

**SWANS-SIG – Small Wastewater and Natural Systems Special Interest Group  
NEWSLETTER No. 17 – December 2013**

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**EDITORIAL**

The SWANS-SIG AGM was held in October at the Water NZ Annual Conference. More details of the minutes are covered in sections below, but one interesting discussion that took place on the side-lines was regarding the funding of SWANS-SIG activities – specifically the On-site Effluent Treatment National Testing Programme (OSET NTP).

As a special interest group under the Water NZ umbrella, SWANS-SIG can seek access to funding from Water NZ for specific initiatives as and when appropriate and approved. But all other activities must be cost neutral. It should also be noted that all activities carried out by the committee are not funded, and are carried out in the members' own time.

The OSET NTP is also a not for profit program. Despite some in the industry perceiving the cost of testing as high, it typically pales in comparison to similar testing schemes such as the Australian StandardsMark™ certification. For the NTP, the income from this work stream is often not sufficient to cover all of the costs of the program, and this results in the SIG regularly exceeding budget.

While it is logical for suppliers to stump up the cost of testing their units, some costs should also be borne by the councils and unitary authorities who benefit from having a national testing program to grade on-site systems. Currently the number of councils and partners who provide financial assistance for the testing program in the form of grants is very small. Despite this, many councils are gaining benefits from the testing and rating system.

It is imperative that as the OSET trials gain momentum in the industry local government forms a key part of the funding. Traditionally the OSET NTP has had great trouble in seeking additional funding from some councils.

To this end we would like to see the NTP promoted within councils and other government departments. If you are part of these organisations, or know who should be approached within your organisation for funding approval (CEOs, resource manager groups, water service manager groups, etc.), then please do get in touch with members of the committee. Your assistance would be greatly appreciated.

Ian Gunn announced at the SWANS-SIG AGM that he would be reducing his role in the committee, including communications and the OSET NTP. I have been asked to assist with communications going forward, and would like to say a big thank-you to Ian for all he has contributed to the industry to date, and no doubt will continue to do going forward.

Nick Dempsey, Editor  
[nick.dempsey@awtwater.com]

## **NOTES from the CHAIR**

As we quickly approach the end of 2013 I have taken over the role of Chairman of the SWANS-SIG after Rob Potts stepped down at the SWANS-SIG AGM in Hamilton. Rob will still be involved with the group and will be the SWANS-SIG representative on the OSET NTP Advisory Group and also the Conference Portfolio. I would like to thank Rob on behalf of the Committee for his pivotal role over the last 3 years. There are also several other new faces on the Committee!

As we move into 2014 there are a number of initiatives that the SWANS-SIG group will continue to concentrate on. The Committee will focus efforts on including a SWANS specific stream at the 2014 Water NZ Conference. So, could all members start thinking of suitable topics for SWANS related papers!

The OSET trial is now being seen by Councils as our "testing facility" for on-site systems within New Zealand. Councils are beginning to put pressure on system manufacturers to get their systems independently tested. The work undertaken by this dedicated group, on what is a shoe-string budget, is remarkable. With this in mind we will be continuing our efforts to encourage suppliers to sign up for the next trial rounds and also improve the publicity of the trials with the local, regional and unitary councils within New Zealand.

Finally, a plug for the New Zealand Land collective Conference which takes place in Hamilton 26-28 March 2014 with a conference theme of "Managing contaminants at a catchment level - back to basics".

Regards,

Gareth Williams

PS - for all Aucklanders, the submission period is open for the Proposed Auckland Unitary Plan. On-site wastewater related items are included within Part 3, Chapter H, Section 4.15. Submissions close on 28 February 2014.

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## **SWANS SIG AGM at WATER NZ ANNUAL CONFERENCE, 2013**

The SWANS SIG AGM was held at the Water NZ conference in Hamilton in October. As well as the general discussions which took place, the following key items were minuted:

- Rob Potts advised that he had attended Water New Zealand Board meetings and SIG Chair meetings. One item of particular interest has been the Rising Tide special interest group which started in Auckland. The Rising Tide SIG is a new initiative with the purpose of getting young industry leaders together and more involved in the water sphere. Water New Zealand has been driving to encourage students and young professionals to become more involved in the water sector.
- Rob also noted that there has been no SWANS stream over the last couple of years at the Annual Conference. There haven't been enough SWANS papers submitted for a whole stream which has been disappointing. Next year more effort will be made to encourage more submissions of SWANS papers for the Conference.
- SWANS-SIG has been working closely with the Land Treatment Collective and would like to strengthen this relationship.
- The Annual Plan has been circulated. The SIG has been relatively quiet over the last few years but the general health is good with 370 members within the group.
- Ian Gunn stepped down from the Communications portfolio. The Committee thanked Ian for all of his hard work and contributions over the years. Nick Dempsey volunteered to take over the Communications portfolio.

- A business case proposal is to be submitted to Water New Zealand to request funding. The business case proposal will also be forwarded to the MoH and MfE and Councils to generate some more interest.
- Rob Potts advised that Auckland Council and Bay of Plenty Regional Council are funding an on-site wastewater treatment course in February 2014. Additional funding may be requested from Water New Zealand.
- Ian gave notice of stepping down as the SWANS-SIG representative on the OSET NTP Advisory Group. Rob Potts volunteered to take over the role. Ian and Rob will do a hand over at the next SWANS-SIG Management Committee meeting in 2014.
- The group will have an informal meeting at the LTC conference early 2014, and the next Management Committee meeting will be held at the Water New Zealand Annual Conference in 2014.

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### **LAND TREATMENT COLLECTIVE CONFERENCE, 2014**

The annual Land Treatment Collective (LTC) conference is taking place in Hamilton next year from the 26<sup>th</sup> to the 28<sup>th</sup> of March (with a biosolids workshop on the 25<sup>th</sup>). SWANS-SIG has always maintained close relationship with the LTC, and encourages members to submit related on-site wastewater papers where appropriate.

This time the focus of the conference will be on the issue of diffuse sources of contaminants, their effects on catchment level surface water and groundwater quality and how these effects can be managed.

The LTC say the following about their conference:

The declining quality of our freshwater ecosystems is one of the most important environmental issues New Zealand faces today. Communities rely on their rivers and lakes to support a range of uses from recreation to discharge of effluent. These water bodies are taonga to iwi who have long been concerned about their management.

While the levels of contaminants discharged to water from point sources has been successfully reduced, the next step is addressing how to manage activities on land to protect water quality and appropriately manage the effects of contaminants from diffuse sources entering water bodies.

This conference will focus on the way forward for this issue, including methods to ensure community and stakeholder engagement, and help achieve water quality outcomes.

Keynote speakers for the conference are listed as:

Jo Bromley - Waikato Regional Council: Healthy Rivers: Wai Ora Project –a project to change the regional plan to give effect to the vision & strategy and to implement the National Policy Statement for Freshwater.

Dr Theresa Wilson - Dairy New Zealand: The challenges in reducing the dairy industry's environmental footprint.

Tim Manukau – Tainui: Mahitahi - Working together to address the impacts of poor water quality on customary activities in the Waikato Region.

Calls for abstracts have already closed. Early bird registration closes on the 17<sup>th</sup> of February.

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## **ON-SITE WASTEWATER TRAINING**

Estimates of the failure rate of on-site wastewater treatment systems (OSWTS) in New Zealand vary, however there is widespread acknowledgement that system failure commonly results from poor site and soil investigations, inappropriate design, and/or lack of understanding of the operation and maintenance requirements. It is perceived in the industry that many designers, regulators and installers do not have the appropriate knowledge required to adequately perform their roles, and this may contribute to the rate of OSWTS failure.

The industry has long identified that OSWTS training and assessment against a national standard is required to verify that system designers, regulators and installers do have the requisite knowledge.

Six Unit Standards (US's) were registered on the NZQA framework in 2008, following extensive industry input. These US's have not previously been offered by any training provider. Following further industry consultation, including discussions with NZLTC and SWANS-SIG, an accredited provider will be offering training to these US's from early in 2014. This will provide the industry with training to a national standard which can be adopted with confidence by all. The training will provide pathways to two levels of achievement; "Principles of On-Site Wastewater", and "On-Site Wastewater System Designer".

Funding to get the US's material put together has been provided by Bay of Plenty Regional Council and Auckland Council.

An Industry Review Panel has been established, which includes representatives from NZLTC, SWANS-SIG, Auckland Council, Bay of Plenty Regional Council, and Opus.

An outline of the modules is shown in Figure 1. These are preliminary and are being tweaked by the Industry Review Panel.

If you are interested in expanding your knowledge, or earning qualifications in On-site Wastewater Treatment Systems, then please register your interest through the NZWETA website <http://www.nzweta.org.nz/contact-us-the.html#Section2616588>.

The dates for the first running of Module 1 have been confirmed as 19 – 21 March 2014, and will be held in the Bay of Plenty Region. The exact location is still to be confirmed. This first module will cover Unit Standards 25124, 25125, and 25129.

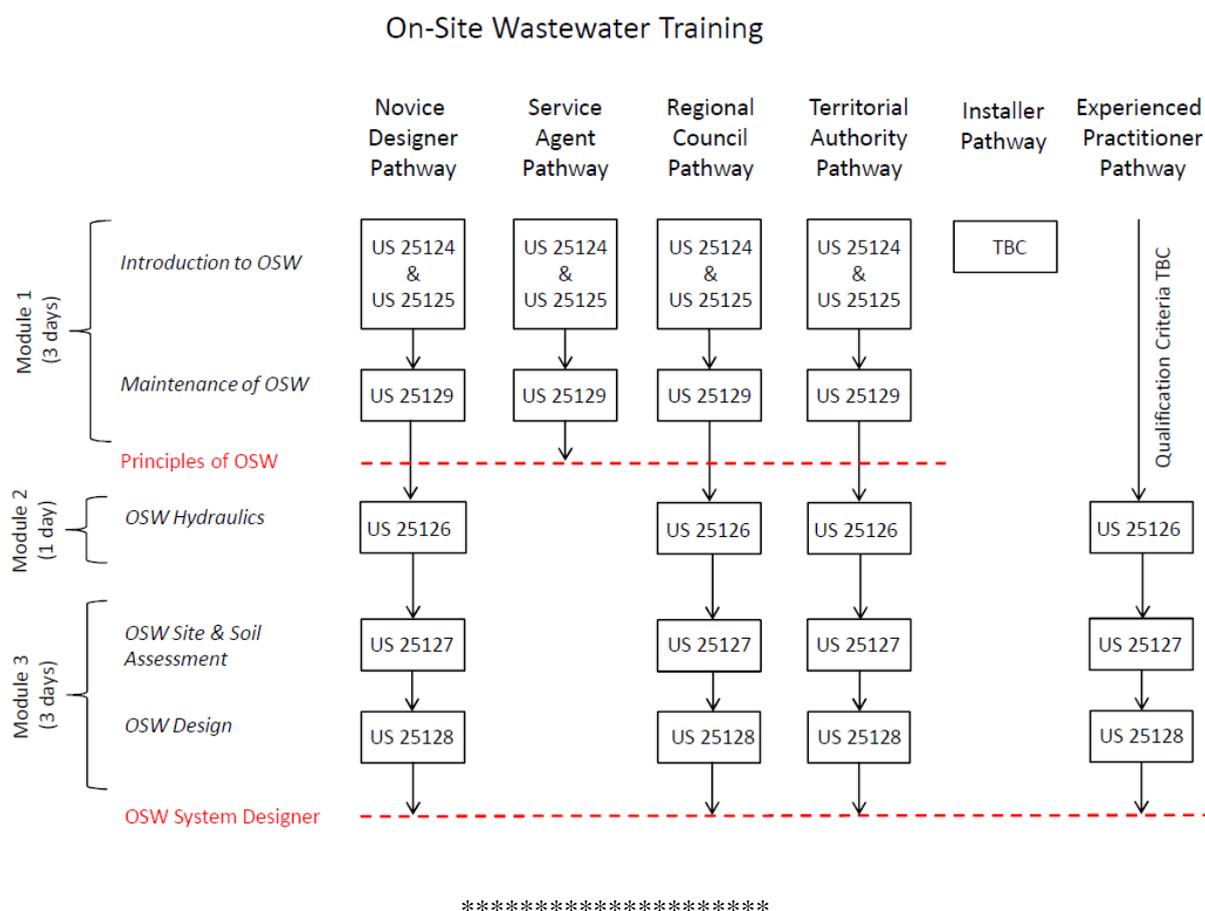
Details of the on-site wastewater training, including course fees, will be put on the NZWETA website soon.

Enquiries to:

Rob Potts (Lowe Environmental Impact Ltd); and

Hugh Ratsey (Opus International Consultants)

**Figure 1**



**OSET NTP UPDATE**

The On-Site Effluent Treatment National Testing Programme (OSET NTP) involves three phases:

- Strand 1: Performance Testing of manufacturers package treatment plants
- Strand 2: Field Testing of installed plants
- Strand 3: Product Certification Testing

OSET NTP is a non-profit operation run by Water NZ via SWANS-SIG and relies on grants from TLA’s, Regional and Unitary Councils together with a significant test fee paid by each manufacturer whose plant is being tested.

**Strand 1** is undertaken at Rotorua with the kind support of Rotorua District Council Bay of Plenty Regional Council, where a testing facility is installed receiving municipal wastewater from Rotorua which is distributed in a controlled manner to 7 test platforms over a 9 month period each year. Each year the raw sewage, treated effluent and all 7 treatment plants under trial are carefully monitored, results analysed and reported, then audited by SWANS-MAG (the OSET NTP management and audit group) and performance certificates issued.

Trial 8 was completed at the end of July 2013. Seven plants were tested: AquaNova (x2), Biorock, Findlater, Super-Treat, TechTreat and EcoSewerage. Results are being analysed and reports prepared for SWANS-MAG review in December. Performance certificates are expected to be issued early 2014.

Trial 9 commenced in November this year and will run through to late July 2014. Six plants are commissioned and operational after a late withdrawal. They are: Biocycle, BioKube, Biolytix, Devan, Duracrete/Cleanstream and RX Plastics.

Trial 10 bookings are open. Seven manufacturers have already registered interest; some are firm, others enquiries only.

**Strand 2.** Draft field testing procedures have been developed and a trial field monitoring programme is being established in Christchurch together with Oasis Clearwater. The objective being to confirm procedures and costs. The trial is expected to commence during 2014.

**Strand 3.** Preliminary procedures have been prepared for consideration by SWANS-MAG prior to circulation to manufacturers and funding partners for comment.

Ian Gunn has been a major driver of OSET NTP over a number of years but has now elected to stand down as Technical Manager. During this year his role has been transferred to Ray Hedgland and Ian has taken up Ray's role as Chair of SWANS-MAG. Ray expresses his sincere gratitude to Ian for his invaluable input over the years, without which OSET NTP would never have developed as it has, and for his support during the transfer.

SWANS-MAG Membership comprises:

Technical Manager	Ray Hedgland (SWANS-SIG)
Chairman	Ian Gunn (SWANS-SIG)
Operations Manager	Alison Lowe (Rotorua District Council)
Reporting Manager	Sam Weiss (Bay of Plenty Regional Council)
Appointed Member	Andrew Dakers (ecoEng Ltd)
Appointed Member	Gilles Altner (Global Environmental Engineering Ltd)

Any enquiries regarding OSET-NTP should be directed to:

Ray Hedgland            M: 021 626 772            E: [ray@hedgland.co.nz](mailto:ray@hedgland.co.nz)

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### **NEW SWANS-SIG LOGO AND OSET NTP TRIAL RESULTS CLAIMS**

Readers may have noticed that Water NZ has developed a number of new logos for each of the special interest groups. At the SWANS-SIG AGM it was highlighted that a few on-site system suppliers have been using the OSET logos in their promotional material, as well as claiming that their systems had "passed" the OSET trials.

It is important to remember that only official SWANS-SIG and Water NZ communications may use the logos.

Also the OSET trials do not offer a pass/fail outcome for tested systems, but rather a scale of treatment effectiveness. This must be remembered when reporting the results, as well as ensuring that results are reported in full.

We would request that readers report any misuse of logos or erroneous reporting of OSET NTP results to a member of the SWANS-SIG committee for further investigation.

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### **SWANS RELATED NEWS**

The NZ Land Treatment Collective recently reported that the EPA Victoria, and La Trobe University intend to establish a National Testing Facility for on-site wastewater treatment systems at the University. The testing facility would evaluate treatment systems to a revised AS/NZS 1546.3 standard, which would allow systems to be tested at sites other than sewage treatment plants. One option discussed was to revise the standard to be similar to that of the EU Standard EN12566-3.

[Read more here.](#)

The On-Site NewZ blog has added a number of articles recently, with topics including:

- Sloping Sites and Drip Irrigation Requirements from AS/NZS 1547;
- On-site Wastewater Soil and Site Assessment Issues – a Discussion Paper; and
- NZ On-site Wastewater Training Courses – Discussion Document from OPUS.

[Read more here.](#)

Starting next week Canterbury District Health Board is to survey septic systems in Darfield to see if they are meeting health and environmental needs. The survey will allow health officials to assess the volume of sewage and wastewater being processed and will identify any health or environmental issues resulting from the operation of the septic systems.

Recent population growth has seen an influx of people into the Selwyn District and the Canterbury Medical Officer of Health says “people new to the area may not be used to septic systems or appreciate the on-going care and maintenance required”.

[Read more here.](#)

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