



## **Ontario Home Owner's User Guide**

**Enviro-Septic® System** 

**Residential Systems Province of Ontario** 

**BMEC Authorization #: 18-05-386** 

September 2018





Make-Way Environmental Technologies Inc.



### **Important Security instructions**



It is extremely dangerous even potentially deadly to open a septic tank, pump station or any enclosed space that is part of a wastewater treatment system. This work must be done by a person trained in enclosed space working and rescue procedures who has the necessary equipment.

The action of the bacteria on the organic matter present in the wastewater produces gases such as carbon gas (CO<sub>2</sub>), methane gas (CH<sub>4</sub>) and sulphuric hydrogen (H<sub>2</sub>S). The H<sub>2</sub>S present in the septic tank or a pump station can cause the death of an individual in a matter of minutes. This is why this work must be left to competent personnel.



Pipes are buried near your septic installation. Please speak to your contractor or the technical service of Make-Way Environmental in order to take the necessary precautions before digging or undertaking excavation jobs near your septic system.



Please be sure that the covers of the septic tank, pump station, piezometers and sampling device are always in place and that they remain accessible at all times for periodic inspections and maintenance work when necessary. (i.e. emptying of the septic tank). The same applies for distribution boxes of systems built after 2009 as well as those which had an accessible distribution box before that time.



Advanced Enviro-Septic® comes with a manufacturer's limited warranty. The warranty details are presented in Appendix B.

Advanced Enviro-Septic<sup>®</sup> U.S. Patent numbers. 6,461,078; 5,954,451; 6,290,429; 6,899,359; 6,792,977; 7,270,532 and 5,606,786. Other patent pending.

Enviro-Septic<sup>®</sup> is a trademark of Presby Environmental, Inc. Advanced Enviro-Septic<sup>®</sup> is a trademark of Presby Environmental, Inc. Bio-Accelerator<sup>®</sup> is a trademark of Presby Environmental, Inc.



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#### Introduction

Congratulations! You have chosen the Enviro-Septic<sup>®</sup> System for your septic installation. This system was developed to effectively treat wastewater from your home. However, certain instructions must be followed in order to maintain its treatment performance so that you can make use of it for many years.

We ask that you carefully read through this document and keep it in your files for future reference.

## The Purpose of this Document

This user guide explains the proper use, procedures and inspections required in order to ensure the proper operation and longevity of an Enviro-Septic<sup>®</sup> System for residential wastewater treatment.

Please note that it is the owner's responsibility to ensure that the system is used properly and according to its treatment capacity. It is also your responsibility to respect the rules and regulations in effect, including the standards for discharge into the environment.

### Your Enviro-Septic® System

Designation of the Enviro-Septic<sup>®</sup> System Name: Enviro-Septic® System

**Class and Treatment Type**: The Enviro-Septic® system meets all the requirements of the NQ 3680-910¹ standard for class II – secondary treatment water treatment systems in Quebec and meets the requirements for Level IV Quality Criteria in Ontario.

**Application Domain**: Residential Wastewater (sewage).

The system cannot be used to treat wastewater to make it drinkable. It treats residential wastewater to an acceptable level for it to be reintroduced into the environment according to applicable standards.

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<sup>&</sup>lt;sup>1</sup> NQ 3680-910 standard, Wastewater treatment – Stand-Alone Wastewater Treatment Systems for isolated Dwellings, Bureau de Normalisation du Québec, 2000-06-16



#### Definition of the Enviro-Septic<sup>®</sup> System

The Enviro-Septic® system is a passive technology that facilitates the growth of bacteria responsible for wastewater treatment. It is composed primarily of a septic tank, the rows of Advanced Enviro-Septic® pipe and a layer of system sand.

The Enviro-Septic® system must be preceded by a septic tank with an effluent filter and a wastewater distribution device. The treated wastewater infiltrates directly into the soil beneath the treatment system.

# What to do if a problem occurs?

If in the course of normal use of your septic system you notice any of the following problems:

- presence of abnormal odor in the house, around the septic system or emanating from sources of drinking water,
- abnormally wet soil, presence of ponding or odours in the area of the septic tank or the Enviro-Septic<sup>®</sup> pipe area,
- slow flushing toilets or other plumbing in the home,
- presence of abnormally abundant vegetation on the surface or around the septic tank or the Enviro-Septic® system installation,
- flooding in the area where the Enviro-Septic® system is installed,
- erosion of the soil / top soil on or around the Enviro-Septic<sup>®</sup> system,
- alarm from the pump station if such a device is part of your installation,

If you notice one of these problems, immediately contact your contractor or inspection technician or the customer service of Make-Way Environmental Technologies Inc. 1-866-625-3929. Please have available the information from Appendix B – *Information Specific to Your Treatment System* – of the present guide.

#### Customer service and Technical Support Information

Please contact us if you need further information.

Telephone: 1-866-MAKE-WAY (625-3929) or (519) 709-0681

Fax: (519)235-0570

Email: itech@makeway.ca
Internet site: www.makeway.ca



Advanced Enviro-Septic<sup>®</sup> Pipe Descriptive Tag Each of the Advanced Enviro-Septic<sup>®</sup> pipes used in the installation of your Enviro-Septic<sup>®</sup> system is attached with a descriptive tag similar to the one in Figure 1.

This tag is sewn onto the geotextile over the pipe. It must be present on every Advanced Enviro-Septic<sup>®</sup> Pipe when installed. Do not remove it as it is meant to be buried.



**Figure. 1** – Enviro-Septic<sup>®</sup> Pipe Descriptive Tag

#### **System Tag**

Each Enviro-Septic<sup>®</sup> system must be identified with a specific system tag. This tag, similar to the one shown in figure 2, will be installed in the sampling device access port. The number shown at the bottom of the tag to identifies your system.





Figure. 2 –Enviro-Septic® System Tag

#### Certified Designers and Authorized Installers

The Province of Ontario requires that all designers and installers of septic systems must be certified by the Province. Designers and Installers of the Enviro-Septic<sup>®</sup> System must also be trained on Enviro-Septic products by the manufacturer or manufacturer's representative.

All Enviro-Septic® installations must be done by an installer authorized by Make-Way Environmental Technologies Inc. (Make-Way is authorized by DBO Expert Inc to train and accredit installers). Authorization is obtained by attending a training session or by doing the first installation under supervision of Make-Way Environmental Technologies Inc.

#### Enviro-Septic<sup>®</sup> System Capacity

The capacity of your  $\textsc{Enviro-Septic}^{\textsc{\$}}$  system depends on the configuration designed and installed on site.

Initially, each section of Advanced Enviro-Septic<sup>®</sup> pipe has the capacity to treat 126 L of wastewater per day. Therefore, the formula to determine the basic design capacity of your Enviro-Septic<sup>®</sup> system is:

126 × Number of Advanced Enviro-Septic® pipes installed.

This being said, for some configurations, the capacity of the underlying soil to evacuate the treated wastewater may be lower than the capacity of the pipes installed. Therefore, it is important to verify with the designer the actual capacity.

That design capacity will also appear on the system tag.



#### Residential Wastewater

Your system was design to treat domestic wastewater. Table 2 indicates the normal characteristics of raw domestic sewage. The water entering the Enviro-Septic® System needs to be within the range of the parameters shown for the septic tank effluent.

#### Table 1

Parameters	Units	Raw Sewage	Septic Tank Effluent
TSS	mg/L	237-600	50-90
CBOD <sub>5</sub>	mg/L	210-530	140-200

Reference: Tchobanoglous and Burton (1991)

#### Warranty Certificate

Enviro-Septic® comes with a manufacturer's limited warranty. The warranty details are presented in Appendix B.

### How does the Enviro-Septic® System works?

The Enviro-Septic<sup>®</sup> System is a passive technology which facilitates the proliferation of the bacteria responsible for wastewater treatment. It is comprised mainly of septic tank, the rows of Enviro-Septic<sup>®</sup> pipes and a layer of system sand.

The Enviro-Septic® system must be preceded by a septic tank with an effluent filter and a distribution box (or another method of distribution).

The system must be installed according to the Ontario Design and Installation Manual and in accordance with the Building Materials Evaluation Commission (BMEC) Authorization XXXX-XX and Part 8 of the Ontario Building Code (OBC).

#### Treatment Process of the Enviro-Septic<sup>®</sup> System

The rows of Advanced Enviro-Septic<sup>®</sup> pipe and system sand permit the treatment and distribution of wastewater on the surface of the receiving soil.

The pipes support, first of all, the separation of particles through flotation and decantation. The wastewater is then evacuated through perforations situated all around the pipes and through the pores of the two layers of synthetic media covering the pipes. These membranes facilitate the fixation of the microbic cultures which support wastewater treatment as well as longitudinal distribution.

The layer of sand continues the treatment process and helps in dispersing the water before it infiltrates into the natural soil. In this way, the Enviro-Septic<sup>®</sup> System integrates both functions of treatment and infiltration into the native soil.



# Enviro-Septic® Chain of Treatment

There are six (6) main components in the Enviro-Septic® chain of treatment. They are:

- Septic Tank
- Effluent filter.
- Distribution device
- Advanced Enviro-Septic® pipe
- Sample Device and
- Enviro-Septic® System sand.

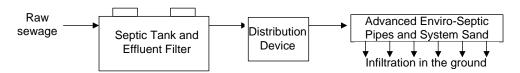


Figure. 3-Enviro-Septic® chain of treatment

#### Diagram of the Enviro-Septic<sup>®</sup> System

The following diagram presents the Enviro-Septic® System

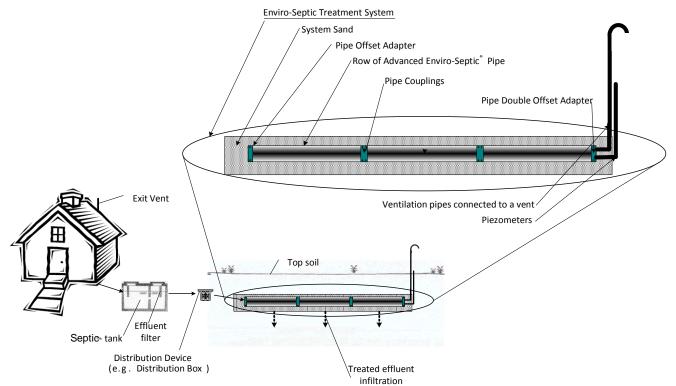


Figure. 4–Enviro-Septic® System



### **Enviro-Septic® System Components**

Your septic system includes a number of components. All of these components are parts of the treatment and monitoring process of your installation. Table 2 presents the list of these components.

However it should be noted that some of these components are only used when site conditions require them.

The table also presents a summary of inspections required for each component. More detailed information on this subject is presented in the sections that follow.



Table 2

Enviro-Septic® System (	Components			
Component of the septic system	Function	Follow-up needed	Frequency	Responsible for follow-up
Septic tank	Primary wastewater treatment	Periodic emptying	According to standards and regulations in effect	Owner is responsible to have work done by qualified personnel
Septic Tank Effluent Filter	Retention of solids that are larger than the maximum openings of the filter.	According to manuf	facturer's instructions	5
Distribution systems				
3 options				
A) Distribution box and flow equalizers	Distributes the septic tank effluent to the rows of Advanced Enviro- Septic <sup>®</sup>	A) According to water level in the piezometers	A) As needed	A) Owner
B) Pressure distribution (feed) system		B) According to the	e manufacturer's dire	ctions.
C) Automatic distributing valve		C) According to the	e manufacturer's dire	ctions.
Rows of Advanced Enviro- Septic <sup>®</sup> Pipe.	Distribute and treat wastewater	See Distribution Box		
Piezometers	To check the water level of each row of Enviro-Septic® pipe	Measure water levels	Once or twice a year as preventative measure, before emptying septic tank	Owner or qualified person
Sampling device	To verify the treatment performance of the Enviro-Septic <sup>®</sup> System	Ensure that there is access to this device	1 <sup>st</sup> sample taken within 12 months after system is put into use. Thereafter, once every year. (BMEC)	Qualified person
Vent	To allow the circulation of air in the Enviro-Septic® System	Ensure that the opening is not blocked	As needed	Owner
System sand	To complete the water treatment process and to improve the drainage	No	1	
Pump station (optional)	Lift septic tank effluent to the Enviro-Septic®  System	According to suppli	er's specifications	



### Operating the Enviro-Septic® System

#### **Initial Use**

At the time of the initial installation the septic tank must be filled with clear water.

If a pump station is used, the installer will verify that it is functioning properly at the time of installation. The home owner must make sure that there is adequate electricity to safely operate the equipment as well as the alarm component.

Following the installation of your Enviro-Septic<sup>®</sup> System by the installer and inspected by the Regulatory Authorities your system is now ready for use.

#### Intermittent Use or Prolonged Absences

The Enviro-Septic® System is a passive wastewater treatment system. When properly installed, it requires no particular attention for intermittent use or in the case of prolonged absence.

### **Enviro-Septic® System Operating Instructions**

The use and the maintenance of an Enviro-Septic® System are relatively simple. In the sections below you will find the basic rules to follow to ensure the proper operation of your Enviro-Septic® System. The compliance to these rules is essential to the correct operation of any septic system.

To simplify understanding, these rules are presented to you as things to do or not to do, in each part of the house and outside around the house.

#### Wastewater Volume

Large quantities of wastewater discharge from the house via sewer piping and enter the Enviro-Septic<sup>®</sup> System in a short period of time, could have a negative impact on the effectiveness of the treatment and the infiltration of wastewater into the native soil. Large quantities of wastewater can cause agitation in the septic tank. A certain quantity of sludge or scum is susceptible to be put into suspension and be brought into the System and the infiltration bed. The frequency of such an event must be minimized.

You must ensure that the volume of wastewater entering the Enviro-Septic<sup>®</sup> System is reasonable when compared to the total daily flow the system was designed for.

After the installation, if changes are made to the residence (i.e. addition of a bedroom)<sup>2</sup>, please contact the designer of the Enviro-Septic<sup>®</sup> System. Make sure that the septic system is inspected by a qualified person to determine that

Adding a bedroom, a business at home, a reception room, conversion of the house to a bed and breakfast, etc.



it has the necessary capacity to treat and infiltrate the new daily design flow of wastewater being generated.

#### In the Bathroom

#### Do:

- immediately repair any leaking faucet or toilet,
- use a reasonable quantity of toilet paper.

#### Do not:

- use disinfectant in tablet (puck) form, whether it is placed in the basin or the tank,
- throw cigarettes, cigarette butts or medication in the toilet,
- throw paper towels, paper napkins or other personal hygiene products in the toilet.

#### In the Kitchen

#### Do:

- repair any leaking faucet,
- use dish soap or dishwasher soap that is low in phosphate (0 to 5%),
- use the necessary quantity of soap to do the work. Take note that the necessary quantity is often less than suggested by the manufacturer,

#### Do not:

- use a food waste disposal unit (garburator) in your sink that is connected to your home plumbing / septic system,
- dispose of vegetables, meats, fat, oil, coffee beans, citrus products or other unassimilated products into the septic system.

## For the Laundry

#### Do:

- use phosphate free detergent, preferably in liquid form. If it is not possible, use biodegradable powder detergent,
- use the necessary quantity of soap to do the work. Take note that the necessary quantity is often less than that suggested by the manufacturer.
- minimize, when possible, the volume of water used for the laundry according to the quantity of clothing to wash,
- If possible schedule your loads of laundry throughout the week.



# Elsewhere in and Around the House

#### Do:

• divert drainage and rain water away from the surface of the Enviro-Septic® System.

#### Do not:

- discharge water softener backwash into your septic system,
- discharge any water from swimming pool filters, spas or other appliance that discharge chlorinated water into your septic system,
- let water from sump pumps, roof drains (gutters) and drainage pipes discharge into the septic system,
- dispose of solvents, paints, antifreeze, engine oil floor waxes, carpet cleaners, drain cleaner or other toxic or flammable products in the septic installation. This includes water used to wash brushes or rollers that were used with latex paint (latex paint contains elements that are harmful to septic system),
- Dispose of animal litter, tea bags, coffee grounds, egg shells, cigarette butts, paper towels, condoms, diapers or sanitary napkins in the septic system.

# Chemicals for Septic Installation

Your Enviro-Septic<sup>®</sup> System does not require any starting chemical, cleaning or other additives. The bacteria that carry out the treatment are naturally present in raw domestic sewage. Any chemicals or additives added to the Enviro-Septic<sup>®</sup> System could possibly kill these bacteria.

#### Aeration

It is very important to ensure good aeration occurs so that the septic system functions correctly. The vent(s) installed at the ends of the septic system encourages this aeration. It is important to make sure that the opening is not blocked and that air can circulate freely at all times. Air enters through the vent, circulates through the rows of pipes and the septic tank and travels through the plumbing of the house to exit through the roof vent / stack.

When a pump station is used, a bypass pipe or an extra vent must be used to ensure proper ventilation of the system.



#### Heavy Machinery and Motorized Vehicle Traffic

No heavy machinery must be driven on a septic system, whether it is before, during or after its construction. This includes any motorized vehicle. The effectiveness of the drainage in the ground depends on the presence of a non-compacted natural soil that is unsaturated with water. Heavy machinery or motorized vehicle traffic<sup>3</sup> on the soil closes the natural pores of the soil which reduces its permeability and allows for ponding and the accumulation of surface water.

#### Vegetation

The surface of the septic system must be planted with grass. The grass must be cut regularly in order to encourage growth without the use of fertilizers. Vegetation cover contributes to the elimination of nitrogen and phosphorus.

It is important not to plant trees or other plants with invasive roots, or install a Lawn Sprinkler System, within the proximity of the septic installation (minimum distance 2 meters).

The Advanced Enviro-Septic® pipes installed according to manufacturer's recommendations can withstand the weight of a vehicle not exceeding the standard H10, if such a vehicle were to move above the treatment system. The occasional passage of a light vehicle such as a lawn tractor is acceptable.



### **Enviro-Septic® System Maintenance**

#### Septic Tank Maintenance

The septic tank preceding must be pumped out on a regular basis. Generally it should be pumped out every two years for residential use or every three to five years for seasonal applications. For more information on septic tank maintenance please discuss with your septic system designer or your local sewage pumper.

If the septic tank is not pumped regularly, an increasingly large amount of solids and grease in suspension will flow from the septic tank and end up in the treatment system. The septic tank will no longer function properly and in time the performance of the Enviro-Septic® System will be affected. This is why periodic emptying of the septic tank is necessary.

The liquids and solids will be removed when pumping out the septic tank. The septic tank is then filled with water.

At all times, a professional using the proper equipment must carry out the pumping out of a septic tank.

The Owner is responsible to ensure their septic tank is pumped out. This work should always be done by a qualified person since it can be very dangerous to open a septic system without first taking the necessary precautions.

Note: It is the home Owner's responsibility to make sure that at all times the septic tank lids are in their proper position and securely fastened. A lid that is not installed correctly can be harmful to the operation of the Enviro-Septic<sup>®</sup> System. Moreover, entering a septic tank can be very dangerous. Only a qualified person may perform this work.

#### Septic Tank Effluent Filter

The effluent filter is a device installed at the exit of the septic tank. It is mandatory for all septic tanks.

The effluent filter must be cleaned according to the maintenance and inspection procedures provided by the manufacturer.

#### Distribution Box and Flow Equalizer

During normal use of your septic system the distribution box and the flow equalizers do not need adjustment. The initial levelling during installation and the self-levelling capability of the flow equalizers are generally enough to maintain an equal distribution of wastewater among the rows of Advanced Enviro-Septic<sup>®</sup> pipe. If an adjustment needs to be made please contact Make-Way Environmental who are qualified to carry out the adjustment(s).



Advanced Enviro-Septic<sup>®</sup> Pipe Rows Under normal use, the rows of Advanced Enviro-Septic<sup>®</sup> pipe do not require maintenance. It is normal to find fluctuation of the wastewater level in the pipes. On the other hand, if the wastewater level(s) reaches 260 mm, a rejuvenation of the Enviro-Septic<sup>®</sup> System must be considered. A qualified person<sup>4</sup> must carry out this procedure.

## Sampling Device

The Enviro-Septic® System has a sampling device. The sampling port is closed off by a cap and must be accessible above ground. It is normally located beside the rows of pipes, near the front end and is fed by wastewater from the septic tank (see figures 5 and 6).

The Owner must make sure that the sample port is always capped. It will be used by an inspection technician to analyze the performance of the Enviro-Septic® System according to the code requirements.

Enviro-Septic<sup>®</sup>
System
Components
Installed in
Ground

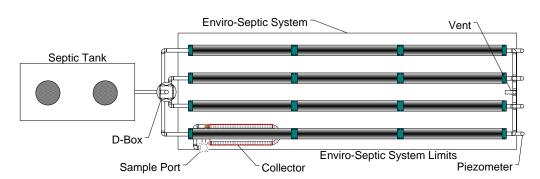


Fig. 5

Enviro-Septic<sup>®</sup>
System
Components
Visible

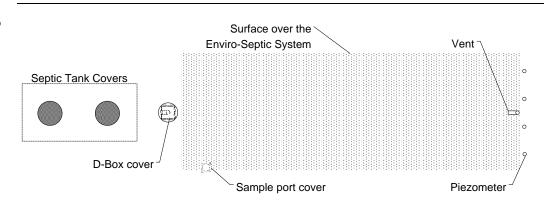


Fig. 6

<sup>&</sup>lt;sup>4</sup> There may be costs related to this operation, if the problem is due to improper use of the system or due to a design or installation problem.



Note: The position of the components may vary according to the layout configuration. The dashed lines represent the position of the septic tank. The position of the Enviro-Septic® system bed is represented by the large rectangle. These two elements are not visible from the surface.

Only the vents, the septic tank, the distribution box cover, piezometer caps and the sampling device covers are visible at the soil surface.

If a pump station is used, the cover will also be visible above the soil surface.

Vent

The vent does not require any maintenance. The Owner must however ensure that nothing prevents the circulation of air. In the winter, the opening of the pipe must be sufficiently high so that snow does not block the passage of the air. There must also be a difference of at least 3 meters, at all times, between this vent situated at the end of the Enviro-Septic<sup>®</sup> System and the high vent / stack usually located on the roof.

**System Sand** 

There is no maintenance to be done on the system sand during normal use of the Enviro-Septic® System.



Pump Station or Low Pressure Distribution System In certain cases, the site constraints require the use of a pump station or a low-pressure distribution system to evenly distribute the wastewater. The Owner is then responsible to comply with the manufacturer's scheduled maintenance requirements of this equipment.

Surface Above the Enviro-Septic<sup>®</sup> System The ground surface located above the Enviro-Septic<sup>®</sup> System must be covered with grass. A light slope must be given to the surface in order to help the drainage of rain water towards the outside of the system. The grass must be cut regularly. Finally, any depression / settlement that could be created with time must be filled in with top soil to avoid any accumulation of water above the system and to prevent erosion.



### **Owner's Responsibilities**

## Owner's Responsibilities

The Owner is responsible for:

- using the Enviro-Septic® System according to the instructions presented in this User Guide.
- pumping out the septic tank according to the regulations.
- recording the information for the pumping out of the septic tank and forwarding the information to Make-Way Environmental Technologies Inc. when requested.
- maintaining the effluent filter, the pump station, the pressure distribution system or the automatic wastewater distributing valve according to manufacturer's specifications.
- ensuring that the vent openings are clear of any obstacle.
- providing access at all times to the Enviro-Septic<sup>®</sup> System, the piezometer covers, the sampling device, the Distribution Box and the vents.
- adhering to the requirements of the applicable rules and regulations, in particular with regards to the discharge standards of the system to the environment.
- having at all times a service / maintenance agreement in place with Make-Way Environmental Technologies Inc. or one of its representatives.

#### Qualified Person

The qualified person that performs the maintenance or the inspection of an Enviro-Septic® System is a person who was trained and certified by Make-Way Environmental Technologies Inc. to perform the tasks associated with the Enviro-Septic® System. Make-Way Environmental Technologies Inc. trains such persons to carry out the inspections of the systems, obtain treated effluent samples and perform adjustments to the equalizers and / or carry out the rejuvenating procedures.

To obtain the name of a qualified person in your area, contact our customer service department at 1-866-MAKE-WAY (625-3929).

For maintenance on the pump station and the pressure distribution system, the Owner must refer to the User Guide specified by the manufacturer of these systems.

The pumping out of the septic tank must be performed by a company specializing in that field. Check with your municipality for the companies in your area that are qualified to do such sewage pump outs.



# Measuring the Water Levels in the Piezometers

The procedure for measuring the water level takes place where the piezometers are located, at the extremity of the Enviro-Septic<sup>®</sup> System.

Warning: Water present in the piezometers is wastewater. It is important to take the necessary precautions while taking the water level measurements. The person taking the measurement must wear protective gloves. The use of disposable protective gloves is recommended. In order to avoid possible contamination, avoid direct contact with wastewater.

#### Water level measuring sequence:

- 1. Remove the cap from the piezometer to be measured.
- 2. Insert a wooden stick or a meter stick (measuring instrument) into the piezometer so that it comes in contact with the water that can be present in the bottom of the piezometer. Normally, a wooden stick of one meter in length will be sufficient. If on the other hand your piezometers are longer, use a longer wood stick. A string attached to the wooden stick can also be used in this case to lower and lift your measuring instrument in the piezometer.
- 3. By using a meter stick, determine the water level in the pipe by observing the height of the wet area. If the reading proves to be difficult, add some fine sand on the wet area before lowering it in the piezometer. Most of the sand will be removed from the area that will have soaked in water and the reading will be easier.
- 4. Note the water level of the piezometer.
- 5. Replace the cap on the piezometer
- 6. Dry the wet area on the wooden stick or meter stick using disposable rags.
- 7. Repeat all the steps for each piezometer.
- 8. Clean the meter stick, the wooden stick or the gloves if they are reusable. Place the disposable gloves and rags in a plastic bag and properly secure the bag.
- 9. Record the results obtained in the table provided with your inspection contract.

Diagram of Water Level Measurement

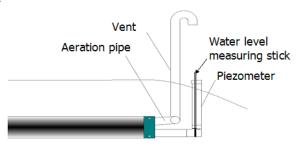


Fig. 7



#### What to do if Wastewater Level is High

It is normal to find some level of wastewater in the rows of Advanced Enviro-Septic ® pipe. But it is not okay that the pipes are filled with wastewater to the point of blocking the passage of air. Such a situation could occur if adverse conditions arise (i.e.: broken plumbing, obstruction of the air passage, unwanted water reaching the system, etc.). A high level of wastewater represents an unusual case. Fortunately, the Enviro-Septic® System has the capacity to rejuvenate itself. This makes it is possible to practically recreate the original conditions of the wastewater treatment of the Enviro-Septic® System.

If the level of wastewater in the piezometers exceeds 260 mm (10.5 inches) please contact Make-Way Environmental Technologies Inc. or your inspection technician who will inform you of what needs to be done. But first, the cause of malfunction affecting the system will need to be corrected. Then, as a general rule, we will suggest one of the following rejuvenating procedures.<sup>5</sup>

There are three rejuvenating procedures possible.

- 1. The natural rejuvenation that occurs following a reduction of use of the septic system for a period of a few days or weeks (i.e. during a vacation).
- 2. The forced rejuvenation that consists of pumping out the septic tank and removing wastewater from the Enviro-Septic<sup>®</sup> pipes at the same time.
- 3. The forced rejuvenation with cleaning that consists of pumping out the septic tank and removing wastewater and the inorganic matter that could have accumulated in the pipes over the years.

A qualified person must carry out the forced rejuvenation procedures.

Occasionally, at the time of a forced rejuvenation, the septic tank is not filled with clear water as in the case of a normal procedure. This procedure must then be made at the time when the groundwater is low and that there is no danger that hydrostatic pressures will be exerted on the septic tank.

As a preventive measure, it is recommended to check the wastewater level in the piezometers a few days before performing a regular pumping out of the septic tank. If the wastewater level is too high, the pump out of the septic tank could be done at the same time a forced regeneration procedure occurs.

September 2018

For the Enviro-Septic® System, the rejuvenation procedure makes it possible to bring the system back to its initial state. This is why it is said that the Enviro-Septic System forgives.



## $Enviro\text{-}Septic^{\circledR}\,System-Ontario\,\,User\,\,Guide$

## **Appendix A - Information Specific to Your Treatment System**

Information on Your Enviro- Septic <sup>®</sup> System	Installation date:	
	Designer / Engineer:	
	Installer:	
	Municipal inspector:	
	Number of rows of pipes:	
	Wastewater Distribution      Distribution box     Pump station     Wastewater distributing valve     Pressure distribution system	
	Septic tank capacity:	
Notes		
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## **Appendix B - Presby Twenty Year Limited Warranty**

The limited warranty on Enviro-Septic® pipes is provided by the manufacturer of the product, Presby Environmental Inc. through its duly authorized distributor, DBO Expert Inc.

It is presented in the next two pages.

### **Presby Twenty Year Limited Warranty**

This Twenty Year Limited Manufacturer's Warranty is provided by the Manufacturer, Presby Environmental, Inc., a New Hampshire corporation having a mailing address of 143 Airport Rd., Whitefield, New Hampshire, 03598 (hereinafter called "Presby"). This Warranty applies only to Presby Products sold by or through its duly authorized distributor, DBO Expert, Inc., a Quebec corporation having a mailing address of 501, chemin Giroux, Sherbrooke (Québec) J1C 0J8 (hereinafter called the "Distributor"). "Presby Products" means Presby's Enviro-Septic<sup>®</sup> leaching systems and Presby Maze<sup>©</sup> with the required accessories (couplings, offset adaptor).

**Warranty:** Presby warrants that Presby Products are free from defect for twenty years from the date of installation but in no event more than twenty-one years from the date of manufacture. Product Defects means defects or damage to the Products caused by or occurring during the manufacturing process. This Warranty does not cover or apply to damages to the Products caused by or resulting from transit or from accident, misuse, abuse, neglect, storage, installation, repair, maintenance or from use other than normal and ordinary use of the Products. This Warranty does not apply to damages to the Products caused by or resulting from failure to install or use the Products in accordance with distributor's instructions which have been approved by Presby or failure to properly inspect and maintain the Products.

Warranty Registration, Claim Process and Remedy: In order to enforce this Warranty, the Follow-up Agreement must be completed and returned to the distributor within thirty days of purchase of the Products. Any claim under the Warranty must be in writing and received by the distributor within thirty days of the date when the facts giving rise to such claim under this Warranty become known or are otherwise discovered. The distributor must be provided with an opportunity to inspect the Products as installed. Failure to comply with these requirements renders the Warranty null and void. If, during the Warranty period, the distributor and Presby find and determine that defects in Products exist, then the distributor and Presby's sole and exclusive obligation is to either repair the Products or provide replacement Products. The distributor and Presby, in their discretion, shall determine whether to repair the Products or provide replacement Products. The distributor and Presby shall have no obligation to remove any defective Products or to install any replacement Products. The distributor and Presby shall not be liable or responsible for any other damages or claims arising from or relating to defective Products, including but not limited to claims for general, consequential, or incidental damages, lost profits, or attorney fees.

<u>Disclaimer:</u> The distributor and Presby otherwise make no express warranty concerning the Products and the distributor and Presby disclaims any and all warranties, express or implied. Except as stated herein, there are no warranties express or implied, and the distributor and Presby do not warrant that the goods are merchantable or fit for any particular purpose. Any claim or controversy relating to this Warranty, or to matters of place of contracting, interpretation, performance or breach thereof, shall be brought in and adjudged in accordance with the applicable laws of state of New Hampshire.

### Certificat de Garantie limitée de 20 ans

La présente garantie limitée de 20 ans est offerte par le manufacturier Presby Environnemental Inc., une corporation du New Hampshire établie à l'adresse suivante : 143 Airport Rd., Whitefield, New Hampshire, 03598 (ci-après appelée « Presby »). Cette garantie s'applique uniquement aux Produits de Presby vendus directement par son distributeur autorisé DBO Expert Inc. ou par l'entremise de celui-ci, dont l'adresse postale est le 501, chemin Giroux, Sherbrooke (Québec) J1C 0J8 (ci-après appelée « le distributeur »). Les « Produits de Presby » comprennent le système d'épandage souterrain Enviro-Septic<sup>MD</sup> et le Maze de Presby, ainsi que leurs accessoires (manchons, adaptateurs décentrés).

Garantie: Presby garantit les Produits Presby contre tout défaut de fabrication pour une période de 20 ans à compter de leur date d'installation, mais en aucun temps pour une période de plus de 21 ans à compter de leur date de fabrication. Un défaut de fabrication signifie une imperfection ou un bris affectant les Produits, causé par, ou survenu durant le processus de fabrication des Produits. Cette Garantie ne couvre pas les dommages aux Produits causés par, ou résultant du transport, d'un accident, d'un mauvais usage, d'un usage abusif, de la négligence, de l'entreposage, de l'installation, de la réparation, de l'entretien ou d'un usage autre que l'usage ordinaire et normal des Produits. Cette Garantie ne s'applique pas aux dommages aux Produits causés par, ou résultant d'un défaut d'installer ou d'utiliser les Produits en conformité avec les instructions du distributeur qui sont approuvées par Presby, ou le défaut d'inspecter et d'entretenir avec soin les Produits.

Enregistrement de la Garantie, procédure de réclamation et correctif: Afin de donner effet à cette Garantie, le Contrat de suivi doit être complété et retourné chez le distributeur dans les trente (30) jours suivant l'achat des Produits. Toute réclamation aux termes de la Garantie doit être faite par écrit et transmise au distributeur dans les trente (30) jours suivant la connaissance des faits donnant lieu à une telle réclamation. Le distributeur devra avoir l'opportunité d'inspecter les Produits, tels qu'ils auront été installés et devra avoir accès à tous les registres et à toutes informations concernant la manipulation, l'entreposage et l'installation des Produits. Le défaut de respecter l'une ou l'autre des exigences prévues ci-avant aura pour effet de rendre la Garantie nulle et sans effet. Si durant la période de Garantie, le distributeur et Presby en viennent à la conclusion qu'il existe effectivement un défaut affectant les Produits, la seule et unique obligation du distributeur et de Presby sera, et ce, à leur discrétion soit de réparer les Produits ou de fournir des Produits de remplacement. Le distributeur et Presby n'ont pas l'obligation d'enlever les Produits défectueux ou d'installer les Produits de remplacement. Le distributeur et Presby ne seront pas responsables pour tout autre dommage ou réclamation relié aux Produits défectueux, incluant, notamment, mais non limitativement, toute réclamation pour des dommages directs ou incidents, pour perte de profits ou à titre de frais légaux.

**Exclusion :** La Garantie conférée par le distributeur et Presby aux termes des présentes exclut toute autre garantie, expresse ou implicite, incluant, notamment, mais non limitativement, toute garantie de qualité ou d'aptitude pour des fins particulières. L'application, l'interprétation et tout litige découlant de la présente Garantie ou de tout contrat relié à la présente Garantie seront régis par les lois applicables à l'État du N