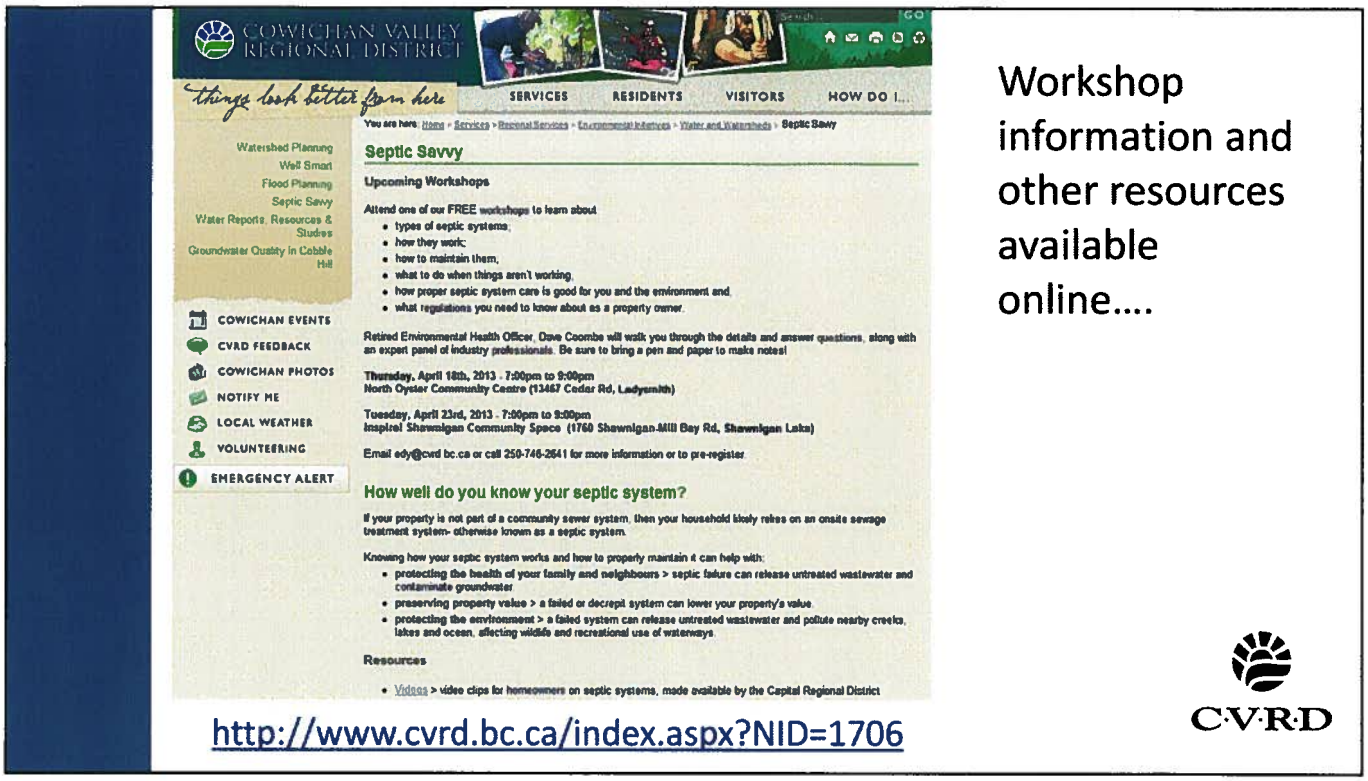
Get Septic Savvy!

C·V·R·D



http://www.cvrd.bc.ca/index.aspx?NID=1706

Workshop information and other resources available online....

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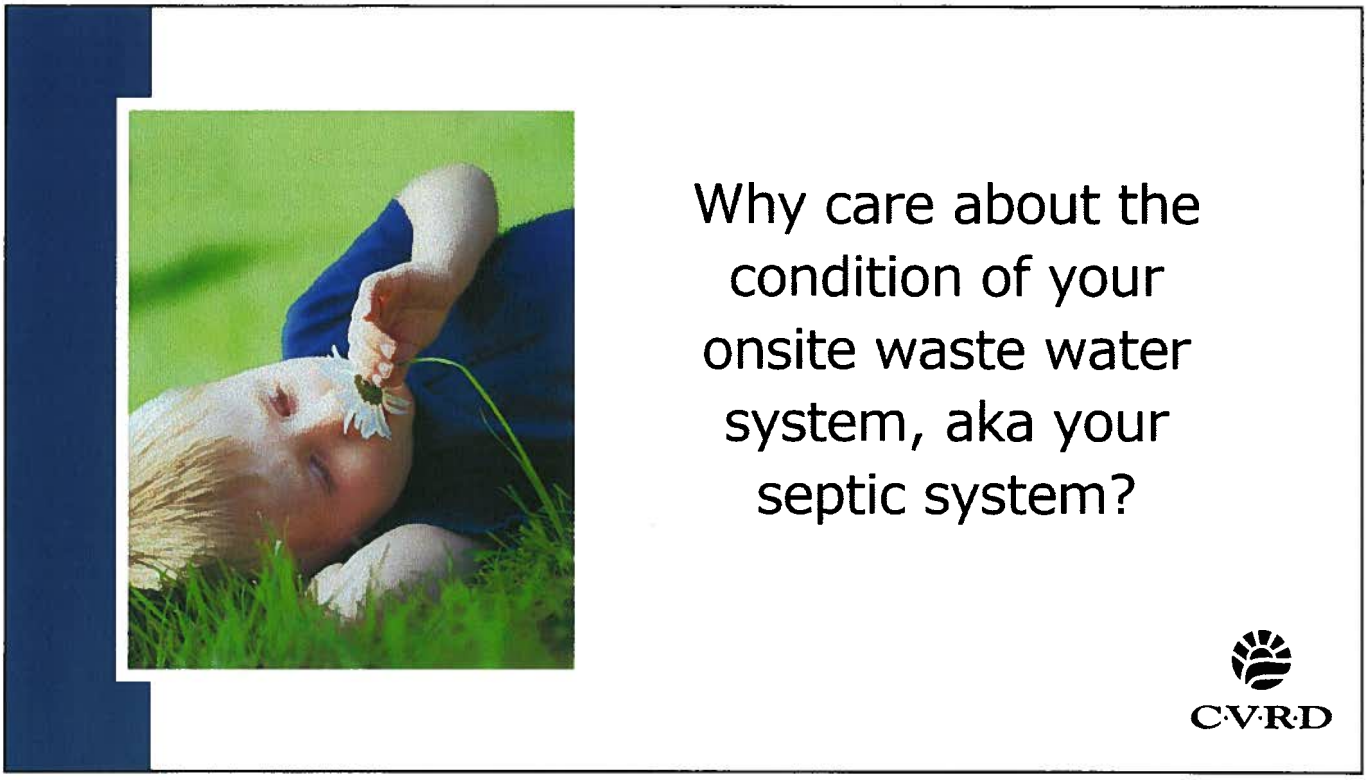


Keep your family and neighbours healthy. A failing septic system can release untreated wastewater into your yard or contaminate ground water which creates a health risk for your family and neighbours.

Protect the environment. A failing septic system can release untreated wastewater that can pollute creeks, lakes, shorelines, and drinking water.

Protects property value. An unusable septic system or one in disrepair will lower your property value.

Prolong the life of your system / Save money. Replacement of a failed septic system can be costly.

Broader community issues: Many areas experiencing septic failure; Homeowners are stewards of their own property as well of community resources

Image source: Microsoft Clipart

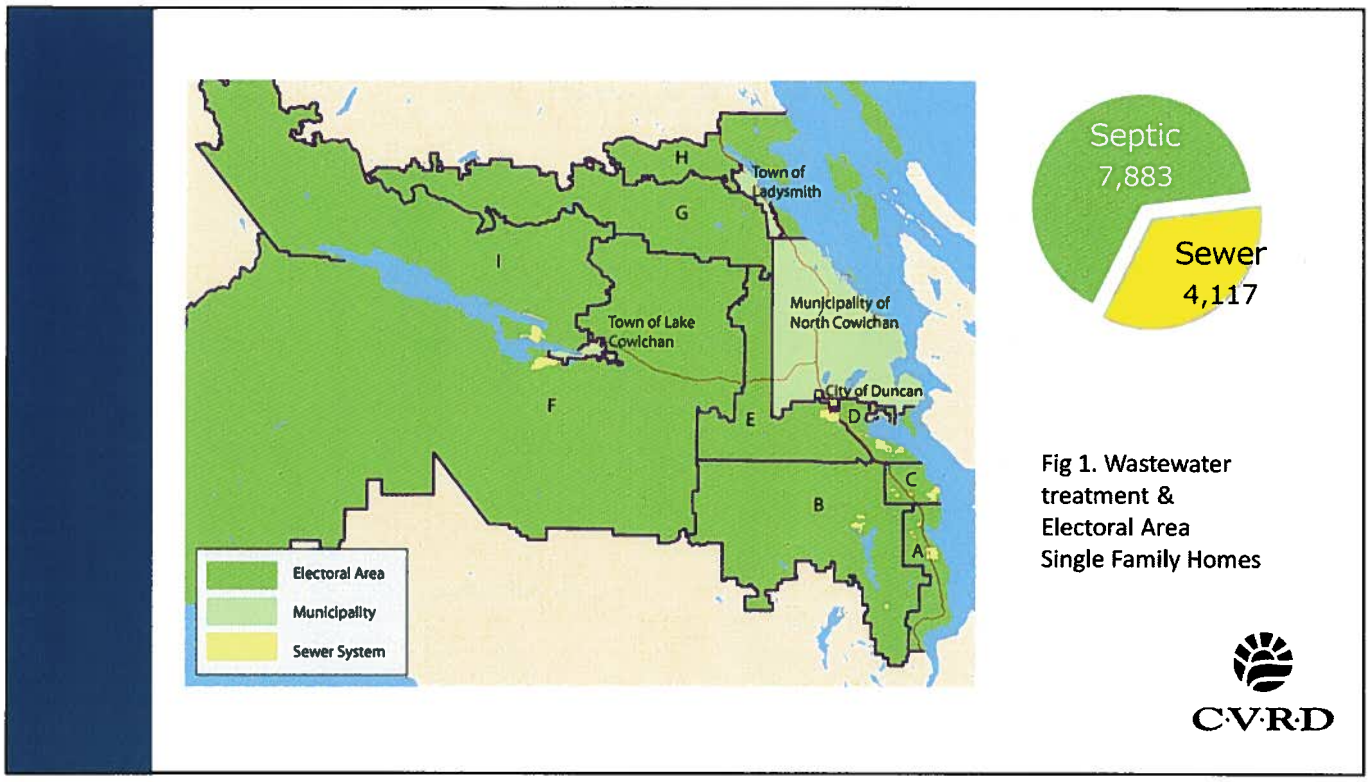
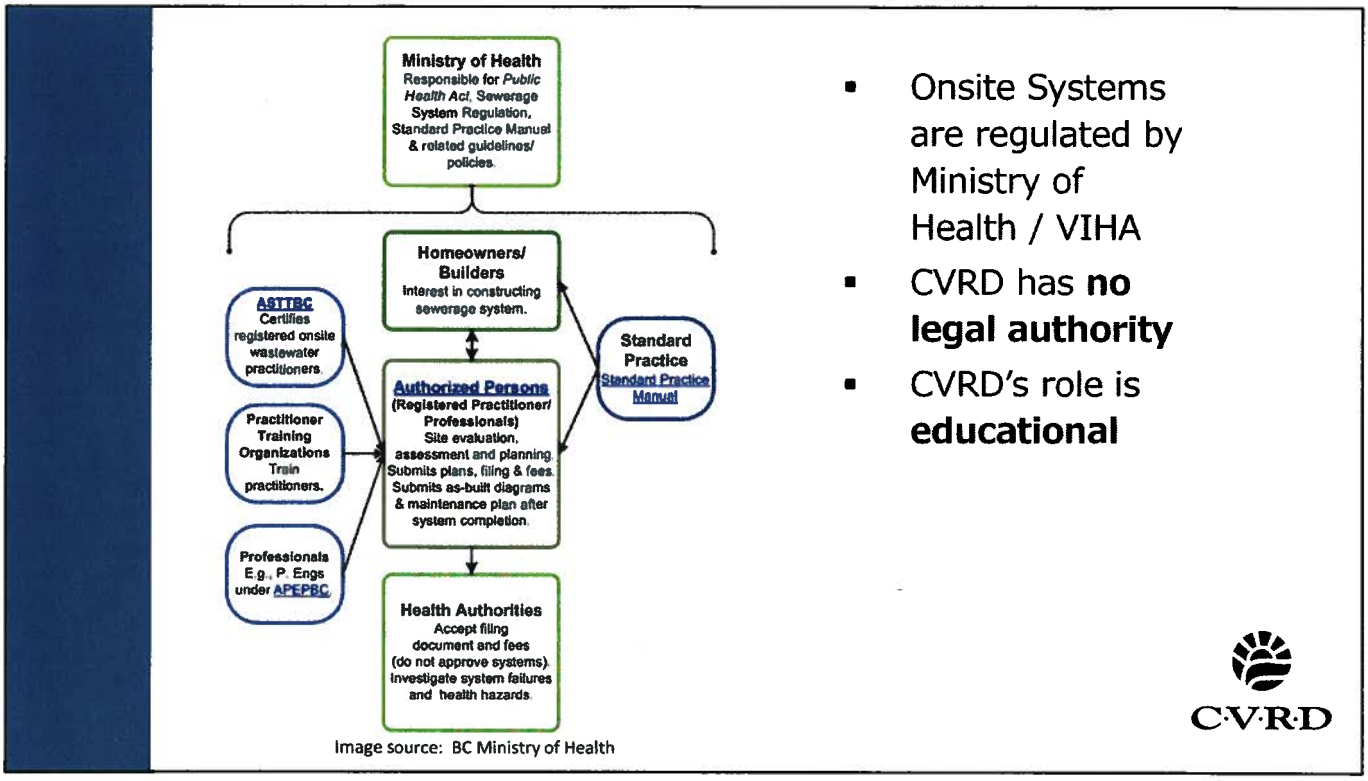


Fig 1. Wastewater treatment & Electoral Area Single Family Homes

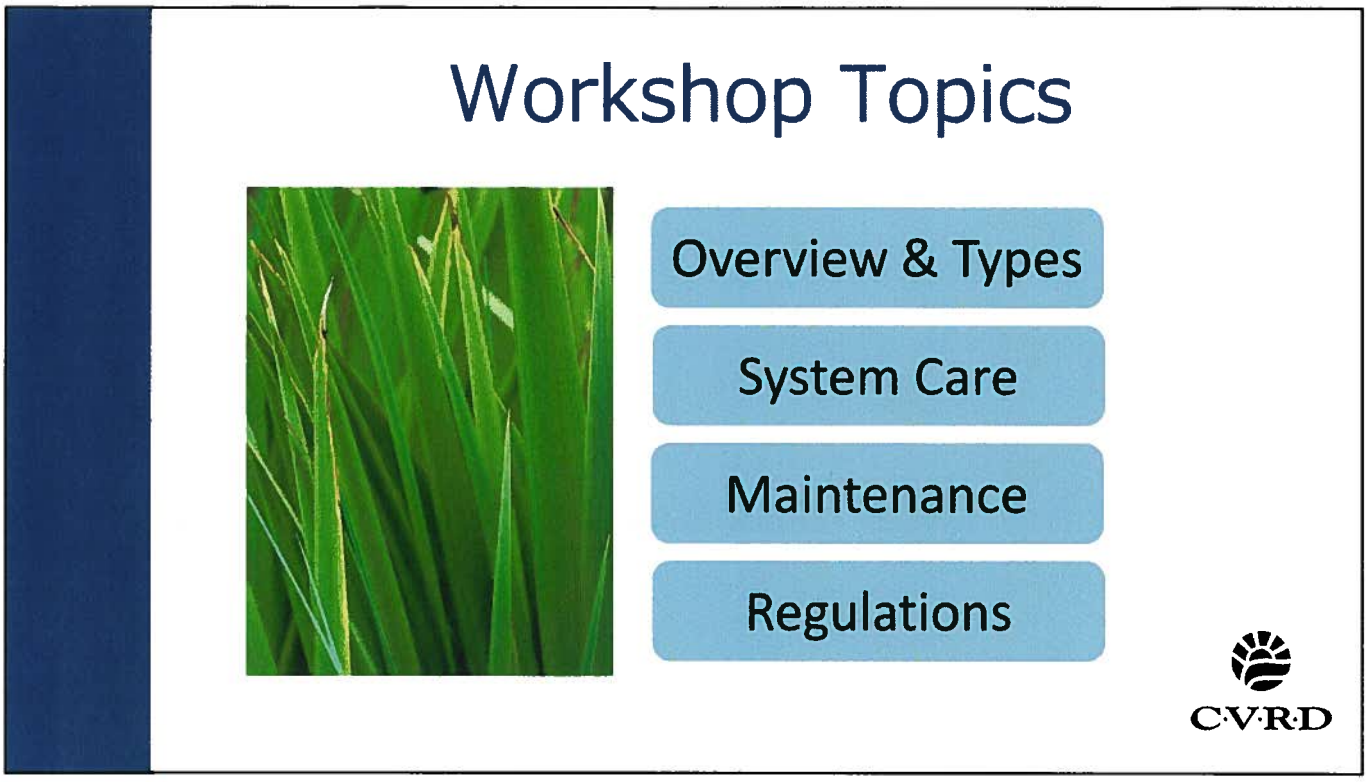
This is a map of the Cowichan Valley Regional District. In 2011, there were approximately 35,698 people living in the Regional district's electoral areas (total CVRD pop of 80,332). There are 15 wastewater treatment facilities operated by the CVRD, which serve approximately 4, 117 single family dwellings located in these electoral areas. Most of the remaining unserviced areas depend on septic systems. This means an estimated 7,883 single family dwellings rely on private septic systems.



Septic systems are regulated by the Ministry of Health's Sewerage System Regulation – administered by VIHA

CVRD has **NO legal authority** to deal with onsite system

Image: Ministry of Health



Presentation topics will discuss:

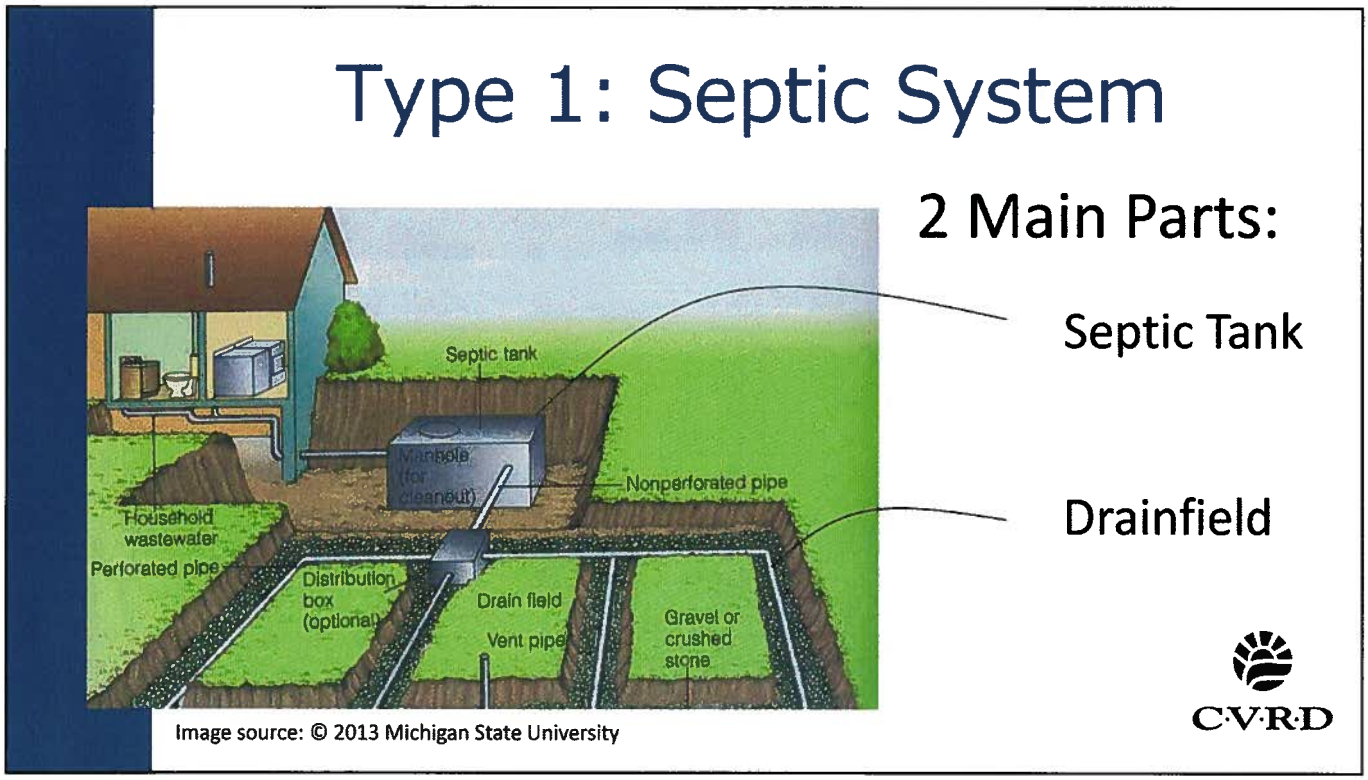
- Types of Systems and their components
- Maintenance and Monitoring
- Regulations

Questions to ask the audience:

- Do you know where their septic system is?
- Do you know what type of system they have?
- Have you had your septic system pumped out in the last 3 years?
- What do they want to get out of the workshop?

Photo: Microsoft clipart

Overview & Types



Type 1: typical septic system

Most common type in region

A conventional septic system contains two main parts:

1. a septic tank and
2. soil filter called a drainfield.

The drainfield is sometimes referred to as a leaching bed, an absorption field or a tile field.

There are many styles, dimensions and plans for septic systems depending factors such as soil, topography, and drainage.

Image source:
http://msue.anr.msu.edu/news/managing_waste_household_septic_systems_part_one

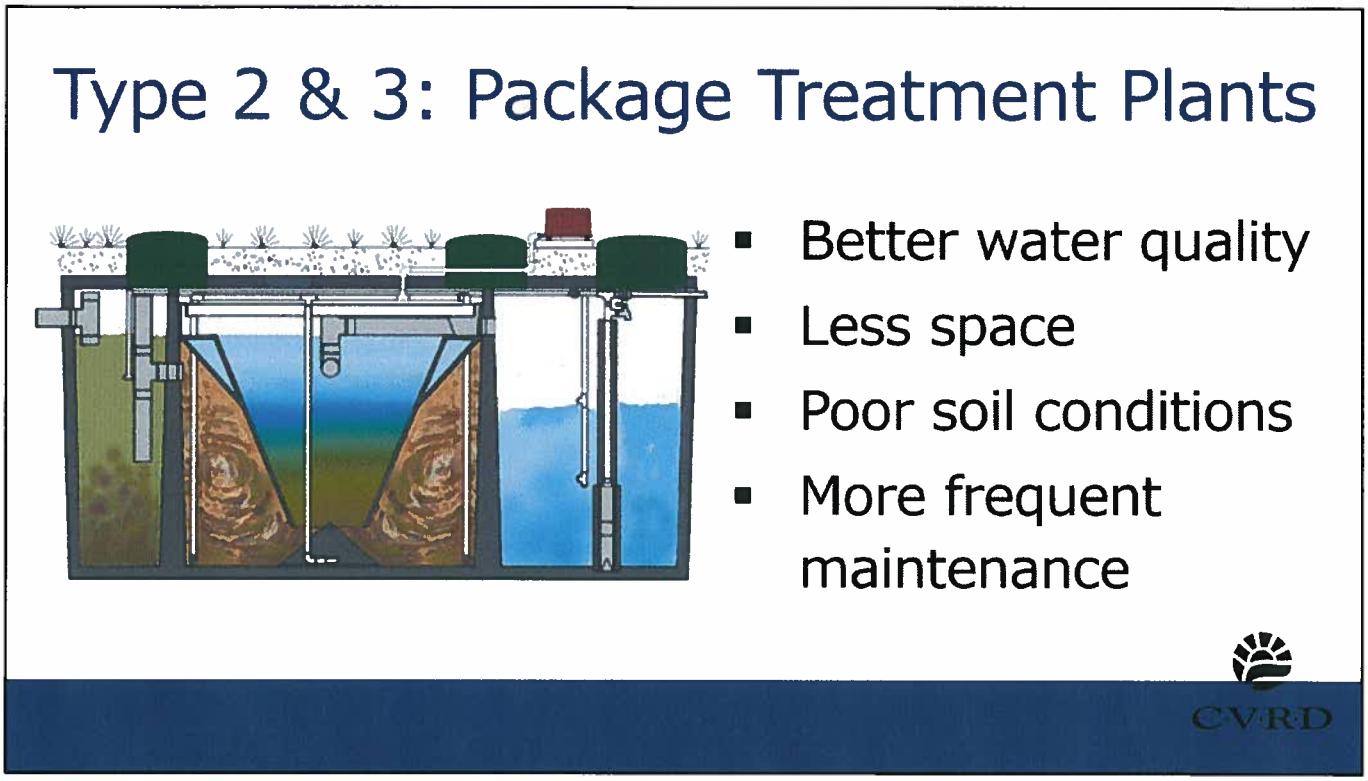


Photo taken from http://hootsystems.com/systems/hootbnr.html (asking permission to use--no response)

From website:

The efficient five-stage HOOT BNR treatment system is designed with these components:

- Pretreatment tank where influent enters.
- Aeration chamber where oxygen is pumped into the waste water.
- Clarifier chamber where the clear, odorless effluent rises.
- Holding tank effluent ready for discharge.
- Extremely quiet, efficient aerator and pump.
- Unique solid-state HOOT Control Center monitors and controls the system

<u>Type 2</u>

- Often known as a package treatment plant
- Provide more treatment to produce higher water quality; anaerobic treatment technology is often used
- Is treatment that produces an effluent consistently containing less than 45 mg/L of total suspended solids and having a 5 day biochemical oxygen

demand of less than 45 mg/L.

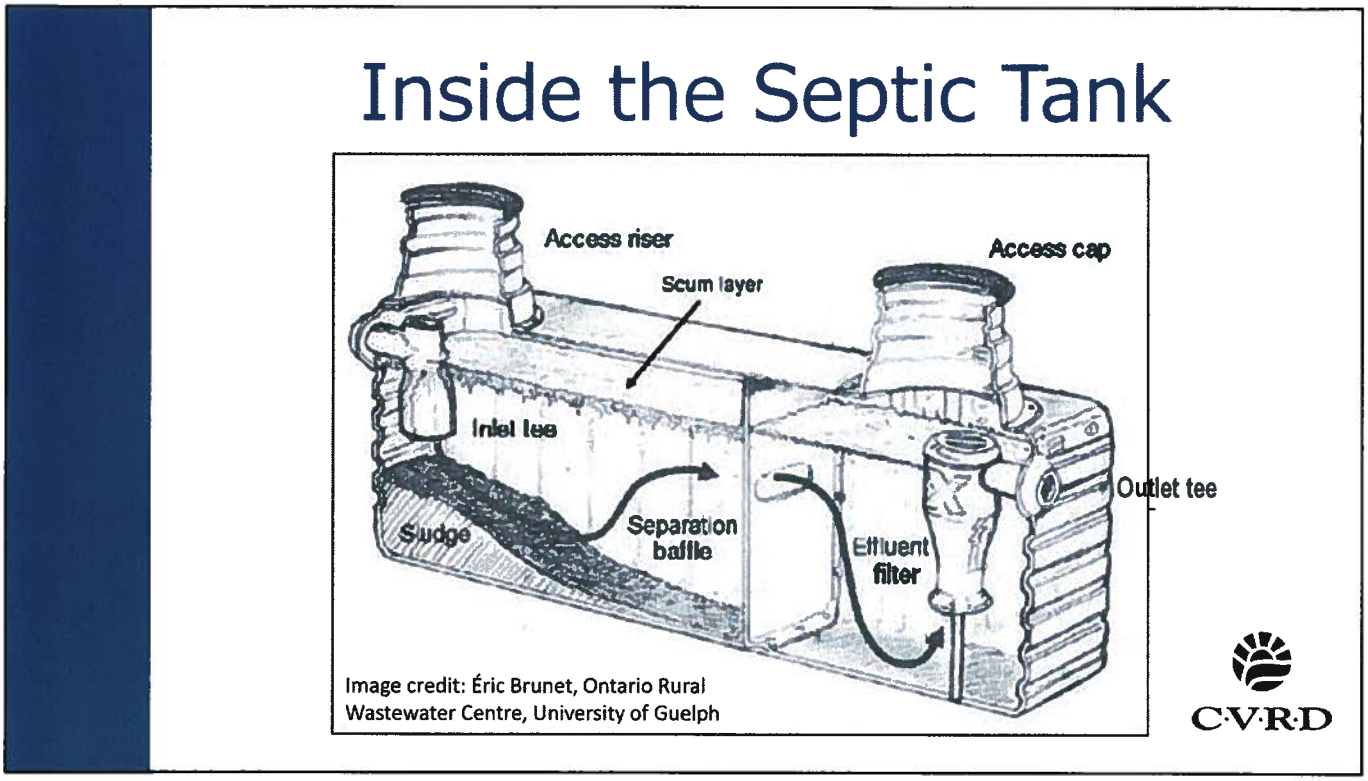
- Generally used where site conditions are impractical or impossible to install a conventional septic system such as: high groundwater table, bedrock, poor soil conditions such as clay, silt, or till, or inability to meet the setback distances from surface water, wells, or property boundary lines.
- Treated effluent may be discharged into a smaller area than is required for treatment by a conventional drainfield.

Type 3

- A Type 3 system is an advanced Package treatment plant.
- Produces an effluent consistently containing less than 10 mg/L of total suspended solids and having

  (i) a 5 day biochemical oxygen demand of less than 10 mg/L, and

  (ii) a median fecal coliform density of less than 400 Colony Forming Units per 100 mL.
- The effluent from this type of system is very clean and clear.
- This type of system would typically only be used in toughest site conditions such as in a sensitive receiving environment or a high water table that would make a Type 1 or Type 2 system impossible. Type 3 treatment systems are expensive to build and need the most maintenance.
- The type 3 system includes the same treatment processes as the Type 2 system followed by some type of fabric or sand filter or a membrane bioreactor. This is then followed by disinfection (by either chlorination/de-chlorination or ultraviolet (UV) irradiation).

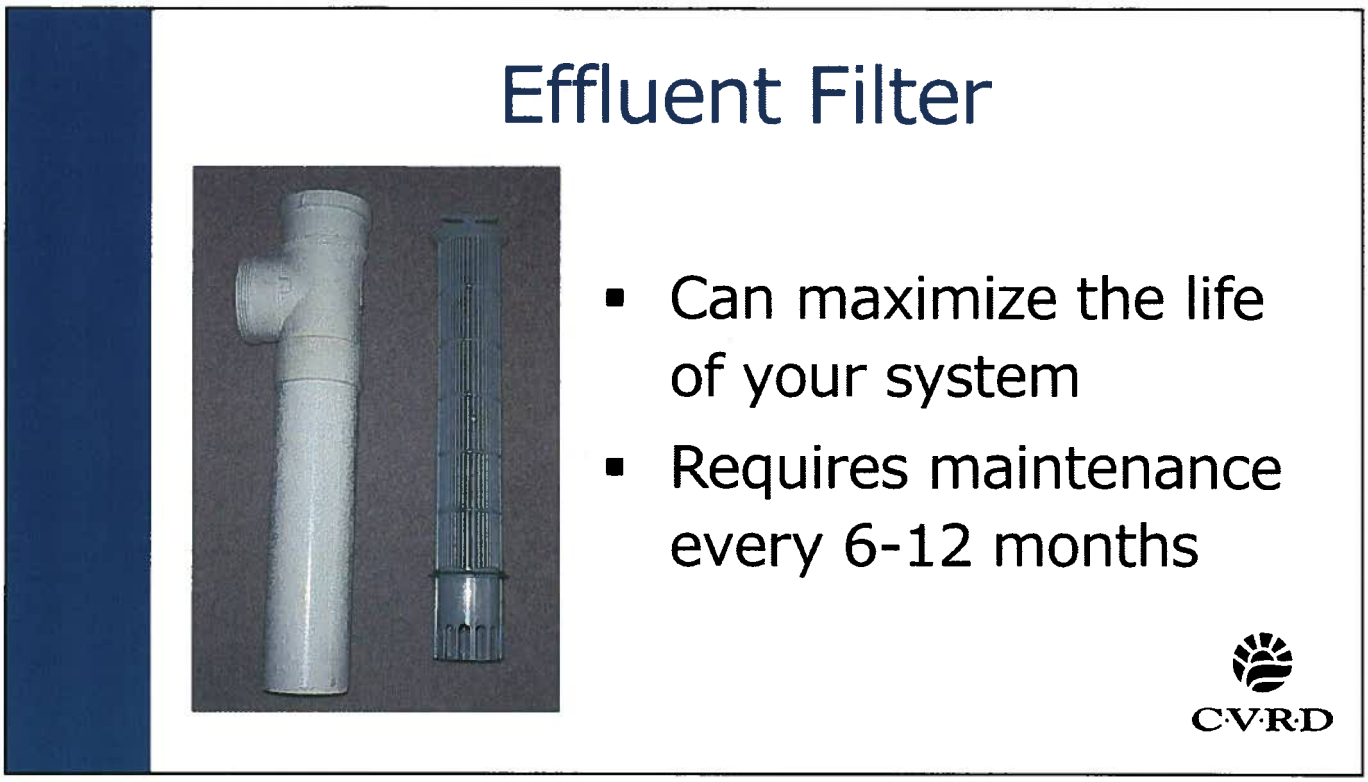


- Begin with settling process
- A septic tank is designed to pre-treat domestic wastewater.
- The size of the septic tank will depend on the size of the house. Usually septic tank size depends on the number of bedrooms in the house but it is also important to factor in the number of household users. Older tanks are usually smaller than newer tanks which means that it is even more important for homeowners to conserve water if an older septic system is in place.
- All tanks should have **accessible covers or risers** for checking the condition of the baffles and for pumping out both compartments of the tank.
- There may be one or **two compartments or chambers** in the tank depending on the age of the tank.
- The septic tank helps to separate liquids from solids and break down organic material. As wastewater from the house enters the septic tank, its velocity slows allowing heavier solids to settle to the bottom forming a "**sludge layer**" and lighter materials to float to the surface, forming a "**scum layer**". Anaerobic bacteria, which is bacteria that does not require oxygen, breaks down the solids or sludge in the wastewater. They don't break down everything so over time, the sludge layer will eventually build up and require pumping.
- The **baffles** within the septic tank direct the flow of wastewater and help to

keep sludge and scum from traveling into the drainfield area.

- This type of treatment removes 50-60% of the solids and is called primary treatment.

Image source: http://www.royallepage-muskoka.com/septic-systems/P312



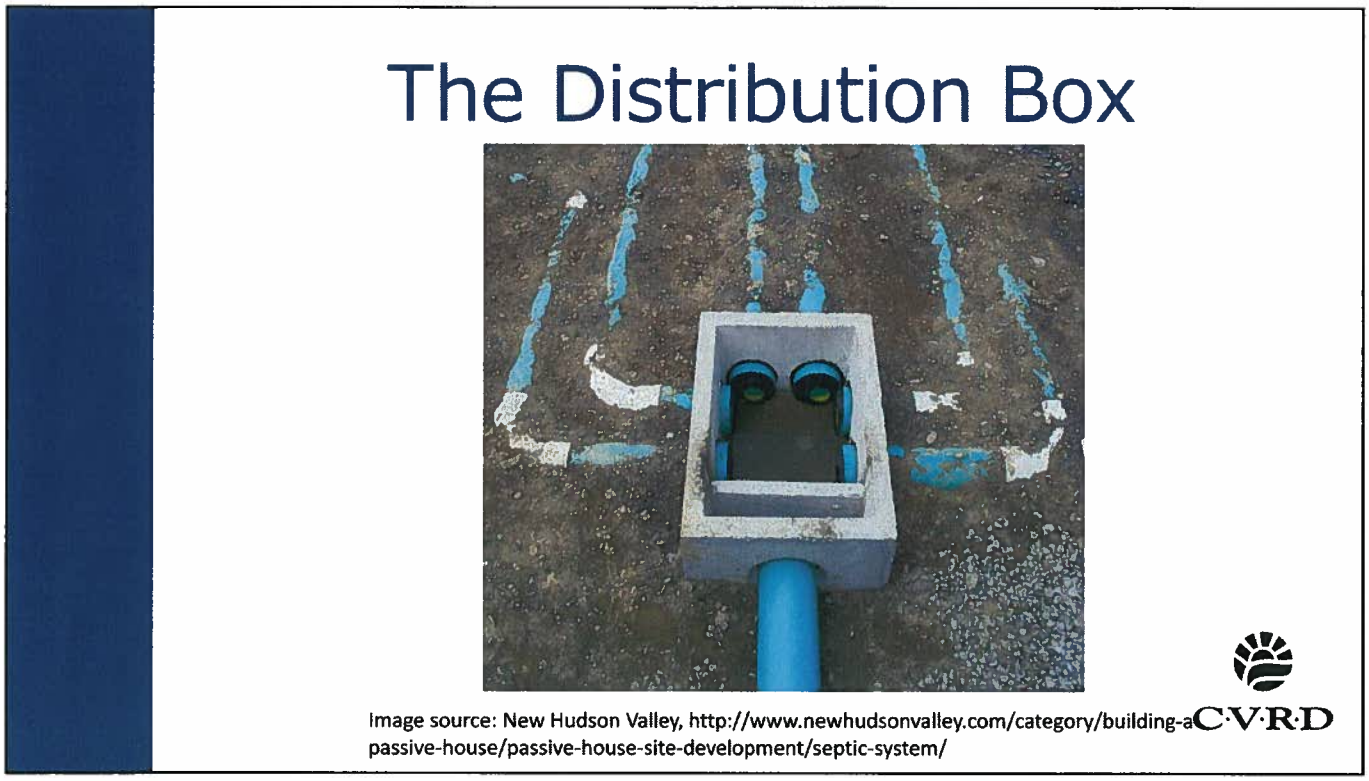
The partially treated wastewater in the middle of the tank flows through the effluent filter, if one is present, through the outlet into the drainfield.

Older systems may not have an effluent filter but special units have been designed to retrofit existing tanks. The effluent filter acts as a final barrier to keep solids out of the drainfield which will make the system last longer. Keeps toilet paper out of the drainfield.

An effluent filter costs about $75 and some service providers will install one at no additional charge when you have your system pumped out.

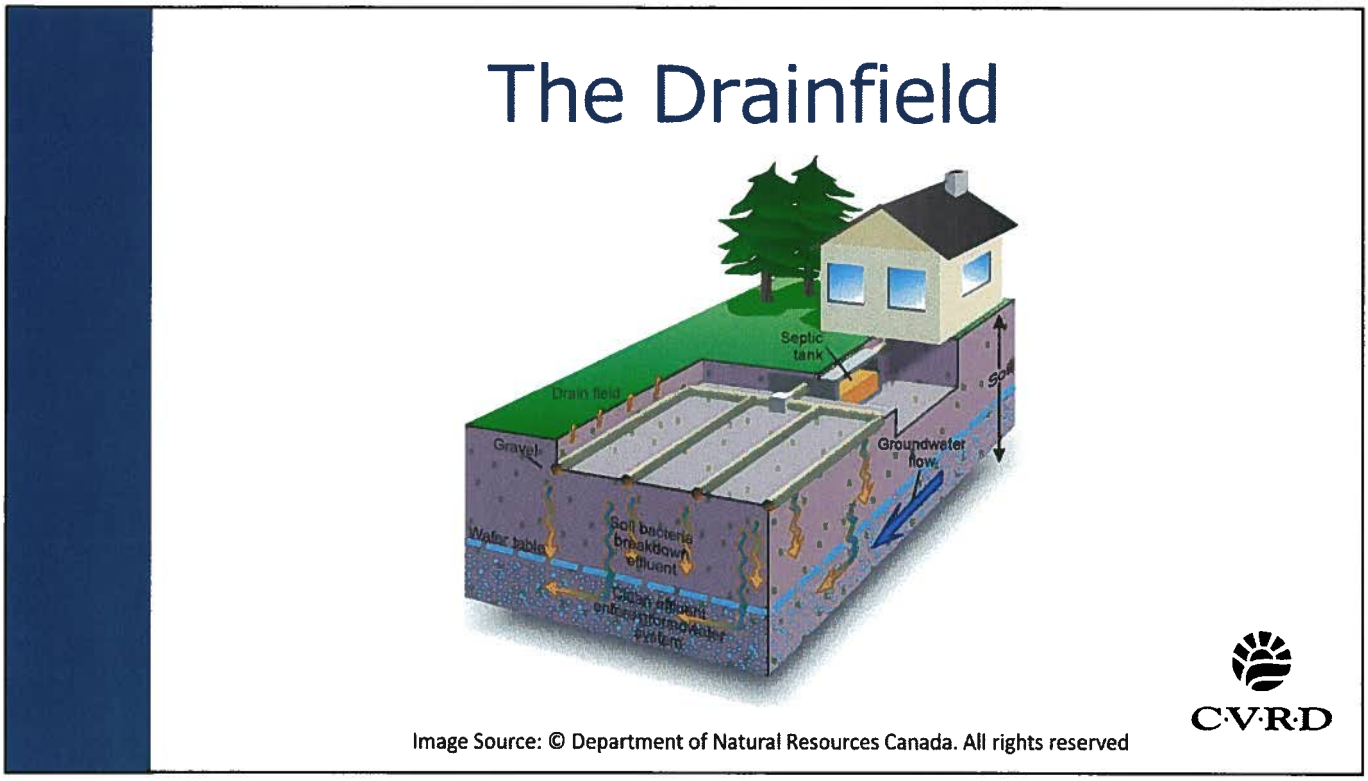
It is important to clean out your effluent filter, as they require regular maintenance every 6-12 months or wastewater could back-up.

Effluent filters may save your drainfield and money over time



After the wastewater has been through the septic tank it may pass through a distribution box which evenly distributes the effluent across the drainfield through a network of pipes that lie buried in the trenches of the drainfield.

Image source: http://www.newhudsonvalley.com/category/building-a-passive-house/passive-house-site-development/septic-system/

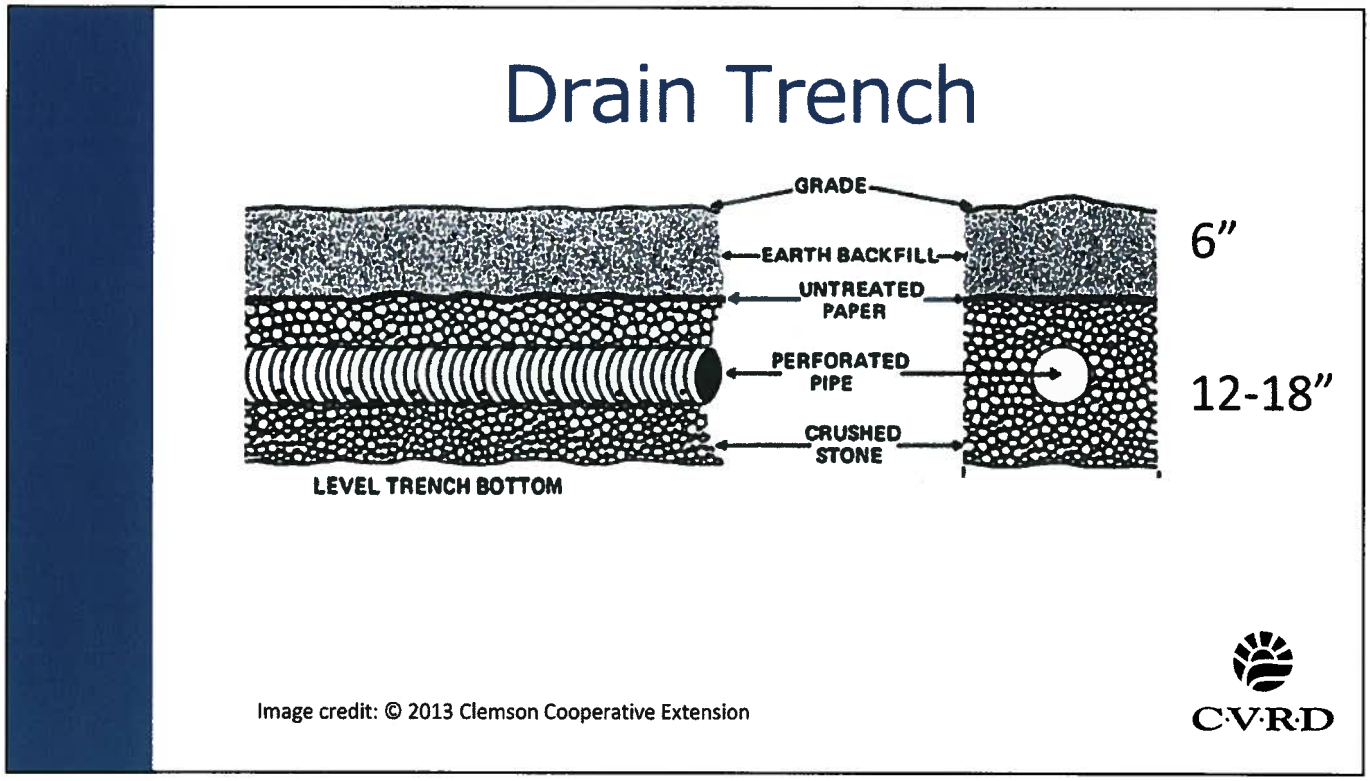


Regulation requires a drainfield [for a type 1 system] to be at least 100 feet (or 30 metres) from a well or water source. Your drinking water depends on a healthy septic system.

The drainfield is buried underground out of sight.

The natural filtration through the soil and further bacterial action remove the remaining particles from the wastewater.

When it finally reaches the water table, the wastewater has been treated and cleansed.



The conventional trench drainfield is most common. The drainfield consists of three to six trenches that are 18 to 24 inches deep with a perforated pipe laid in 12-18 inches of gravel covered by soil.

A properly designed drainfield should distribute wastewater over a large enough area to allow it to infiltrate into the soil and be treated.

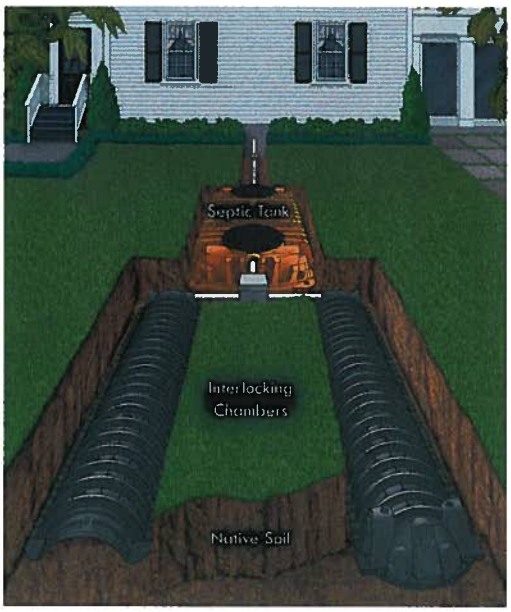
Anaerobic – bacteria that lives without oxygen breaks down wastewater in tank.

Aerobic – bacteria that requires oxygen (like aerobics – need oxygen for exercise) breaks down bacteria in the drain field.

Driving over the drainfield compresses the soil so that the oxygen can't get in. Driving a vehicle or parking over the drainfield can easily crush the delicate pipe which will ruin your investment!

Image:
http://www.clemson.edu/extension/hgic/plants/other/landscaping/hgic1726.html

Infiltrators



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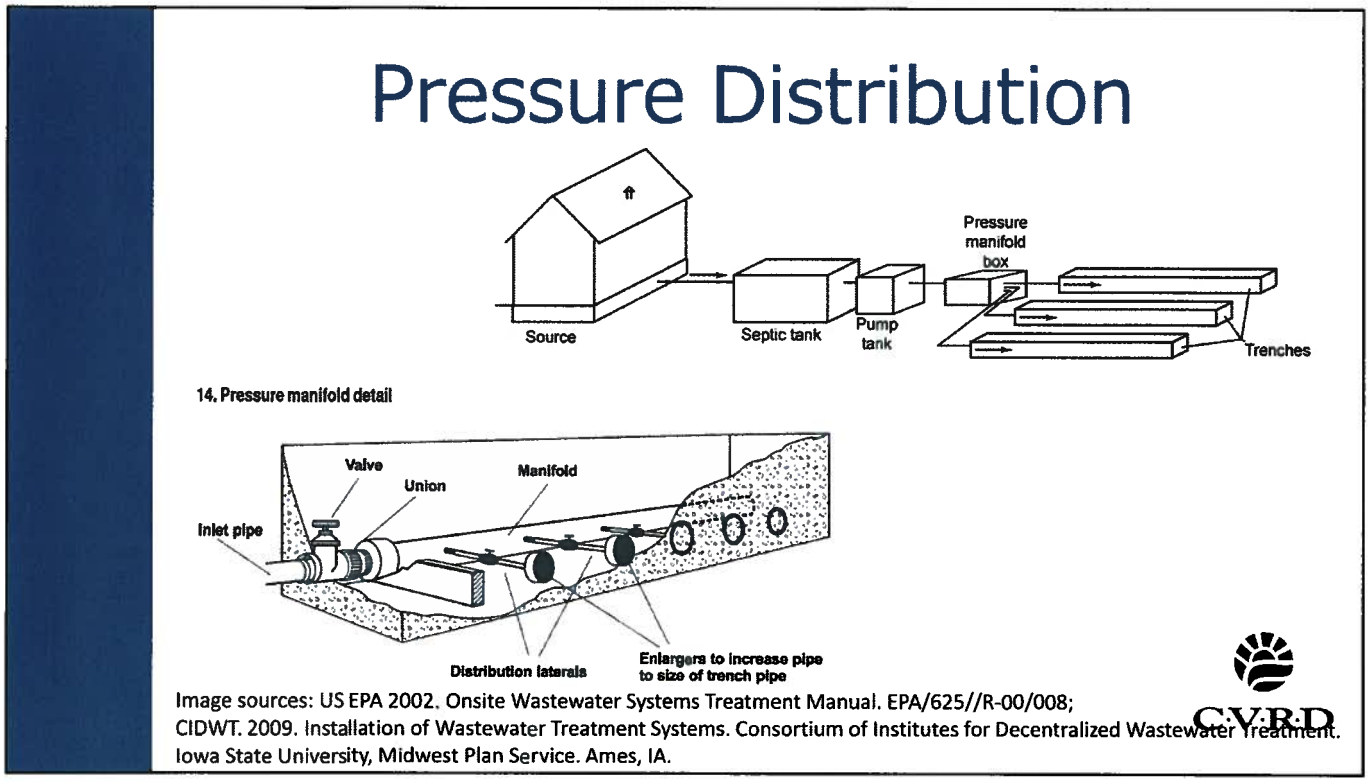
Previous slides describe a basic drainfield. There are other options for drainfields such as using infiltrators. Infiltrators are an alternative to laying drain piping in gravel. Infiltrator chambers sit directly on the trench bottom and maintain airspace around the pipe. The infiltrators are then buried underground the same as the conventional trench drainfield.



This system uses a pump to deliver doses of effluent/wastewater, under pressure, to the distribution system

[A pressure distribution system consists of a pre-treatment component to separate the major solid materials from the liquid, a screening device to protect the pump and distribution lateral orifices from solids, and a means to deliver specified doses of effluent, under pressure, to the distribution system. The distribution system consists of small 1 to 2 inch diameter laterals with small discharge orifices. A pressure head is created within the laterals, usually by means of a pump or siphon.]

Sand Mound

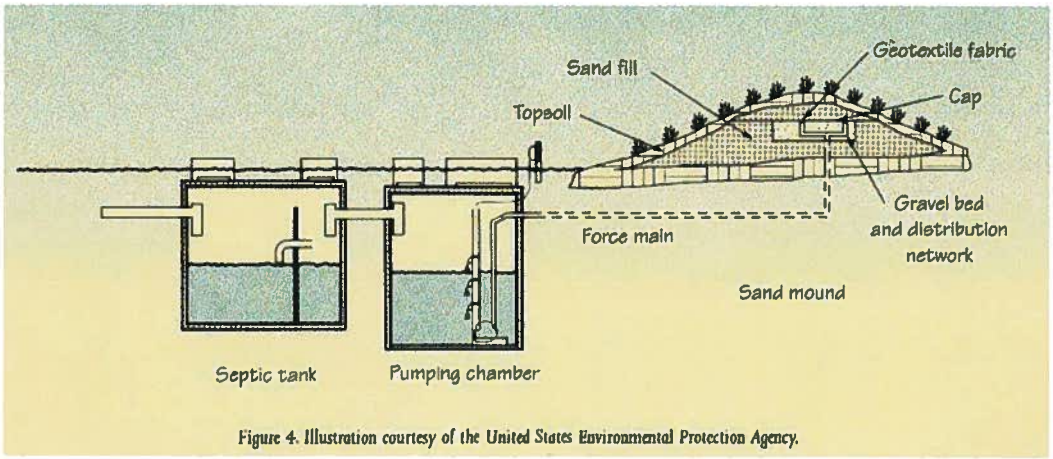


Figure 4. Illustration courtesy of the United States Environmental Protection Agency.

Used when soil is shallow

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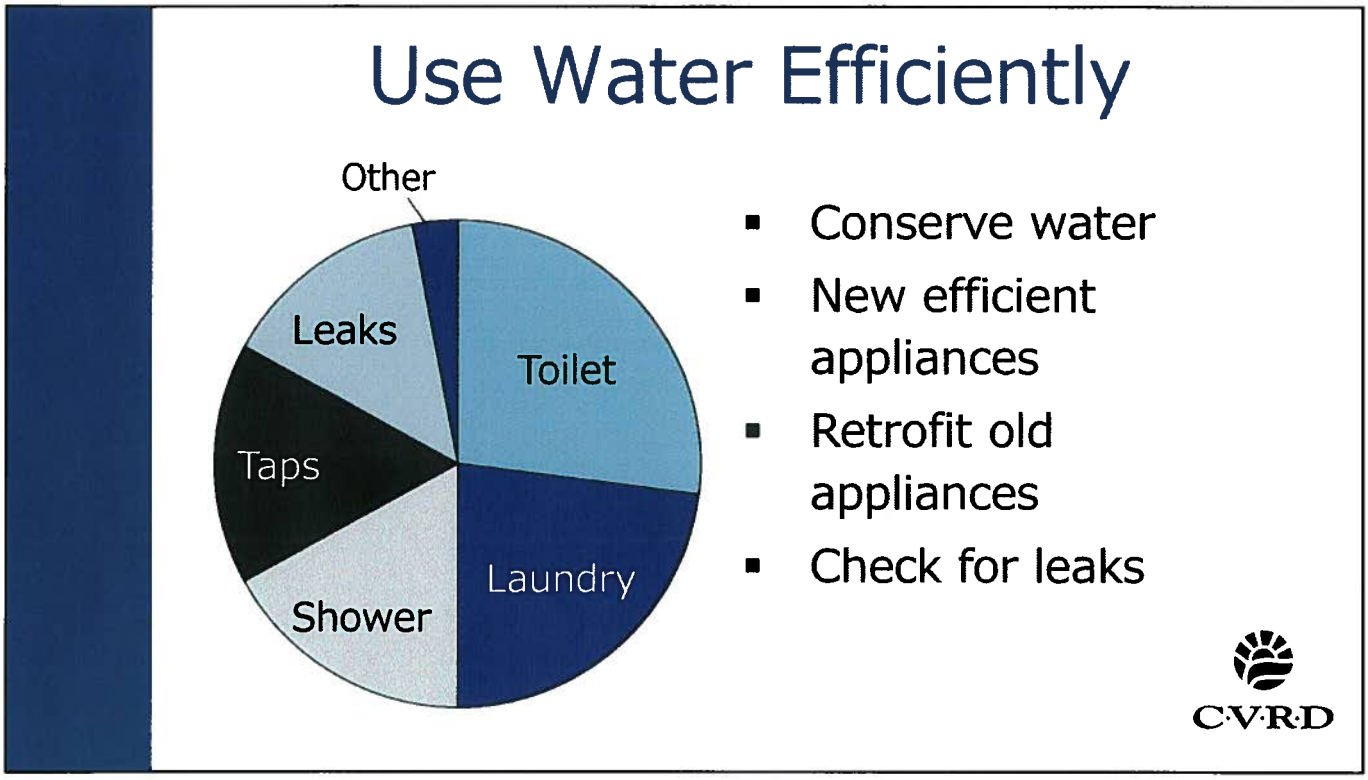
A sand mound is just like a conventional drainfield except that it is raised above ground.

After the initial treatment in the septic tank, the effluent travels to the mound component. A pump is used to control the amount of wastewater delivered to the mound at one time and to pressurize the distribution network in the mound.

Image source: http://extension.umd.edu/environment/water/files/septic.html

System Care



A key element to a healthy septic system is to minimize water use. Excessive water can flush solids into the drainfield, and can saturate the soil which affects drainage and bacterial action. So minimizing water use keeps solids settled on the bottom of the tank, improves the efficiency of your system and this will extend the life of your system.

1. There are a variety of ways you can conserve water in the home including:
2. purchasing new appliances
3. Retrofitting existing appliances
4. And checking for leaks

Don't overload your system! This can cause premature malfunction of the system, breakout of sewage to the surface, can create hazards to health and harm the environment.

For more information on water conservation, refer to your household information kit. There are also some great resources on the RDN Team WaterSmart website at www.teamwatersmart.ca.

Normal use of many medications including over the counter drugs will not harm your septic system. However, antibiotics and certain strong medications such as those used in chemotherapy can affect the operation of your system. High concentrations of antibiotics or chemicals can kill or retard the growth of the bacteria in your septic tank and soil treatment area (drainfield or mound). If the tank bacteria are destroyed, solids accumulate in the tank much faster and can create problems in the soil treatment area.

Return unused pills to a pharmacy that participates in the provincial Medications Return Program.

Photo: Microsoft clipart

Garburators

- NOT RECOMMENDED for septic systems!
- Add solids to your system
- Require yearly system inspection

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It is also important to note that garburators or garbage disposal units, are not ideal to be used with Septic Systems. The garburator will add more solids to your system and will mean that you will have to have your septic system pumped out more often. If you have a garburator in place, you should have your system inspected every year.

Septic additives are not recommended for your septic system.

Septic tanks already contain the microbes they need for the effective breakdown of household wastewater pollutants.

1. Some products interfere with the treatment processes, affect biological decomposition of waste, contribute to system clogging, and contaminate ground water.
2. Remember that no product will allow a homeowner to escape a regular septic tank pumping and maintenance schedule.

Additional Info if there are questions:

There are three general types of commonly marketed septic system additives:

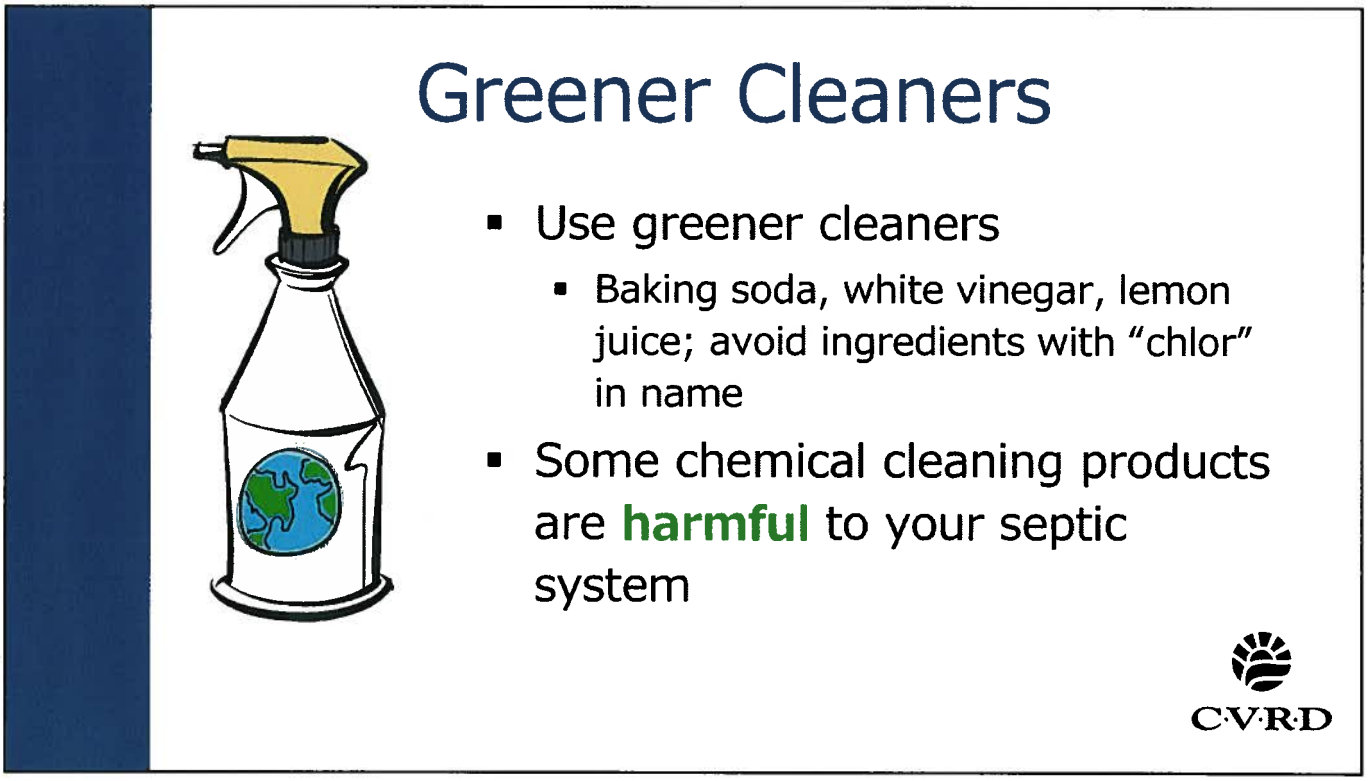
- Inorganic compounds (often chlorinated compounds)
- Organic solvents (acids, bases and flocculating agents)
- Biological additives include yeast, bacteria, and enzymes (including a **dead chicken**, buttermilk and yoghurt)

- Biological additives are the most common. Research shows that they do not make the septic system work any better.
- Adding solvent cleaners for organic materials may be effective in removing grease from the household plumbing system and septic tank, but research shows these compounds can end up in the groundwater in sufficient quantities to be harmful.
- Adding acids and inorganic compounds can cause sludge bulking and disrupt normal biological activity in the septic tank. Plus, using strong bases can be very damaging to the drainfield's soil structure.

Image sources:

http://www.kitco.com/ind/nadler/sep142009.html

http://www.enzymesolutions.com/enzymes/products-services/retail/



- Some cleaning products can be harmful to your septic system as they contain chemicals that will stop the bacteria from effectively breaking down the waste. The bacteria are sensitive and can easily be upset by chemical products.
- Soils in the drainfield contain microorganisms which are also sensitive to harmful chemicals. These chemicals can pass through the soil polluting the surrounding environment. In order to keep a septic system healthy and protect the environment, it is important to be careful of what goes down the drain.

Information for questions:

A septic tank 'die off' condition can occur when the bacteria in a septic tank are destroyed by the presence of a toxic substance. Die-off conditions can occur in a 3,785 L tank when:

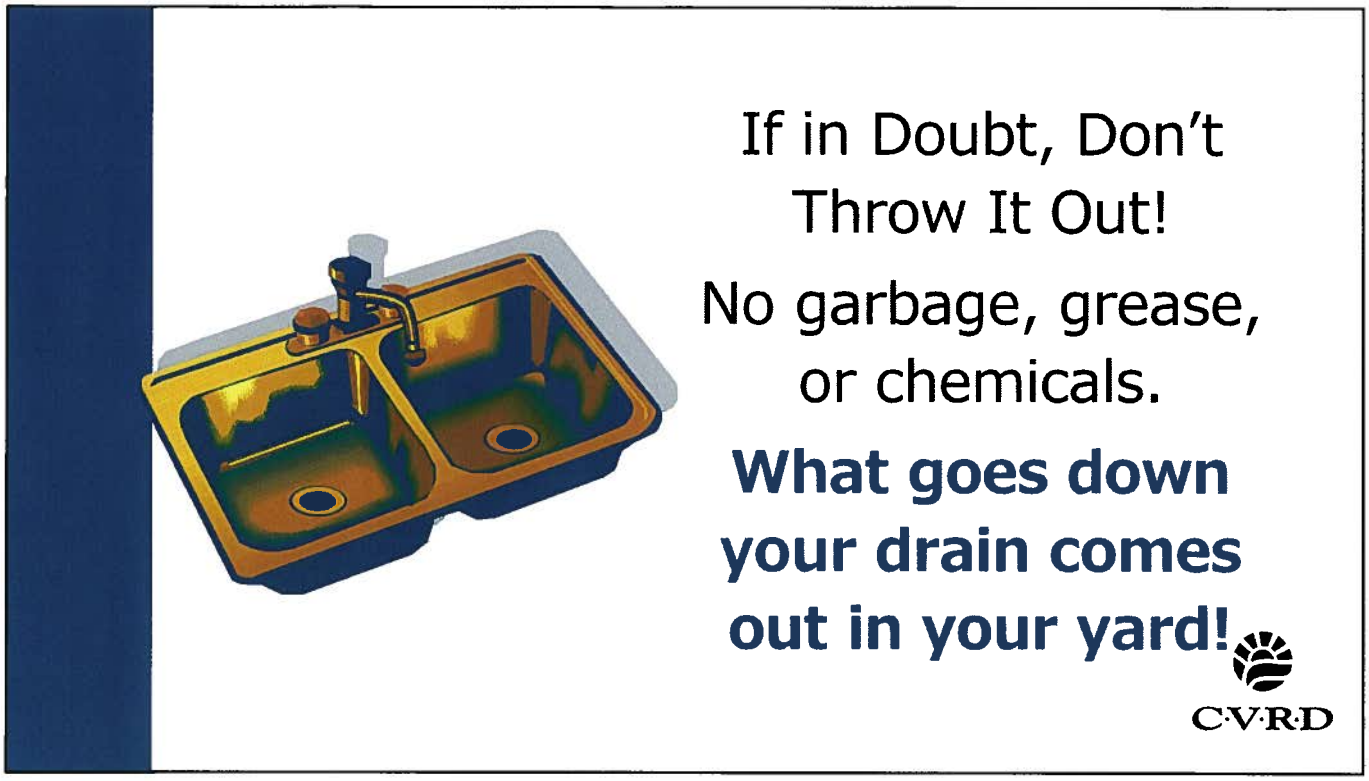
7L or more of bleach is added

18.9L or more of liquid Lysol cleaner

or 11.3 grams, which is less than a table spoon of Drano cleaner is added.

If you must use a less green cleaner (such as bleach or ammonia), remember that a little bit in moderation will be okay but it is preferable to avoid if possible.]

Image source: Microsoft Clip Art

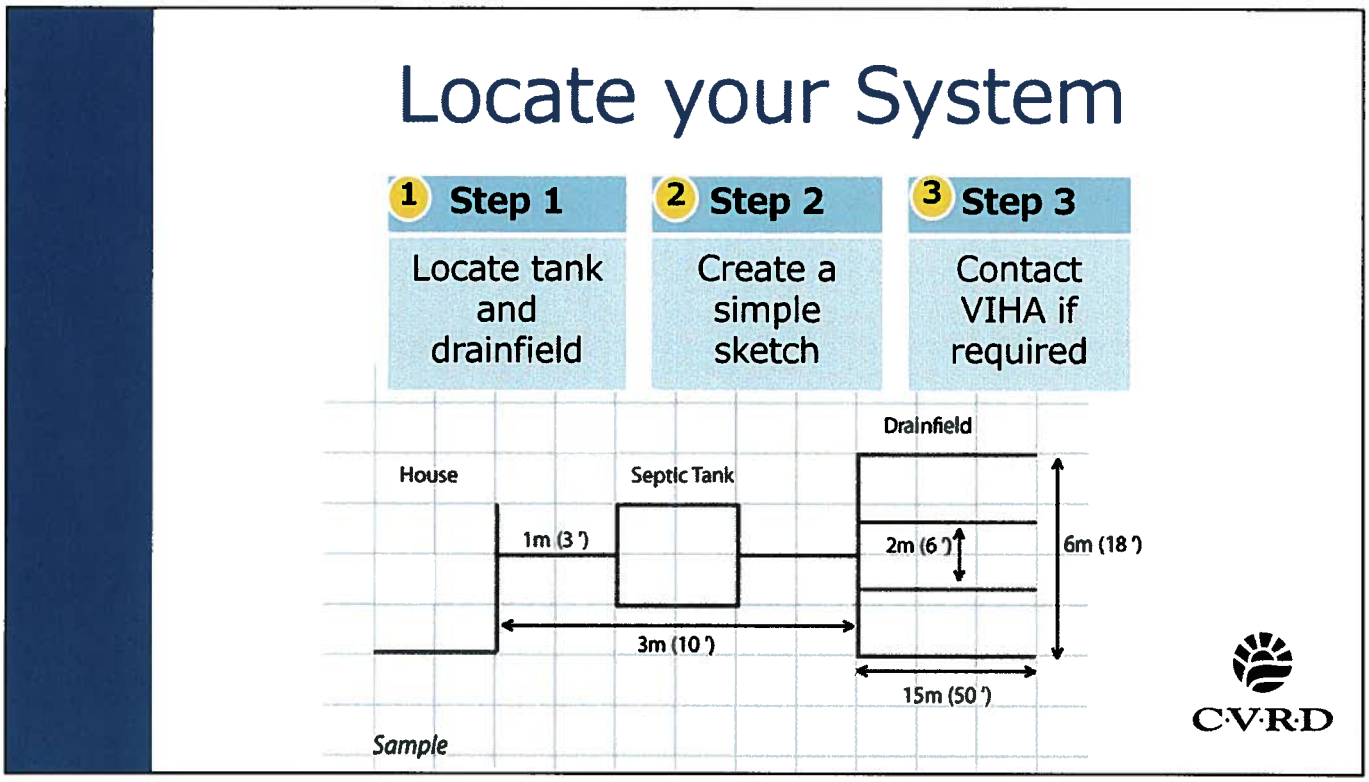


With the exception of toilet paper, if you haven't first eaten it, don't flush it.

Using your toilet like a garbage can by flushing down dental floss, facial tissue, and other solids can clog your drainfield.

There is a decal in the household information kit that can be placed visibly so that your household and guests know what is acceptable to put down the drain.

Image source: Microsoft Clip Art

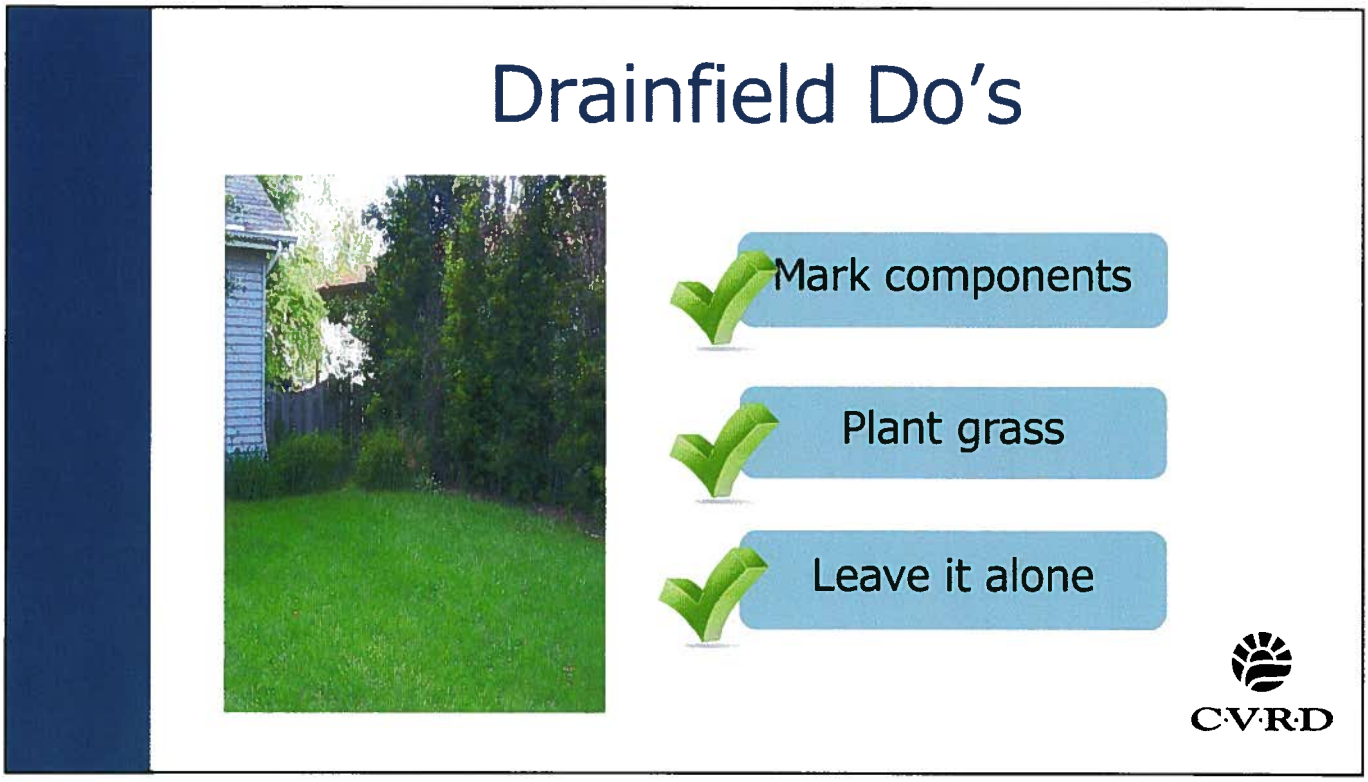


1. Locate your tank and drainfield

2. Create a simple sketch of your system using the Maintenance record available in your household information kit. Include your house and measurements if known.

3. If you are unsure where your system is located, homeowners may be able to obtain a copy of their onsite sewage disposal system paperwork from their local Vancouver Island Health Authority office. There may be a construction permit on file if the system was built between 1968 to 2005 or a sewerage system filing if the system was built after 2005. Note the system may have been modified since the permit was issued.

Sketch sample: CVRD



(1) If you are completing any landscaping in your yard, mark off where your septic system components are to avoid damage to your system. Remember that your garden may need to be disturbed to access your septic system components.

(2) Grass is the ideal ground cover for drainfields as it helps hold the soil and has shallow roots.

If you must plant flowers, consult a professional on what is best. Shallow rooted native plants or wildflower meadow plants are ideal as they do not require watering or other maintenance. Do not plant edible plants such as vegetables over your drainfield

(3) Maintaining your drainfield is easy to do as the drainfield just needs to be left alone to work efficiently.

1. It is important to maintain good ventilation and adequate sunlight in order to promote evaporation. Oxygen needs to be able to get into the soil to aid the bacteria responsible for digesting the wastewater as they need oxygen in order to survive and function. This means not constructing anything over the drainfield including **parking areas, patios, above ground pools, decks, or any other structures**.
2. Driving vehicles over the drainfield can crush the distribution pipes or compact the soil. Even off road vehicles can compact the soil around the pipes and reduce the life of your system.
3. Don't plant trees or shrubs near the drainfield as the roots can plug and damage distribution pipes. Water loving willow trees or bamboo can plug or damage your system as roots travel significant distances to seek water.
4. Don't water the grass over the drainfield. The additional water may interfere with the ability of the soil to absorb and treat the wastewater. Make sure that your drainfield is free of surface water and downspout discharges. Direct drainage well away from the drainfield and if there is an irrigation system in place, ensure that it is at least 10 feet from the edge of your septic system.
5. Do not install underground potable water lines through your drainfield.

The drainfield of a conventional septic system should last at 25-30 years, but the distribution pipes can eventually get clogged and the bed will have to be repaired or replaced.

The signs of septic system failures are:

(1) Slow or backed up drains

(2) Wet, spongy ground

(3) Patches of lush growth over drainfield

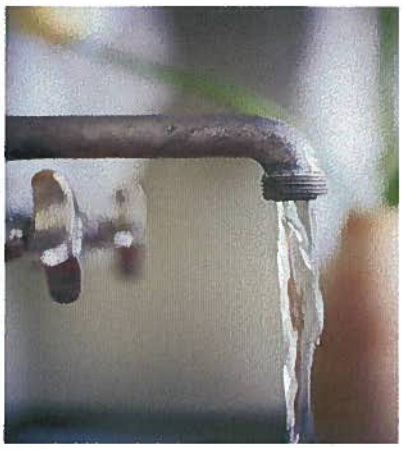
(4) Foul odours

(5) Poor well water results

To recognize the failure signs: STOP, LOOK & SMELL

If you notice failure signs on a neighbour's property, you can talk to your neighbour or phone VIHA and provide as much information as possible including the name of the property owner, and the address. VIHA can keep your information anonymous.

Common Causes of Failure



- Overuse of water
- Leaking fixtures
- System abuse
- Poor maintenance
- Ageing system
- Poor system design or installation

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Photo: Microsoft clipart

Consequences of Failures

- Cost to repair or replace
- Decreased property value
- Well pollution
- Health risks
- Environmental damage
- Odours, slow drains

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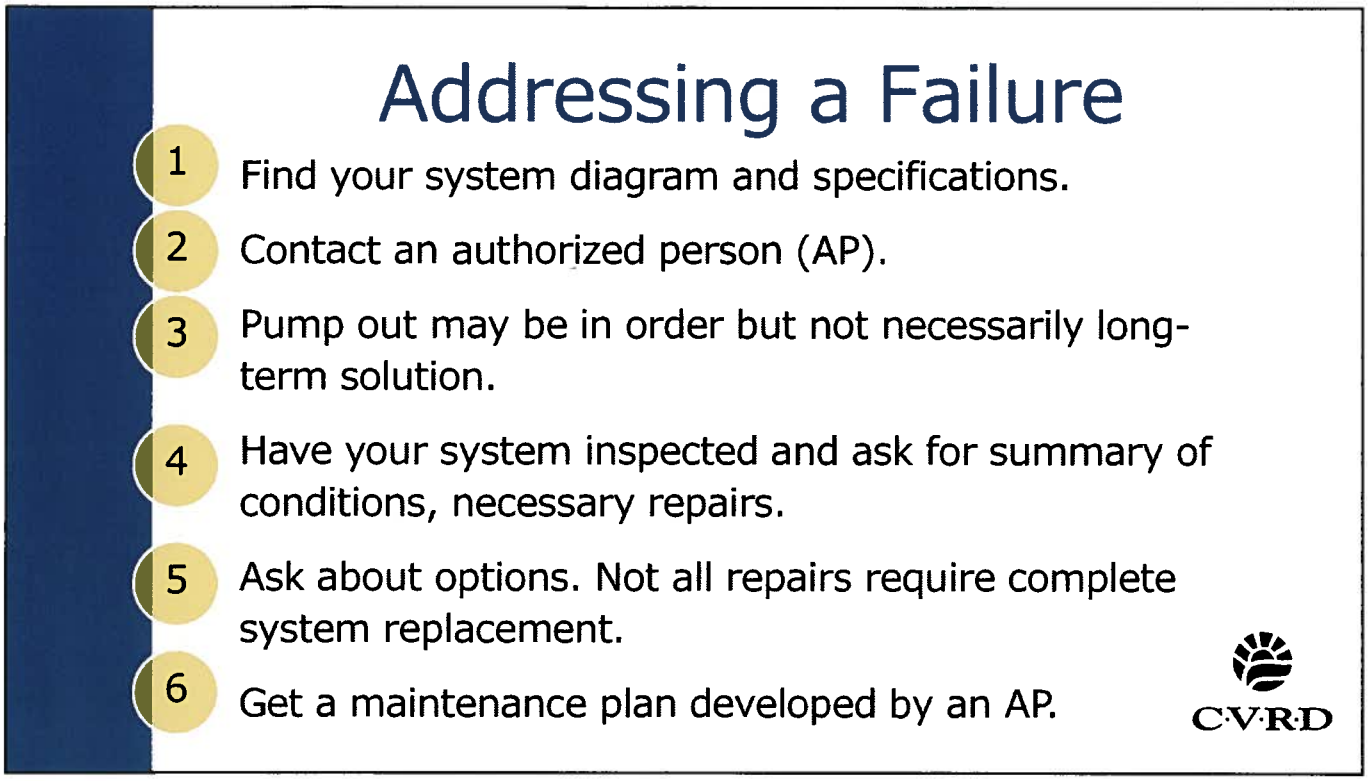
Remember that Maintenance and Monitoring will extend the life of your system saving you money.

A failed septic system will reduce your property value and create foul odours throughout the home and the property. Keeping on top of things by spending a few hundred dollars on maintaining a system, may save a few thousand dollars by avoiding repairs or replacement.

Failed septic systems can be a source of dysentery, hepatitis, jaundice, chemical or nutrient poisoning, diarrhea, cramps, nausea, headaches, and even fatigue.

An Environment Canada report estimates that 20% to 25% of the onsite systems in BC are failing.

Illustrations: Microsoft clipart



You think you have a failure now what?

1) Locate your system diagram and specifications. Contact VIHA if you don't have these and ask for a copy of the file.
2) Contact an authorized person i.e. installer, maintenance provider, pump out operator.
3) The tank will likely be pumped out, however, most failures are not fixed permanently by pumping alone. Conserve water in your home.
4) Have your system inspected i.e. condition of the septic tank, inspect the distribution box, check the length and condition of the drain field.
5) Ask for a written summary of the conditions found and any necessary repairs.
6) Not all repairs require a complete system replacement. Ask about options. There are no chemical cures for system failure.
7) Have your AP prepare a maintenance plan.

Maintenance

All Systems Require Maintenance

Maintain your system to prolong its lifespan

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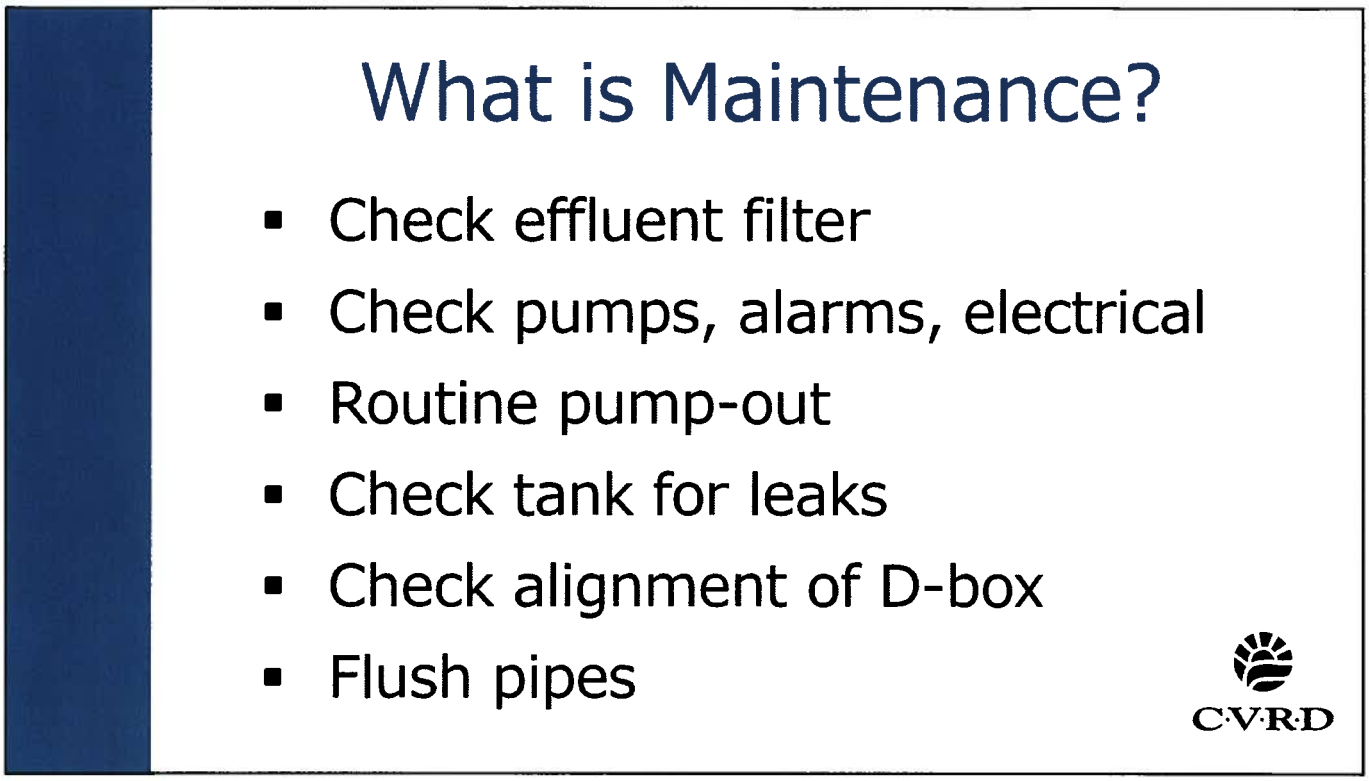
Historically, once septic systems were installed, installers often didn't tell homeowners what they had to do to maintain them. Some manufacturers even made false claims that some onsite systems are maintenance free. Maintenance requirements and history can be lost as properties change hands.

Remember, ALL systems require maintenance! Maintain your system to prolong its lifespan, prevent health hazards, and minimization of impact on the environment.

Make comparison to auto maintenance and every understands that we need to maintain a car in order to keep it running. Same goes for septic systems. Few of us would drive a car for 15 years without changing the oil, yet we frequently wait for a breakdown to remind ourselves of the need to maintain our septic systems.

Photo from Ron Hein (have permission to use)



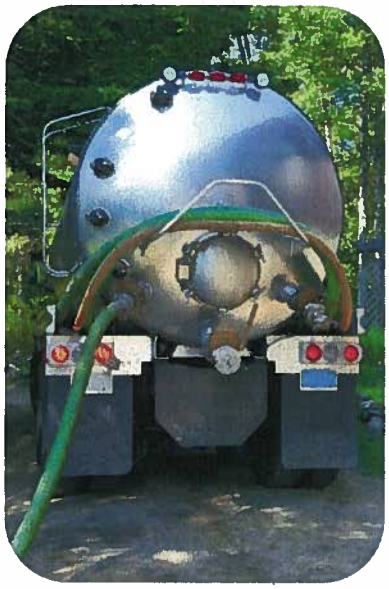
Systems Build after May 31, 2005 will have a maintenance plan. Systems should be maintained according to the plan. Systems built before this date may not have a maintenance plan. Homeowners can contact an authorized person to have a maintenance plan created for their system. Or follow some recommendations provided in the next few slides.

EXAMPLE: The recommendation in the Ministry of Health Sewerage System Standard Practice Manual for monitoring and maintenance of your Type 1 treatment system with pressure distribution is **6 months after start up** and **every 2 years thereafter**.

But what is maintenance??? See some examples above

According to one inspector of onsite systems, 85% of systems have issues affecting operation that are caused by problems outside the septic tank.

Pump-out & Inspection



Frequency depends on:

- Size of tank,
- What goes down the toilet / drain
- How many people use it

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Do not attempt to inspect your system yourself. The gases that are produced in your tank are very dangerous to your health.

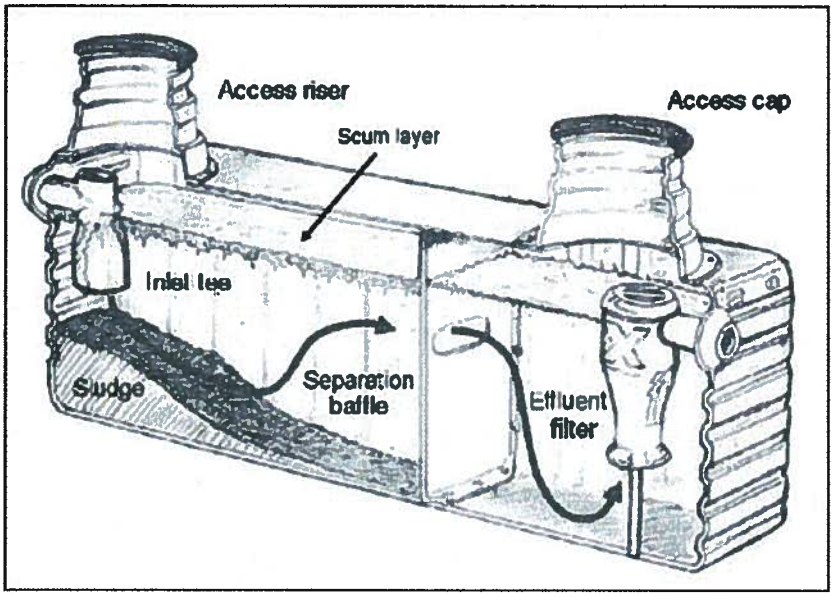
Have your system inspected by an authorized person a minimum of once every 3-5 *years* for a Type 1 system and *every year* for Type 2 and 3 systems.

When you have your system inspected, your Authorized Person will tell you when you need to have your next pump-out. Often you will have your pump-out done with your inspection.

The pump-out truck will arrive to your property and hook up to your septic system. It is important to have easy access to your septic tank.

$180 to $600 is common charge to pump a 600-1000 gallon tank.

Measuring Scum & Sludge



CVRD

Your authorized person will measure the levels of scum and sludge to determine whether your tank needs to be pumped out.

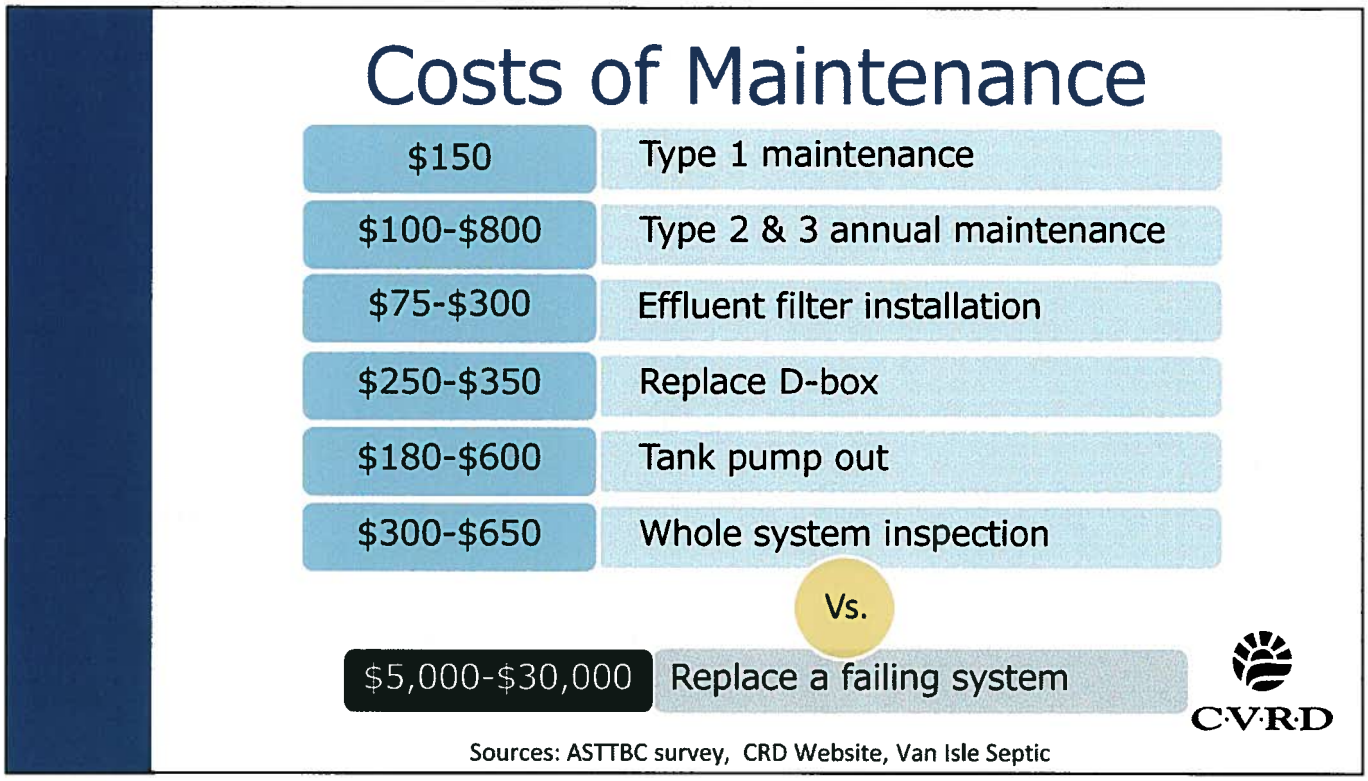
The authorized person will use a long probe to measure the amount of scum and sludge in your tank.

(1) The scum layer should be at least 8 cm or 3 inches above the bottom of the outlet baffle.

(2) And the sludge must not be within 45 cm or 18 inches of the tank outlet.

Don't wait too long before removing septic scum and sludge as when the layers increase in thickness, the effective septic tank volume is reduced. The system will lack enough volume to provide adequate settlement time. If you don't pump often enough, your system will send too many solids and debris to the drainfield which will clog it reduce the life of the drainfield.

Image source: http://www.jds-enterprises.com/septic.asp



The current industry costs for central Vancouver Island. Everyone has to pay for maintenance. Those who are hooked up to sewer pay their municipality to maintain the sewer system. The cost of sewer treatment, conveyance and maintenance is estimated to be greater than treatment and maintenance with an onsite sewage system.

An effluent filter costs about $75 and some service providers will install one at no additional charge when you have your system pumped out. It may cost more if a system needs to be retrofitted.

To replace your distribution box, it may cost you between $250-$350 depending on the size of the box, the amount of digging involved and the labour for fitting the box in. If your distribution box is not replaced, the box may corrode and cave in. This will cause the dirt to plug the pipes in the drainfield causing the system to back up or effluent to seep up to the surface. This will cause more monetary and environmental problems, and will cost you even more to replace.

Planning for all types of systems range from $1,000 to $2,000

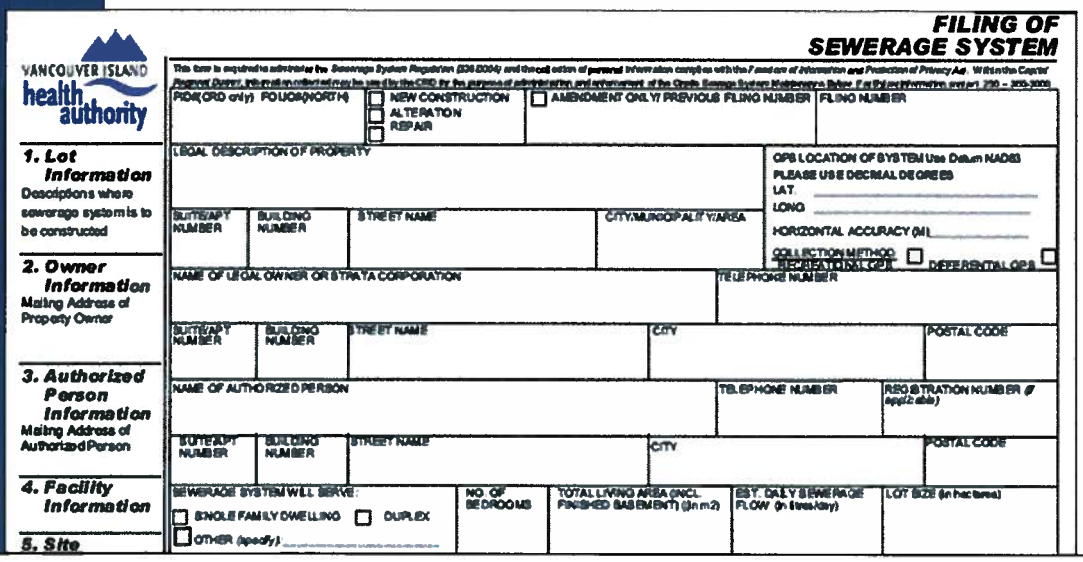
Installation of Type 1 systems range from $4,000 to $12,000

Installation of Type 2 systems range from $9,000 to $25,000

Type 3 systems are even more costly (CRD source says up to $30,000)

Records

✓ Keep maintenance records; give records to new homeowners



VANCOUVER ISLAND health authority

FILING OF SEWERAGE SYSTEM

PID(CRD only) FOLIO(NORTH) | ☐ NEW CONSTRUCTION ☐ ALTERATION ☐ REPAIR | ☐ AMENDMENT ONLY/ PREVIOUS FILING NUMBER | FILING NUMBER

1. Lot Information Descriptions where sewerage system is to be constructed

LEGAL DESCRIPTION OF PROPERTY | GPS LOCATION OF SYSTEM Use Datum NAD83 PLEASE USE DECIMAL DEGREES LAT LONG HORIZONTAL ACCURACY (M) COLLECTION METHOD RECREATIONAL GPS ☐ DIFFERENTIAL GPS ☐

SUITE/APT NUMBER | BUILDING NUMBER | STREET NAME | CITY/MUNICIPALITY/AREA

2. Owner Information Mailing Address of Property Owner

NAME OF LEGAL OWNER OR STRATA CORPORATION | TELEPHONE NUMBER

SUITE/APT NUMBER | BUILDING NUMBER | STREET NAME | CITY | POSTAL CODE

3. Authorized Person Information Mailing Address of Authorized Person

NAME OF AUTHORIZED PERSON | TELEPHONE NUMBER | REGISTRATION NUMBER (if applicable)

SUITE/APT NUMBER | BUILDING NUMBER | STREET NAME | CITY | POSTAL CODE

4. Facility Information

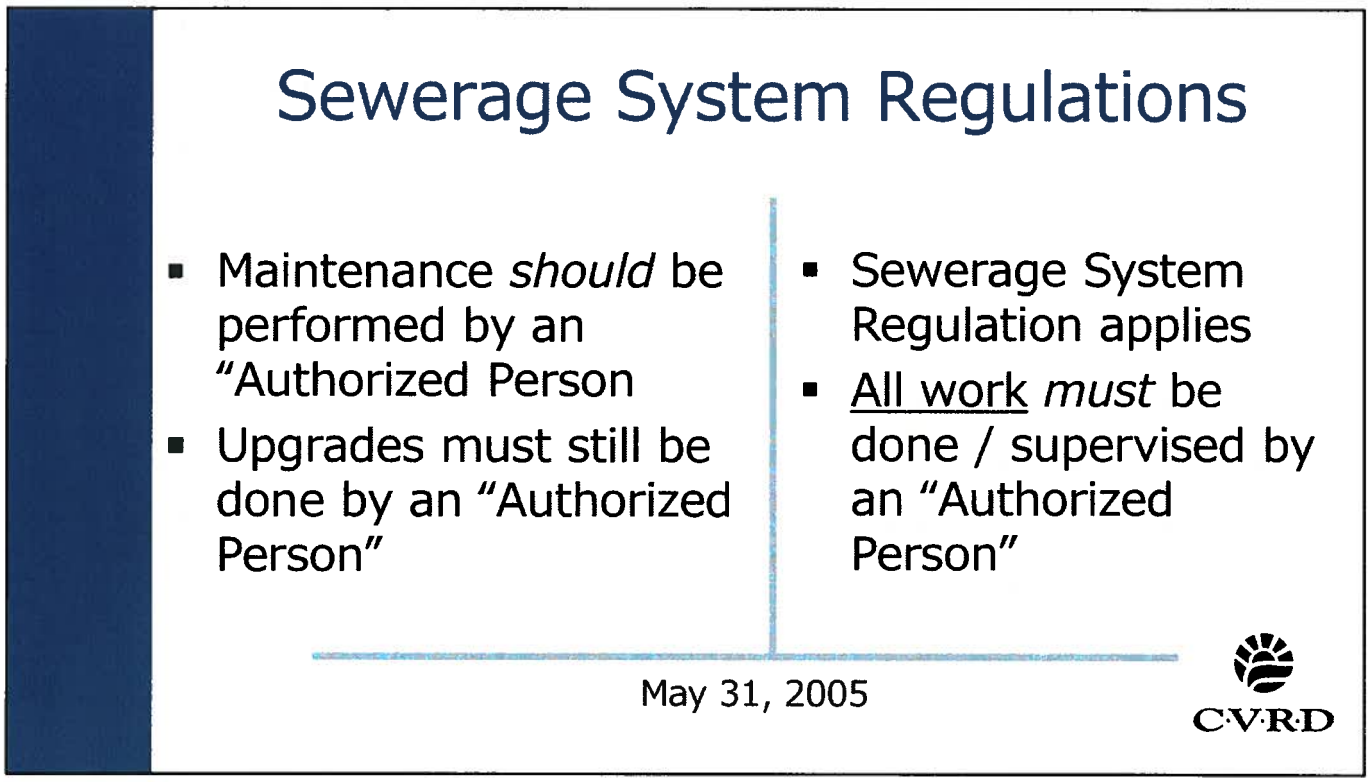
SEWERAGE SYSTEM WILL SERVE: ☐ SINGLE FAMILY DWELLING ☐ DUPLEX ☐ OTHER (specify) | NO. OF BEDROOMS | TOTAL LIVING AREA (INCL. FINISHED BASEMENT) (in m2) | EST. DAILY SEWERAGE FLOW (in litres/day) | LOT SIZE (in hectares)

5. Site

CVRD

Keep your records. Records should be passed along to the new homeowners after the sale of a property.

BC Regulations

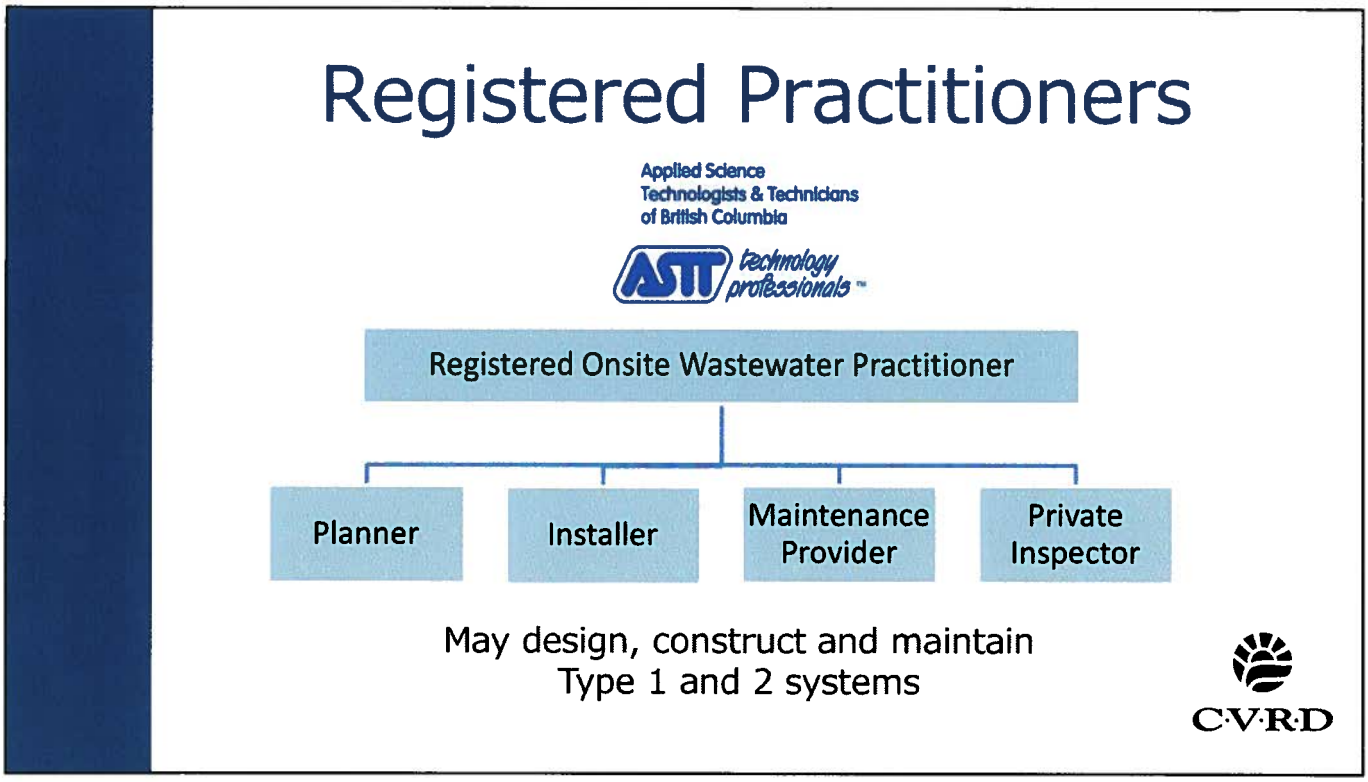


1. On May 31, 2005, the Sewage Disposal Regulation was replaced with the new Sewerage System Regulation.
2. Under the regulation, an authorized person can carry out or supervise design, installation, repair and maintenance of septic systems (with a combined design daily domestic sewage flow of less than 22 700 litres)

[Authorized Persons providing onsite wastewater / septic system services are required to file site plans, installation reports and a maintenance plan with health authorities.]

Authorized persons are defined under the Sewerage System Regulation as: Registered Practitioners or Professionals.

Photo courtesy of Ron Hein

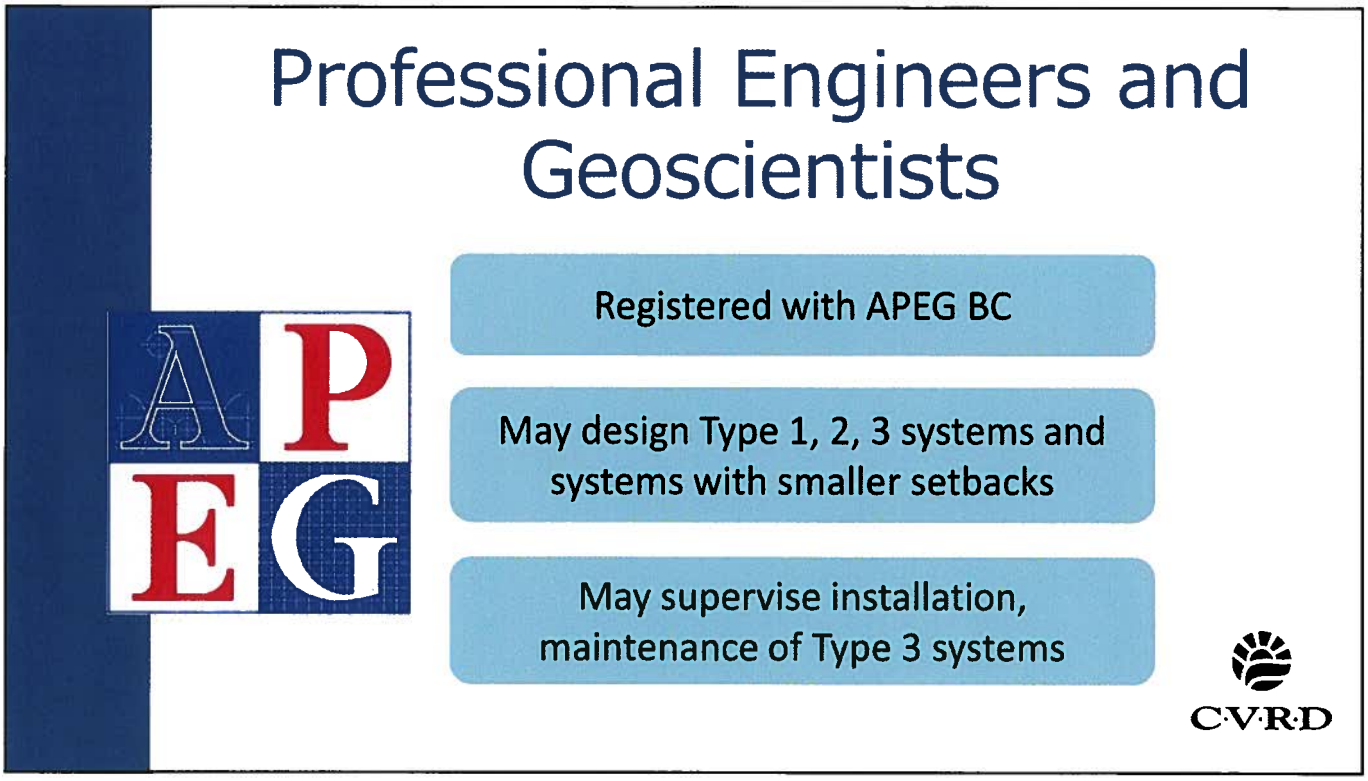


(1) Registered Practitioners must be registered with Applied Science Technologists & Technicians of British Columbia (ASTTBC).

(2) Registered practitioners may only construct and maintain Type 1 and 2 systems.

(3) There are 4 types of ROWPs (may be cross-trained in multiple areas), find the one that is suitable for you

(4) Information on finding a registered practitioner is available in the Maintenance section in your Education Kit.

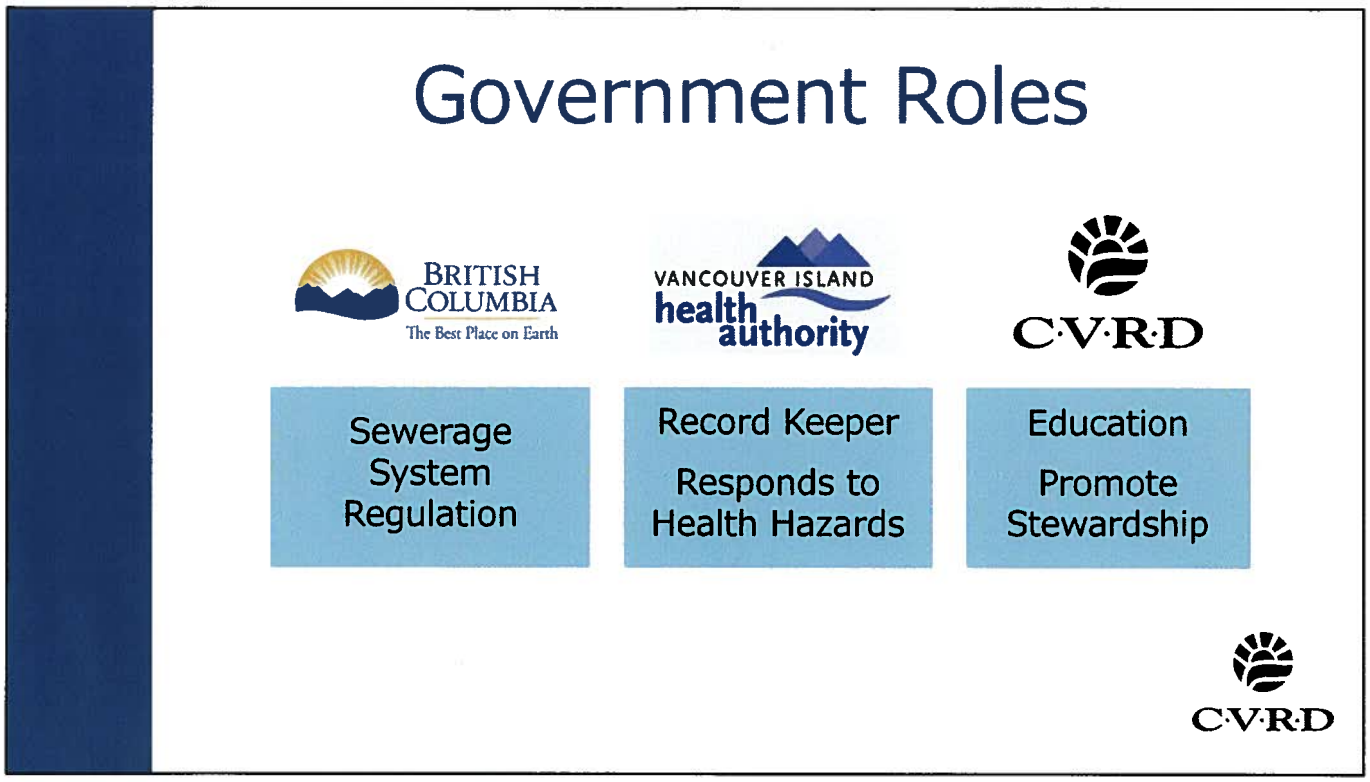


(1) Professionals are registered with Professional Engineers and Geoscientists of BC (APEG BC) and are assessed for their academic training and experience.

(2) Professionals must have training in soil analysis and sewerage system construction and maintenance.

(3) Professionals are authorized to construct, maintain, and to supervise the construction or maintenance of all types of systems.

Information on finding a professional is available online at WEBSITE or by calling PHONE NUMBER.

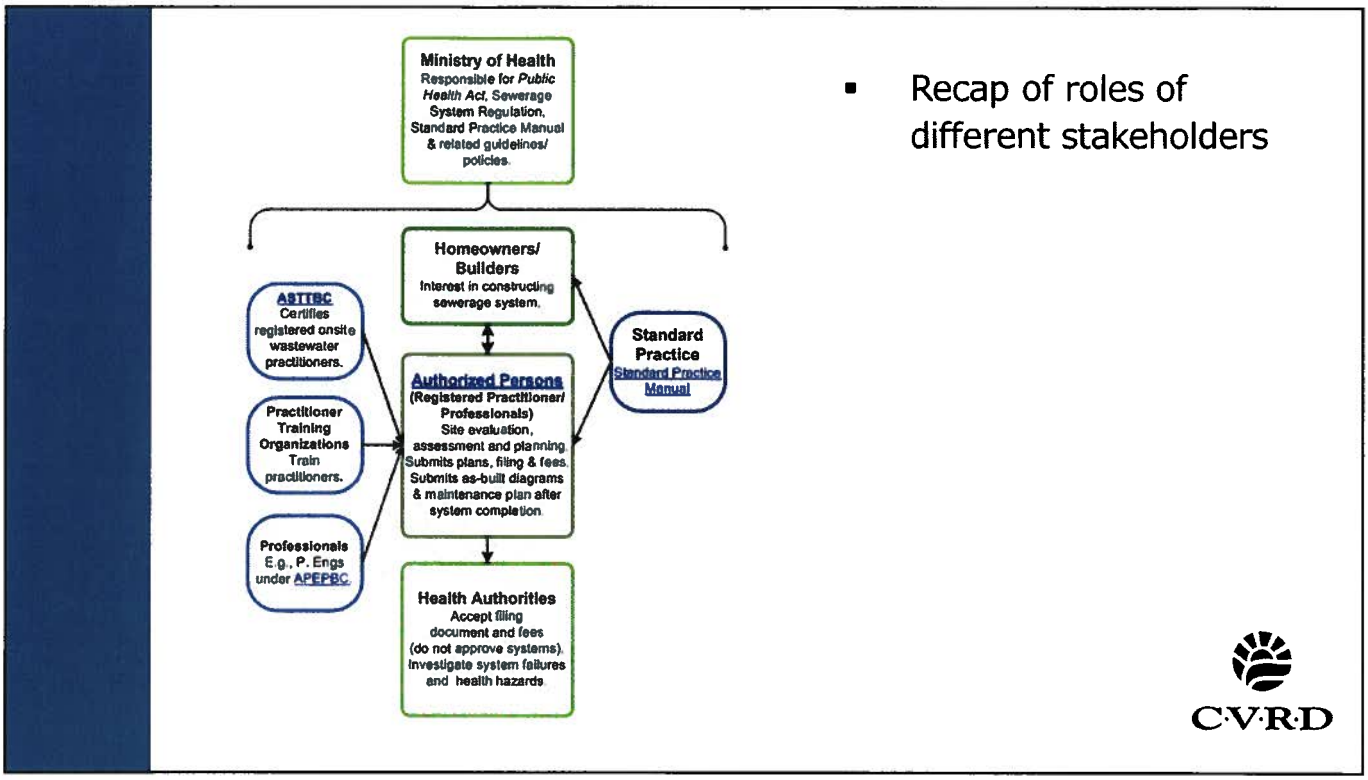


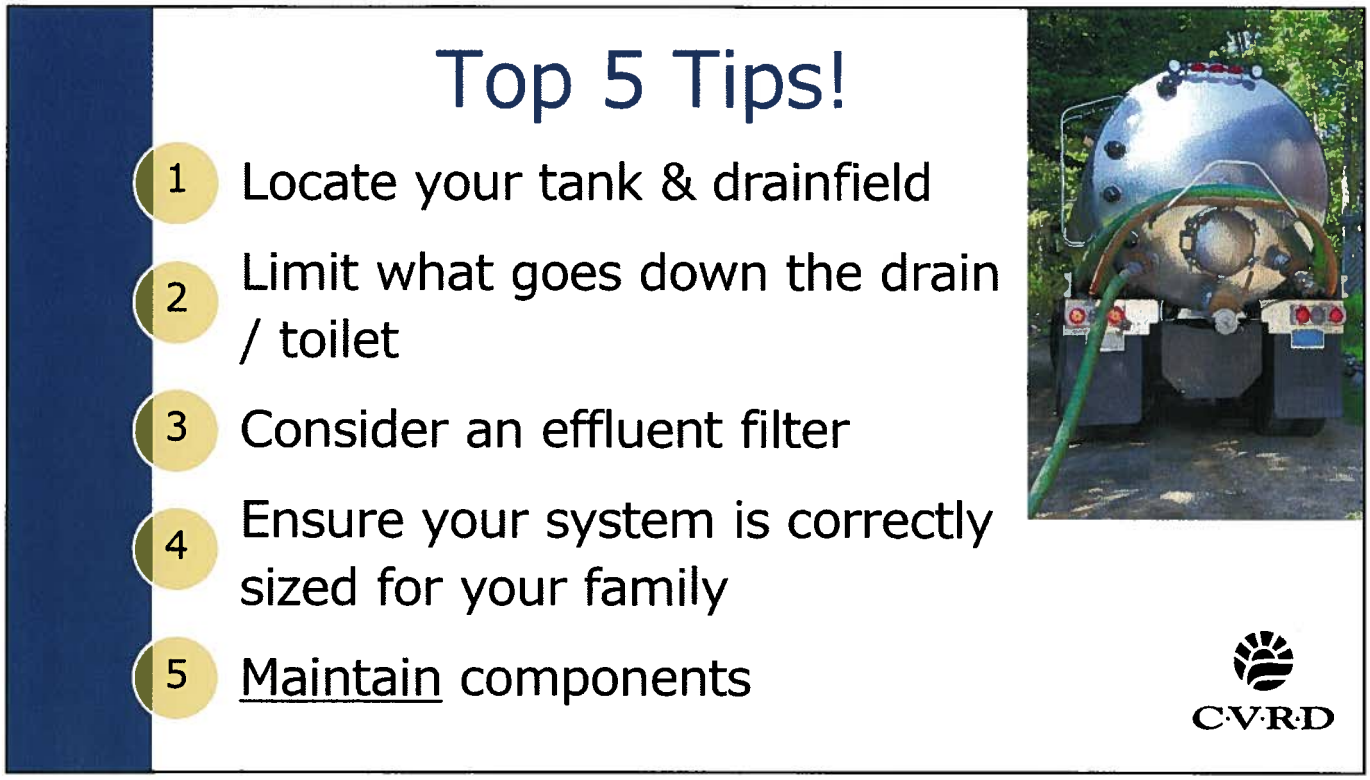
(1) The Ministry of Health is responsible for the health act and sewerage system regulations for on-site systems.

(2) The Vancouver Island Health Authority maintains all records for plans and specifications for all systems. Your authorized person is responsible for filing with the VIHA.

VIHA's roles also include the authority to inspect and take corrective action to alleviate health hazards related to existing onsite wastewater systems. If a health hazard exists or a system is likely to cause a health hazard, the Health Officer has the authority to hold liable the owner of the system and/ or the registered practitioner or professional that designed, installed, or was contracted to maintain the system.

(3) The CVRD's role is to provide information and promote education. General information and resources are available on their website, with the goal of educating homeowners on the proper care and maintenance of their septic systems in order to reduce the number of failing systems within the region. The CVRD may also liaise with other government agencies to promote stewardship and protection of nearby water resources.


Ministry of Health
Responsible for Public Health Act, Sewerage System Regulation, Standard Practice Manual & related guidelines/ policies.
Homeowners/ Builders
Interest in constructing sewerage system.
ASTTBC
Certifies registered onsite wastewater practitioners.
Practitioner Training Organizations
Train practitioners.
Professionals
E.g., P. Engs under APEPBC
Authorized Persons
(Registered Practitioner/ Professionals)
Site evaluation, assessment and planning.
Submits plans, filing & fees.
Submits as-built diagrams & maintenance plan after system completion.
Standard Practice
Standard Practice Manual
Health Authorities
Accept filing document and fees (do not approve systems).
Investigate system failures and health hazards.
Recap of roles of different stakeholders
C·V·R·D

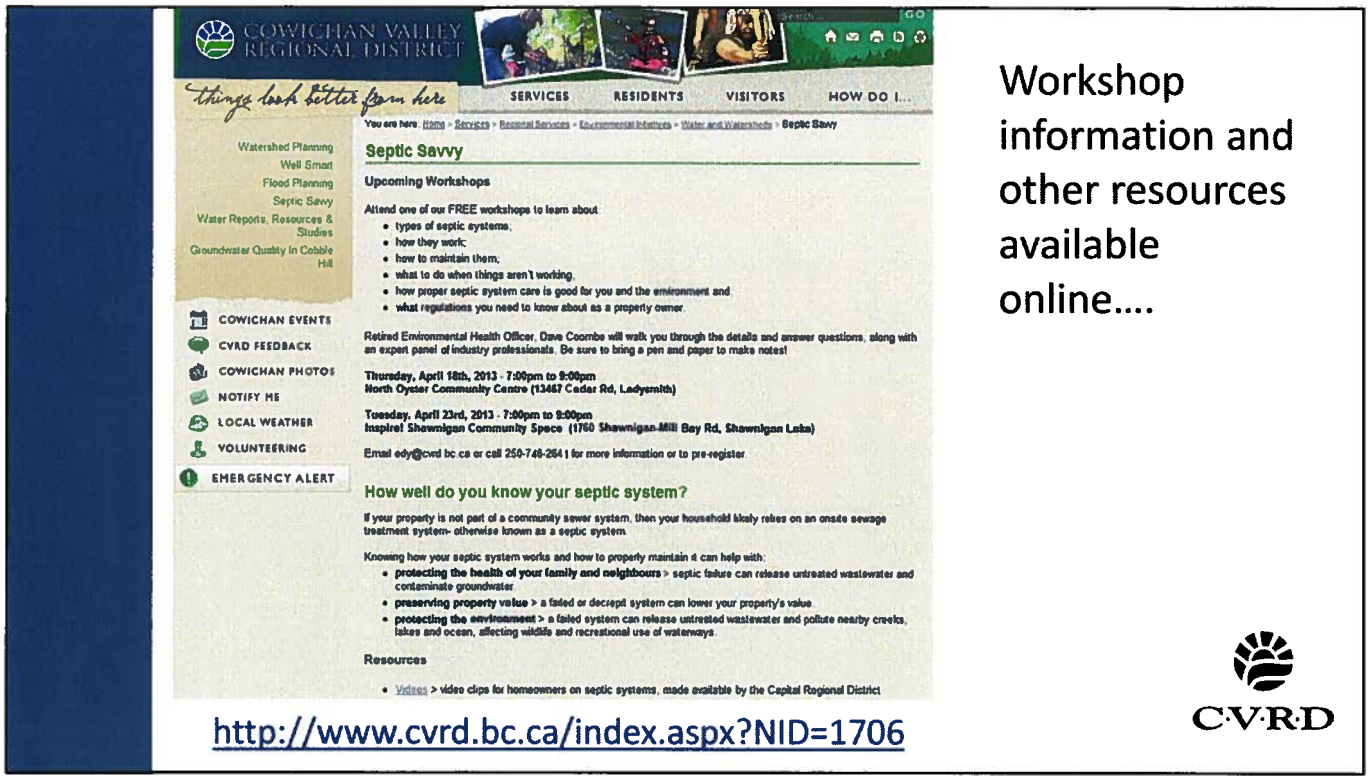


Ensure your system is sized adequately – upgrade the septic system if you are adding on.

Homework

1. Locate your tank & drainfield.
2. Draw a layout of your tank & drainfield.
3. Find your maintenance plan or contract an authorized person to develop one for you.

CVRD



http://www.cvrd.bc.ca/index.aspx?NID=1706

Workshop information and other resources available online....

CVRD

Thank You!

CVRD Environmental Initiatives Division
Tel: 250-746-2504
Toll free: 1-800-665-3955
Fax: 250-746-2543
E-mail: dfreer@cvrd.bc.ca
www.cvrd.bc.ca//index.aspx?NID=1691

CVRD

If you require more information after this workshop, please contact the CVRD Environmental Initiatives Division at 250-746-2504 or the Vancouver Island Health Authority office in Duncan 250-737-2010.