



Australian and New Zealand Biosolids Partnership E-News

The Australian and New Zealand Biosolids Partnership (ANZBP) supporting sustainable management of biosolids in Australia and New Zealand

Dear ANZBP members and colleagues,

Welcome to the latest newsletter of the ANZBP. This month we are proud to release two new research products - an update of the Biosolids Production and End Use Statistics, first developed in 2010, and a new database that documents an impressive number of chemicals found in the environment. We hope you make use of these resources and find them useful. Feedback is welcomed.

This month ANZBP's annual membership drive will be conducted. Greg will be in touch to confirm ongoing membership, but will also be widening the net to find new members. There are currently 47 members, primarily water utilities, and we would like to grow that number. The support of the biosolids sector is essential to ensure the future of the ANZBP, and each membership is valued.

In the next few newsletters we will include brief biographies of the members of the ANZBP Advisory Board. The Board consists of ten individuals from across Australia and New Zealand who have a wide ranges of skills and backgrounds. These volunteers are instrumental in guiding the strategic direction of the ANZBP, but also act as technical advisors for ANZBP research projects.

First up are two board members who have been with the ANZBP since its inception in 2007:

Paul Darvodelsky - PSD Ltd

Paul is a chemical engineer with nearly 30 years' experience in the water industry. He specialises in process design and strategy with a specific focus on biosolids management. Paul is one of the most experienced biosolids management technologists in the region having completed over 30 major biosolids management strategies which service a total of over 20 million people. He has also been involved in the design, construction, procurement, commissioning and operation of over 100 solids handling facilities throughout Europe and Australasia. Paul also has a keen interest in sustainability and greenhouse gas emission issues and has worked on a range of projects involving energy and nutrient recovery from biosolids.

Nancy Penney - Water Corporation WA

Nancy has been involved with the Water Corporation's biosolids program since 1997. Nancy's primary role is to provide guidance to the Corporation on the sustainable return of biosolids and partially treated sludge to the environment. Nancy has developed a Biosolids and Sludge Policy, Standards and work instruction for the Corporation. Some of the research she has been involved with include the four year National Biosolids Research Program, and Phosphorus Bioavailability from Land-applied Biosolids in WA; key findings from these projects are now incorporated into the new WA State Biosolids Guidelines, which Nancy helped to review. Overall, Nancy provides specialised advice and direction on biosolids and sludge matters relating to environment, health and social impacts for the Corporation's 106 wastewater treatment plants

I hope you find this newsletter informative.

Michael Naughton
Chair ANZBP Advisory Board

ANZBP Activities & Tools

NEW ANZBP RESEARCH PRODUCTS: [Biosolids Production and End Use Survey](#) & [Industrial Contaminants Database](#)

Biosolids Production and End Use Survey

The ANZBP commissioned a national survey to identify the main features of biosolids management in 2010 and again in 2013. The results of the 2013 survey are presented on a national and state basis, with some discussion provided on significant differences to the 2010 survey results. The 2013 survey catalogues the following key parameters:

- Biosolids production
- Biosolids end use
- Biosolids stabilisation grade
- Biosolids contamination grade
- Biosolids primary stabilisation process
- Biosolids dewatering process

Many thanks to all who helped provide information for this research product.

Industrial Contaminants Database

When surveyed in 2011, ANZBP members expressed the desire for a list of contaminants that may be present in biosolids. This project has now been completed, documenting 778 unique chemicals found in the environment. The primary goal of this project was to identify if there are chemicals that may be present in biosolids that pose a risk to human health/environment and consider if there are legislative drivers that may be applied for the protection of public health and/or the environment. A systematic review of regulations for various environmental media from Australia and internationally was completed and compared to the research output reported in peer-reviewed scientific journal between the years 2008 and 2012. A searchable database has been created in each space - regulations and research. A priority list of chemicals was developed by cross referencing the two lists and the top twenty chemicals are listed in the summary sheet.

WERF Trace Organic Compounds Research Reports

Now published on the ANZBP website are a number of reports coming from the Water Environment Research Foundation's (WERF) *Evaluation of Fate and Exposure for Trace Organics in Biosolids-Amended Soils* research initiative. The recent research findings provide empirical data to assess environmental and health risks of trace organic compounds in biosolids applied to land. A substantial volume of unpublished (or recently published) experimental data was collected and is reviewed in the report.

Water Corporation/Curtin University Odour Management Project online

Throughout 2011 and 2012 the Water Corporation of Western Australia and Curtin University Water Quality Research Centre undertook detailed research into the sources of, and ability to control, odour generated while treating and storing biosolids. To date the project has focused on identifying and documenting the various chemical causes of odour via small scale lab trials, and exploring the impact of chemical addition at differing steps of the treatment process to mitigate odour production. The next phase, is to expand the lab trials to include sludge and biosolids from other wastewater treatment processes. This project phase will also provide qualitative data on odour reduction resulting from the chemical addition trials. It is anticipated further project phases will result in on site pilot scale trials.

***These resources can be found by logging on to the members section of the ANZBP website.
If you require a website password please contact the Project Manager.***

Industry News & Media

Australian and New Zealand Water Utility Performance Reports released

On the National Water Commission website and on the Water New Zealand website.

WEF NBP Report Released "Enabling the Future: Advancing Resource Recovery from Biosolids"

This document examines the unprecedented opportunities that now exist and are emerging for the organics, energy, and nutrients in biosolids. Available to download from the WERF website.

Article: Waste turns barren paddocks into a success

The odour might be off-putting, but the use of biosoil, or biosolids – treated, dewatered human sewage sludge – has helped New South Wales grower Danny Flanery to vastly increase the productivity of his soils, doubling their organic carbon content over the past five years. GRDC website.

Article: A view from the air leads to gains on the ground

Danny Flanery's focus on soil health has resulted in canola yields increasing from just 50t when he was starting out to around 500t from the same area (2500ha) now. His wheat yields have responded similarly: from 90t in the beginning from 350ha to 1500t now, with protein levels between 14.9 and 15.7 per cent. GRDC website.

Article: Biosolids meeting participants don't agree on much

Presenters and some attending a presentation about biosolids couldn't agree on much Thursday night during a forum sponsored by the state Department of Ecology. As lively as debate became, it was civil compared to other, much more heavily-attended public forums lately related to compost and biosolids, the controversial fertilizer made from sewage sludge. Article in the [Daily Record](#).

NZ WWTP Inventory replaces WINFO

The NZ WWTP Inventory replaces the WINFO database, which was established in 2005 as a joint venture between Water New Zealand and the Ministry for the Environment (MfE) to record data about New Zealand's publicly owned wastewater treatment plants (WWTPs). Data entrance fields include:

- Sludge treatment including dewatering
- Disposal/usage of sludge, and
- Sludge (quantities produced and % dry solids)

More information on the [Water New Zealand](#) website.

Please keep in mind that while member resources require you to log-in to the members area of the website, the public area of the website also contains a wide range of valuable information.

Events

Save the date - 2014 Biosolids and Source Management Conference 25-26 June 2014. Melbourne

This is your conference so we are very keen to get input and suggestions from our members regarding topics or keynote speakers. As the committee is entering the planning phase, share your suggestions with Kim Wuyts at [AWA kwuyts@awa.asn.au](mailto:AWA_kwuyts@awa.asn.au)

Please share this email with your colleagues, or encourage your colleagues to place their name on this email list by contacting the Program Manager. Many reports are accessible only by ANZBP members and will require a password to enter the members portion of the website. If you and your colleagues are employees of an ANZBP member organisation and require access to the members website, please email the [Project Manager](#).

From the ANZBP Team

The email has been sent on behalf of the Australian and New Zealand Biosolids Partnership by:

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