

ONSITE SEWAGE DISPOSAL

Any home or building plumbed with running water and which is not connected to a municipal or city sewage system needs a safe method of treating and discharging sewage. Construction and maintenance of a sewerage system with a daily design flow of less than 22,700 litres per day must meet the requirements of the provincial [Sewerage System Regulation](#).

WHO IS ALLOWED TO CONSTRUCT, ALTER OR REPAIR A SEWERAGE SYSTEM?

According to the Sewerage System Regulation (SSR) every owner who wants to construct, alter or repair a sewerage system must retain the services of an Authorized Person (AP). An AP is a Professional or a Registered Onsite Wastewater Practitioner (ROWP).

WHAT IS A ROWP AND WHAT KINDS OF SYSTEMS CAN THEY CONSTRUCT?

A ROWP is a Registered Onsite Wastewater Practitioner. The Applied Science Technologists and Technicians Association of BC issues ROWP's their registration status. ROWP's can design and install Type 1 and 2 systems which have a daily design flow less than 9100 litres per day. ROWP's can be registered in up to five different categories. They can be planners, installers, maintenance providers, private inspectors (commercial) or private inspectors (residential).

WHAT IS A PROFESSIONAL AND WHAT KINDS OF SYSTEMS CAN THEY CONSTRUCT?

A professional is someone who has professional status and is competent in the area of sewerage system design. Professionals are typically engineers or geoscientists registered with the BC Association of Professional Engineers and Geoscientists. A professional can design and install type 1, 2 and 3 systems with a daily design flow up to 22,699 litres per day.

HOW CAN I FIND AN AUTHORIZED PERSON?

To find a Registered Onsite Wastewater Practitioner in your area:

- Applied Science Technologists & Technicians of BC - Onsite Wastewater Registration Program
- Phone: (604) 585-2788 ext. 238
- [ROWP Registry](#)

To find a professional in your area:

- Association of Professional Engineers and Geoscientists of British Columbia (APEGBC)
- Phone: 1-888-430-8035
- [Professional Registry](#)

I NEED A NEW SEWERAGE SYSTEM. HOW DOES THE PROCESS WORK?

You will need to hire an Authorized Person, who will visit your property and make an assessment. The Authorized Person will perform soil tests and identify the factors that will affect the location and the construction of a sewerage system. When this is done, the Authorized Person will design the appropriate type of sewerage system and "file" all the necessary paper work to the Health Authority. This information submission includes a [VCH Filing Form - Record of Sewerage System](#), plans and specification of the sewerage system, a property site plan, any applicable covenants, easements or hydrogeological reports.

A \$200 non-refundable administration fee, payable to Vancouver Coastal Health Authority must accompany the filing information. Each sewerage system is a separate filing.

IS THERE AN EXPIRY DATE ON THE RECORD OF SEWERAGE SYSTEM FILING?

Yes, all construction (this would apply to repairs and alternations as well) need to be completed within two years from the date stamped on the Record of Sewerage System by Vancouver Coastal Health.

WHAT HAPPENS ONCE THE SEWERAGE SYSTEM HAS BEEN CONSTRUCTED, REPAIRED OR ALTERED?

The Authorized Person is required to submit a [Sewerage System Letter of Certification](#) (LOC) to the Health Authority within 30 days of completing the construction.

The Authorized Person must provide you with the following documentation:

- ✓ A copy of the sewerage system plans and specifications submitted to the Health Authority.
- ✓ A maintenance plan for your system.
- ✓ A copy of the Letter of Certification submitted to the Health Authority.

DO I REQUIRE A LETTER OF CERTIFICATION BEFORE I CAN USE MY SEWERAGE SYSTEM?

Yes, according to the Sewerage System Regulation it is an offence if an owner operates a sewerage system for which no Letter of Certification has been filed with the Health Authority.

WILL MY SEWERAGE SYSTEM REQUIRE REGULAR MAINTENANCE?

Yes, an owner is required, by the regulation, to maintain the sewerage system installed on the property in accordance with the maintenance plan filed by the Authorized Person.

The Homeowner will also need to keep a record of all maintenance carried out on the system.

Any changes to the system as a result of a repair or alternation should be detailed in the revised maintenance plan.

WHAT ARE THE DESIGN CRITERIA FOR CONSTRUCTING SEWERAGE SYSTEMS?

All AP's are required to construct sewerage systems in accordance with standard practice. The BC Ministry of Health maintains the [BC Standard Practice Manual \(BC SPM\)](#) which is but one standard practice. ASTTBC expects ROWP's to follow this manual. Professionals can choose to use this design manual or they can choose another manual but if they use another standard it still must be a one that would be considered standard practice.

AS A HOMEOWNER CAN I BUILD MY OWN SEWERAGE SYSTEM?

An AP must design the system, submit Filing documents to the Health Authority and supervise the systems construction. Within this context a contracted AP may agree to supervise a homeowner who wishes to construct their own sewerage system.

DO I NEED TO HIRE AN AP FOR MINOR REPAIRS TO MY SEWERAGE SYSTEM?

Yes, all repairs and maintenance to sewerage systems must be performed by authorized persons or under the supervision of an authorized person.

DO I NEED TO SUBMIT FILING DOCUMENTS FOR MINOR REPAIRS TO MY SEWERAGE SYSTEM?

No, but you should check to ensure the repairs are minor and that they do not require the submission of Filing documents. Types of repairs that do not need Filing documents include broken lid on the distribution box, broken effluent pump, replace float switch, or installation of an effluent filter. Examples of repairs that require Filing documents to be submitted include, replace distribution field, replace septic tank or changing from gravity distribution to pressure distribution.

I'M CHANGING THE USE OF MY BUILDING AND AM NOT SURE IF I HAVE TO UPGRADE THE SEWERAGE SYSTEM?

If there is a potential increase in the daily sewage flow you likely have to update the sewerage system. The Sewerage System Regulation requires the owner of a building to ensure the sewerage system is designed to accommodate sewage from that building. The need to upgrade the sewerage systems can result from change of building size (increased square footage or increase in number of bedrooms), change in sewage flow (adding more seats to a restaurant) or changing sewage strength (corner store changing to a restaurant). If the change to the building requires a building permit the Building Inspection Authority may require you to obtain a report from an AP to assess the system's capacity to accommodate the building changes. There is also the need to ensure any expanded building foot print does not encroach on the required setbacks from components of the sewerage system. If you are making changing to a commercial establishment such as a restaurant the local Environmental Health Officer may require you to obtain a report from an AP to assess the system's capacity to accommodate the building changes. If you are in doubt you can contact an AP or contact an Environmental Health Officer.

IF I HIRE AN AP TO ASSESS MY SEWAGE SYSTEM WHAT KIND OF REPORT SHOULD I RECEIVE?

Generally there are two kinds of assessment reports that an AP can perform. They are Compliance Inspection Reports and Performance Inspection Report. A compliance inspection report would typically be used to support a building permit application. A performance inspection report would typically be used during a property sale. You can find more information on these types of inspections and assessments at the following ASTTBC website:

- <http://owrp.asttbc.org/c/qanda.php>

I'M LOOKING TO PURCHASE A HOME WITH A SEWERAGE SYSTEM WHAT SHOULD I LOOK FOR?

The following steps will provide a good picture of the existing sewerage system:

1. Obtain the sewerage system filing search results from your realtor. If they have not completed a filing search they (or you) can do so through the local VCH Health Protection Office. The filing records can then be compared to what is installed. Note that you can also require the current owner to provide you with a declaration of all work, including maintenance, done on the system.
2. Contact an AP to do an inspection and provide you with a report on the status of the existing sewerage system.
3. Determine if the existing system will fit your needs. Discuss with the AP how you intend to use the property i.e. number of people who will live in the house, future plans for expanding the building or any planned in-home small businesses.
4. Ask the AP to identify a suitable replacement area for a new sewerage system. This is important because it is unlikely that any sewerage system will last forever and it may be difficult for an AP to predict the exact life expectancy of an existing sewerage.
5. Obtain a quote from an AP for any current or future upgrades that may be necessary. Note that new sewerage systems or repairs to existing systems can be expensive.

DOES THE HEALTH AUTHORITY APPROVE THE AP'S SEWERAGE SYSTEM DESIGN AND FILING DOCUMENTS?

No, the Health Authority does not approve the sewerage system design nor does the Health Authority routinely review Filing documents for their technical merit. The Health Authority's role is to receive Filing documents from APs and to ensure those documents meet the minimum submission criteria i.e. did the AP correctly complete the Filing form, provide plans and specification and provide a site plan drawn to scale. It is the full responsibility of the AP to ensure the sewerage system design meets standard practice and to ensure that the system is suitable for its intended purpose.

HOW DO I MAKE A COMPLAINT ABOUT AN AP?

For health based complaints respecting malfunctioning sewerage systems you can contact the Health Authority Environmental Health Officer. For complaints regarding professional practice you can contact the AP's professional association.

- **For complaints about professionals contact APEGBC:**
 - <https://www.apeg.bc.ca/For-Members/Discipline-and-Enforcement/Submit-a-Complaint>
- **For complaints about ROWP's contact ASTTBC:**
 - <https://asttbc.org/public/complaint-submission/>

HOW DO I MAKE A COMPLAINT ABOUT MY NEIGHBOUR'S FAILING SEWAGE SYSTEM OR OF A SYSTEM BEING CONSTRUCTED ILLEGALLY?

For either of these situations you can contact an Environmental Health Officer. Be prepared to provide the Environmental Health Officer with specifics such as the property address. It is an offence to construct or repair a sewerage system without proper qualification, without first submitting Filing documents, to discharge sewage onto the ground surface, into a body of water or into a source of drinking water.

HOW DO I FIND OUT WHAT KIND OF SEWAGE SYSTEM IS ON MY PROPERTY OR WHERE IT IS LOCATED?

The Health Authority may have records of your sewerage system. The older the system the less likely the Health Authority will have records on file. Assuming the proper legal process for installation was followed there should be records for all systems installed after 2005, and for most systems installed after 1990. In some cases copies of sewerage permits issued prior to 1990 are also available.

You may also try contacting the previous home owner or the local building inspection department to see what records they have. If there are no records you can hire an AP to locate the system and identify its components. They may even be able to provide you with a maintenance plan if you do not already have one.

I HAVE A RESTRICTIVE COVENANT ON MY PROPERTY SAYING I HAVE TO BUILD MY SEWERAGE SYSTEM IN A SPECIFIC SPOT ETC. CAN I GET THIS COVENANT REMOVED OR RELOCATED?

In some cases it is possible to have the covenant removed or relocated. You should start the process by first contacting your local Environmental Health Officer. The terms of the covenant are legal requirements and you should be prepared to follow those as there is no obligation on the covenant grantee to change the terms of the covenant.

- See pp. 28-29 of the [VCH Subdivision Guideline](#) regarding **How to Revise Restrictive Covenant Areas**

WHAT HAPPENS WHEN A SEPTIC SYSTEM FAILS?

A failing sewage system typically results in sewage ponding on the ground surface. The receiving environment (subsurface soil) is saturated and/or the soil pores are clogged. This can be the result of a number of things such as; the system has not been maintained properly, the system has been overused, the system is coming to the end of its useful life expectancy, the system was too small for the amount of sewage it received, the system was designed or installed improperly. It can even be a failure to one of the systems components such as a broken effluent pump in a pump chamber. In any case it is the responsibility of the owner to repair the system as soon as possible.

HOW CAN I TELL IF MY SEPTIC SYSTEM IS FAILING?

Initially, failures can begin with slowly draining fixtures such as sinks, showers and tubs. It is likely that the receiving environment (soil) can no longer accept the sewage. The soil is clogged from the sewage particles and can no longer drain fast enough to receive new effluent. Prolonged failures are evident by sewage ponding on the ground surface. The ponding effluent will be quite odorous with a grey color. Flushing non-toxic dyes down the toilet will confirm that the ponding liquid is sewage. Keep pets and people away from the ponding sewage and contact an AP to have the system repaired as soon as possible.

SHOULD I USE SEPTIC TANK ADDITIVES, I HEAR THEY ARE GOOD?

No, septic tank additives are not recommended as there have been no proven benefits to their use. In some cases septic tank additives can actually harm your sewerage system. Washington State provides excellent information on septic tank additives:

- <https://www.doh.wa.gov/Portals/1/Documents/Pubs/337-025.pdf>

CAN I USE MY GREY WATER TO FLUSH TOILETS?

You can use grey water to flush toilets as long as you follow the BC Building Code and check with your local building inspection authority. It is very important that you ensure potential cross connections with potable water lines are properly controlled and that there is no opportunity for the potable water supply to be contaminated.

Grey water may contain pathogenic bacteria and is considered sewage and when it leaves the building. It must therefore be disposed of in accordance with the sewerage system regulation. Additional guidance from the BC Ministry of Health can be found in *Health Information: Grey Water Re-Use (September 2017)*:

- https://www2.gov.bc.ca/assets/gov/environment/waste-management/sewage/onsite-sewage-systems/what_is_grey_water.pdf

CAN I USE MY GREY WATER TO WATER MY GARDEN?

Yes, but it must be done using a sewerage system which is designed by an AP with Filing documents submitted to the Health Authority by the AP. The use of grey water for gardens should be restricted to non-food crops such as flowers and the sewage effluent must be applied below the ground surface via a sewerage system. The discharge of grey water directly to the ground surface is illegal and constitutes an offence under the Sewerage System Regulation.

CAN I GROW VEGETABLES OVER MY SEWERAGE SYSTEM?

No, the Health Authority does not recommend growing vegetables or other food crops over your sewerage system as the vegetables could become contaminated with sewage or the plant roots could interfere with the sewage distribution system. It is a much better and safer practice to simply plant grass over the distribution field and keep this area clear of larger plant roots. There are numerous agencies that provide best practice guidelines on sewage system maintenance...the Do's and Don'ts. A few of these are:

- US EPA <http://water.epa.gov/infrastructure/septic/septicmart.cfm>
- National Environmental Service Centre: <http://www.nesc.wvu.edu/subpages/septic.cfm>
- Regional District of Nanaimo Septic Smart: <http://www.rdn.bc.ca/cms.asp?wpID=1159>
- Washington State Department of Health: <https://www.doh.wa.gov/CommunityandEnvironment/WastewaterManagement>

CAN I INSTALL AN AUTOMATIC UNDERGROUND LAWN SPRINKLING SYSTEM OVER MY SEWAGE DISTRIBUTION FIELD?

No, you cannot install water lines over the sewage system as it presents a risk of sewage contaminating the drinking water supply. Irrigation systems also supply excess water to the distribution field which can cause the sewerage system to malfunction. Water lines must be kept at least three meters from the sewage distribution field.

FOR MORE INFORMATION

To view the Sewerage System Regulation, the Standard Practice Manual and other publications go to the Ministry of Health's website at:

- <http://www2.gov.bc.ca/gov/content/environment/waste-management/sewage/onsite-sewage-systems>

Quick links to ministry publications:

- [Authorized Persons under the Sewerage System Regulation \(PDF\)](#)
- [Health Hazard Communication Guideline \(PDF\)](#)
- [How to Find a Septic Tank \(PDF\)](#)
- [Sewerage System Policy for Setback from Wells Based on Repairs or Alterations \(PDF\)](#)
- [Sewerage System Regulation Amendments \(PDF\)](#)
- [Sewerage System Standard Practice Manual, Version 3 \(PDF\)](#)
- [Manual of Composting Toilet and Greywater Practice \(PDF\)](#)

To contact an Environmental Health Officer, please e-mail environmental.health@vch.ca or call your local environmental health office:

- Central Coast (604) 983-6793
- North Shore (604) 983-6793
- Powell River (604) 485-3310
- Richmond (604) 233-3147
- Sechelt (604) 885-5164
- Squamish (604) 892-2293
- Vancouver (604) 675-3800
- Whistler (604) 932-3202