



## Know Your System

### Types of Systems

- **Type 1:** common style of treatment by a septic tank and distribution field only. Effluent may flow by gravity or be pressurized.
- **Type 2:** more advanced treatment that produces a higher quality effluent and can be distributed into a smaller sized field. Often uses a package treatment process with mechanical or media components.
- **Type 3:** advanced treatment that produces a high quality effluent and requires oversight by an engineer.

## Resources

### Island Health

To find records or report a health hazard:  
 Phone: 250.519.3401  
 Email: gateway\_office@islandhealth.ca  
 www.islandhealth.ca

### Ministry of Health

To view the Sewerage System Regulation and the Standard Practice Manual: [www.gov.bc.ca/environment](http://www.gov.bc.ca/environment)  
*Navigate to Waste Management, Sewage.*

### Applied Science Technologists & Technicians of BC (ASTTBC)

To find a ROWP visit [asttbc.org/registrants](http://asttbc.org/registrants)  
 To learn more visit [asttbc.org/rowps](http://asttbc.org/rowps)

**Capital Regional District** | Septic Savvy  
 625 Fisgard St., Victoria, BC V8W1R7  
 T: 250.360.3187 E: [septic@crd.bc.ca](mailto:septic@crd.bc.ca)  
[www.crd.ca/septic](http://www.crd.ca/septic)



# How to Care for Your Residential Septic System

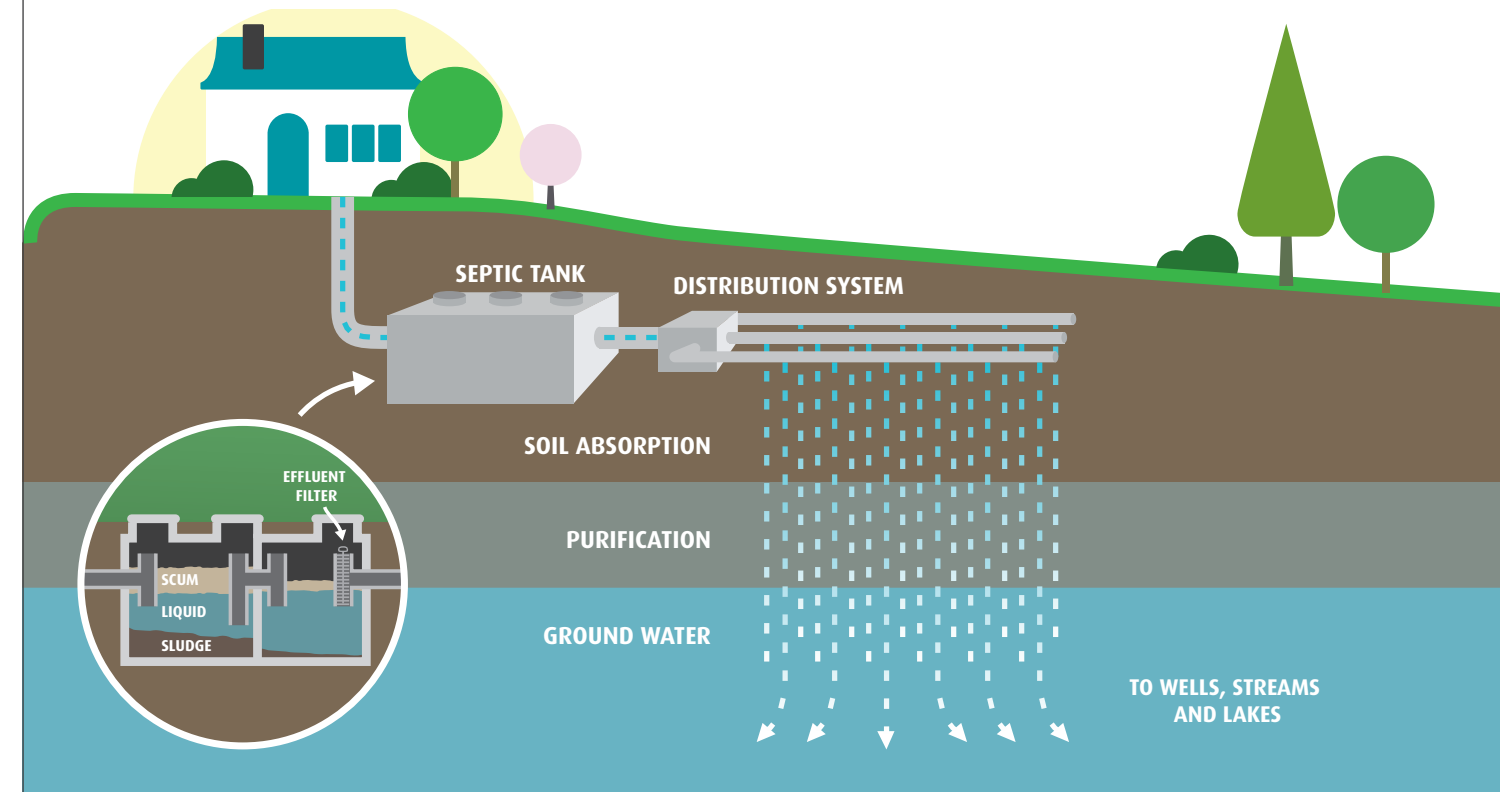
A well maintained septic system is key to protecting one of your most valuable investments – your home.



## SEPTIC SAVVY



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## How Septic Systems Work

Properly functioning and maintained on-site septic systems are an excellent means of treating domestic wastewater. They are used for homes that are not connected to a municipal sewer line. Although many different types and styles of systems are used, they generally operate under the same principles:

### Wastewater flushes into a septic tank

Wastewater from sinks, tubs, showers and toilets flush out of the house into a septic tank that allows for retention of the wastewater for a period of time, usually three days. The retention time allows solid particles to either settle to the bottom as sludge or float to the top as scum. Beneficial bacteria help to break down the accumulated solids in these tanks, but eventually they build up and must be pumped out, usually **every 3-5 years**.

### An effluent filter keeps solids in the tank

An effluent filter, helps to keep solids in the tank so that they can be contained and pumped out. When solids make it into the drainfield, they cause clogging and expensive repairs.

After leaving the tank, the partially treated wastewater then flows into the distribution system.

### Wastewater is distributed one of two ways

In a **gravity distribution system**, a distribution box or 'D-Box' evenly divides the wastewater into a network of pipes that lie buried in trenches in the drainfield. Small holes in the pipes allow the wastewater to seep into the drain rock trenches, and then into the soil. In a **pressure distribution system**, a pump is used to evenly dose the drainfield pipes with wastewater.

In both cases, the soil further purifies the wastewater by natural filtration and micro-organisms that remove any remaining particles and any dangerous viruses and pathogens. When this filtration is complete, the wastewater has been treated and cleansed.

When septic systems work properly, they are efficient, inexpensive to maintain and safe for people and the environment. If they malfunction, they can cause a serious health risk, odours, pollution of our streams and shorelines and be very expensive to repair or replace.

# How Septic Systems are Regulated

In 2005, the **Sewerage System Regulation** was enacted by the Province. Under regulation, all work on Onsite Wastewater Systems must be performed, or supervised by an "Authorized Person". Authorized persons include: Registered Onsite Wastewater Practitioners, who can construct and/or maintain Type 1 or Type 2 onsite sewage systems and Professional Engineers who can design and construct Types 1, 2 and 3.

The Province provides a manual for Authorized Persons in BC called the **Standard Practice Manual**. This manual can be useful for homeowners to refer to. Under the regulation, homeowners are responsible for maintenance and the proper operation of their onsite wastewater system and are required to keep complete records of maintenance of the system.

There are additional requirements for homeowners under CRD Bylaw No. 3479. This Bylaw regulates maintenance of systems in Colwood, Langford, Saanich, View Royal, and North Saanich.

The Applied Science Technologists and Technicians of BC (ASTTBC) is responsible for the training and registration of **Registered Onsite Wastewater Practitioners (ROWPs)**. The Engineers and Geoscientists BC (EGBC) is responsible for regulating engineers working on onsite systems. It is their role to protect the public by ensuring good practice. Issues or complaints with ROWPs or engineers can be addressed to these oversight bodies.

**Island Health** ensures compliance with the BC Sewerage System Regulation. When constructing or repairing a system, a ROWP must file information with Island Health. Their submission includes plans and specifications of the septic system. This is a good place for homeowners to look for records if they have been lost or if they are a new owner of the system and none were provided. Island Health also responds to public complaints of a malfunctioning septic system.

## • Protect •

### Protect your system by paying attention to what goes down the drain.

Your septic system is designed to handle human waste and toilet paper only. All other household products, detergents, chemicals and personal care products can harm your system. Even items labeled "flushable," like wipes, can cause damage and lead to costly repairs.

#### Clean Green

The bacteria and microbes in your tank play a key role in treating your wastewater. Use environmentally friendly cleaning products to protect the beneficial bacteria that live in your septic tank. Avoid putting chemicals such as bleach and paint down your drain.

#### Every Drop Counts

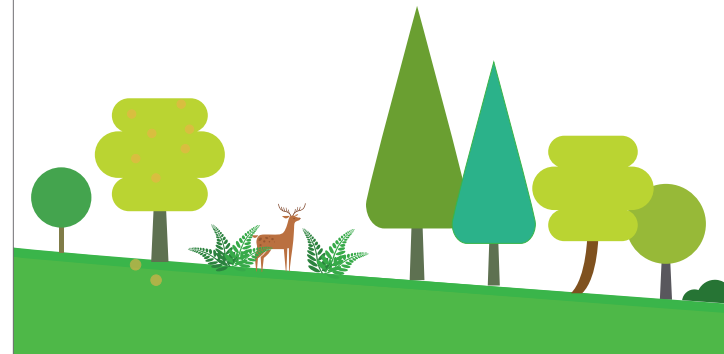
Limiting excess water flow supports proper functioning of your system components—like solids settling in the tank—and protects your drainfield from oversaturation.

#### Do Not Disturb

The buried pipes in your drainfield deliver wastewater to soil – a key part of treatment. Protect your system by keeping vehicles and heavy equipment off the area. Regular mowing and weeding also helps prevent roots from cracking or damaging pipes and causing clogs.

#### Don't Flush These

Diapers, wipes, feminine hygiene products, cotton swabs, floss, and similar items may seem flushable—but don't be fooled. Your septic tank is designed to break down pee, poo and toilet paper only. Protect your system by disposing of 'unflushable' waste the right way – either as garbage or recycling.



## • Inspect •

### Do you know where all your system components are located?

How about the D-box? The D-box is an important component that needs to be working correctly in a gravity system. If you have a pressure distribution system, you'll want to ensure the pressure is adjusted correctly. An inspection will locate all of your components.

**Maintenance Assessment** – this is a type of Performance Inspection done for a homeowner **to learn the location, condition and operation of all system components**. The ROWP inspector will develop or adjust the maintenance plan for the system including a recommended pump-out frequency based on current conditions. This is a good place to begin a maintenance program as either an existing or a new system owner.

### Planning to buy or sell a home?

Be prepared to evaluate the system. The septic system is the largest single ticket item in a home – it is more expensive than the roof or the framing and a home doesn't function without it. A well maintained septic system is a real estate asset.

**Real Estate Inspection** – this is a type of Performance Inspection done for either a seller or buyer **to prepare for property transfer**. It will evaluate the location, condition and operation of all system components and give recommendations for repairs or upgrades. If problems are found, they can usually be readily corrected or negotiated into the sale price. This proactive step can help you sell your property more easily and will put buyers at ease.



*Guidelines for performance inspections are provided by the Applied Science Technologists and Technicians of BC (ASTTBC). Homeowners should familiarize themselves with the guidelines and hire a ROWP who is prepared to meet the requirements.*

## • Maintain •

### Regular maintenance of your septic system will extend its lifespan.

A well maintained system can last a long time, estimated at 40 years before significant repair or replacement is needed. Unmaintained systems commonly malfunction within 15 years or less.

The objective of your ROWP maintenance provider is to:

- confirm the safety of the sewerage system
- confirm that the system is performing as intended
- write a brief report on each maintenance visit

#### How often?

As a guideline, maintenance frequency should be at least:

- every 5 years for gravity dispersal Type 1 systems
- every 2 years for pressure dispersal Type 1 systems
- annually for all other systems, including Type 2 and Type 3 systems

#### Typical Maintenance Activities:

- check structural integrity of tank and components
- check sludge and scum and recommend pump-out frequency
- evaluate data such as cycle counts, pump run time, pump run amperage, etc.
- check squirt heights for pressure systems, pressures for drip systems
- assess the condition of filters and/or media and determine when replacement is needed.
- locate and flush any plugged drainpipes
- evaluate mechanical and electrical components

Under Provincial Regulation, homeowners are required to keep records of all maintenance and must ensure that any system on their land is maintained.