

# NEW ZEALAND LAND TREATMENT COLLECTIVE

ISSUE NO. 32 SUMMER

AN INDEPENDENT NON-PROFIT ORGANISATION MANAGED BY SCION RESEARCH

*Dedicated to improving and communicating technology for the land treatment of waste products.*



## ~ NEWS FROM THE TECHNICAL MANAGER'S DESK ~

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“2010 Dunedin Conference: Early bird registration closes 26 February 2010.”

Hi everyone

It's conference time again and we have a really interesting and varied programme lined up for you in Dunedin! A big thank you to all presenters for getting your completed papers in on time. January is not the best time of the year to be stuck at the computer so we really appreciate your efforts.

It's also good to see so many registrations rolling in early. Don't forget the early bird deadline of 26 February if you haven't yet registered. Our keynote speech this year consists of three speakers: Selva Selvarajah from Otago Regional Council, Matt Harcombe from Federated Farmers and David Houlbrooke from AgResearch. They will be covering regulations, good practice and policy surrounding farm dairy effluent.

This year the Technical Committee is proud to award conference scholarships to two students: Glenn Treweek is completing an MSc at Waikato University and Gina Lucci is working towards a PhD at AgResearch in Invermay. We've got some great socialising events organised, with a barbeque and drinks at the CustomHouse overlooking Dunedin harbour on St Patrick's day and the more formal conference dinner at Larnach Castle. I have been informed by the management of Larnach Castle that the wearing of kilts or tartan regalia is encouraged, so if you have some family colours languishing in the wardrobe, shake off the mothballs and enter the spirit of the occasion.

Onto more serious matters, at this years AGM we will vote for new members for the Technical Committee. Committee members stand for a term of four years. Four of our hardworking committee members have reached the end of their term. Two are standing down: Hamish Lowe and Alison Lowe and two will stand again: Hailong Wang and Sandy Ormiston. We would like interested people to come forward. Nomination forms were recently sent out to members along with the notification of the AGM. Nominations will be accepted from now until the AGM starts at 5 pm on 17 March 2010. If you would like a nomination form, please contact me at the email address below. Further conference updates are available on page 5. I look forward to seeing you all in Dunedin.

Cheers

Marie Heaphy, Technical Manager



**~ FROM THE CHAIRMAN: SANDY ORMISTON ~**

This is my final message as chairman of the NZLTC Technical Committee with my 2 year term expiring following the 2010 Dunedin conference. I would like to thank the Technical Committee members for their support and enthusiasm for the LTC and Marie Heaphy the Technical Manager for all her hard work keeping the collective running. The 2010 Dunedin conference is less than 1 month away and Marie has done a fantastic job of organising the technical sessions and field trip. I encourage you to join us in Dunedin and if you have younger staff members bring them along to the conference to ensure we have an enthusiastic team for the long term future of the LTC ! I look forward to seeing you in Dunedin next month.



Sandy Ormiston

**~ LAND TREATMENT COLLECTIVE ~  
STRATEGIC FRAMEWORK**

The LTC Technical Committee has drafted a Strategic Plan outlining how we envisage taking the LTC forward into the next decade. This has been available to members on the LTC website since late last year. We would like input from members to prioritise actions points for the committee to work on for the next two to five years. To this end a single page of 'action points' will be placed in the conference satchel. On day one of the technical sessions, a technical committee member will give a brief presentation on the plan and outline committee expectations. Members will then be asked to fill out the form during the day. Forms will be collected prior to the AGM and the and the prioritised action points will be reported on during the AGM.

**~ NOTE FROM A FORMER TECHNICAL MANAGER ~  
JOHN LAVERY**

Former technical manager John Lavery left NZ last year to settle back in Canada. He has taken on a role as Senior Environmental Scientist with SYLVIS Environmental, based in New Westminster, British Columbia. John's role is as lead science and technical advisor to the SYLVIS consulting and operational teams, providing technical guidance in biosolids and residuals reclamation operations, trial design and consulting for new projects, and business development. SYLVIS recently won the Metro Vancouver contract to produce biosolids growing medium/fabricated soil for placement and public use. The contract will handle 73,000 bulk tonnes of Biosolids within the next year. Other projects of interest include landfill reclamation, development of biocovers for fugitive methane mitigation, biosolids greenhouse gas emissions assessment, forest fertilisation, aggregate and coal mine reclamation, and biomass plantation development. John is looking forward to maintaining close ties with New Zealand and the LTC, and has signed on as an Overseas Collaborator.

**- LEGISLATION UPDATES -**  
**ROB LIEFFERING**

**Proposed National Environmental Standard for Assessing and Managing Contaminants in Soil**

The Government is proposing a national environmental standard (as regulations under the Resource Management Act 1991) for assessing and managing contaminants in soil. The proposed standard is consistent with the purpose of the Act as it will promote sustainable management of resources in a way which enables people and communities to provide for their social, economic and cultural wellbeing and their health and safety.

It does so by:

- setting a standard at which land is considered safe for human health

ensuring that land affected by contaminants in soil is appropriately identified and assessed at the time of being developed and if necessary remediated or the contaminants contained, to make the land safe for human use.

In essence, the proposal is a mix of allowing (permitting) and controlling (requiring resource consents) certain activities on land affected or potentially affected by soil contaminants. The standard would require all 73 territorial authorities (district and city councils) to give effect to and enforce its requirements. The standard will only impact on new decisions and resource consents

The discussion document can be found at <http://www.mfe.govt.nz/publications/rma/proposed-nes-managing-contaminants-in-soil/>

Submissions must be received by the Ministry for the Environment no later than 5.00 pm on **19 April 2010**.

**Waste Minimisation Fund - now open**

The Waste Minimisation Fund (WMF) has been set up to boost New Zealand's performance in waste minimisation. The fund will help fund waste minimisation projects that will increase resource efficiency, increase reuse, recovery and recycling, and decrease waste to landfill. Lifting our performance in recovering economic value from waste also provides environmental, social and cultural benefits, and reduces the risks of harm from waste. Only projects that promote or achieve waste minimisation are eligible for funding. This includes educational projects that promote waste minimisation activity. Criteria for the WMF has been set by the Minister for the Environment and notified in the Gazette on 8 October 2009.

The purpose of the WMF is to provide some of the funding to ensure that:

- investment in infrastructure and systems for waste minimisation occurs
- educational and promotional capacity is developed.

The WMF operates an annual funding round, in which the Ministry calls for applications for funding.

Funding from the WMF is allocated to selected projects following consideration of applications received during the funding round. The Minister for the Environment makes the final decision about which projects will receive funding.

The WMF is now calling for applications. Applications close at 5pm **1 March 2010**. A step by step guide to help prospective applicants is available at:

<http://www.mfe.govt.nz/withyou/funding/wmf/>

**Discount Regulation**

The Resource Management (Simplifying and Streamlining) Amendment Act requires the Minister for the Environment to prepare a regulation which prescribes discounts that local authorities must apply where timeframes in the RMA are not met. The Ministry for the Environment has prepared an issues and options paper and submissions have closed on this. The regulations will become effective on 1 July 2010 and will have serious financial ramifications for those local authorities that struggle to meet the timeframes specified in the RMA.



## ~ 2010 ANNUAL CONFERENCE—SPONSORS ~

As usual we would not be able to deliver a quality conference without the generous support of our Sponsors. Many thanks to the following sponsors who are supporting the 2010 conference.

### Silver Sponsors:



### Bronze Sponsors



## ~ 2010 ANNUAL CONFERENCE—DUNEDIN ~

### Conference updates

The draft programme is complete and I am not expecting any major changes after this bar a bit of minor tweaking where necessary.

- The early bird registration period ends on 26 February, after which time a late fee of \$50 will apply.
- There will be no conference backpack this year. Documents will be contained in a plastic wallet, so bring a bag if you wish (or recycle last year's conference backpack!!).
- The field trip coach is scheduled to be at Dunedin Airport by 4 pm. However, unforeseen delays can occur so choose your flights accordingly
- There will be no endusers meeting prior to conference and the planned Biosolids workshop will now be held in spring this year. Workshop dates are yet to be confirmed.

As past conference goers know, conference is not all work and no play. There are great networking opportunities to be had during the breaks in the day and at our two evening social functions.

**Wednesday night** : we will be gathering at the Customhouse bar and restaurant, overlooking Otago Harbour. It's Paddy's night (St Patrick's day) so throw on some green and get ready to remember the Saint in true Irish fashion.



**Thursday night** : Highland fling at the Larnach Castle. Here's your chance to display the family colours with pride. If you don't have your own tartan, borrow someone else's. There will be prizes for the most authentic or outlandish outfits. Committee member Hamish Lowe is organising a debate surrounding a contentious waste issue. For more details or if you'd like to be involved, please contact Hamish at: [Hamish.Lowe@nz.cpg-global.com](mailto:Hamish.Lowe@nz.cpg-global.com)

**Friday Field trip**: No theme!! Dress comfortably and remember NZ's seasonal weather. Sunblock, hats, wet weather gear and stout footwear.

#### Accommodation Links:

Allan Court Motel: [www.allancourt.co.nz](http://www.allancourt.co.nz)

Bluestone on George: [www.bluestonedunedin.co.nz](http://www.bluestonedunedin.co.nz)

Farry's Motel / Apartments: [farrysmotelapartments.co.nz](http://farrysmotelapartments.co.nz)

Alhambra Oaks Motor Lodge: [www.alhambraoaks.co.nz](http://www.alhambraoaks.co.nz)

Larnach Castle: [www.larnachcastle.co.nz/](http://www.larnachcastle.co.nz/)

## 2010 ANNUAL CONFERENCE DRAFT PROGRAMME WEDNESDAY 17 MARCH 2010

08:30 onwards	<b>Mary-Anne Gloyne</b> <i>Scion Research</i>	Registration
9:45	<b>Sandy Ormiston</b>	Welcome
10:00	<b>Moderator:</b> <b>Hamish Lowe</b>	<b>SESSION: Keynote speech</b>
10:00	<b>1. Selva Selvarajah</b> <i>Otago Regional Council</i>	Farm dairy effluent discharge regulation in the Otago Region
	<b>2. Dave Houlbrooke</b> <i>AgResearch</i>	Development of best management practice for land application of farm dairy effluent and the matching of management practice to soil and landscape features
	<b>3. Matt Harcombe</b> <i>Federated Farmers</i>	Where policy meets practice
11:00	Morning Tea	
11:20	<b>Moderator:</b> <b>Dave Houlbrooke</b>	<b>SESSION: Farm Dairy Effluent</b>
11:20	<b>Dave Horne</b> <i>Massey University</i>	Sustainable systems for land treatment of Farm Dairy Effluent: Tools for system design: <b>Part 1</b>
11:40	<b>James Hanly</b> <i>Massey University</i>	Sustainable systems for land treatment of FDE: Tools for system design: <b>Part 2</b>
12:00	<b>Steve Couper</b> <i>AWT</i>	Farm dairy effluent treatment
12:20	<b>Mark Hely</b> <i>Mono NZ Ltd</i>	Dairy effluent pumps
12:40 –	Lunch	
13:00	<b>POSTER SESSION</b>	
	<b>Authors</b>	<b>Poster Title</b>
	<b>Tom Orchiston</b> <i>AgResearch</i>	Managing effluents, slurries and solids on dairy farms
	<b>Gina Lucci</b> <i>AgResearch/Lincoln University</i>	Sources of phosphorus and sediment transfer from soil under dairying
	<b>Hamish Lowe</b> <i>CPG New Zealand</i>	Environmental monitoring in the Dairy industry

## 2010 ANNUAL CONFERENCE DRAFT PROGRAMME WEDNESDAY 17 MARCH 2010

<b>13:30</b>	<b>Moderator:</b> <i>Selva Selvarajah</i>	<b>SESSION: Farm dairy effluent</b>
13:30	<b>Joseph Powers</b> <i>Aqualinc Research Ltd</i>	Farm Dairy effluent design code and standards
13:50	<b>Richard Muirhead</b> <i>AgResearch</i>	Risk assessment of farm dairy effluent irrigation systems: Faecal indicator organisms
14:10	<b>Jiafa Luo</b> <i>AgResearch</i>	Livestock wintering systems and associated manure management
14:30	<b>Hamish Lowe</b> <i>LTC Technical Com-</i>	Introducing the LTC Strategic Plan
<b>14:45</b>	<b>Afternoon Tea</b>	
<b>15:10</b>	<b>Moderator:</b> <i>Rob Lieffering</i>	<b>SESSION: Biosolids</b>
15:10	<b>Tom Speir</b> <i>ESR Ltd</i>	New Directions for New Zealand Biosolids Research
15:30	<b>Hailong Wang</b> <i>Scion Research</i>	Effects of biosolids application on the environment and pine plantation profitability
15:50	<b>Gerty Geilen</b> <i>Scion Research</i>	Wet air oxidation of municipal biosolids as waste minimisation
16:10	<b>Iris Tschardtke</b> <i>Manukau Water Ltd</i>	Review of the "Guidelines for the safe application of Biosolids to land in New Zealand" from a producer/user perspective
16:45	Sandy Ormiston, Marie Heaphy and Mary-Anne Gloyne	<b>NZLTC AGM</b>
18:00	<b>AGM ends</b>	
<b>1900</b> <b>2000</b>	<b>The Customhouse. Cash bar. Own transport</b> <b>Customhouse Barbeque.</b>	

## 2010 ANNUAL CONFERENCE DRAFT PROGRAMME THURSDAY 18 MARCH 2010

<b>09:00</b>	<b>Moderator:</b> <i>Hailong Wang</i>	<b>SESSION: Onsite wastewater and natural systems</b>
09:00	<b>Ian Gunn</b> <i>OSET National Testing Programme</i>	OSET Trials
09:20	<b>Sandy Ormiston</b> <i>Ormiston Assoc. Ltd</i>	On-site wastewater system management - have we got it right?
09:40	<b>Craig Rall</b> <i>Devan Group</i>	Trials, Tribulations and Successes in Septic tank design
10:00	<b>Clive Rowe</b> <i>Pattle Delamore Partners Ltd</i>	Zero Discharge of Great Barrier Campground Greywater
<b>10.20</b>	<b>Morning Tea</b>	
<b>10.50</b>	<b>Moderator:</b> <i>Sandy Ormiston</i>	<b>SESSION: Onsite wastewater and natural systems</b>
10:50	<b>Nikki Johnstone</b> <i>Hynds Environmental</i>	Tahuna Township - challenges of treating and discharging wastewater to the local environment
11:10	<b>Chris Edmonds</b> <i>UMNZ</i>	Running a Decentralised MBR Wastewater Treatment Plant
11:30	<b>Karen Sky</b> <i>Pattle Delamore Partners Ltd</i>	Oamaru Bay, Coastal Land Disposal - a retrospective
11.50	<b>Ian Gunn</b> <i>On-site NewZ</i>	On-site effluent disposal from domestic sources in rural areas - the next leaky homes problem?
<b>12:10</b>	<b>Lunch</b>	
<b>13:00</b>	<b>Moderator:</b> <i>Matt Harcombe</i>	<b>SESSION: Onsite/resource consent/ land treatment of effluent</b>
13:00	<b>Bill Watt</b> <i>Invercargill City Council/MWH</i>	Managing on-site wastewater in low permeability soils: Invercargill City's Knowledge-based approach
13:20	<b>Victor Mthamo</b> <i>CPG New Zealand</i>	The importance of the Consent Application process in ensuring appropriate consent conditions for the Activity
13:40	<b>Dave Kirk</b> <i>ecoEng Pacific Ltd</i>	White's Bay, Marlborough: an overview of wastewater design provisions for a remote public site
14:00	<b>Katie Beecroft</b> <i>CPG New Zealand</i>	Land Treatment of Municipal Effluent on Erosion Prone Slopes

**2010 ANNUAL CONFERENCE DRAFT PROGRAMME THURSDAY  
18 MARCH 2010**

14:20	Afternoon Tea	
14:50	<b>Moderator:</b> <i>Alison Lowe</i>	<b>SESSION: Land treatment of effluent</b>
14.50	<b>Sarah McDonald/ Glen Treweek</b> <i>AWT/Waikato University</i>	View Rd Land Application Scheme Nitrogen Leaching from Effluent Irrigated to Pasture - Trial update
15:10	<b>Gillian Bullock</b> <i>MWH NZ Ltd</i>	Disposing of Primary Treated Wastewater through drip irrigation
15:30	<b>Ian Nicholas</b> <i>Scion Research</i>	Effluent under hardwoods
15.50	<b>Phillip Geary</b> <i>University of New- castle, Australia</i>	Distinguishing wastewater contaminant sources in the environment
18:30	Otago Museum	Coaches depart for Larnach Castle
19:00	Larnach Castle	<b>Pre-dinner drinks: Cash bar. Optional Castle tour (Castle tour \$15 per person – pay on arrival).</b>
22:30		<b>First coach returns to Dunedin</b>
23.30		<b>Second coach returns to Dunedin</b>

**Note: There is no  
Endusers meeting  
or Biosolids  
Workshop on the  
16th of March. A  
Biosolids  
workshop will be  
held later this year.**

## 2010 ANNUAL CONFERENCE DRAFT PROGRAMME FRIDAY 19 MARCH 2010

### Friday — 19 March 2010 Field Tour

07:50a.m.	Meet coaches in front of the Otago Museum	Depart at 08:00 sharp.
08:15-09.15	Otago Regional Council chambers	DOC presentation: Managing Human wastes at Popular Coastal Conservation sites. <b>Morning tea at ORC chambers.</b>
11:00-11:45	Kaka Point	Kaka Point Sewage Treatment Plant: BioFiltro system
12:15-13.00	Telford Polytech for Lunch	Zac Haderbache: Telford Farm Manager will give a talk during lunch outlining effluent management on Telford Farm.
13.00-14.00	Telford Farm	View the weeping wall effluent collection pond and k-line irrigation systems
14.15-15.15	Korteweg Farm	Visit Herdhomes. Overview of farm nutrient management
1600-16.30	Dunedin Airport	<b>Airport drop - off</b>
17:00	Otago Museum	Coaches arrive back in Dunedin

**Note: There will be toilets available at ORC, Kaka Point, Telford Polytech and Dunedin Airport.**



## ~ TRAINING AND COURSES FOR 2010 IN NEW ZEALAND AND AUSTRALIA ~

# NZWETA 2010



### Water Supply and Treatment Courses

#### Principles and Trends of Water Treatment

*Click here for more information or to register:* <http://www.nzweta.org.nz/principles-and-trends.html>

#### Understanding New Zealand's Drinking-Water Legislation

*Click here for more information or to register:* <http://www.nzweta.org.nz/nz-drinking-water-legislation.html>

#### Water and Environmental Sampling

*Click here for more information or to register:* <http://www.nzweta.org.nz/water-and-environmental.html>

#### National Certificate in Water Treatment (Site Operator)

*Click here for more information or to register:* <http://www.nzweta.org.nz/water-treatment-site.html>

#### National Diploma in Drinking Water – Water Treatment (Site Technician)

*Click here for more information or to register:* <http://www.nzweta.org.nz/drinking-water-treatment.html>



### Wastewater and Treatment Courses

#### Water and Environmental Sampling

*Click here for more information or to register:* <http://www.nzweta.org.nz/water-and-environmental.html>

#### National Certificate in Wastewater Treatment (Site Operator)

*Click here for more information or to register:* <http://www.nzweta.org.nz/national-certificate-WasteWater.html>

#### National Diploma in Wastewater Treatment (Site Technician)

*Click here for more information or to register:* <http://www.nzweta.org.nz/wastewater-treatment-national.html>



### Irrigation Courses

#### National Certificate in Irrigation Design

*Click here for more information or to register:* <http://www.nzweta.org.nz/page347725.html>



### Plumbing Courses

#### Backflow Prevention

*Click here for more information or to register:* <http://www.nzweta.org.nz/Backflow-Prevention.html>

#### Backflow Survey

*Click here for more information or to register:* <http://www.nzweta.org.nz/backflow-survey-course.html>



### Safe Practice Courses

#### Confined Space Training

*Click here for more information or to register:* <http://www.nzweta.org.nz/confined-space-entry.html>



### Reticulation Network Courses

#### Advanced Stormwater Design and Management

*Click here for more information or to register:* <http://www.nzweta.org.nz/page85396.html>

Enrolments for the first quarter of 2010 are now being taken for the above courses, please contact us to discuss your requirements and let us help realise your training needs.

#### For further information:

Phone: 0800 699 382 (NZWETA)

Fax: 04 587 0608

Email: [nzweta@nzweta.co.nz](mailto:nzweta@nzweta.co.nz)

Web: [www.nzweta.org.nz](http://www.nzweta.org.nz)

*Click here for the full 2010 Training Programme* <http://www.nzweta.org.nz/water-environment-training.html>

## ~ TRAINING AND COURSES FOR 2010 IN NEW ZEALAND AND AUSTRALIA ~

National Centre for  
Groundwater Research and Training  
sustaining a vital water resource



### **NCGRT Groundwater Industry Training**

The aim of the [NCGRT Groundwater Industry Training](#) program is to improve understanding of groundwater as a key natural resource, and has contributed significantly to the national awareness of the environmental impacts of groundwater processes including recharge, discharge, contamination, remediation and management. This program, formerly managed with outstanding success for over twenty years under the Centre for Groundwater Studies (CGS), will continue to be managed by the same staff on the same *business model*, but now as an activity stream under the National Centre for Groundwater Research and Training (NCGRT).

### **2010 GROUNDWATER COURSES**

[Australian Desalination Schools](#)

[Groundwater for Decision Makers Courses](#)

[Getting to Know Groundwater and Surfacewater Courses](#)

[Australian Groundwater Schools](#)

[Australian Groundwater Modelling School](#)

[Hydrochemistry and Environmental Isotopes Workshop](#)

[National Surfacewater-Groundwater Field Methods School](#)

[Soil and Groundwater Pollution Courses](#)

#### **For further information:**

Phone: +61 8 8201 5632

Fax: +61 8 8201 5635

Email: [industrytraining@groundwater.com.au](mailto:industrytraining@groundwater.com.au)

Web: [www.groundwater.com.au](http://www.groundwater.com.au)

If you have any events, conferences or training days you wish to advertise in the next newsletter, contact the Technical Manger at [marie.heaphy@scionresearch.com](mailto:marie.heaphy@scionresearch.com) . The next newsletter will go out in April.

**~ JOIN THE LAND TREATMENT COLLECTIVE TODAY! ~**

When you belong to the Collective you have increased opportunities to meet and network with other professionals involved in the land treatment of wastes and waste products, while having some fun in the process!

As a member, you are entitled to an exclusive range of benefits:

- You can attend the annual Conference and Field Tour at cost
- You can bring two members of your organisation to Conferences, at cost
- You receive a copy of the annual Technical Review based on the Conference theme
- You receive a copy of annual Conference proceedings and Field Tour Notes (also available to non-member delegates)
- You can link your website directly to the Collective's website
- You can advertise in the Collective Newsletter at highly reduced rates
- You can contact Collaborating members for advice on land treatment of wastes and waste products, free of charge, for a brief question or discussion
- You can be part of land treatment's active network of professionals, contributing to improving New Zealand clean, green and environmentally sustainable image.

**How to Join the Collective**

To join the Collective, you need to fill out and sign a Membership, and send it to the Collective either with payment or request an invoice. The annual membership fee is \$675 excl. GST. If you would like to discuss membership, or anything about the Collective, don't hesitate to contact us on [nzltc@scionresearch.com](mailto:nzltc@scionresearch.com).



For further information contact:

**IMPORTANT DISCLAIMER:**

*The contents of this publication are not intended to be substitute for specific specialist advice on any matter and should not be relied on for that purpose. Scion and its employees as well as the LTC shall not be liable on any grounds for any loss or damages or liability as a result of any reliance by any person upon information containing expressed in this work.*

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