

December 2004

## WELCOME!

Welcome to the fifth edition of *Working with Wastewater*. You can find an electronic version of this document at our website <http://www.dh.sa.gov.au/pehs/newsletters.htm#wastewater>



First off, we would like to wish all our colleagues the very best wishes for the festive season and hope that 2005 will be filled with much happiness for all.

Remember too that many people who installed effluent diverters use Christmas day as the date to "turn the handle!"

## Staff Changes

Ruben Santos was farewelled from the Wastewater Management Section on 5<sup>th</sup> Nov. Ruben was a part of our team for around 10 months. His always cheery persona and karaoke skills will be missed, and we wish him well in his pursuits at the Housing Trust.

The DH is currently engaged in finding a suitable replacement, which we hope to have on board early 2005. Watch this space!

## Subsurface Irrigation

Many enquiries are received by local government officers and the DH on subsurface irrigation systems. The DH's "official" stance is that officers can approve these systems provided they comply with AS1547-2000. A copy of AS1547 should be obtained by councils that consider approving these systems.

The points below contain general descriptions and some of the requirements for the systems. For more information, refer to AS1547 or contact the DH.

- Several proprietary products are available for use in wastewater systems which involve the installation of drip tubing designed for this purpose at a depth of 100-150 mm.
- Spacings between the drip lines vary between manufacturers, but is generally 1 m in clay soils and 600 mm in sand.
- Setbacks and site requirements are in accordance with *Supplement B*.

- Signage is required and should include reference to the subsurface irrigation system and the words "Do Not Dig". The buried pipework shall be indicated with marking tape (Marking Tape standard: AS/NZS 2648.1).
- Aerobic system quality effluent is required although the disinfection component is optional (some manufacturers prefer this as growths occur in the lines if no disinfection occurs).
- The pump to be used for the irrigation system must be suitably sized to operate the system. AS 1547 includes a section on the pump and pre-commissioning tests for this system.
- The system is to include a filter prior to the irrigation section which is suitably back-flushed back to the treatment stage (AS 1547 specifies 150-200 mesh).
- Some products include a root inhibitor either built in to the pipework or as a slowly dissolving disc incorporated into the system. The chemical commonly used is Trifluralin.
- The system must be flushed on a regular basis to either a soakage area designed for this purpose or back to the pump sump or primary treatment section of the system. Bear in mind that where chemical disinfection is used, the microbial activity in the primary treatment section may be disrupted. Manufacturers of the aerobic system must be consulted prior to any backflush waters being returned to the system.
- Vacuum breakers must be incorporated into the system to prevent ingress of soil.
- On sloping sites the system must be designed such that reclaimed water held in the line does not gravitate out of the lower section when the pump switches off.
- Cross connection with any potable water supply must be prevented.

More information and plans can be seen at the following site (part of Tony's presentation at the last wastewater conference).

<http://www.dh.sa.gov.au/pehs/branches/wastewater/irrigation-%20treated-ww.ppt>

## Alternative Aerobics

The DH is presently processing a number of applications for "alternative" aerobic treatment systems. Given our small staff numbers, this is placing a strain on our resources.

The systems involve an aerobic treatment process (some involve a trickling filter mechanism plus

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eration) followed by shallow subsurface irrigation of the type outlined above. Many Councils are already accepting AWTS with shallow sub surface irrigation to enable lawns etc. to be irrigated. We are expecting the trend to continue.

Given that councils are already processing "non standard" systems (e.g. those without septic tanks), we believe that approval of these "alternative" systems would be in keeping with the approach already adopted by Councils. The DH is considering passing these systems on to council for installation approval, provided they meet DH approval requirements.

You will be notified of these changes as they occur. Please feel free to discuss this with DH staff.

## SIG Christmas Party

Yes that's right! The wastewater SIG group will be celebrating Christmas in style on 10<sup>th</sup> of December at 6:30pm, at Mansions Quest Inn (21 Pulteney St, Adelaide). All members are welcome. Please RSVP to Katie Rouse (8223-6301) by Wednesday 8<sup>th</sup> of December.

## Adelaide NORF meeting

On 11 and 12 Nov 2004, the National Onsite Regulators' Forum (NORF) held their yearly face to face meeting in Adelaide.

The forum was established after finalising the current Australian and New Zealand Standards (AS/NZS) for onsite systems, with representation from all State and Territory departments regulating onsite wastewater management.

It aims to achieve a uniform approach to onsite wastewater management nationally, adopting the AS/NZS and exchanging ideas on technical, administrative and legislative issues.

At the Adelaide meeting each delegate presented an update on the onsite systems in their State or Territory, in conjunction with their standards and legislation.

The delegates had a tour of the SA Water Bolivar treatment plant and Mt Barker STED Scheme, both of which treat wastewater to "class A" quality.

It is pleasing to state that the DH's approach in reviewing our current codes is in line with other States and has been supported by all delegates.

The recent Australian and New Zealand Standards promote/require quality assurance, pre-approval testing for manufactured products, training of all stake holders from developers to manufacturers, installers, home owners, servicing agents and EHOs. Current NSW and QLD standards and guidelines have already adopted these policies.

The QLD standards cover all these issues in one document for all wastewater systems (including greywater). In the QLD code the setbacks to water bodies are dependent on effluent quality. We also aim for a similar approach in the new code, rather than only one set of criterion for all cases.

The next NORF meeting has been scheduled for March 2005.

## New Products

Details will shortly be circulated regarding the following products which have been approved by the DH:

- ▶ ALL Pumps Supplies Pump Sump (Models PPE 1600 and PPE 2200)
- ▶ Shallow subsurface pressurised irrigation system by Aquatic Mechanical Services Pty Ltd, utilising "Wasteflow Classic" tubing and AMS Atlantis Filter Pipe.

Several new "greywater diverter" type products are being assessed by the DH for SA approval. We will notify you of any developments.

## Contact us

For any further information regarding newsletter content or to raise other issues/ provide feedback etc. please contact us at the email addresses below:

### WORKING WITH WASTEWATER

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