

VIII. Municipal Wastewater Management Chapters

Fredon Township

2010 Population = 3,437
Land Area = 17.76 square miles

2010 Population Density = 212 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

The larger 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. The facilities discharge to surface water or ground water, and are listed in the tables at the end of this chapter.

Bear Brook Golf Village: This wastewater treatment facility (NJPDES Permit No. NJ0109576) was designed to serve 86 residential units and the golf club facilities at Bear Brook Golf Village located at Route 94, Fredon-Greendell Road, and Fredonia Road. The permitted flow for this facility is 35,000 gallons per day discharge to ground water. The treatment plant is owned and operated by Aqua New Jersey for the Bear Brook Golf Village.

The following table lists facilities governed by a State T-1 Permit, which is a “General Permit for Sanitary Subsurface Disposal” for discharges greater than 2,000 gallons per day. A T-1 Permit is for an existing facility that was constructed in years prior to State regulations.

Table A - Existing NJPDES T-1 Facilities:

NJPDES	Facility Name	Project Summary	Block	Lot	Street Address	X Coord.	Y Coord.
NJG0173509	Fredon Twp. Elementary School	Public school with over 300 students	1801	1	459 Route 94	405081	801647

Build-out in Septic Areas and DEP Nitrate Dilution Model

All undeveloped land was included as available for nitrate dilution for future septic density. The results are shown by HUC-11 watershed. Based on existing zoning map with minimum acres per new lot, the projected number of new septic units in Fredon will not exceed the DEP maximum units allowable based on nitrate dilution and maintaining 2 mg/L ground water quality. The “Total New Units” based on zoning can be further refined, since environmental constraints were not removed. If a more detailed analysis was done that

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.

Table B - Additional Development at Build-out, Septic Area				
Watershed (HUC-11)	Total Undeveloped Land Available for Dilution	DEP Nitrate Dilution Model: Acres/New Septic	DEP Model: Total New Septics Allowed	Total New Septics based on Zoning Map
Pequest River (above Bear Swamp)	1,741	4.5	385	95
Paulins Kill (above Stillwater Village)	3,205	4.8	667	425
Paulins Kill (below Stillwater Village)	150	4.7	32	25
Bear Creek	728	4.6	160	110

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. The number of maximum allowable units is a theoretical number, and local municipal plans could provide for much less growth. There are many other considerations for municipalities, and it is not meant to replace or override the local perspective. Given the rural character of Sussex County, its roads and infrastructure, its quality of life, these are some other factors important to planning for future growth. **Appendix K** further describes the NJDEP Build-out Model and some of its limitations as well.

3) Identify any areas subject to federal 201 grant limitations - NONE

4) Provide a checklist of ordinances adopted and pending to complete the municipal chapter.>

Table C - Summary of Ordinance Adoption			
Ordinance	Date Adopted	Complies with NJAC 7:15	Comments and More Protective Standards
Stormwater Management (Ground Water Recharge Maintenance)	3/23/2006	County Planning Board certification on 5/1/2006	
Riparian Zone Protection (optional)			
Steep Slope Protection (optional)			
Hydrogeologic Reports for Proposed Withdrawals of Groundwater	Feb. 2001		Ordinance for Hydrogeologic Reports for Major Subdivision or Site Plans with Proposed 3,000 or more Gallons per Day Withdrawal
Dry Conveyances in Sewer Service Area	n/a		
Septic Connection in Sewer Service Area	n/a		

**ON-SITE DOMESTIC TREATMENT FACILITIES
FACILITY NAME: BEAR BROOK GOLF VILLAGE**

1. Existing or proposed facility:	Existing	
2. New Jersey Pollutant Discharge Elimination System Permit Number:	NJ0109576	
3. Discharge to ground water (DGW) or surface water (DSW):	DGW	
4. Receiving water or aquifer:	Martinsburg Formation/ Shale	
5. Classification of receiving water or aquifer:		
6. Owner of facility:	Worth Construction Co. Inc.	
7. Operator of facility:	Aqua New Jersey Inc.	
8. Co-Permittee of facility (<i>where applicable</i>):		
9. Location of facility:		
a. Municipality & County	Fredon Twp. – Sussex County	
b. Street address	Route 94	
c. Block(s) and Lot(s)	Block	
10. Location of discharge (i.e. degrees, minutes, seconds):	a. Longitude 74 49' 32 _____	
	b. Latitude 41 01' 02 _____ or	
	c. State Plane Coordinates _____	
11. Present permitted flow or permit condition (DSW) or daily maximum (DGW):	0.035 Million Gallons per Day (MGD)	
*13. Summary of population served/to be served including major seasonal fluctuations:	Current (Year 2013) Population	Build-out Population
TOTAL		86 housing units
*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 (Year 2013) Flow (MGD)	Build-out Flow (MGD)
Residential flow	0.005	0.026
Commercial flow		0.009
Industrial flow		
Infiltration/Inflow		
Facility Total	0.005 MGD	0.035 MGD