

A NEWSLETTER PUBLISHED EXPRESSLY FOR THOSE WORKING IN THE SEWAGE INDUSTRY

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## Planting Over Septic System Components

*Daniel Friedman*

Planting trees, shrubs, and even some ground covers over septic system components are causes of septic system failure in the drain field, leach field, seepage bed, or similar components. This is a guide for homeowners who are planting trees, shrubs, gardens, ground cover, or other plants near a septic system and who need to know what can be planted near or over septic system components like the septic tank, distribution box, and drain field or soil absorption system. Planting the wrong things or in the wrong places can lead to the need for expensive septic system repairs.

### Planting grasses or flowers over septic fields

Many people ask what can be planted over a septic field. Grasses, weeds, flower are OK: The best answer is grass or native grasses and weeds.



Flowers are ok so long as they are not varieties which send down deep roots. In the photograph above these relatively shallow-rooted flowers were set around a septic tank cleanout cover. They won't cause any damage to the system. But when planning your planting arrangement for flowers over a septic tank, remember that if you plant valuable flowers too close to the access cover to a septic tank or distribution box, those plants may be damaged or destroyed when you have to excavate to open the tank or D-box cover.

Basically, any shallow-rooting planting will be fine to plant over the surface of or near septic tanks, distribution boxes, or septic drainfields.

Grass and native wildflowers and dandelions are not likely to be harmful to the system, they stabilize the soils in the area, and they do not interfere with soil transpiration or evaporation. Their roots are relatively shallow so these plants are not likely to invade the septic drainfield piping. Grass and native wildflowers are fine over the septic tank or drainfield, and also they are fine over septic mound systems.

### Planting Fruit, Vegetable, or Ornamental Gardens Near or Over Septic Systems

The short answer is it's better to keep fruits and vegetables away from septic systems, especially septic drainfields. Planting a fruit or vegetable garden over or near septic system components raises some important questions:

Will there be pathogenic or chemical contamination of the soil (bacteria, viruses, cleaners) below the garden?

Will septic system pathogens enter in or contaminate fruits or vegetables planted over or near the septic system?

Will chemicals or salts passing through the septic system harm nearby plants?

Will the garden planting itself harm the septic system in some way?

### Planting Trees or Shrubs Near or Over Septic Absorption Systems

Whether you're planting trees or planning a new septic drainfield, keep the drainfield or septic leach field away from trees or shrubs which are likely to put down deep or aggressive roots. The roots will quickly invade and clog the buried effluent lines and may also cause them to move, break, or become disconnected.

The actual tree to septic distance needed depends on the tree variety and its normal root growth range. Keep at least as much distance between the tree and the nearest drainfield component as the anticipated height of the tree at its maturity. So if the tree will be 30' tall at maturity keep it at least 30' from the drainfield. Some trees should be kept at much greater distances, up to 100' from septic fields.

### Planting Ground Cover Over Septic Fields

Ivy, Pachysandra, Similar Ground Covers are NOT OK for use over a septic drainfield: these plants will reduce effluent evaporation from the mound soils and because their roots often invade and clog effluent distribution piping. Thick dense vegetation of any sort will conserve moisture to itself and will prevent soil transpiration. Over a septic system this means that the portion of effluent disposal that is supposed to be occurring due to evaporation will be reduced and the liquid load on surrounding soils increased - you've cut the effectiveness and shortened the



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life of the drainfield by such plantings. These plants are OK, however, for planting over the septic tank itself. The photograph on the left shows typical ground cover north of the arctic circle in Iceland.

Wildflowers and ordinary grasses are just fine for planting over a septic system and any of its components. These are shallow-root plants that do not invade the system piping, they stabilize the soil surface, and they do not interfere with soil transpiration, the movement of needed oxygen into the



upper soil layers (needed by the soil biomat below the drainfield) and the evaporation of a portion of septic effluent that enters the drainfield.

#### **Using Root Killers to “Un-Clog” Septic Pipes or to “Prevent Septic System Clogging”**

Root killer chemicals are not a substitute for smart planting: We advise against using chemicals or caustics to “kill” tree or other plant roots which may be present in or near septic system components. People fearing that roots will clog or have already clogged their septic system piping, particularly drainfield piping, are tempted to buy these products. This is another example of a “magic bullet” that does not work, is dangerous, contaminates the environment, and is illegal in some jurisdictions.

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Now that we are now into 2008, we send our best wishes to all members that they have healthy and prosperous year.

As you will read in other articles of this publication, the BC onsite industry is moving forward. New courses being offered and a new ASTTBC Registration Policy allowing for mentoring and a trainee program are in place.

The SPM version 2 is in effect and the BCOSSA website with the open "Discussion" board operating, comments and issues are being discussed between members with great suggestions.

The Ministry of Health has entered into a Memorandum of Understanding (MOU) on Dec 13, 2007. This MOU outlines the principles behind the MOU and the activities that BCOSSA is being asked to take on and complete.

The principles that are the foundation for the MOU are:

1. The appropriate design, installation and maintenance of onsite wastewater systems will reduce or prevent health hazards associated with human contact with waste contaminated water or primary contact with sewage.
2. Ensuring appropriate onsite wastewater systems require an integrated approach between industry and the Ministry of Health.
3. In order for there to be appropriate onsite wastewater systems there must be a trained workforce with specific competencies as outlined in the Sewerage System Standard Practice Manual.
4. Flexible guiding principles with respect to the design and installation of onsite wastewater systems are required in order to respond to the diverse and changing geoclimactic conditions to be found throughout BC.
5. The administration and provision of education about onsite wastewater systems must be conducted in a transparent manner with appropriate public accountability.
6. BCOSSA must be responsive to the changing educational and technical demands of the onsite wastewater industry in the way it conducts business with practitioners and professionals.

Falling out from these stated principles, BCOSSA is to provide to the public, practitioners and professionals:

- (a) To maintain a system of education evaluation for individuals.
- (b) To provide education technical training that is consistent with the SPM.
- (c) To provide education and training throughout BC.
- (d) To be self-funding with respect to the education and training programs.
- (e) To establish a process and procedure for reviewing and updating the SPM.
- (f) To establish a process and procedure for addressing feedback from field practitioners and professionals on the SPM.
- (g) To establish a process and procedure for reviewing and commenting on new or innovative onsite system methodologies concerning planning, system design, soil and site assessment, equipment technologies, installation and maintenance.
- (h) To establish a process and procedure for reviewing and commenting on new information about systems resulting from scientific research.
- (i) To coordinate and establish a communication strategy for the Regulation and the SPM.
- (j) To establish and implement a process and procedure for the provision of technical support to users of the SPM, including individual

support and the provision of technical bulletins and interpretation of the SPM.

- (k) To develop and implement a process to assess the quality of treatment and distribution system components, and, develop a process for informing the public of its findings.

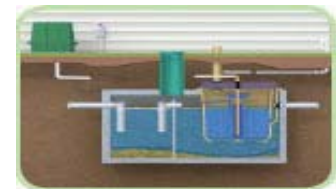
These 11 tasks are in various stages of being either done and implemented or in the development stage waiting funding confirmation from the Ministry.

All of these activities are intended provide a strong support for practitioners and professionals in their work of constructing and maintaining systems. BCOSSA is taking an active role in leadership for the onsite industry in BC and for betterment of the industry and serving the public good.

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In late September 2007, The Ministry of Health released the new version of the SPM, (SPM V2). At the end of December the old SPM expired and now only the SPM V2 is in effect. The SPM is available online at [http://www.health.gov.bc.ca/protect/lup\\_standards.html](http://www.health.gov.bc.ca/protect/lup_standards.html) and at [www.bcoffa.com](http://www.bcoffa.com). There is also a summary of "what's new" to assist you with the changes. If you would like a printed copy you can order one from BCOSSA, please see the order form at the bottom of the page.

### The SPM V2

The SPM V2 includes more detailed information than the first SPM and is a long document. However, it is organized in three parts and you will find that the critical design information is in Part 2 (Critical Standards). You may find copying this section for field reference helpful.

Part 1 covers administrative details and how the manual is intended to be applied, including the application of critical standards.

Part 3 covers specifics for various types of system; Section 3.3 covers base requirements for design, installation and maintenance. Appendices are included in section 3 which include design sheets and some background information on each style of system.

BCOSSA has asked the Ministry for support to roll out and provide technical support to the SPM, this is not yet finalized but we expect this to be in place soon.

### More efficient systems and new options

When reading through the new manual you will notice some areas where there is support for more efficient systems and that there are considerably more options available. Careful reading of the manual should give you new and improved tools to make better, more economical systems.

There is too much to cover in this article, but a selection of interesting sections include new tables to replace the old site constraint approach

(Section 2.3.6) which contain a number of new options for systems. A new second method for calculating residential Daily Design Flow, and corrected facility tables (Section 2.2), clarified and simplified vertical separation and horizontal setback tables that include critical and non-critical horizontal setbacks. Section 2. Section 3.8 bring clarity to sand mound and sand lined trench use and expands their application by ROWP's who will be able to use these systems within their plans and specifications. Linear Loading Rates and their application are explained in detail (Section 2.3.5) with new tables, explanations and figures. Section 2.4 has new tables with standards for sewage. Section 3.7.5 covers dosed gravity systems and provides gravity solutions for use on steeper sites and for larger gravity systems. At-grade beds are explained in detail in section 3.7.10. A new distribution method and subsurface drip system are explained in Section 3.7.12 with clear explanation of their use and maintenance requirements. Sand mounds and sand lined trenches for use by the ROWP are covered in detail in Section 3.8. Evapotranspiration Absorption beds, a new technique which can be very economical in dry areas are explained in Section 3.9. Section 3.10 includes new lagoon tables for drier areas and for circular lagoons that are common in the far north.

### Suggestions and errors

In order to be able to provide effective input to future revisions the Technical Review Committee (TRC) would like to receive comments (with suggested solutions) and details of any errors found. So far two errors have been identified:

On page 87 the tank liquid surface area divided by liquid depth guideline should *only* be used with units of meters and square meters.

On page 143 the seepage bed formula box second formula should have HLR *divided* by 1.35 (not multiplied), and so read:

Infiltrative area = Daily Design Flow ÷ (hydraulic loading rate ÷ 1.35)



## STANDARD PRACTICE MANUAL ORDER FORM

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As the Applied Science Technologists and Technicians of British Columbia's (ASTTBC) Associate Registrar, is charged with the responsibility for the administration of complaints related to members' professional practice. The process at ASTTBC is designed to ensure fairness to both the complainant and member against whom the complaint is laid. The complaint process can be found on the ASTTBC web site at [www.asttbc.org](http://www.asttbc.org).

Currently the PRB's most challenging group of practitioners, regarding the number and severity of complaints, are our Registered Onsite Wastewater Practitioners (ROWP). The number of complaint case files has more than tripled since the initial reporting period ending in August 2006. The PRB case history reporting for cases involving ROWPs, which includes the latest reporting period of September 2006 to September 2007, can be found on the Program's web site at <http://owrp.asttbc.org/>. Given the newness of the Ministry of Health's Sewerage System Regulation (SSR), the number of complaints was not entirely unexpected. We had hoped, however, that the number of complaint cases would start to drop off, but this has not been the case. At the time of writing this article, the PRB has twelve active ROWP complaint files to resolve.

The majority of complaint cases involve situations where the Ministry of Health's Standard Practice Manual (SPM) has not been adhered to. The complaints typically come from the Health Authorities (HA), ROWP colleagues and members' clients. Most cases identify a health and safety concern. It would appear to ASTTBC that the training is not at fault for the failure to adhere to SPM and all ROWPs are reminded that ASTTBC policy requires that the SPM 'must' be followed as the standard of practice. If in doubt as to the SPM requirements, do not hesitate to get technical support from BCOSSA or fellow ROWPs.

Another matter of concern for the PRB is the amount of complaints that come from ROWPs related to the conduct of fellow members, as it pertains to their own provided work or services that may have been previously supplied to a shared client. As we know, clients will 'shop around' looking for the best pricing advantage. There have been a number of situations where ASTTBC has been asked to referee the conduct between members due to conflicts arising related to this circumstance. Typically a ROWP Planner will submit a HA Filing for a system on behalf of a client, who then hires another ROWP Installer to complete the project. Sometimes there is a difference of professional opinion, which is relayed to the client, and alterations are made to the system without consultation with the initial ROWP. These situations may be grounds for censure based on Principle #7 of the ASTTBC Code of Ethics which states that members must "Conduct themselves with fairness, courtesy and good faith toward clients, colleagues and others, give credit where it is due and accept, as well as give, honest and fair professional comment". ASTTBC has been made aware of situations

where competing ROWPs in certain localities have not always behaved in the best interests of the industry or profession due to the competitive nature of the services being provided.

ASTTBC expects that, where there are overlapping and shared services being provided, the ROWPs involved will cooperate and communicate with each other to the benefit of their practice, industry and the client.

There appears to be some confusion over the mandate of ASTTBC for enforcement under the SSR. ASTTBC can only censure members for either a violation of the Code of Ethics or for not adhering to the requirements of the SPM. Unintentional errors and omissions are not dealt with by the PRB and require litigation by the courts to resolve. Many clients expect that ASTTBC can provide them with compensation for bad practices. This is not within the mandate of ASTTBC; however, members have been able to mitigate their position with the PRB by voluntarily accepting a Stipulated Order that agrees to fix the problem created with the client. The PRB's role is to ensure any current bad practices by a member are not repeated in the future. Many problems that are created with clients are due to the lack of a written contract for the work and services provided. As a part of prudent risk management plan, members should always have adequate service contracts with clients. Members are encouraged to attend one of the many Risk Management Workshops put on by ASTTBC and distributed throughout the province. These workshops are advertised by broadcast email sent to members.

As members of BCOSSA, you are likely aware of the anonymous complaint process established by BCOSSA. This process has no direct link or connection to ASTTBC and there has been some confusion around ASTTBC's and BCOSSA's complaint processes. BCOSSA has no mandate or empowerment for the enforcement of practices by ROWPs under the SSR, but may act as a complainant based on the confidential information it receives. Under the ASTTBC process, the PRB will only report to the complainant, which could be BCOSSA. If you have reported a complaint concern with BCOSSA, it would be inappropriate to ask ASTTBC to address your concern unless you have also laid a formal complaint with ASTTBC.



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The 2007 fall course session marked a major turning point for WOWTC. The first group of revamped courses began to emerge where practical hands-on exercises became the norm. Class sizes have been drastically reduced to provide more one-on-one time with the instructors and new donated training aids are greatly enhancing learning. Photocopied course manuals with black and white photos have been replaced with professionally printed course text using colour photos and diagrams.

Along with the new courses came many new instructors. These new instructors have all demonstrated high standards of practice and thorough subject knowledge. They are notable within the industry as leaders in their fields. For some, instructing is a new experience but they are also learning quickly and responses from students have been positive.

These improvements in course and instructor quality have not gone unnoticed by post-secondary institutions around the province and some have come to us for a closer look. Discussions have started with some institutions to determine how WOWTC courses can be used to provide additional value to their trades or academic programs. It is possible that WOWTC courses may be counted as credit towards certificates and even degrees with other institutions in the near future.

In the meantime, courses will be starting again at the end of January and rolling around the province, so watch the WOWTC website for course listings and dates nearest you. Please remember that you **MUST** pre-book your seat in any of the classes as seating is limited. We no longer allow students to just walk in and nearly all courses are fully booked weeks in advance.

With students booking several months in advance, space is filling up in some courses being offered as far ahead as April. Additional courses may be run, but only if we see a clear demand in that region for it and classrooms space is available.

Obtaining classroom space is actually one of the bigger challenges we face at WOWTC. Some areas of B.C. are much easier and flexible for our needs than other sites, so more courses may be offered in one area than another just for this reason. For those who looked at the WOWTC website and wondered when other courses will become available this would appear to be around mid-April at the earliest in part due to limited classroom availability as well as because training aids can't be in two or three parts of the province at the same time. As new courses come on line, the website will be updated immediately.

Besides the more advanced courses coming out in late spring to early summer, work is underway to offer students an opportunity to experience the planning and installation of different systems around the province. Under the direction of a WOWTC instructor, the student would undertake all aspects of training required for gaining experience, whether it be simple gravity type 1's or more intricate type 2's with pressure distribution. Classes will have very limited space per session, but we are aiming to have this running from late spring until early fall throughout the province. If you are a practitioner in training, have a restriction, or just want to learn about a type of system not normally available in your area, call the WOWTC office to discuss your needs and interest. Again, more details will be made available as soon as possible.

From all of us at WOWTC, thanks for a great 2007 and have a great 2008!

# WOWTC Winter/Spring Calendar\*\*

## DUNCAN

Jan 28 – Jan 30	WOWTC101	Introduction
Jan 31 – Feb 3	SOIL201	Soil and Site Evaluation Part 1
Feb 4	PLAN201	Planning Trickle Gravity Discharge Area Systems
Feb 5	PLAN203	Pumps and Controls
Feb 6	PLAN202	Planning Trickle Gravity & Dose-to Discharge Area Systems
Feb 7	PLAN207	Concepts of Maintenance & Writing O&M Plans
Feb 8 – Feb 9	PLAN206	Planning – Drawing Preparation
Feb 11 – Feb 12	PLAN204	Planning Pressure Distribution Systems
Feb 13	PLAN205	Planning Sand Mounds & Sand Lined Trenches
Feb 14 – Feb 15	INSTALL201	Introduction to Installation

## NANAIMO

Feb 6 - Feb 8	WOWTC101	Introduction
Feb 12 - Feb 15	SOIL201	Soil and Site Evaluation Part 1
Feb 18	PLAN201	Planning Trickle Gravity Discharge Area Systems
Feb 19	PLAN203	Pumps and Controls
Feb 20	PLAN202	Planning Trickle Gravity & Dose-to Discharge Area Systems
Feb 21 - Feb 22	PLAN206	Planning – Drawing Preparation
Feb 25	PLAN207	Concepts of Maintenance & Writing O&M Plans
Feb 26 – Feb 27	INSTALL201	Introduction to Installation
Feb 28 - Feb 29	INSTALL202	Advanced Installation

## LANGLEY

Feb 13 – Feb 15	WOWTC101	Introduction
Feb 16 – Feb 17	PLAN206	Planning – Drawing Preparation
Feb 18 – Feb 21	SOIL201	Soil Assessment – Theory & Practice
Feb 22	PLAN201	Planning Trickle Gravity Discharge Area Systems
Feb 25	PLAN203	Pumps and Controls
Feb 26	PLAN202	Planning Trickle Gravity & Dose-to Discharge Area Systems
Feb 27	PLAN207	Concepts of Maintenance & Writing O&M Plans
Feb 28 – Feb 29	PLAN204	Planning Pressure Distribution Systems
Mar 1	PLAN205	Planning Sand Mounds & Sand Lined Trenches

## CRANBROOK

Feb 25 – Feb 27	WOWTC101	Introduction
Feb 28 – Feb 29	INSTALL201	Introduction to Installation
Mar 1	PLAN203	Pumps and Controls
Mar 3 – Mar 4	INSTALL202	Advanced Installation
Mar 5 – Mar 8	SOIL201	Soil Assessment – Theory & Practice
Mar 10	PLAN201	Planning Trickle Gravity Discharge Area Systems
Mar 11	PLAN202	Planning Trickle Gravity & Dose-to Discharge Area Systems
Mar 12 – Mar 13	PLAN204	Planning Pressure Distribution Systems
Mar 14 – Mar 15	PLAN206	Planning – Drawing Preparation
Mar 17	PLAN205	Planning Sand Mounds and Sand Lined Trenches
Mar 18	PLAN207	Concepts of Maintenance & Writing O&M Plans

## PRINCE GEORGE

Mar 25 – Mar 27	LAG101	Lagoons
Mar 28– Mar 30	WOWTC101	Introduction
Mar 31 – Apr 1	INSTALL201	Introduction to Installation
Apr 2 – Apr 3	INSTALL202	Advanced Installation
Apr 4	PLAN203	Pumps and Controls
Apr 5 – Apr 8	SOIL201	Soil Assessment – Theory & Practice
Apr 9	PLAN201	Planning Trickle Gravity Discharge Area Systems
Apr 10	PLAN202	Planning Trickle Gravity & Dose-to Discharge Area Systems
Apr 11– Apr 12	PLAN204	Planning Pressure Distribution Systems
Apr 14	PLAN205	Planning Sand Mounds & Sand Lined Trenches
Apr 15 - Apr 16	PLAN206	Planning – Drawing Preparation
April 17	PLAN207	Concepts of Maintenance & Writing O&M Plans

\*\* subject to change

## Working Together for a Strong Onsite Industry

Welcome to the New Year! New opportunities and challenges for us all as individuals and as an industry. I for one am looking forward to it!

The industry will be moving into its third year under the Sewerage System regulation and we have come a long way to meeting its challenges and making this industry more solidified and united. BCOSSA has worked hard to foster relations with the other stakeholder organizations, the Applied science Technicians and Technologists of BC, the Association of Engineers and Geoscientist of BC, the Ministry of Health and the Health Authorities, have worked in cooperation to improve the industry and define the roles and responsibilities of their own agencies and BCOSSA. It is through this cooperation that we will ensure that our industry is well served and that it continues to work in the best interest of the public by protecting public health and the environment.

The protection of public health and the environment is the fundamental outcome of the regulation and the reason that the industry exists. It is the reason that the regulation requires that only qualified authorized person engage in the planning, installation and maintenance of onsite wastewater systems. On-site wastewater treatment can provide a permanent sustainable solution to wastewater infrastructure only under the following conditions:

*Site assessment must be complete and use soil analysis in conjunction with soil porosity tests.*

*Siting and construction must be carried out by trained accountable technicians or professionals using appropriate wastewater technology for site conditions.*

*Installation, operation and maintenance of systems must be done by trained informed technicians or professionals.*

*On-site systems must be considered long term wastewater management.*

It is only through proper training and continuing education of authorized persons within this industry that we can ensure that we can carry out this work. Additionally it is only through assurance that we are a respected industry which has value and adds value to the home owner, the community and the society at large, that we can provide our services and achieve the outcome of public health and environmental protection.

As members of this industry we must take responsibility for the outcomes through acting within our code of ethics, ensuring we provide value in the products we offer and by ensuring that we respect the law. We must also participate in protecting our investments in our industry by assisting others to understand that this is important work and that it cannot be undertaken lightly without immediate and future consequences by helping your colleagues within their work and by reporting those who act illegally.

The industry cannot grow and provide service to the public if we work in isolation either as individual practitioners or professionals or within organizations.

The industry has seen unprecedented success over the past two years and BCOSSA as an organization continues to grow, we currently represent over 900 members throughout the province including Registered Practitioners, Professionals and industry suppliers. We continue to support this membership with information, training and government lobby.

Through BCOSSA the industry is able to influence and support government and other stakeholder associations. By sharing our concerns we provide opportunity to explore and manage many of the issues that face our collective interest in public health and the environment. Some of our major challenges in the coming year include appropriate enforcement of the regulation and suitable supervision of persons engaged in the industry.

### Enforcement

Enforcement of the regulation to ensure only authorized persons provide services in accordance with the regulation and that authorized persons follow the regulation is not currently occurring in a manner that protects our industry or provides consistency of practice throughout the province.

The resulting problems arising from the lack of administration and enforcement are:

1. Construction of sewerage systems not covered by the filing and letter of certification process. – i.e. illegal systems are being installed.

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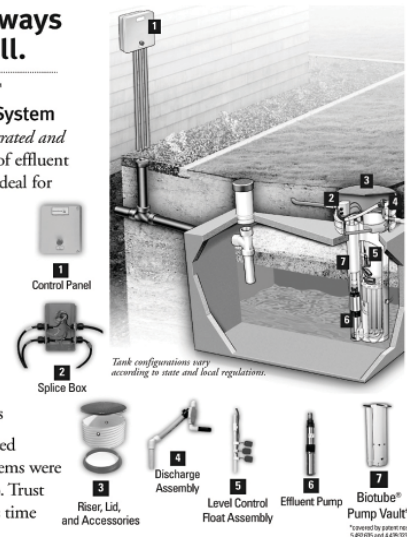
## Pump It Up!

It doesn't always flow downhill.

Orenco's ProSTEP™ Effluent Pumping System provides a *totally integrated and easy to install package* of effluent dosing components. Ideal for use with:

- Sand Filters
- Effluent Sewers
- Mounds
- Peat Filters
- Aerobic Units
- Wetlands
- Drip Irrigation
- Pressure Drainfields

The first fully integrated effluent pumping systems were engineered by Orenco. Trust our expertise when it's time to "Pump It Up!"



Reliable. Durable. Proven.

Orenco's ProSTEP™ Effluent Pumping System

2. As illegal systems do not have maintenance plans, there is the high likelihood of future premature system failure or malfunction that will contribute to a health hazard.
3. Illegal systems do not follow standard practice and thereby are likely to contribute to a health hazard.
4. Illegal systems are encouraged to be built as there is no immediate penalty to install one.
5. Lack of enforcement to prevent the installation of illegal systems has essentially legitimized the use of illegal systems and by allowing them to become filed after installation without penalty to the non-authorized person.

This lack of enforcement discourages persons from becoming an authorized person to plan, install and maintain systems thereby supporting the SSR and aiding in its long term success.

BCOSSA is actively lobbying the Minister of Health directly and working with the other stakeholder agencies to make the necessary changes to the process and procedures.

A complaints process does exist. In fact, the mechanisms enabling the submission of a complaint, whether by an authorized person or general public, have been quite successful. ASTTBC, APEGBC and BCOSSA have clearly demonstrated the due diligence and necessary attention to carrying out successful investigations, all in efforts to enhance responsible practice, professional accountability, and ultimately in the interest of public protection. With that said, associations can only act against members through their professional ethics criteria.

The associations, ASTTBC and APEGBC, BCOSSA cannot legally access property where an owner refuses entry unless ordered by a Public Health officer to do so.

### Supervision:

Supervision of persons engaged in the construction of systems may come in two forms, direct oversight of an individual who is working under the direction of a Registered Practitioner and supervision of a person by a professional.

Registered practitioners may engage in direct oversight of labour where the ROWP does not leave the site and the labour remains under the control of a qualified ROWP. ROWPs may also mentor a Registered Onsite Wastewater Trainee where the ROWP is qualified and ensures that the trainees work meets the regulation and the Sewerage System Standard Practice manual. (For further information on mentoring requirements refer to ASTTBC policy at: <http://owrp.asttbc.org>)

Professionals may engage in supervision of a person for the construction of a system without restriction other than through the definitions outlined by their association and their qualification under the regulation. Professionals should ensure that the person that they are supervising has appropriate instruction and guidance to carry out the work in a manner that protects the public health and environment. Additionally, a professional should carry out appropriate site visits to ensure that the regulations, plans and specifications are being met.

The associations are currently working together to ensure that their memberships are clear as to what is expected when the authorized person is supervising the planning, installation and maintenance of a system. Appropriate supervision by qualified authorized persons will ensure regulatory compliance. The development of clear policy by the associations on supervision will ensure that authorized persons clearly understands what their roles and responsibilities are and ensure that systems are constructed that meet the regulation and the public interest.

## Installer Friendly Series™

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- HAND/OFF/AUTO switch(es)
- Six digit LED display
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- Cycle counter(s) with indicators
- Alarm counter
- And much, much more!

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**March 13 – 16, 2008**

**The BC Onsite Sewage Association is proud to present our  
12th Annual AGM Conference & Tradeshow.  
Come and participate in the exciting itinerary and tradeshow!**

**Conference topics include:  
Managing Nitrogen with Onsite  
Onsite Wastewater and Ground Water Contamination  
Site & Soil Assessment for Onsite Wastewater Treatment System Design  
Management of Onsite Systems for Infrastructure  
Use of onsite for subdivision development  
And much more!  
For further information please visit our website at [www.bcoassa.com](http://www.bcoassa.com)**

**The tradeshow offers conference attendees an opportunity to see what's new in techniques and technologies!**

**The BC Onsite Sewage Association is dedicated to providing mind-stimulating speakers who are involved with the ever changing and expanding onsite industry. This year we are providing speakers who are transforming how communities think of onsite systems, research into new technologies and techniques that will not only make our industry an acceptable infrastructure model but safer and better for the environment and public health. Our preliminary agenda presents the broad scope of interests in onsite and community.**

**KEY NOTE SPEAKER Dr. Mike Corry:**

**Topic: Managing Nitrogen with Onsite.**

**Total man made additions of fixed nitrogen to the environment more than doubles the annual natural fixation. This inevitably affects biological systems on land and water.**

**Dr. Cathy Ryan, PhD, P.Eng, P.Geol Associate Professor Dept Geosciences, University of Calgary**

**Topic: Onsite Wastewater and Ground Water Contamination.**

**Discussions will include plume modeling and nutrient travel through the ground for onsite wastewater systems**

**Ministry of Health Representative**

**Topic: Sewerage System Regulation.**

**Discussion of the ongoing policy challenges with the Sewerage System regulation, regulatory enforcement and pending changes.**

## Communities - Onsite, Infrastructure of the Future

### Ministry of Community Services

Topic: Pending Subdivision regulation changes The Ministry of Community Services is conducting revisions of the Subdivision regulation and clarifying the role of onsite systems within subdivision proposals for rural areas.

### Tara Mills, Project Coordinator Capital Regional District Core Area Liquid Waste Management Plan

Topic: CRD Core Area Liquid Waste Management Plan, Onsite Management By-Law.

The Capital Regional District of Victoria will be implementing the first Onsite Wastewater Management by-law in British Columbia. The by-law will allow for expanding and control on onsite wastewater infrastructure in the region.

### Chris Flint, Vice-President Accounts Manager ,Aon Reed Stenhouse

Topic : Insurance, protect your investment. BCOSSA in cooperation with Aon Reed Stenhouse has produced General Liability, Errors and Omissions and Pollution prevent insurance packages to meet our industry needs.

### Neil Bellack, PhD Department of Health Care and Epidemiology Faculty of Medicine, UBC

Topic: The role of water and wastewater in *Helicobacter pylori* transmission.

Working with the Bridge Program University of British Columbia's faculties of medicine, engineering and interdisciplinary studies group researching the effects of land use on public health.

### Jerrold Walton, Walton and Associates

Topic: Use of drip technology in cold climate settings

Topic: Use of drip technology on steep slopes.

The difficulty with cold climate or steep slope installations are well known to practitioners and professionals alike. New technologies can assist in resolving these challenging situations and challenging site constraints.

### Stephanie Morin, P.Ag.Environmental Scientist

Topic: Site and Soil Assessment for Onsite Wastewater Treatment System Design.

This presentation will cover issues important to the assessment of the site as a whole as well as specifics on assessing the soil profile with the aim of designing a treatment system. The presentation will be geared toward installers and designers and will provide practical tools for assessment.

### Carl Garrison P.Eng., Aquaworx Inc

Topic: Pumps, Pressure and Dosing.

As we see the installation of more pressure distribution system it's important to know the ins and outs of setting up your pumps and timers.

### James Donlin for Vice President of Operations/Manufacturing Eljen Corporation

Topic: The working of the Eljen Geotextile Sand Filter.

The Geotextile Sand Filter functions as a passive alternative for obtaining a secondary level of treatment. Internal surface area comparisons and recent treatment testing conducted at the Massachusetts Alternative Septic System Testing Center, MASSTC. Installation procedures for a wide variety of site conditions will be explained in detail.

### S. Ross Rettie, P.Eng. Director, Professional Practice and Ethic The Association of Professional Engineers and Geoscientists of British Columbia

Topic: Processes and procedures, providing information to APEGBC.

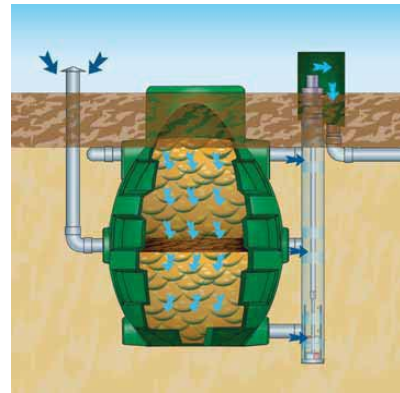
APEGBC is a major stakeholder in the onsite wastewater industry with policies and procedures for supplying and dealing with information regarding Professional Engineering. This presentation is designed to help understand APEGBCS policies and procedures regarding their code of ethics.

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