



Western Canada Onsite Wastewater
Management Association

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ONSITE INFORMER

Onsite Wastewater Management Association of BC

Why Do Low Pressure Pipe Systems Fail?

Ted J. Rulseh
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Low-pressure distribution (LPD) systems distribute effluent at sites that need uniform distribution to treat wastewater properly. They deliver small doses to give the soil time to accept and treat the effluent. But as with any approach to wastewater treatment, there are limitations, according to the Texas Onsite Wastewater Treatment Research Council. As reported in the council's newsletter, here are six common reasons for LPD system failures:

1. Can't fit a gallon of water in a half-gallon jug. The soil on a site can accept and treat only a specific volume of wastewater. In LPD systems, the actual surface area of the trench or infiltrative surface is smaller. This leads to a lower volume of media, which also acts as storage for the effluent until it moves into the soil. In many cases the site has half the volume of water storage as a gravity distribution trench.
2. Miscalculating load rates. The effluent applied to a site must go somewhere. In evaluating a site, the designer must ask: Where is the water going to go? For example, water moves down into the ground, up into the air through evaporation/transpiration, or laterally out to the sides of the soil treatment area. The design must consider not only the effluent applied to the site but also rainfall.
3. Misjudging obstacles. The area around the soil treatment area must be evaluated to determine if a barrier to water movement exists. A barrier limits the ability of water to move out to the sides of the soil treatment area or downslope. If a building, sidewalk, driveway, curb or path across the soil is located downslope of the soil treatment area, the water cannot migrate downslope. The effluent will pond against this obstruction, causing the water to pond and potentially surface.
4. Not accounting for irrigation. An irrigation system adds water to the water balance providing a greater volume of water that must be accepted by the site. Removing the irrigation system may bring a marginal site back into compliance.
5. Not accounting for surface runoff. Runoff must be diverted away from the treatment tanks and soil treatment area. Rainfall running off a roof, parking areas and patios must be directed around the treatment system. Otherwise it can overload and flood the soil treatment. Stormwater management must be applied to move rainfall away from the soil treatment area and treatment tanks.
6. Distribution not uniform. The effluent distributed through the LPD piping is designed to achieve uniform distribution. However, uniform distribution is only achieved when the system is fully pressurized. During pressurization and depressurization, non-uniform effluent occurs because water flows downhill. Effluent draining from the piping may drain to the lowest lateral if this drainage is not restricted during design and construction.

For more information, visit <http://towtrc.state.tx.us>.

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To learn more about the design and installation of Pressure systems, attend the workshop on February 6 in Kamloops.

Did you know?

WCOWMA-BC is a non-profit association solely funded through membership and training revenues. WCOWMA-BC does not receive any government funding.

Have a voice. Join your member driven industry association.

Onsite Wastewater Management Association of BC

Upcoming Training Events

Onsite Wastewater Practitioner Training Program—Equivalent to ROWP Installer/Planner—WCOWMA Member Cost—\$2697 + tax for the full program plus the review day.

The program is six days in length with a final examination on Day 6. An additional day will be added for curriculum review prior to the examination.

When: Days 1—3 February 9, 10 & 11, 2011; Days 4—6 February 23, 24 & 25, 2011

Where: Nanaimo, British Columbia

Want more information or registration forms? Please contact the WCOWMA office for registration forms at info@wcowma.com or call 1.818.478.5397 toll free.

Attending Convention Provides Required Continuing Education Credits

As of January 1, 2011, ROWPs will be required to officially log their continuing education activities with ASTTBC in order to accumulate credits with which to maintain their ROWP status. ROWPs will need to ensure they are not only engaging actively in their industry, but that they are participating in other ways to enhance their skills and professionalism.

A full outline of ASTTBC's Continuing Professional Development Program is available by following this link:

<http://www.asttbc.org/practice/docs/CPDProgram-Feb2007.pdf>

Some of the many ways in which Continuing Education credits can be obtained is through maintaining a membership in a relevant 'learned society' such as your industry association. Participation in field days, conventions and trade shows, and training workshops all lend themselves to the accumulation of continuing education credits.

For instance in accordance with the outline on ASTTBC's website, a ROWP can obtain credits with the following:

WCOWMA Membership (learned society)	3 credits
WCOWMA or other industry convention (Convention & Trade Show, Kamloops)	1 credit
Filing Workshop (Kamloops, Feb 4, 2011)	1 credit
Pressure Distribution Workshop (Field Training, Feb 6, 2011)	2 credits
Seminars: Eight Industry Sessions	8 credits

The potential credit accumulation at the WCOWMA Convention and Trade Show in Kamloops on February 4 and 5, 2011 is 15 credits. A full list of events and seminars attended will be provided to each delegate as a record for your continuing education log.

Interested in Exhibiting at the Trade Show?

Manufacturers and Suppliers still wishing to exhibit at the Trade Show may contact the WCOWMA for a registration form and information. Or log on to www.wcowma.com and print off a registration form.

An 8 x 10 booth is \$595.00 plus applicable taxes. Each booth includes one table and two chairs, electricity, logo recognition in the convention brochure, post delegate list and a meal package and convention attendance for one exhibitor.

Exhibitors also have the option of booking a 30 minute presentation time in the technical sessions at a cost of \$200.00 plus applicable taxes.

For more information contact WCOWMA at 818.478.5397

WCOWMA 2011 Convention & Trade Show Partners in Progress – Training, Technology, Teamwork Schedule of Events

A brief outline of the Schedule of Events for the Convention and Trade Show is shown here. For a more comprehensive listing including a list of presenters, the complete schedule is available for download from the WCOWMA website at www.wcowma.com.

Friday, February 4, 2011

8:30 to 10:00 a.m.	Filing Workshop
10:00 a.m.	Registration Begins
	Trade Show Opens
	Technical Presentations by the Exhibitors
11:00 a.m. to 11:30 a.m.	The Eljen Wastewater System
12:00 p.m. to 1:00 p.m.	Lunch in the Trade Show Hall
1:00 p.m. to 4:30 p.m.	Trade Show Continues
3:00 p.m. to 3:30 p.m.	Spence Group Health Presentation
4:30 p.m.	Trade Show Closes
5:00 p.m. to 6:00 p.m.	Annual General Meeting
6:00 p.m.	Happy Hour
7:00 p.m.	Banquet and Entertainment

Saturday, February 5, 2011

8:00 a.m.	Registration Opens
8:30 a.m. to 9:15 a.m.	Keynote—Training, Certification and Systems That Work—The MN Experience
9:15 a.m. to 10:00 a.m.	Protecting Surface and Groundwater from Non-Point Sources of Pollution
10:15 a.m. to 11:00 a.m.	Hydrogeology and its Role in Onsite Wastewater System Design
11:00 a.m. to 11:45 a.m.	The British Columbia Sewerage System Regulation
11:45 a.m. to 12:30 p.m.	Organic Material Soil Enrichment: Providing Hydraulic Functionality In Situ For Challenging Sites
12:30 p.m. to 1:30 p.m.	Lunch
1:30 p.m. to 2:15 p.m.	Regulatory Challenges—Six Years Later
2:15 p.m. to 3:00 p.m.	Liability Issues for ROWPs
3:15 p.m. to 4:00 p.m.	Drip Dispersal in Cold Weather Climates
4:00 p.m. to 4:30 p.m.	Closing Remarks

Sunday, February 6, 2011

9:00 a.m. to 2:00 p.m.	Pressure Distribution Workshop
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** This schedule may change as more presentations are added.

Onsite Wastewater Management Association of BC

2011 Convention Delegate Registration Form

February 4 & 5th, 2011 Kamloops Convention Centre, Kamloops, BC

Name: _____

Company: _____

Address: _____

City: _____ Postal Code: _____

Telephone: _____ Fax: _____

Convention Fees:

Corporate Member Delegates	\$250.00
Non-member Delegates Earlibird	\$350.00
Extra banquet tickets	\$ 60.00

Delegate packages are all inclusive – trade show, all sessions from any of the programs, first evening entertainment & snacks, breakfasts, lunches, nutribreaks, banquet and entertainment.

FAX your form to: Delegate: _____ \$ _____

(780) 486-7414

or

Additional Delegate (s): _____ \$ _____

Mail to:

**18303-60th Avenue
Edmonton, AB
T6M 1T7**

Additional Banquet Tickets: _____ \$ _____

GST _____ \$ _____

Total _____ \$ _____

Please charge my fees to my VISA/Mastercard

Card # _____ Expiry Date: _____

Cardholders Name (PLEASE PRINT) _____

Signature _____



Contact us at:

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