Existing Utilities

SECTION 6 - EXISTING UTILITIES

A utility service plan element analyzes the need for, and depicts the future general location of water supply and distribution facilities, drainage and flood control facilities, sewage and waste treatment, solid waste disposal, and provisions for other related utilities, including any storm water management plans.

A utility service element encompasses a great many facets of modern living. It affects individuals and business in many ways. Generally, utilities can be categorized as either essential or non-essential. The difference is the essential utility infrastructure increases the carrying capacity of the environment. In short, essential increase the density of human occupation which a given size unit of land can support. Water supply and wastewater treatment utilities are the two utility that merit inclusion in the essential category. The others, while still important, do not directly increase the environment's natural carrying capacity and as such, they can be placed under the non-essential category.

Potable Water

Cedar Grove residents and businesses are served by a public water system for potable water. The Township is a partner in the Wanaque South Reservoir and Monksville Reservoir, which are owned and operated by the North Jersey District Water Supply Commission (NJDWSC). The NJDWSC operates a surface water reservoir system. A secondary (back-up) water source is the Passaic Valley Water Commission system.

Waste Water

Cedar Grove Water Treatment Plant on Little Falls Road

Large centralized regional wastewater treatment plants have become the preferred method of treating wastewater. The range of land uses and densities of development that can be accommodated by a centralized treatment plant are much wider than an individual on site septic systems. Because of the inherent limitations associated with septic systems and the environmental and public health ramifications created by failed septic systems, the clear and unmistakable trend is towards an ever greater dependence and reliance on treatment facilities.

Water that travels down drains and flushed down toilets filters into the plant and undergoes a comprehensive, failsafe journey of pipes, tanks and rotating machinery before emptying into the Peckman River nearly pristine.

The amount of water coming into the plant varies greatly depending on rainfall any given day. The Cedar Grove plant averages about 1.2 million gallons of water traveling through per day from residents.

When the flow of water increases, the plant utilizes an EQ tank, which can hold up to 2 million gallons until its ready to be processed through the facility. The sewer department is responsible for getting the water to the plant, which sits at the lowest point in town, using a series of water pump stations to get up higher elevations across areas where gravity is insufficient.

To help alleviate costs, sludge created from waste solids during the initial settling is separated from the water and pumped into a digestion tank, where it creates methane gas that is used to fuel the plant's boiler. The plant hires a company to take away between six and seven truck loads of sludge weekly.

The 2014 Essex County Waste Water Management Plan stipulates that

The existing wastewater collection and conveyance infrastructure within this municipality consists of the following:

- Collection System & Pump Stations – Cedar Grove Township is generally developed throughout its borders with the exception of open space and some areas containing steep slopes. The Township's wastewater collection system includes over 46 miles of gravity sewer and force main. The Township's wastewater collection system conveys sewage to the Cedar Grove Wastewater Treatment Plant (WWTP; NJ0025330). The collection system exclusively serves the Township of Cedar Grove. The wastewater collection system also includes three (3) pump stations.

- Collection System (outside service providers) – a small portion of the Township's wastewater along the southern border is conveyed to the Verona STP (NJ0024490). This area largely includes the Essex County Hospital grounds in addition to several other unrelated parcels.

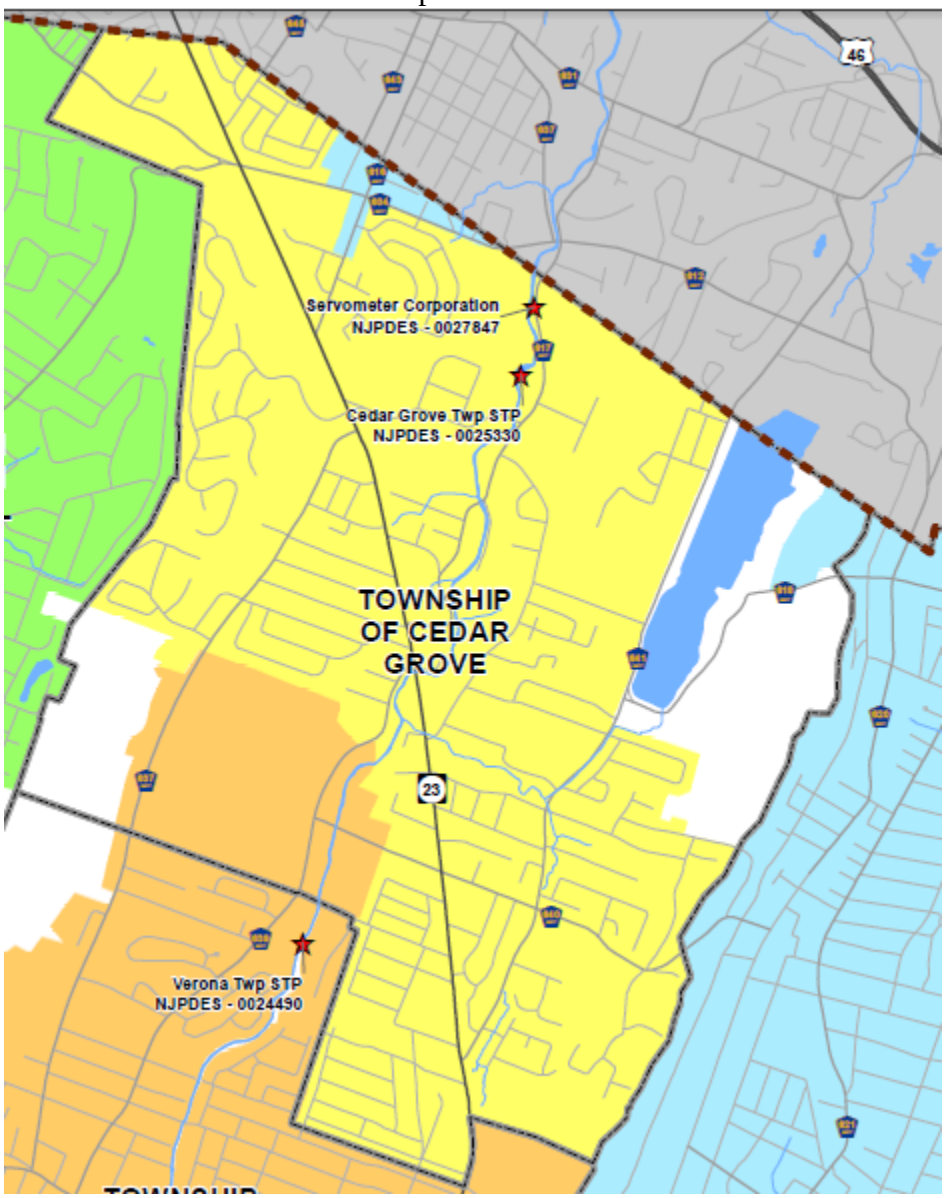
  Two additional small areas on the northern border are conveyed to the Passaic Valley Sewer Commission (NJ0021016).

The existing major wastewater treatment facilities located within the municipality include:

- Cedar Grove Township Wastewater Treatment Plant (WWTP) – The Township's WWTP is permitted for 2.0 million gallons per day (MGD). The plant outfall is located on the Peckman River.

In total, Cedar Grove is contracted to obtain 1.8 million gallons per day (mgd. This amount was reached via a recent contract with the Township of Kearny where Cedar Grove will use some of Kearny's excess capacity.

Map 6 – 1 :
Wastewater Service Area
Township of Cedar Grove



Wastewater Service Area

Receiving Facility, NJPDES Permit Number

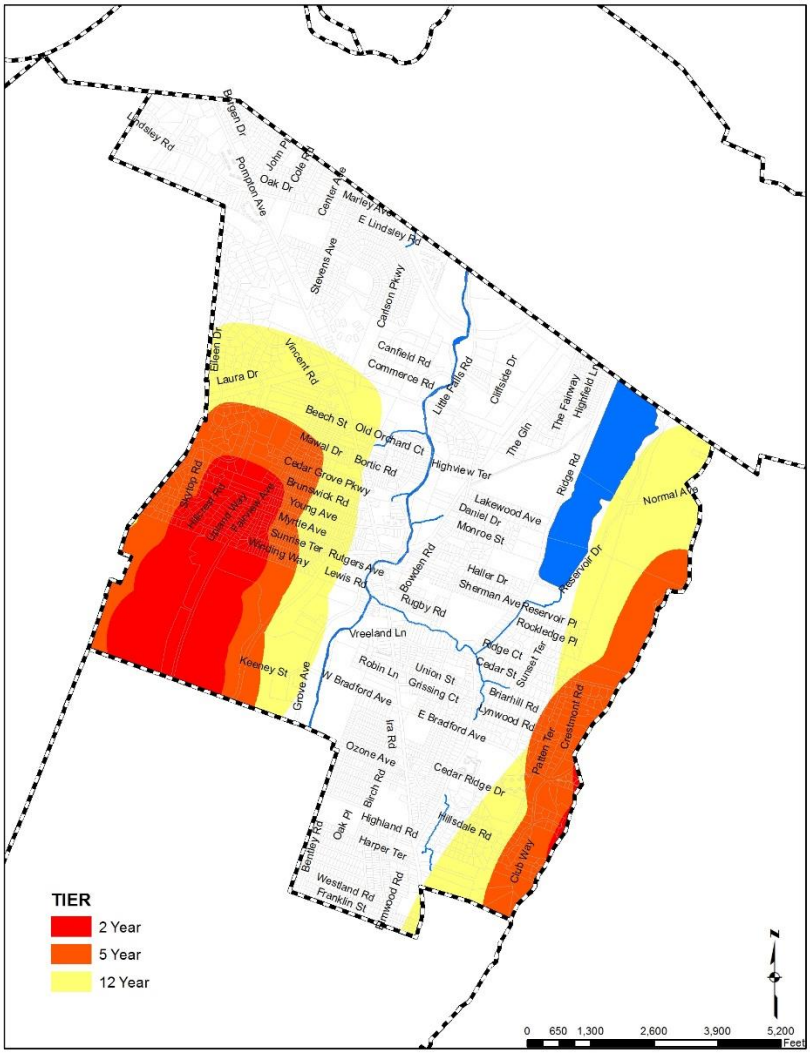
- Caldwell Borough STP, NJ0020427
- Cedar Grove STP, NJ0025330
- Joint Meeting Essex & Union, NJ0024741
- Livingston Township STP, NJ0024511
- PVSC, NJ0021016 *
- Parsippany Troy-Hills WMP, NJ0024970
- Two Bridges SA, NJ0029386
- Verona STP, NJ0024490
- Septic Area**

- Surface Water Discharge
- Combined Sewer Overflow
- Rivers & Streams
- Open Water
- Municipal Boundary
- Wastewater Management Planning Area / County Boundary

* PVSC sewer service area delineated from the adopted PVSC WMP

** Septic areas are to be served by individual subsurface sewage disposal systems with planning flows of 2,000 gallons per day or less (ISSDS)

Map 6 – 2 :
Wellhead Protection Acres
Township of Cedar Grove



Stormwater Management

The watershed of the Peckman River encompasses approximately 11 square miles. While perennial and intermittent streams still feed the river, much of the surface water discharging to the river is routed via underground stormwater drainage systems. The stormwater systems tend to introduce rainwater rather quickly into the river, resulting in fast rises in the stream flow, increasing streambank erosion and flooding, and causing an overall decrease in the amount of ground water discharge (or baseflow) into the river.

Flooding periodically results from overbank flow along the Peckman River and its tributaries. The flooding usually follows an unusually heavy rain or short-term deluge, when the rainwater run-off is quickly routed to the watercourses.

Flooding as a result of Hurricane (Tropical Storm) Floyd in 1999, caused significant damage in the Township and downstream. The section along Pompton Avenue from Church Street north to the railroad trestle (south of Myrtle Avenue) was severely flooded. Road collapses occurred above culverted and channelized streams (particularly along Ridge Road north of W. Bradford Avenue), and serious streambank erosion occurred along stretches of the Peckman River, most notably within Community Park.

In reaction to the flooding, municipalities took action to curb development along the river, enacted stormwater management ordinances, and requested governmental assistance to address the flooding. The Army Corps of Engineers studied potential flood control measures along the river, and the NJDEP considered redrawing the floodplain along the river. Cedar Grove responded by passing a stormwater management (ground water recharge maintenance) ordinance which complies with NJAC 7:15 (Water Quality Management Planning Act).