island health

RECEIPT # 2009CMD82679
Payment Date: 03 Sep 2020
Date Printed: 03 Sep 2020

Wild Goose Holdings Ltd.
121 Wright Road
Salt Spring Island, BC V8K 2H8
Canada

OFFICIAL RECEIPT

			Description	Amount ($) in Canadian Funds
751	71560400100	1650010	Sewerage Filing Gv20/283 For 182 & 184 Divine Drive - Paid By Cheque #000951	200.00
			Total Paid $:	200.00

GST # 14092 6726

PLEASE RETAIN FOR YOUR RECORDS
A fee will be charged for Duplicate Receipts

Island Health Authorization: _____

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www.viha.ca

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Island Health

SEWERAGE SYSTEM LETTER OF CERTIFICATION

Filing#: GV20283 Folio or PID#: 000-667-145 Date: Aug 25th/2020

Civic Address: 182/184 Dewine Drive

Legal Description: Lot 12, Sections 17 & 18, Range 4 East, North Salt Spring Island Cowichan District, Plan 27074

The construction of the proposed sewerage system on the above property was completed on: Aug. 25th/2020

This system was installed:

☐ By or under the supervision* of a professional Name: _____ Registration #: _____

☑ By a Registered Onsite Wastewater Practitioner Installer Name: R. Andy Hickman Registration #: OW0055

☐ By the property Owner under the supervision* of Name: _____ Registration#: _____

I am an "Authorized Person" as defined in the Sewerage System Regulation "BC Reg. 326/2004." **The signature and seal of the undersigned on this document certifies that:**

1. The Owner has been provided with:
   - A copy of the sewerage system plans and specifications as filed with the Health Authority;
   - A maintenance plan for the sewerage system that is consistent with standard practice;
   - A copy of this Letter of Certification as filed with the Health Authority;
2. The sewerage system has been constructed in accordance with standard practice as indicated in the Sewerage System Filing Form filed on (date) Aug 25th/2020;
3. The sewerage system has been constructed substantially in accordance with the plans and specifications filed with the Health Authority;
4. The estimated daily domestic sewage flow through the sewerage system will be less than 22,700 liters;
5. If operated and maintained as set out in the maintenance plan, the sewerage system will not cause or contribute to a health hazard.

* Where the authorized person is a professional, "supervision" means conducting field reviews of the construction of the above system that the professional in his or her professional discretion considers necessary to ascertain whether the construction substantially complies with the plans and specifications filed with the Health Authority.

Appended to this document is a plan of the sewerage system as it was built and a copy of the maintenance plan.

Name (please print): R. Andy Hickman	Health Authority Use Only
Signature: R.A. Hickman.	
Authorized Person's Seal: REGISTERED ONSITE WASTEWATER PRACTITIONER · ASTTBC · R. ANDY HICKMAN · PL IN · OW0055	Island Health Environmental Health- Victoria DATE RECEIVED SEP 3 2020 Received By _____ (VIHA Staff Signature)

Revised April 2015

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RECORD OF SEWERAGE SYSTEM

islandhealth

Filing # (OFFICE USE ONLY) GV20/283

1. Property Information

☐ New Construction ☐ Alteration ☑ Repair ☐ Amendment – Original Filing #

Tax Assessment Roll # 764 000755.085

PID # 000-667-145

Legal Description (Plan, Lot, District Lot, Block Numbers) Lot 12, Sections 17 & 18, Range 4 East, North Salt Spring Island Cowichan District, Plan 29704

Street (Civic) Address or General Location 182/184 Devine Drive

City Salt Spring Island, B.C.

2. Owner Information

Name of Legal Owner Bob Patterson, Patricks Cullen

Mailing Address 184 Divine Drive

Phone 250-221-1207 City Salt Spring Island Prov B.C. Postal Code V8K 2H5

3. Authorized Person Information

Name of Authorized Person R. Andy Hickman

Mailing Address 12 Wright Road

Phone 250-537-6609 City Salt Spring Island Prov B.C. Postal Code V8K 2H8

Registration # OW0055

Email Latteboy47 at Gmail.com

4. Structure Information

Sewerage System Will Serve:

☐ Single Family Dwelling ☑ Other Structure (specify) Duplex ☐ Other Dwelling (specify) _____

The sewerage system is designed for an estimated minimum daily domestic sewage flow of (check one)

☑ Less than or equal to 9,100 litres ☐ More than 9,100 litres but less than 22,700 litres

5. Site Information

Depth of native soil to seasonal high water table or restrictive layer (cm) 90

Information respecting the type, depth and porosity of the soil is attached ☑ Yes ☐ No

GPS Location of System (decimal degrees) Latitude 48° 50' 22" N Longitude 123° 29' 50" W

Horizontal Accuracy (m) 5 ☑ Recreational GPS ☐ Differential GPS

6. Drinking Water Protection

Will the sewerage system be located less than 30 m from a well? ☐ Yes ☑ No

If yes, attach a professional's report and specify the intended distance _____ (m)

Distance of proposed sewerage system to the closest body of surface water +30 (m)

7. System Information

Sewerage treatment method ☑ Type 1 ☐ Type 2 ☐ Type 3

8. Legal or Regulatory Considerations

☑ Construction of the proposed sewerage system will not conflict with legal instruments registered on the property.

Is this filing submitted as the result of an order from the Health Authority? ☐ Yes (attach a copy of the order) ☑ No

9. Plot Plan and Specifications

Plot Plan (to scale) and specifications are attached ☑ Yes ☐ No

☑ The plans and specifications are consistent with Standard Practice

Source of Standard Practice: ☑ Ministry of Health Standard Practice Manual ☐ Other

10. Authorized Person's Signature

Signature R. A. Hickman.

Date Aug. 25th/2020

OFFICE USE ONLY

Filing Accepted Date September 3, 2020

Receipt Number 2009CMD82679

Revised August 2015

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Specifications for a Replacement Sewerage System for Duplex at 182/184 Devine Drive, Salt Spring Island.

This system is designed to serve a finished living area of up to 3500 ft² (330 m²) and a total of 4 bedrooms.
Daily Design Flow (DDF) is therefore 1600 litres per day (350 gpd) as per Table II-8, SP Manual Version 3.

The existing septic system, installed in 1975, has failed, due largely to the fact that the two small (600 gallon) single chamber tanks had no effluent filters, and had never been pumped until very recently. One tank actually had to be dug out because of the thickness of the top layer, and the laterals had filled with biomass over the years. The soil around the original trenches, however, was in good condition, and new laterals were installed in between the original trenches, as there was ample width on the benches. Drainage in this area is good, so no interceptor trenching was required. The soil was found to have good root penetration, and texture is a strong sandy loam, so a conservative HLR of 27 lpd/m² has been used to calculate AIS. An 1125 gallon septic tank has been installed, and a float tank delivers a full flood dose to a Premier Distribution box using a 6" pressure gradient. Laterals are Arc 36 infiltrators and suspended 3" perforated pipe. Standpipes are at the end of each lateral, and bench has a 4" observation well.

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Septic Tank is a Premier Plastics STS 1125 gallon double chamber tank, tank measuring 64"H x 100"L x 85"W.
Float Tank is a Premier Plastics model 130 with a preset 75 gallon dose (30"H x 47"L x 40"W).

Field Sizing: Area of Infiltrative Surface is DDF of 1600 lpd over HLR of 27 lpd/m² yields 59 metres by a trench width of .9 meters yields 66 meters or 215 linear feet.

Parts Specs: (all parts CSA approved)
1 x 1125 gallon double chamber Premier Plastics septic tank; 1 x M130 Premier Plastics Floating Outlet Tank; pressure treated custom boxes for tank hatch access; 80' x 4" solid sewer pipe; 2 x 4" Wyes; 2 x 4" 90° elbows; 2 x 4" 22½° elbows; 2 x 4" 45° elbows; 2 x 4" Swift connectors; 220' x 3" solid sewer pipe; 6 x 3" 45° elbows; 12 x 3" 90° elbows; 6 x 3" 45° elbows; 12 x 3" connectors; 4 x 3" Swift connectors; 5 x 3" threaded caps & slip adapters (riser pipes); 215' (43 pieces) of Arc 36 infiltrator; 10 x Arc 36 end caps; 2 x 4" observation well assemblies; 1 x 6 hole Premier Plastics D-box; pressure treated custom access box for distribution box; 2 packs x 1¼" zip tie ties; 1 x 25 kg sack of grass seed.

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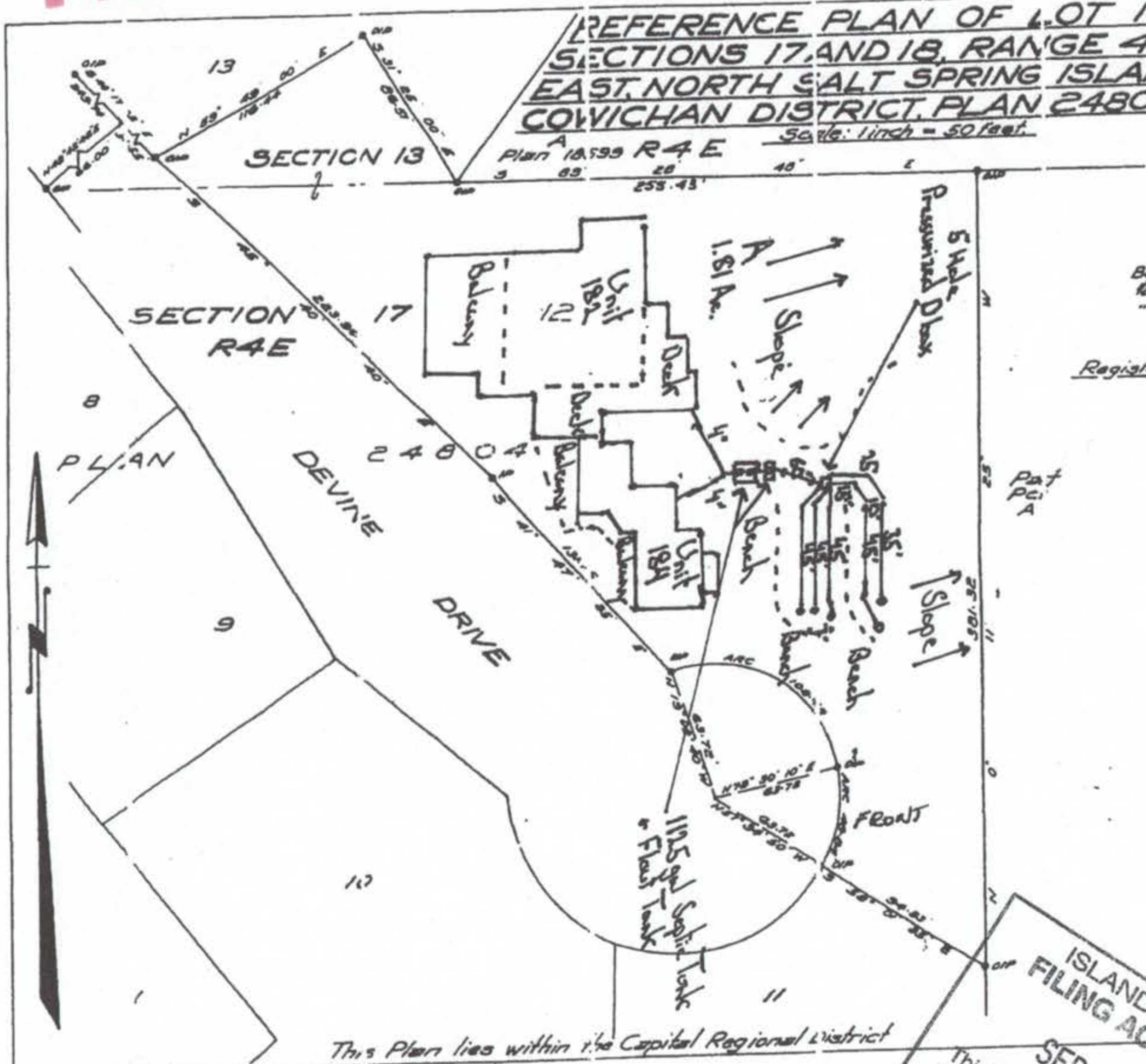
PLAN 29704

REFERENCE PLAN OF LOT 12 SECTIONS 17 AND 18, RANGE 4 EAST, NORTH SALT SPRING ISLAND COWICHAN DISTRICT, PLAN 24804.

Scale: 1 inch = 50 feet.



Deposited in the Land Registry Office at Victoria, B.C. this 25th day of July 1976.

ASST. DEPUTY Registrar.

Bearings Astronomic derived from Plan 24804.
½" Sq Galv Iron Post found shown thus • OIP
" " " " set • IP

Registered Owner Rodney Trevor Taylor

Witness
Name
P.O. Box 3 Ganges BC
Address
B.C. Land Surveyor
Occupation

I, Alan R. Hardie of Ganges Harbour, British Columbia Land Surveyor make oath and say that I was present at and did personally superintend the survey represented by this plan and that the survey and plan are correct. The said survey was completed on the 30th day of June 1976.

BCLS

Sworn before me this 30th day of June 1976

A Notary Public in and for the Province of British Columbia.

A. Hardie & Associates B.C. Land Surveyors Ganges Harbour B.C.

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REGISTERED ONSITE WASTEWATER PRACTITIONER
ASTTBC
R. ANDY HICKMAN
PL IN
OW0055

Note: Septic Field is on 2 benches
Top bench is 3 x 45' laterals at 7' centres
Lower bench is 2 x 35' & 1 x 45' lateral at 10' centres
Septic tank is 1125 gal. double chamber
Pressure delivery by Float tank to D box (6' drop)

Gravity Dosing with FLOUT®

THE FLOATING OUTLET PACKAGE FOR ONSITE SEPTIC FIELDS

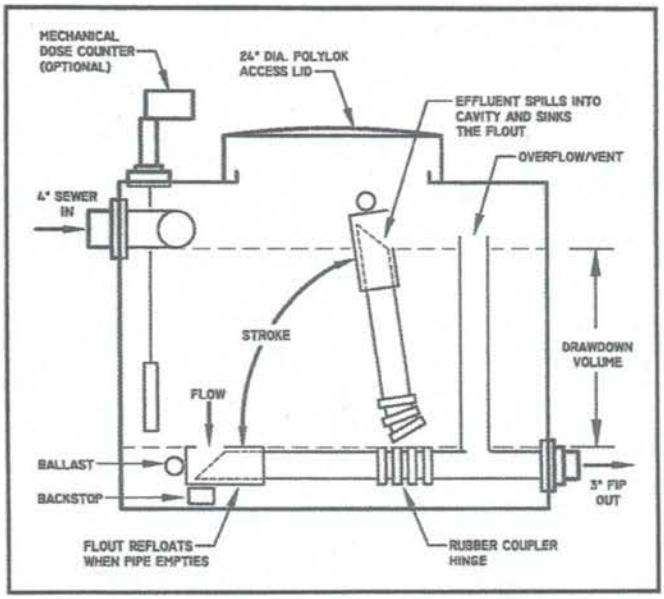
Simple and dependable alternative

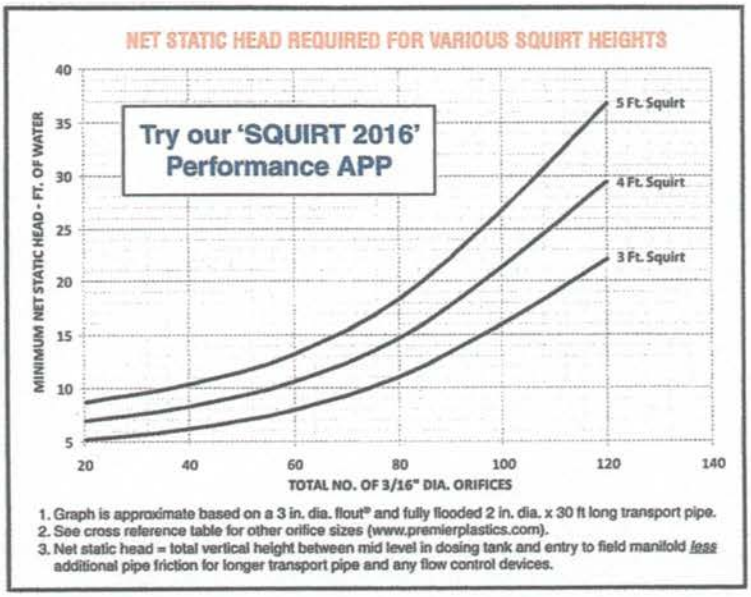
- ☑ No Electricity – No Standby Volume
- ☑ Gravity or Pressure Septic Fields
- ☑ Prepackaged – No Field Assembly

FEATURES

- ★ No bearings, seals, valves or priming required.
- ★ No scheduled service or maintenance.
- ★ Operates with gravity and buoyancy. Resists freezing.
- ★ Maximum backfill depth – 4ft.
- ★ Can service fields 2ft to 200ft below septic tank
- ★ Works with any type of septic tank or treatment system.
- ★ Four packaged tank sizes for preset calibrated doses up to 90 gals, 138 gals, 192 gals or 330 gals.
- ★ Certified by Washington State DOH. (Septic tanks)

The FLOUT® Dosing System offers a simple, self-contained and trouble free method of delivering intermittent aerated flow to flood dosed and pressure dosed septic fields. Premier FLOUT® Dosing Tanks are completely pre-assembled, dose calibrated and ready for installation. Sites where the distribution field can be located at a lower elevation than the septic system discharge can avoid the cost and complexity of pumped delivery – saving on standby volume, pumps, wiring, controls, installation and maintenance. The performance of basic trickle leach fields can be significantly enhanced with flood dosing.
FLOUT® is a trade name of Rissy Plastics Inc. Torrington CT.





1. Graph is approximate based on a 3 in. dia. flout® and fully flooded 2 in. dia. x 30 ft long transport pipe.
2. See cross reference table for other orifice sizes (www.premierplastics.com).
3. Net static head = total vertical height between mid level in dosing tank and entry to field manifold *less* additional pipe friction for longer transport pipe and any flow control devices.

PREMIER PLASTICS

8328 River Way
Delta, BC, Canada V4G 1C4
Bus: (604) 952-6686
Fax: (604) 952-6696
Toll Free: 1-800-661-4473
office@premierplastics.com
www.premierplastics.com

Represented by:

THREE STATIC HEAD DOSING METHODS

1. FLOOD DOSING - Static Head 1 ft. to 4 ft.

   Flout discharge to D-Box and 3" or 4" laterals with 1/2" or 5/8" orifices facing down.

2. SOFT PRESSURE DOSE - Static Head 2 ft. to 8 ft.

   Flout discharge through 2" transport pipe to 2" manifold.
   Manifold feeds 2" laterals with 1/4" or 3/8" orifices facing up.
   Squirt height range 0.5 ft. to 2 ft.

3. FULL PRESSURE DOSE - Static Head 6 ft. and up.

   Flout discharge through 2" transport pipe to 2" manifold.
   Manifold feeds 1 1/4" laterals with 1/8" to 7/32" orifices.
   Squirt height range 2 ft. and up.

PREMIER PLASTICS

FINAL

Sewerage System Maintenance for: 182 & 184 Devins Drive

A ***reserve field area*** has been identified in your sewerage filing plan, please note that this area must be protected from traffic and/or building. The ***existing field area*** is to be kept clear, no vehicle traffic and no material storage. These areas have been seeded to grass and should be left that way.

Certain substances should not be introduced to your septic system

1. Keep grease and oil levels low

2. Do not flush: diapers, cigarette butts, coffee grounds, tampons, plastics, condoms, dental floss, cat litter, paper towels, or bones.

3. Do not pour: solvents, point and thinners, antifreeze, granular drain cleaner, medications, antibiotics or anti-bacterial products.

4. Your system will accept small amounts of bleach; a liquid phosphate free laundry soap must be used in the washing machine.

5. Please try to conserve water; do not leave fixtures running, and watch for leaks.

6. The use of garburator systems is discouraged as it increases TSS (total suspended solids) amounts and requires more frequent cleaning of your effluent filter and tank pump outs.

7. This system is designed for a capacity of: 1600 litres per day, 350 gallons per day and not to be exceeded.

8. Sewerage System Regulations require that the owner keep records of all maintenance carried out, including inspection and pumping data.

9. This system should be inspected after 6 months of use. After the initial inspection, the septic tank should be checked at 5 year intervals and pumped out when 60% of liquid is sludge and scum. Effluent filter is to be cleaned every 12 months.

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CONTACT INFORMATION

Septic tank inspection and/or pump-out

All Out Septic—Cal Mills	250 537 8450
All Islands Septic Ltd.—Rob Roodenburg (ROWP)	250 538 7867
Dave Milner Certified Septic Inspections (ROWP)	250 653 4636

Designer/Installer R. Andy Hickman (ROWP)	250 537 6609

Effluent Pump or Flour Tank Information

Iconic Waterworks Limited Partnership at *250 746 8877*

Alarm System or Pump Switching

N/A at N/A Float System

For Grinder Pump or Guest House

N/A at N/A

Note: All tankage, pipe and components in this system are CSA approved and guaranteed for 2 years. Should your system be negatively affected because of failure to adhere to the guidelines included in this maintenance schedule, your Installer (ROWP #OW0055) will not accept any warranty responsibility for resulting repairs to the system.

I have read this Maintenance Plan and information, and will follow these guidelines for the proper operation of this Sewerage System

Owner: _____

Planner/Installer: _____

Test Pit Log Sheet

Test Pit #1 Lower Bench center

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Depth	Texture	Coarse Fragments	Structure			Consistence	Colour	Mottles			Roots	
			Type	Grade	Size			Quantity	Size	Contrast	Quantity	Size
0-3"	Organic Horizon											
3"-22"	Sandy loam	0-35% Gravelly	Fair	Strong	Fine	Dry/ Friable	Light brown	N/A	N/A	N/A	Many	Common
22"-48"	Sandy clay loam	<15% gravelly	Fair	Weak	Fine	Moist Friable	Light brown to Grey	"	"	"	Few	Fine

Notes: Root penetration to 32"
Average soil perc rate is 5 min/inch
Conservative HLR selected is 27 litres/day/m²
Limiting layer at 36", increasing clay content.
Site is well drained, soil is uniform throughout work area.

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Test Pit Log Sheet

Test Pit #3 Upper Beach Seat upper side

Depth	Texture	Coarse Fragments	Structure			Consistence	Colour	Mottles			Roots	
			Type	Grade	Size			Quantity	Size	Contrast	Quantity	Size
0-3"	Organic Horizon											
3"-22"	Sandy loam	0-35% Gravelly	Fair	Strong	Fine	Dry Friable	Light brown	N/A	N/A	N/A	Many	Common
22"-48"	Sandy clay loam	<15% gravelly	Fair	Weak	Fine	Moist Friable	Light brown to Grey	"	"	"	Few	Fine

Notes: Root penetration to 32"
Average soil perc rate is 5 min/inch
Conservative HLR selected is 27 litres/day/m²
Limiting layer at 36", increasing clay content.
Site is well drained, soil is uniform throughout work area.

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Test Pit Log Sheet

Test Pit #2 - Upper Bench N. end center

Depth	Texture	Coarse Fragments	Structure			Consistence	Colour	Mottles			Roots	
			Type	Grade	Size			Quantity	Size	Contrast	Quantity	Size
0-3"	Organic Horizon											
3"-22"	Sandy loam	0-35% Gravelly	Fair	Strong	Fine	Dry Friable	Light brown	N/A	N/A	N/A	Many	Common
22"-48"	Sandy clay loam	<15% gravelly	Fair	Weak	Fin	Moist Friable	Light brown to Grey	"	"	"	Few	Fine

Notes: Root penetration to 32"
Average soil perc rate is 5 min/inch
Conservative HLR selected is 27 litres/day/m²
Limiting layer at 36", increasing clay content.
Site is well drained, soil is uniform throughout work area.

Information for Homeowners

CAPITAL REGIONAL DISTRICT
Environmental Services

Caring for your septic system

Are you the owner of a septic system?
If so, you are in good company. There are 27,000 septic systems in the capital region and that number increases annually by more than 500 new installations.

Your septic system can provide effective, long-term wastewater treatment, right in your backyard. If your system is working properly, it is an environmentally friendly and economically sound treatment option.

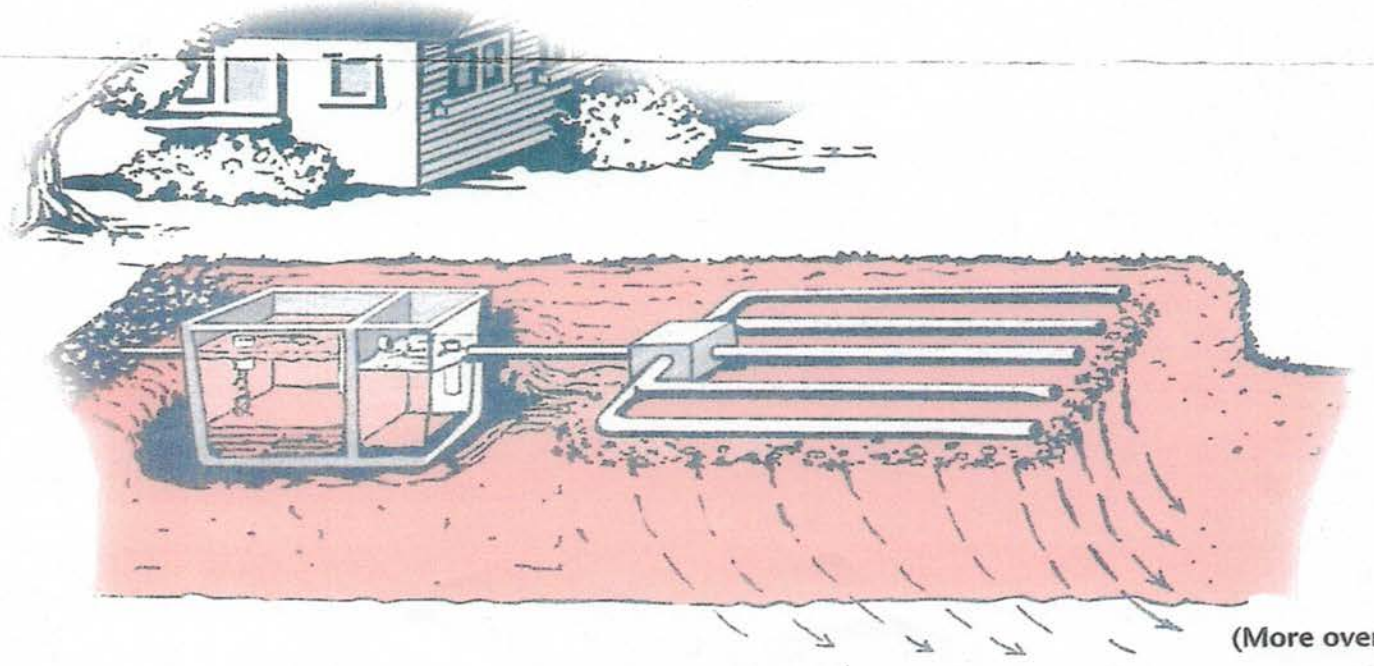
Out of sight — out of mind?
Unfortunately septic systems are out of sight. Many homeowners don't realize that there may be a problem until their system is already failing. It is estimated that up to 20 per cent of septic systems in our region are malfunctioning. The most common cause of failure is lack of maintenance.

Proper maintenance has a significant impact on how well your system works and how long it lasts. Your home is one of your most important investments. Taking care of your septic system is like an insurance policy on that investment.

How does my septic system work?
Wastewater from your sinks, toilets and laundry drains through a pipe from your home into your septic tank. Your septic tank is designed to hold the wastewater long enough to allow solids to settle at the bottom and oil and grease to float to the top.

Natural bacteria in the tank start breaking down the solids; however, eventually the solids build up and must be pumped out. Regular pumping will reduce the amount of solids entering your drainfield and ensure proper drainage and treatment.

The partially treated wastewater from your tank flows through an outlet into a distribution box. The box evenly distributes the discharged wastewater into a network of pipes underneath the drainfield. The wastewater begins to percolate into the soil through small holes in the pipes. Natural filtration and microorganisms in the soil remove any remaining harmful particles in the wastewater. The treated and cleansed wastewater passes into the groundwater and returns to the water cycle.



(More over)

Signs of septic system failure

It is time to call a professional if you notice any of the following:

- ✔ Slowly draining sinks and toilets
- ✔ Gurgling sounds in the plumbing
- ✔ Unpleasant odours around your property
- ✔ Patches of lush growth over the drainfield
- ✔ Soggy or wet ground over the drainfield
- ✔ Sewage surfacing

Why should I care for my septic system?

There are three main reasons for maintaining your septic system:

Save money. A failing septic system can be expensive to repair or replace. You can protect yourself against costly surprises through regular preventative actions like inspections and pump-outs of your system and by learning the do's and don'ts of septic care.

Protect the health of your family. A failing septic system can release inadequately treated household wastewater and offensive odours, often right in your backyard. Human wastewater contains disease causing organisms and can pose health risks to your family and your neighbours.

Protect water quality. We all depend on clean water. A septic system uses the environment to treat wastewater but may release untreated or partially treated wastewater if the system fails. Inadequately treated wastewater can pollute our creeks, lakes, shorelines and groundwater and can contribute to shellfish bed closures and contaminated drinking water supplies.

How do I care for my septic system?

Your actions are the key to your system's longevity. Here are ten steps you can take to maintain your system:

1. Locate your septic tank and drainfield. You will be prepared if there is a problem.
2. Check the operation of your system annually. Look for signs of failure.
3. Have your septic tank pumped regularly. Health authorities recommend pumping every three to five years. Combine the pump-out with a professional inspection.
4. If you have a package treatment plant, set up a contract for annual maintenance.
5. Make sure your system has an effluent filter to reduce the amount of solids entering your drainfield.
6. Keep a running maintenance record.
7. Reduce your water consumption. Too much water use will flush solids into your drainfield rather than have them settle in the tank.
8. Use environmentally friendly cleaning products. Some chemicals can upset the proper balance of bacteria needed to provide primary treatment inside your tank.
9. Recycle or properly dispose of hazardous products. Do not pour them down the drain or put them in the garbage.
10. Protect your drainfield by leaving it as undisturbed as possible. Do not drive or park on it. Landscape with grass rather than plants with roots that can damage your system.

For more information

CRD Web site
- www.crd.bc.ca/es/septic

CRD Hotline
- 360-3030
- hotline@crd.bc.ca

Vancouver Island Health Authority (VIHA)
- www.viha.ca/mho
- 250-475-1858

BC Onsite Sewage Association
- www.bcossa.com

Ministry of Health Services
- www.healthservices.gov.bc.ca/protect/sewage.html

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LAUNDRY

Treatment systems are designed and tested assuming a normal laundry wash day. It is recommended that multiple wash loads be spread over several days. Multiple loads on one day may negatively affect the performance of the treatment system and cause a build up of sludge in the the drain field.

RENOVATIONS OR MODIFICATIONS

The original On-site Sewage treatment system and drain field were designed for a specified daily stage flow, based on the number for bedrooms and the CHR On-Site Guidelines. Adding bedrooms or suites potentially increases the number of people using the sewage treatment system, which may cause harm and potential damage to the drain field. DO NOT add bedrooms or suites without receiving prior approval from the CHR Health Department.

ORGANIC WASTE

Do not put it down the drain or toilet! Dispose of fruit, vegetables, and animal products through composing or the garbage.

GARBURATOR

Garburator use increases both the organic matter and the water entering the treatment system. Unless the original Onsite Sewage Disposal Permit was issued and the treatment plant and drain field were designed for such an increase, the system may become overloaded and damage the drain field. All organic waste should be disposed or composted.

Regular maintenance of the system is very important to ensure that no environmental or public health hazards are created.

Preserving our Environment

An on-site sewage treatment and disposal system will work properly provided the occupants take care in *not draining any harmful wastewater into the system*.

- **Disinfectant or Bleach:** use only in small quantities or use non-chlorine cleaners that are biodegradable.
- **All Detergents:** use only low-sudsing, biodegradable and preferably non-granular.
- **Bath Paper Products:** use only biodegradable toilet paper.
- **Granular Drain Cleaner:** should not be used—kills the bacterial action in the treatment system.
- **Water Softeners:** do not discharge into the system.
- **Oils, Grease, Solvents, Paints, Automotive fluids, etc:** do not discharge these products into the treatment system.

NEVER PUT THE FOLLOWING INTO A SEWAGE SYSTEM:

- *DISPOSABLE DIAPERS*
- *SANITARY NAPKINS OR TAMPONS*
- *METAL OBJECTS*
- *HOME-BREW WASTE*
- *CIGARETTE BUTTS*
- *CONDOMS*
- *RAGS*
- *PLASTICS*
- *PAPER TOWELS*
- *COFFEE GROUNDS*
- *BANDAGES*
- *MUD*

Infiltrator Discharge of Effluent