

III. Wastewater Facilities by Municipality

Franklin Borough

2010 Population = 5,045
Land Area = 4.49 square miles

2010 Population Density = 1,150 persons/sq. mile

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

Existing and Proposed Wastewater Infrastructure

Franklin Borough has a wastewater collection system with 5 pump stations that conveys wastewater to the Sussex County Municipal Utilities Authority wastewater treatment facility located in Hardyston Twp. The SCMUA Upper Wallkill Water facility has a surface water discharge to the Wallkill River.

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 Franklin.

Build-out and Sewer Capacity Analysis

The DEP Build-out Model with GIS map layers was used by the Sussex County Planning Division to estimate the build out projections. All of Franklin Borough is designated within the Highlands Planning Area. **Table A** provides a breakdown of the acreage of land available for development within each general zone of the municipality, based on the build-out analysis. The model does not account for redevelopment areas, so local input is valuable to identify additional projected growth in sewer areas.

Table A - Additional Development at Build-out, Sewer Service Area				
Zone	Developable Area (Acres)	Zone Density (Units/Acre)	# of Units (residential)	FAR and Square Feet (commercial)
Hospital Multi-Family	12		111 (site plan approval)	
Mixed Active Adult Housing Zone	17		265 (site plan approval)	
Mobile Home Park	0.7		4	
Multi-Family	9.5	3	31	
Single Family Residential 1 acre	2		2	
Single Family Residential 15,000 Sq Ft	4	3	10	
Single Family Residential 3 acre	64		23	
Single Family Residential 6,240 Sq Ft	2.5	6	11	
Zinc Mine Mixed use			360 (estimated)	
Highway Commercial	22		40 (site plan approval)	580,200 sq.ft. Based on FAR = 0.6
Industrial	4.4			
TOTAL RESIDENTIAL UNITS			857	
TOTAL COMMERCIAL/ INDUSTRIAL SQ.FT.				580,200 sq.ft. + Industrial space

Table B - Future Wastewater Planning Flows By Facility Franklin Borough											
Domestic Wastewater Treatment Facility and NJPDES Permit Number	SCMUA Allocation (MGD)	Existing Flows (MGD) 2014 – April 2015	Approved TWA Permits/Committed Flow (MGD)	Projected Residential Dwelling Units	Projected Residential Flow (MGD)	Projected Nonresidential Space (sq ft)	Projected Nonresidential Flow (MGD)	Subtotal of Projected Flow	Existing Septic Systems in sewer area	Total Future Planning Flows (MGD)	Excess (Deficit) Facility Capacity
Sussex County MUA	0.785	0.406		857	0.257	580,200 + Industrial	0.058 + Industr	0.721+ Industr	TBD	0.721+ Industr+ Septics in sewer area	

**Projected Wastewater Flow
At Build-out in Sewer Area :**

857 residential units x 300 GPD/unit = 257,100 Gallons Per Day

580,200 sq.ft. x 0.1 GPD/sq.ft. = 58,020 Gallons Per Day
+ Industrial Flow

Note: There is no specific DEP formula for industrial space to project wastewater flows.

Since the County Wastewater Management Plan (WMP) 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. We can compare the SCMUA allocation amount with existing flow and projected flow to evaluate whether additional wastewater capacity would be needed in the future.

Build-out in Septic Area and DEP Nitrate Dilution Model

Using the DEP Nitrate Dilution Model that is computer-based using GIS maps, the results are shown on pages 36-39 of the County WMP, with results based on the HUC-11 watersheds.

According to DEP Nitrate Dilution Model, 137 new septic systems can be built and still meet the strict standard of 2 mg/L for the overall watershed. They recognize the inexact nature of the regional build-out model, and a range of +10% is considered acceptable. For Franklin septic area, this would be up to 150 new septic systems, so the projected number of 148 based on existing zoning falls within that range.