



# Presby Environmental News



Whitefield, NH

Winter 2005-2006



## Who is Presby Environmental?

Presby environmental is a family run and operated company with ties to the septic system business that stretch back to the 1940's. Today it is a thriving corporation specializing in the manufacturing of environmentally safe products used in residential and commercial wastewater treatment.

To meet the demands of its ever growing customer base, Presby Environmental continues to expand its manufacturing capabilities. In 2002 its affiliate, Presby Plastics, opened a new 15,000 square foot plant to produce the components used in the Enviro-Septic® wastewater treatment system. In July of 2005 Presby Plastics completed a new 20,000 square foot addition to this original plant. The new space will house machinery tripling the Enviro-Septic® production capacity and adding new lines for the production of components used in De-Nyte™, a revolutionary new Presby product designed for denitrifying leachate and used in conjunction with Enviro-Septic® systems.

To centralize its operations, Presby Environmental has also relocated its headquarters from Sugar Hill to a new suite of offices in the Presby Plastics plant in Whitefield.

## Presby Environmental Welcomes Indiana and Massachusetts

Presby Environmental is pleased to announce that the Enviro-Septic® wastewater treatment system has now been approved for use in Indiana and Massachusetts. These States join ranks with Maine, Vermont, New Hampshire, and the Province of Quebec in allowing their residents to experience the unique advantages provided by this product. Also in the limited approval pipeline are Illinois, a State that has implemented a pilot program, New York, and the Province of Ontario, Canada.

For a number of years, an Enviro-Septic® system has been installed and in use for testing in Indiana. The success of this system, along with extensive cooperation from the Indiana State Department of Health, aided in the approval process. In particular we applaud the efforts of Alan Dunn and Chris Bourke, and their associates.

Similarly, in Massachusetts the Department of Environmental Protection played a key role in the approval process. In this instance we have Glenn Haas, David Ferris, and Steven Corr to thank for their diligence and perseverance.

Both of these States also contributed extensively to the design of new "stand-alone" installation manuals used exclusively in each State.

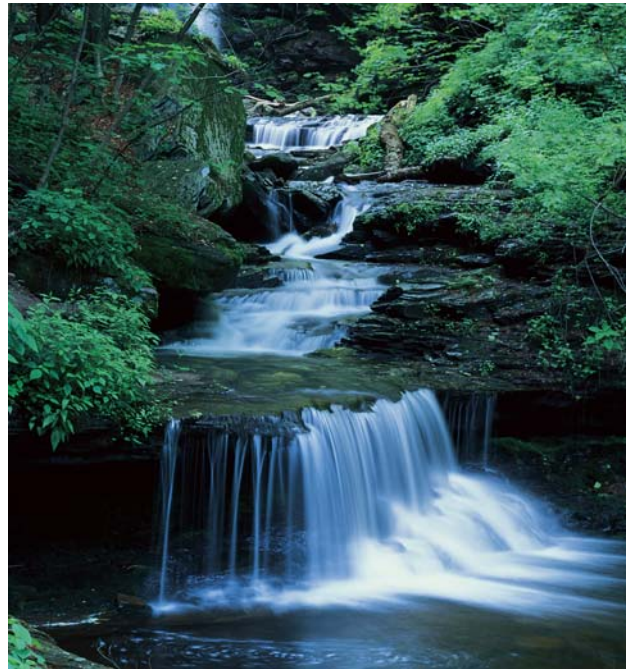


## System Brings Benefits to Massachusetts Residents

### Dare to Compare

Compare these Enviro-Septic® benefits with any other system in the State of Massachusetts.

- B**illions of dollars saved Statewide, thousands saved on individual systems.
- E**limination of pressure distribution with its additional cost and quarterly inspections.
- N**early complete removal of effluent contaminants.
- E**limination of sloping terrain constraints.
- F**lexible system configurations adapt easily to difficult sites.
- I**nstallations within 2' of estimated high ground water.
- T**otal reduction in system size up to 40% over conventional systems.
- S**atisfaction that your system is protecting you and the environment.



The Enviro-Septic® wastewater treatment system recharges and protects our groundwater and requires 40% less area on Massachusetts sites than conventional systems. Multi-Level™ systems that occupy 1/6<sup>th</sup> the area of conventional systems have been installed in other states. Several prominent restaurant chains have used these systems for years on sites where conventional systems failed within months. As the exceptional performance of our products is realized, more and more Massachusetts residents and their environs will benefit.

### Designer and Installation Documents Available

Product documentation is available from Presby Environmental. Comprehensive Enviro-Septic® wastewater treatment system design and installation manuals for the States of Massachusetts and Indiana are also downloadable at [www.presbyenvironmental.com](http://www.presbyenvironmental.com). All certified individuals will receive these manuals during the certification process. They may also be obtained by calling 1-800-473-5298.

### Seeking Enviro-Septic® Dealers

Presby Environmental is now seeking applications for Massachusetts and Indiana dealers. Individuals should be involved in some aspect of the septic system industry, preferably operating their own businesses. Qualified applicants may apply online at [www.presbyenvironmental.com](http://www.presbyenvironmental.com). Persons not having online access can call 1-800-473-5298.

### Illinois Launches Pilot Program!

Illinois has approved a pilot program for the Enviro-Septic® wastewater treatment system. Numerous systems will be installed and tested for performance and efficiency. A unique aspect of this approval is that Presby Environmental will determine the standards for these installations. Commonly, jurisdictional authorities set up their own design rules and regulations. This trust given by Illinois is in recognition of the uniqueness of Enviro-Septic® and the knowledge and experience its developers have about its treatment process.

## Enviro-Septic® Approved by the Indiana State Department of Health



Enviro-Septic® components



Enviro-Septic® on sloping terrain

### New Benefits for Indiana Residents!

We thank the staff at the Indiana State Department of Health for their efforts in the development of the “Enviro-Septic® Wastewater Treatment System Indiana Design and Installation Manual for Residential Systems”. With their cooperation and contributions this manual will establish new standards for the industry. They recognized the advantages of the Enviro-Septic® process and made suggestions that clearly showed their overall understanding of this product.

Soils in Indiana are challenging, but because of Enviro-Septic's® improved treatment capabilities, systems may be designed and installed in these soils with bed size reductions of 30% to more than 50% that of conventional systems. Also, the ability to construct systems on sloping sites and to use non-conventional system configurations will increase their design and installation alternatives. Indiana residents will enjoy the satisfaction of knowing that they are protecting their health and environment. Mike Market of Rockport, is the sanctioned instructor, distributor, and representative in Indiana.

### Enviro-Septic® Certification Courses

Designers, installers and individuals involved in the approval and permitting process are encouraged to enroll in an Enviro-Septic® Certification Course online at [www.presbyenvironmental.com](http://www.presbyenvironmental.com) or by calling Presby Environmental at 1-800-473-5298. Classes are scheduled within each state and provide design and installation requirements for that state. Certification requirements by state are as follows.

- Indiana: All designers, installers and individuals involved in the permitting process.
- Maine: All designers and installers.
- Massachusetts: All designers and installers
- New Hampshire: All designers and installers of Multi-Level™ systems
- Vermont: All designers and installers

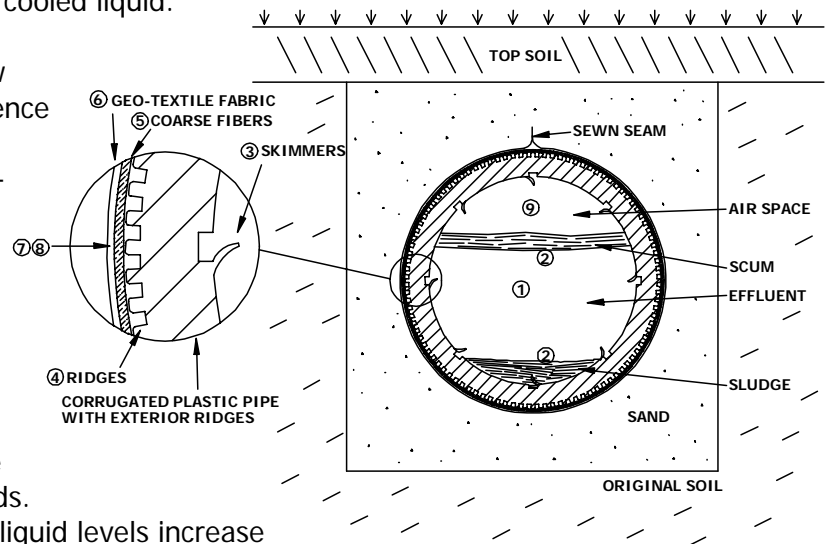


### Did you know?

If we were to take the pipe from the 80,000 systems currently in use today and place it end to end, the distance would stretch from East Coast to West Coast and back again!

## The Science Behind Enviro-Septic®: How Does it Work?

- Stage 1: Warm effluent enters the pipe and is cooled to ground level.
- Stage 2: Suspended solids separate from the cooled liquid.
- Stage 3: Skimmers further capture grease.
- Stage 4: Pipe ridges allow the affluent to flow uninterrupted around the circumference of the pipe.
- Stage 5: A mat of random coarse fibers separates more suspended solids from effluent.
- Stage 6: Effluent passes into a geo-textile fabric and grows a bacterial filter.
- Stage 7: Sand wicks liquid from the geo-textile fabric and enables air to transfer to the bacterial surface.
- Stage 8: The fabric and fibers provide a large bacterial surface to break down solids.
- Stage 9: An ample air supply and fluctuating liquid levels increase bacterial efficiency.



The Enviro-Septic® wastewater treatment system uses natural processes and the physical, chemical, and biological energy within the components to treat wastewater. The effluent level within the system rises and falls with daily water peaks to improve the decomposition process. Solids and grease are contained within the system and are decomposed by aerobic bacteria prior to release. Leachate exits the system with reduced levels of contaminants and solids. Conventional systems distribute the raw untreated effluent to the lowest point in the system where the soil surface soon becomes clogged, cannot accept effluent, and fails.

### De-Nyte™ Testing Being Performed in Massachusetts

De-Nyte™ is a product designed to install beneath an Enviro-septic® leaching system and turn unhealthy nitrates into harmless nitrogen gas. De-Nyte™ processes phosphorous, E. coli, nitrogen, and other unwanted substances in the leachate. Earlier results of small scale testing provided results yielding nitrite and nitrate concentrations of 1.14 mg/l in treated wastewater, an amount that is drastically lower than the EPA drinking water standard of 11 mg/l.

Presby Environmental recently installed a full-sized revolutionary De-Nyte™ system at the Massachusetts Alternative Septic System Test Center in Barnstable, Massachusetts. The Center tests effluent before it enters and after it exits the system to determine the completeness of the De-Nyte™ treatment.



The above photo shows a De-Nyte™ cell array during installation at the Massachusetts Alternative Septic System Test Center in Barnstable, Massachusetts.

## Differential Venting and How It Works

In a typical gravity septic system the roof vent is the high vent that draws air through the sand and topsoil cover on the leach field. Differential venting, which requires a low vent and a high vent, replicates this vertical "chimney" effect to pull air through the leaching system. This ensures that adequate oxygen for promoting system efficiency reaches the Enviro-Septic® protected biomat.

Gravity systems with more than 18" of cover, under paved surfaces, or with Multi-Level™ configuration require only the addition of a low vent, since the roof vent will still function as the high vent. (Some States require low vents in all systems.)

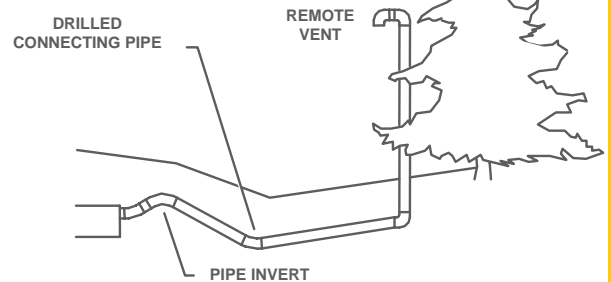
Because pump systems cut off the air flow to the roof vent, a high vent must be installed in the distribution box or velocity reduction chamber. To avoid freezing a distribution box, the low "inlet" vent must always be at the end of the system and not on the distribution box itself.

All differential vent systems must have only one low "inlet" vent at the end of each line, section or basic serial bed and one high "exhaust" vent at the roof or at the distribution box. No other vent or opening may be placed between the high and low vents. The high vent must be at least ten feet above the low vent.

### Today's Tip: Remote Venting

Many people have concerns about unsightly vents. Remote venting is a means of addressing these concerns. The Remote vent location must ensure that condensation does not collect in the connecting pipe and block air passage. The connecting line invert must be above the top of the highest Enviro-Septic® line and, if applicable, above the top of the distribution box. The connecting pipe must slope back towards the system or all low points must be above seasonal high water and drilled to drain into a gravel cavity.

#### REMOTE VENT CONNECTION



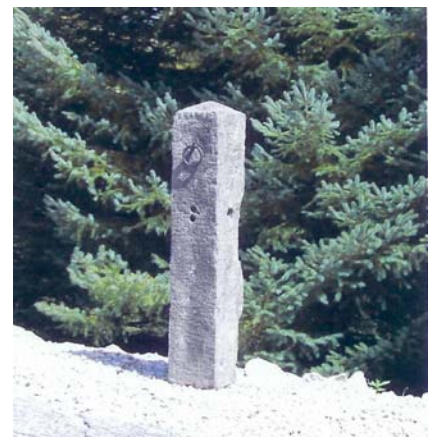
### Did You Know?

Low vents and high vents, essential in some Enviro-Septic® systems, can be hidden easily with rocks, trees, windmills, and flagpoles. Presby Environmental also offers birdbaths and granite posts that can fit over low vents to make them less visible.



Before

**Hiding the low vent with a fiberglass granite post**



After

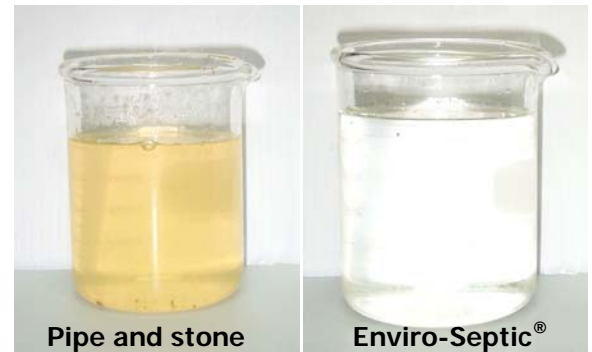
## How Clean is the Drinking Water in Your Home or Business?

Septic systems using pipe and stone can discharge large concentrations of fecal coliforms (such as E. coli) that can reach on site well water, jeopardizing your health and the environment. Is your septic system contributing to the problem? **Not if you have Enviro-Septic®!**



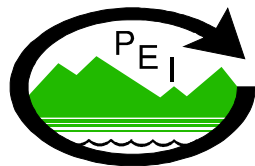
The Enviro-Septic® wastewater treatment system removes 99.2% of E. coli bacteria before it enters the soil. It is proven to treat unhealthy contaminants more effectively than other leaching systems, is smaller in size, and is less expensive.

### Samples taken from test site



**No other system on the market today can match Enviro-Septic® for dependability, durability, and environmentally friendly design.**

## *Protecting You & the Environment*



**PRESBY ENVIRONMENTAL, INC.**  
*INNOVATIVE SEPTIC TECHNOLOGIES*

143 Airport Road, Whitefield, NH 03598  
Tel: 1-800-473-5298 Fax: (603) 837-9864  
[www.presbyenvironmental.com](http://www.presbyenvironmental.com)