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ENSURING A SUSTAINABLE FUTURE

# Onsite Wastewater Systems\* for Residences in BC



## Important Information for...

- ▶ Homeowners
- ▶ Technologists & Technicians
- ▶ Building Designers
- ▶ Engineers
- ▶ Architects
- ▶ Builders & Developers
- ▶ Real Estate Agents
- ▶ Insurance & Mortgage Brokers
- ▶ Local Governments

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\* formerly known as **septic systems**



### **Why are onsite wastewater systems important to you?**

The majority of BC homes outside of Greater Vancouver use onsite systems to handle their sewage. These systems can be efficient, cost effective and can protect health and the environment. However, they must be properly planned, installed and, above all, properly maintained.

### **Why do I need to know about onsite systems?**

If you are...

- ▶ the owner of a home with an onsite system... *you are responsible for its maintenance.*
- ▶ having problems with your system... *you will need to have it repaired.*
- ▶ renovating or adding on to your home... *you may need to have the system upgraded.*
- ▶ building a new house... *you will need to have a new system planned and installed.*
- ▶ buying a house or do not know the details of the existing system... *you should have the system inspected.*

This brochure will provide a starting point for you in each of these cases.

To learn more about onsite wastewater systems, please visit...

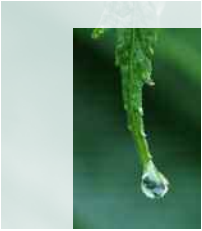
[owrp.asttbc.org/program.htm](http://owrp.asttbc.org/program.htm)

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## The Sewerage System Regulation (SSR) & the Onsite Industry

Enacted in 2005, the **Sewerage System Regulation (SSR)** applies to all smaller systems, including those for houses, small businesses and even small communal systems.

Compared to the previous Sewage Disposal Regulation, the SSR included a significant change in approach. The new approach is '**performance-based**' and responsibility for the proper design and installation of onsite systems has been transferred for the most part from Health Authorities to '**Authorized Persons**' as defined by the SSR.

**Now, all work on new onsite wastewater systems, repairs to systems and any maintenance on systems constructed after the SSR came into effect in 2005, must be performed by an 'Authorized Person'. This can no longer be done by homeowners alone. And, once a system is installed, upgraded or repaired, it is the responsibility of the homeowner to ensure the system is maintained by an Authorized Person, is operated properly and performs as designed.**

### Role of the Health Authorities

Health Authorities still play a role in onsite systems, holding the records of sewage systems and enforcing the Regulation to protect public health.



### Improved Environment & Health Protection

Over the last 20 years there has been an increasing realization that many onsite systems were designed to dispose of sewage, rather than to treat and disperse it. Although a system may have functioned without evidence of sewage coming to the ground surface, it was possible that effluent may have been contaminating the environment.

As development increases and more homes are built in rural subdivisions, environmental impacts and the potential for contamination of drinking water increases. With this comes a demand from the public for safe systems, as well as recognition by local governments that onsite systems are an integral part of a long-term waste management strategy. Modern systems are designed to treat the effluent fully and disperse it with little or no impact to the environment and have a long effective life.

### Improved Systems

Because systems must be designed to match site conditions and use, the new performance-based approach of the SSR encourages quality systems. To ensure the performance and longevity of these systems, proper maintenance and inspection is vital.

As the new approach encourages higher quality and as private contractors are taking much of the responsibility previously taken by government, some systems are now more expensive. In other cases, the increased flexibility under the SSR leads to reduced costs. A quality onsite system is now seen as a real estate asset. In addition, the training and registration of 'Authorized Persons' provides you with added quality assurance.



## Who is an Authorized Person?

The Sewerage System Regulation (SSR) provides for two types of 'Authorized Person' – a **Registered Practitioner** and a **Professional**. No others may plan, install or maintain systems in British Columbia. Doing so is illegal and considered an offense under the Regulation.



### Registered Practitioner

A **Registered Onsite Wastewater Practitioner** (ROWP) typically plans, installs and maintains onsite systems. They are registered with the Applied Science Technologists & Technicians of British Columbia (ASTTBC). To be registered, individuals must complete the required education, a Professional Practice & Ethics exam, provide references and demonstrate experience. ROWPs adhere to a strict Code of Ethics and also must follow the Ministry of Health '**Sewerage System Standard Practice Manual**' which sets out best practices for industry.

#### ASTTBC has four main classifications of ROWP...

- ▶ **Planner** – *performs site and soil assessment; works with owner to establish needs; designs system; reviews installation; and creates maintenance plan to ensure proper operation.*
- ▶ **Installer** – *installs system as designed.*
- ▶ **Maintenance Provider** – *services system according to maintenance plan.*
- ▶ **Private Inspector** – *inspects and assesses existing systems.*

Except for Private Inspectors, registration is **mandatory** under the SSR. ROWPs can be registered in more than one category, eg: the same ROWP may plan and install a system.

### Professional

A **Professional** may design, install and maintain all types of onsite systems. They are often involved when the site or use requires design services beyond the specific scope of a ROWP. Often Professionals will use the services of Registered Practitioners and supervise them in the installation and maintenance of systems. As a general rule of thumb, Professionals should use ROWPs to install and maintain systems.

Where registered to do so, ASTTBC ROWPs may also plan more advanced systems (such as 'Type 3') and are considered to be a **Professional** under the SSR where they have met specific education and experience requirements. Other practitioners recognized to take on **Professional** level work are Professional Engineers (PEng) registered with the Association of Professional Engineers and Geoscientists of BC (APEGBC).



### Maintenance of Onsite Systems

If well maintained, onsite systems will perform as intended and last for a long time. If not, they may malfunction, become expensive to correct and potentially create a risk to health. As with a car, proper maintenance leads to lower cost of ownership. A homeowner must engage a **Maintenance Provider** or a **Professional** to maintain sewerage systems constructed on and after May 31, 2005. Although systems constructed under the 'old' regulation are not subject to requiring **Registered Practitioners** or **Professionals** to perform maintenance, it is highly recommended.

### New Onsite Systems

A homeowner retains a **Planner** or a **Professional** to determine what will be the best system for a particular property for the expected usage. When designing a system, Planners take into account soil assessment, lifestyle, usage and site impacts, as well as engineering and health considerations. The Planner then files a '**Record of Sewerage System**' with the Health Authority. Once the system is planned and a filing has been made, the homeowner engages an **Installer** to install the system. This may or may not be the same practitioner.

After installation the **Planner** or a **Professional** reviews the installation and participates in commissioning the system. To commission a system is to essentially perform necessary adjustments, tests and inspections to ensure the system is operating properly. Once done, a '**Letter of Certification**' is then filed with the Health Authority and provides the owner with a maintenance plan specific to that system.

When homeowners are purchasing a bare lot or a house that is known to need a new system, a **Planner** or a **Professional** may be retained to provide a site assessment prior to being engaged to provide a design.

### System Repair or Upgrade

Homeowners engage a **Planner** or a **Professional** to develop a design that addresses the repair or new use of an existing system. Often a system can be improved at less cost than a whole new system and given a new lease on life. Repairs or upgrades are also required to be filed with the Health Authority.

## Systems Inspection

A **Private Inspector** or a **Professional** can accurately locate an existing system, check its condition, test its performance, compare its intended design against current and future usage, and make recommendations to improve a system.

A large portion of work **Private Inspectors** provide is for real estate transactions. Often these inspections are a condition of a sale by mortgage or insurance companies and by prospective buyers. An inspection can help homeowners become aware of issues with their system before selling their property and identify any necessary maintenance or repairs that may need to be completed before the property is listed for sale. This can simplify the disclosure to prospective buyers and alleviate concerns about what they are purchasing.

When homeowners are changing how their property or home is being used, municipal building departments may require that a **Planner** or a **Professional** provide a 'Letter of Assurance' that the intended use will not have a negative impact on the onsite system and that the system can handle the new use. A proposed bathroom addition, swimming pool, workshop or changes to the landscaping could all cause damage to a system, even potentially create a health hazard, if not checked out prior to such work.

If a **Private Inspector** is not available in your area, it is recommend that a **Planner** or a **Professional** be used as an alternative.



### Finding a Registered Practitioner or Professional

Registered Practitioners and Professionals are available to assist homeowners. With their knowledge of onsite systems and local conditions, they will be able to provide recommendations and cost estimates.

The **Applied Science Technologists & Technicians of British Columbia** (ASTTBC) provides a list of all **Registered Practitioners** who have the ROWP designation in one or more of the onsite wastewater categories.

Available online at... [owrp.asttbc.org/registrants.php](http://owrp.asttbc.org/registrants.php)

You may also use the **Find a ROWP** feature which enables an online search of the OWRP web site by Health Region and type of service you may require.

Available online at... [owrp.asttbc.org/marketing.php](http://owrp.asttbc.org/marketing.php)

A listing of Professional Engineers registered with the Association of Professional Engineers and Geoscientists of BC (APEGBC) as '*professionals*' under the Regulation may be found on the APEGBC web site.

Available online at... [www.apeg.bc.ca/members/sewageprolist.html](http://www.apeg.bc.ca/members/sewageprolist.html)

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### Further information

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Ministry of Health  
BC OnSite Sewage Association

[www.gov.bc.ca/health](http://www.gov.bc.ca/health)  
[www.bcossa.com/documents.html](http://www.bcossa.com/documents.html)