary program in which we are asking homeowners with septic systems to pump out their systems at least once every three years. This one simple action will reduce what is called 'non point source pollution' – AND extend the life of your septic system and reduce repairs bills. No one needs a $10,000 bill to replace a septic system.

We will make it as easy as possible for you to make this voluntary commitment to help.

Attached is a form with the Lot and Block information for your septic system and the certification date from the Salem County Department of Health.

IF YOU HAVE HAD YOUR SYSTEM PUMPED OUT WITHIN THE LAST THREE YEARS, please fill out the attached form, listing the date of service and identifying the company that performed the pump out. If you have it, include copy of the receipt for the service. Sign and mail the form back to us. *We will remind you in advance of the next three-year pump-out date in 2017.*

IF YOU HAVE NOT PUMPED OUT YOUR SEPTIC SYSTEM WITHIN THE LAST THREE YEARS, we've attached a list of local service providers. You are not required to use a company on the list; it is just to help get you started. Once you have your system pumped out, sign and mail the form back to us with the date of service, the name of the company that provided the service, and a copy of the receipt. *We will remind you in advance of the next three-year pump-out date in 2017.*

We hope you will voluntarily take part in this effort to protect Salem County's waterways and underground aquifers. You will be helping to preserve the quality of our rural resources, while protecting the expensive investment you have in your own septic system.

APPENDIX “A”- Nitrate Dilution Analysis

APPENDIX “B”- Pilesgrove Township WMP

APPENDIX “C”- Pittsgrove Township Buildout Analysis