

VIII. Municipal Wastewater Management Chapter **Sussex Borough**

2010 Population = 2,130

Land Area = 0.60 square miles

2010 Population Density = 3,590 persons/sq. mile

This municipal chapter is an element of the Sussex County Wastewater Management Plan prepared by Sussex County Planning Division in accordance with N.J.A.C. 7:15.

Existing and Proposed Wastewater Infrastructure

Sussex Borough has a wastewater collection system that conveys wastewater to the Sussex County Municipal Utilities Authority wastewater treatment facility located in Hardyston Twp. The SCMUA Upper Walkkill Water facility has a surface water discharge to the Walkkill River. The Existing Sewer Service Area map shows there is one existing pump station in Sussex Borough. Sussex Borough owns the force main that extends from the Borough along Route 23 in Wantage Township to the SCMUA Upper Walkkill wastewater facility in Hardyston Twp.

The Sussex Borough force main also serves the A & P shopping center, as an existing SCMUA sewer service area in Wantage Twp. There is an Interlocal Service Agreement between Sussex Borough and Wantage Township related to the force main. There are additional properties in Wantage Township that are proposed to be served by SCMUA and Sussex Borough force main. The following properties have received Preliminary Approval in Plan Amendment process and are shown on Future Sewer Service Area map as part of County Wastewater Plan submittal to DEP: Hampshire Companies (Block 2 Lots 36.01 and 36.02); "Wantage Plaza" owned by Main Land Sussex (Block 7 Lots 12 and 13.02); and Bicsak Brothers Realty LLC (Block 11 Lot 5, Block 10 Lot 10.01). There will be future studies to verify the capacity of the force main to handle the additional flow from serving SCMUA sewer service area in Wantage, subject to DEP approval.

Wastewater facilities (discharge greater than 2,000 gallons per day) are regulated by NJ Dept. of Environmental Protection with individual New Jersey Pollutant Discharge Elimination System (NJPDES) Permits. There are no individual wastewater facilities with NJPDES Permits in Sussex Borough.

Build-out Analysis for Sussex Borough Sewer Area

In March 2014, CP Engineers prepared a "Sanitary Sewer Build-out Analysis", shown on following pages. Parcel based mapping was used to estimate wastewater flow projections based on 2009 Borough Master Plan and 2013 Redevelopment Plan. The attached table provides an analysis of land available for development within different Municipal Zoning Districts, and applies zoning densities to project residential units, commercial and mixed-use development and redevelopment in the sewer area. The build-out analysis shows that over 130 additional residential units, more than 500,000 square feet of commercial uses (such as retail and office), and mixed-use development can occur in the sewer service area.

Since the County Wastewater Management Plan is meant to be a 20-year plan, using that time period is valuable to realistically assess the possible need for additional sewer capacity and infrastructure for future development. The following chart compares the SCMUA allocation amount, existing flow and build-out flow to evaluate whether additional wastewater capacity would be needed in the future.

Table A – Analysis of Future Wastewater Needs for Sussex Borough (Million Gallons per Day)							
Allocation Amount (MGD)	Existing Flow (over 5 Yrs 2009 -2013)	Residential Build-out Flow (MGD)	Non-res. Build-out Flow (MGD)	Mixed Use Build-out Flow	Existing Septics Flow	Total Projected Build-out Flow	Remaining Allocation (MGD)
0.464	0.245	0.037	0.044	0.028		0.35507	0.109

Build-out in Septic Area and DEP Nitrate Dilution Model

The DEP build-out model was used with updated GIS layers for Sussex County municipalities to calculate future development and wastewater flow in septic system areas. All undeveloped land was included as available for nitrate dilution for future septic density, and used to calculate “Total New Septics Allowed”. For “Total New Septics based on Zoning”, the results from the DEP Build-out Model were further modified using the Sussex County Strategic Growth Plan build-out analysis done by municipality and by zone. For “developable land” acreage, environmentally sensitive features were removed due to local protection ordinances.

The NJDEP Build-out Model should be viewed as a rough indicator. The Model includes variables with a range of values (such as household size) and assumes that existing zoning would not change. It is a regional planning tool with just one focus: to identify possible areas of future stresses on ground water quality. **Appendix J** further describes the NJDEP Build-out Model and some of its limitations as well.

Table B provides a breakdown of the acreage of land available for development, and not constrained due to environmentally sensitive areas based on the DEP Model build-out analysis.

Table B - Additional Development at Build-out, Septic Area – Sussex Borough				
Watershed (HUC-11)	Total Undeveloped Land Available for Dilution (Acres)	DEP Nitrate Dilution Model: Acres/New Septic	DEP Model: Total New Septics Allowed	Total New Septics based on Zoning
Papakating Creek	6	4.9	1	2

For the purposes of this analysis it is inconsequential if one municipality's zoning exceeds the DEP Model Total Allowed, provided that the regional HUC-11 watershed does not exceed the Total New Allowed Units. The regional HUC-11 watershed totals are provided on pages 36 – 39 of the County WMP. For the Papakating Creek HUC-11 watershed, Total Zoned Septics is below the DEP Model for Total Allowed so the nitrate dilution is projected to be within acceptable range if the towns were built-out based on existing zoning.

3) Areas in Sussex County municipalities that are subject to Federal 201 grant limitations - None

4) The following table has a checklist of ordinances adopted and pending to complete the Municipal Chapter of the Sussex County Wastewater Management Plan

Table C Summary of Ordinance Adoption			
Ordinance	Date Adopted	County Planning Board Certification	Comments and More Protective Standards
Stormwater Management (Ground Water Recharge Maintenance)	4/17/2006	10/26/2006	
Riparian Zone Protection (optional)			
Steep Slope Protection (optional)			
Dry Conveyances in Sewer Service Area			
Septic Connection in Sewer Service Area			