

Warren Elementary School Innovative/Alternative Wastewater Treatment and Dispersal System

The Warren Village Wastewater Advisory Committee, along with the Town's Consultants, Stone Environmental Inc. and Forcier Aldrich & Associates Inc., has been working on the Village Decentralized Wastewater Management Project. A USEPA Demonstration Grant of \$1.5 million with a 25% local match is funding this project.

As part of the Village Needs Assessment Study, the Warren Elementary School's septic system problems became recognized as a priority. The Town decided to use the replacement of this septic system as a pilot demonstration project for using Innovative/Alternative treatment technologies which provide better treatment of wastewater, and reduce the area needed for a disposal system. These technologies may allow up to a 50% reduction in leach field size. This will allow for better replacement systems at homes and businesses with limited area available for sewage disposal.

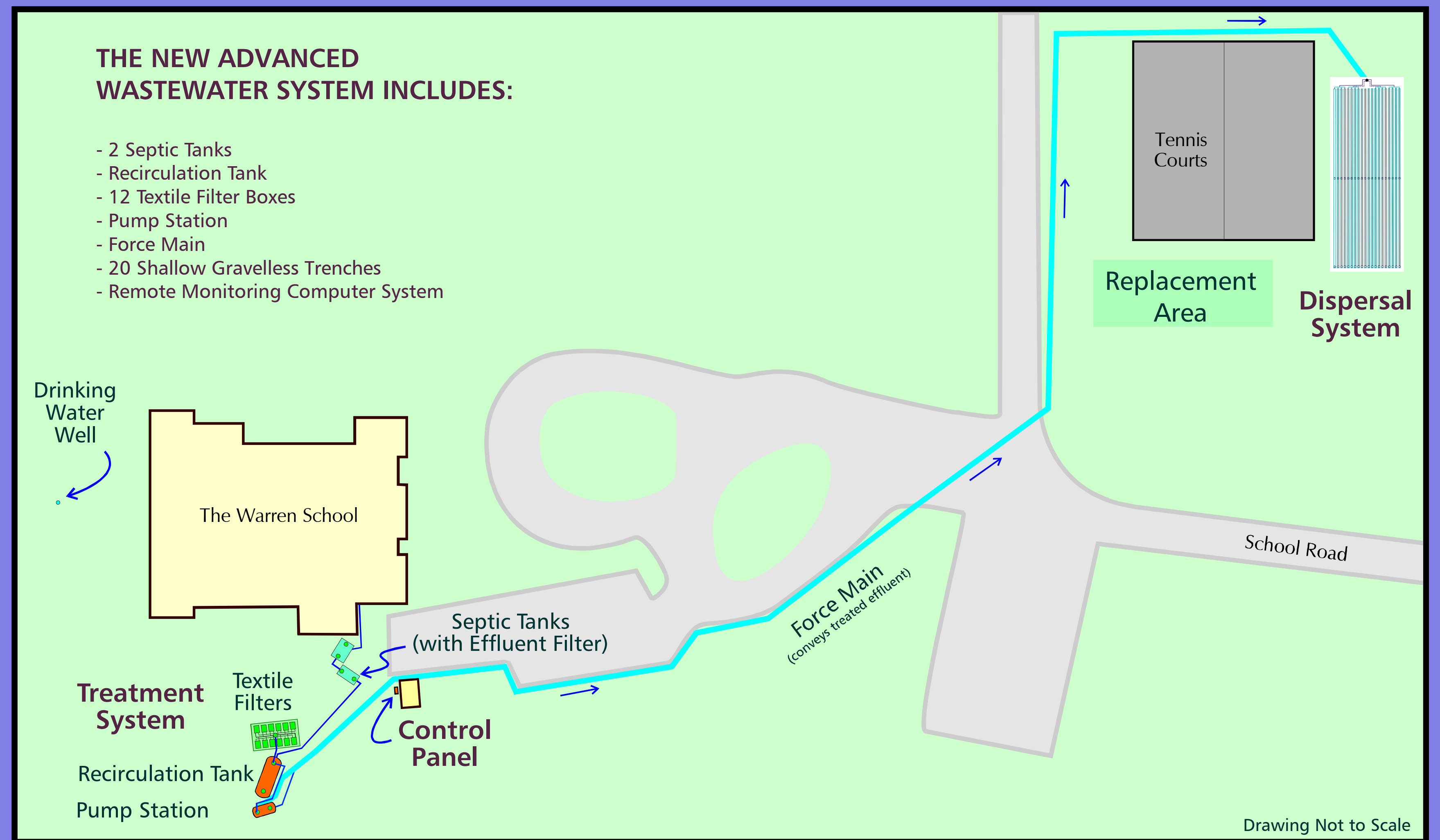
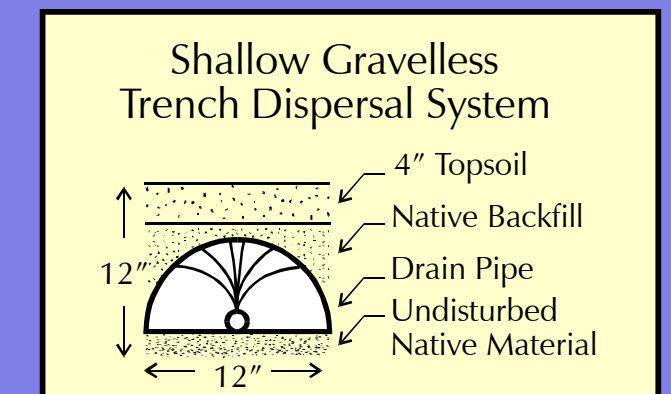
Maintenance and on-going management of septic systems will help septic systems function as a long term solution for wastewater management.

DISPERSAL FIELD

The dispersal system consists of a series of 20 trenches, 12 inches wide, made from a PVC pipe cut lengthwise in half, with a small diameter pressure pipe inside. The pipe is placed in the trench with the open side down.

This area takes the place of stone in a typical leach trench. The system sprays the treated effluent along the length of the trenches. The system has 4 zones so that each time the effluent is pumped to the dispersal field, the effluent goes to a different series of trenches.

This system is innovative because it does not use any stone, is about one-half the typical size, and sprays more evenly, using frequent doses.



TREATMENT SYSTEM

The treatment system consists of a series of Advantex textile filter boxes made by Orenco Systems Inc.

The septic tank effluent flows into the recirculation tank and is pumped alternately to 2 of the 12 boxes. The effluent is recirculated through the boxes about 5 times before the wastewater goes to the pump station and is pumped to the dispersal field.

Decentralized Wastewater Management Project Team:

- Warren Town Board of Selectmen
- Warren Wastewater Advisory Committee
- Phil Covelli (Project Manager)
- Stone Environmental Inc. (Project Consultants)
- Forcier Aldrich & Associates Inc. (Project Engineers)
- New England Water Systems Inc. (System Installers)
- Wastewater Technologies Inc. (System Component Suppliers)



Soil Suitability Evaluation



Treatment System Behind School



Textile Filter Boxes and Piping Before Covering



Dispersal System Behind Tennis Courts



Remote Monitoring Control Panel



Remote Monitoring - Computer Can Check and Fix System

STONE ENVIRONMENTAL INC
FA&A Forcier, Aldrich & Associates
Wastewater Technologies, Inc.