



## ***Australian and New Zealand Biosolids Partnership***

### ***E-News***

#### **The Australian and New Zealand Biosolids Partnership (ANZBP) supporting the sustainable, beneficial reuse of biosolids in Australia and New Zealand**

We are pleased to send you the regular E-news reporting on significant issues, trends events and new resources in biosolids management as well as recent progress in the ANZBP projects.

**As specialists working in biosolids management, you are invited to share information on biosolids developments within your locality, as well as resources and activities that may be valuable to other ANZBP subscribers. These contributions, plus your comments on this E-news or the ANZBP website ([www.biosolids.com.au](http://www.biosolids.com.au)) can be forwarded to the ANZBP Project Team- Greg Priest [gpriest@awa.asn.au](mailto:gpriest@awa.asn.au) or Andrew Speers [aspeers@awa.asn.au](mailto:aspeers@awa.asn.au)**

#### **Welcome**

Welcome to the fourth edition of the Newsletter of the Australian and New Zealand Biosolids Partnership.

I would like to begin by welcoming new members. It is my pleasure to announce that Cairns Regional Council, Curtin University, Gladstone Regional Council Royal Melbourne Institute of Technology and the Tasmanian EPA have now all joined the Partnership. It is exciting that we are now expanding our member base beyond utilities and it is also great to have a new member from Queensland where industry restructuring has meant that, until now, we've been under-represented in that state.

Tremendous progress has been recorded recently in delivery of our key outcomes. In this edition of the *Newsletter* we outline some of our achievements. In particular, the publication of the *Review of Biosolids Guidelines*, the impending upload (by early April) of the *Legal Register*, the preparation of the first stage report of the *Community Attitudinal Survey* project and the *Literature Compendium* are discussed.

I hope you enjoy this edition of the *Newsletter*.

#### **Project Management**

Due to a restructure in the Australian Water Association office, Andrew Speers has taken on the role of National Manager, Policy. Day-to-day management of the Partnership therefore become the responsibility of Greg Priest who has recently joined the Australian Water Association's National Office in Sydney as Sustainability Program Manager. As well as his responsibilities for the ANZBP, Greg manages the Industry Sustainability Program, assisting the Australian Water Sector to address corporate sustainability and climate change matters.

Prior to joining the AWA earlier this year Greg had worked in Commonwealth and State Government roles advising on sustainability policy and developing industry capacity building resources

In his new role Andrew will continue to provide strategic guidance to the project.

Greg's contact details are: [gpriest@awa.asn.au](mailto:gpriest@awa.asn.au) or ph. +61 (0)2 9467 8462 and Andrew's are [aspeers@awa.asn.au](mailto:aspeers@awa.asn.au) or ph. +61 (0) 2 9467 8426

## Update on Key Projects

### Review of Biosolids Guidelines

The *Review of Biosolids Guidelines* has been completed. This project, the product of a consortium led by Pollution Solutions and Design (PSD) and including Imperial College (London), TransPacific and MWH (New Zealand) has looked at regulations applying in all Australian states, federally and in New Zealand. This seminal document reviews and compares all directly applicable regulations, highlights any differences and explains the rationale for these differences. It also identifies whether a consistent national or regional approach to regulation is viable.

The approach used was to compare the regulations of all Australian states and territories, and New Zealand. In addition, the project reviewed the US EPA's biosolids guideline, the 40 CFR Part 503 rule, the European Union's Sludge Directive, 86/278/EEC and the UK's Safe Sludge Matrix to give context to the Australia and New Zealand biosolids rules. The USA and the EU were chosen as the key biosolids regulations outside of Australia and New Zealand with which comparison was most relevant. The key findings of the review are:

- The guidelines of Australia and New Zealand have many inconsistencies from region to region. It is the view of the research team that there is no need for the majority of these inconsistencies to exist. Further it is considered that there is significant benefit to biosolids management in having a consistent approach for all guidelines and that regulators should collaborate with stakeholders to develop such;
- Odour from biosolids was considered by the project team as the greatest threat to the long term, sustainable, beneficial use of biosolids because of its potential negative impact on public perception. The research team considers that the vector attraction reduction requirements in all current guidelines are inadequate in some aspects to reduce the odour potential of biosolids and require further research and optimisation;
- All guidelines in Australia, New Zealand and the USA have the same basic structure in that they mandate contaminant standards, pathogen and vector attraction reduction standards, management practices and sampling and reporting requirements. The EU Sludge Directive does not have specific requirements for management practices and sampling and reporting requirements;
- The Australian and New Zealand guidelines were developed with the primary aim of protecting the quality of grain and livestock products which are exported. This results in much lower allowable levels of contaminants in biosolids, compared to the EU and US regulations which were developed with the primary aim of protecting human health. As a result the Australian and New Zealand guidelines are significantly more stringent than the European and US regulations.

In total the *Review* includes 14 critical recommendations for improvement. The ANZBP Advisory Board will now consider the best approach to drive these recommendations forward. Options include development of a 'model regulation' or a Best Practice Manual.

A copy of the Summary of the Review is available [here](#).

A full copy of the *Review* is available only to subscribers. Each subscriber has been issued with a personalised copy of the *Review*. If you have not received yours please contact Greg Priest.

## Community Attitudinal Survey

The *Community Attitudinal Survey* is intended to identify the attitudes held with regard to biosolids by key stakeholders and the broader community. It is being carried out in two parts. The first, now completed, targeted stakeholders of particular influence in debates about biosolids use. These stakeholders included, for example, some holding regulatory power and those that are seen by the community as a credible source of unbiased information.

Recognising the changeable nature of community views, the second stage of the project involves a quantitative survey of the community comprising 50% of people who have, in some way, been affected by biosolids management, and 50% from the broader community who may or may not have been affected. This intentional bias toward affected communities will enable a more robust picture to be developed of the likely direction of debate once a biosolids issue emerges. Stage two has now been fully designed and the survey process is now underway.

The first stage report is in production. This report describes the methodology of the project, and detailed findings for Australia and New Zealand (the latter of which includes discussion of the impact of Tāngata Whenua issues on the management of biosolids) as well as observations gained from interviews with stakeholders in the United Kingdom.

Information from Stage one has influenced Stage two of the project. Thus, for example, information from key stakeholders about the critical issues in biosolids management, who the stakeholders see as providing the most credible information and other findings, have been incorporated in the design of surveys administered to the community in Stage two.

The final report of the project will be made available to all subscribers and a summary version placed on the website. The Stage One report should be available on the website in early April 2010.

## Legal Register



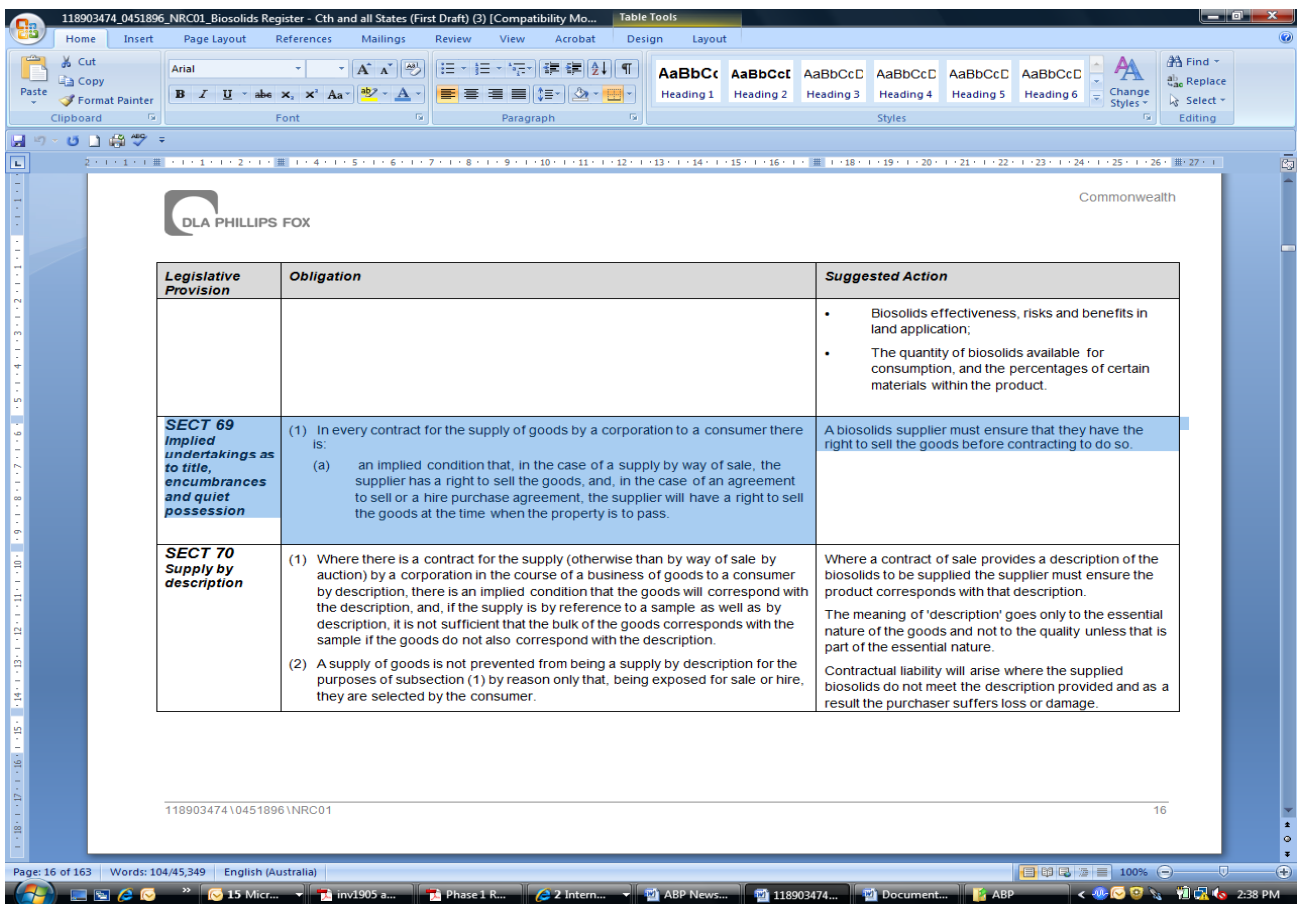
ANZBP subscriber, DLA Phillips Fox, a pre-eminent legal firm in Australia and New Zealand has produced for use by subscribers a *Legal Register*. This extensive database provides information on all legislation in Australia – State, Territory and Federal – relevant to the management of biosolids. Thus, while the *Review of Biosolids Guidelines* examined in detail the specific regulatory requirements for biosolids, the *Legal Register* covers all legislative matters that may be relevant to biosolids management, outside the specific regulatory framework. For example, the *Legal Register* lists the Commonwealth Trade Practices Act (1974) as a relevant piece of legislation, explains the clauses in that act that might be relevant to biosolids management, and includes suggestions as to the due diligence approaches that should be taken by managers to ensure they are compliant.

This will be a very valuable database for anyone with a responsibility to produce, transport, compost, sell, dispose of or apply for use biosolids produced in Australia. DLA Phillips Fox is now exploring the opportunity to extend the database to New Zealand.

A final edit of the database is being completed as this *Newsletter* is delivered. The *Legal Register* will be available on the Subscriber's section of the ANZBP website in late March, and will be formally launched at the Biosolids Speciality V conference in Sydney in June.

On behalf of all Subscribers the ANZBP Advisory Board has extended a special vote of thanks to DLA Phillips Fox for its efforts.

Below is a screenshot of a page of the *Legal Register*. This page deals with the Commonwealth Trade Practices Act (1974).



## Literature Compendium

The *Literature Compendium* will be a database of all recent literature covering the management of biosolids from the point of stabilisation on and will include management, biosolids application, technologies, and communication strategies and campaigns, among other things

Importantly, the project covers research and developments undertaken in-house by key industry participants that would not usually be written up for publication in a peer reviewed journal. Thus, the consultant will be contacting a list of 14-16 organisations in Australia and overseas to gain a perspective of critical emerging developments.

The project includes a report on identified research gaps. This will be used as input to the ANZBP's research agenda.

## Biosolids Speciality V Conference

The draft program for the Biosolids Specialty V conference is available [here](#). Keynote Speakers will include:

- Ian Pepper** (USA) Professor Ian Pepper is a highly respected environmental microbiologist specialising in the molecular ecology of the environment. His research has focused on the fate and transport of pathogens in air, water, soils and wastes. He is Director of the University of Arizona, National Science Foundation Water Quality Centre (WQC) and has worked in the area of land application of biosolids for over 20 years.
- John Novak** (USA) For more than 40 years, John Novak has made a career out of studying wastewater sludge dewatering and odours. Now the Nick Prillaman Professor of Civil and Environmental Engineering at Virginia Tech, John is one of the most respected researchers in wastewater treatment, sharing his passion and vision with hundreds of young researchers, many who have themselves begun remarkable careers and

contributed to WERF research.

Additionally, the ANZBP will convene a workshop at which guest speaker [Mike Scharp](#) will present on the topic of Improving operations – a Certification Program for Biosolids Transporters. This will be followed by a presentation for current and potential subscribers on development of the Partnership and the outcomes of its research efforts.

A face-to-face planning session for all subscribers will also be held at the conference (see below)

To register for the Biosolids Speciality V Conference, click [here](#).

## Face-to-face meet and greet at Biosolids Speciality V Conference

All ANZBP Subscribers are invited to a meet and greet to be held in conjunction with the Biosolids Speciality V Conference. This will provide an opportunity for us all to get to know each other better, and to exchange ideas and thoughts about the direction of the Partnership. This meeting will be held on the evening of Thursday 3<sup>rd</sup> June from 5-6:30pm (Day two). It is not necessary for you to be a registered participant at the Biosolids Conference, but of course you're encouraged to do so as it promises to be a very interesting event for all biosolids practitioners.

You will receive a personal invitation to the face-to-face meeting shortly.

## Teleconference for Research Agenda

In December 2009 a series of teleconferences were held to provide the opportunity for all subscribers to have input to the future research agenda of the ANZBP, among other things. A list of priority research areas have been subsequently identified and considered by the Advisory Board. These will be incorporated into the Partnership's *2010-11 Business Plan*, currently under development.

You should have received information on how to participate in a survey to refine this list of priorities to enable us to tailor our priorities to member needs. It does not matter if you represent a new member and haven't had a chance to be involved in this process previously, or were not able to be involved in the teleconferences last year; your input will still be invaluable. If you have not received the survey please contact Greg Priest.

## Free Webinar

The National Biosolids Partnership in the United States has announced the second in its series of free quarterly webcasts for water quality and biosolids professionals. The topic is [Advances in Solids Reduction Processes at Wastewater Treatment Facilities](#).

Participants will:

- Learn about the state of the practice in sludge reduction technologies.
- Understand the many types of technologies currently available and different general mechanistic principles behind them, and the key factors that determine their consideration for a particular application.
- Identify the potential and requirements associated with implementation of these technologies in your facility in the search for reduced sludge disposal requirements, better sludge quality, increased in-plant energy production, and general decreased life-cycle costs.

Speakers include:

- [Todd Williams](#) (WEF Residuals & Biosolids Committee Vice-Chair): Welcoming Remarks
- [Julian Sandino](#) (CH2M Hill, Kansas City, MO) - Underlying Mechanistic Principles, Performance Evaluation and Proposed Modeling Approaches for Selected Wastes

- [Mohammed Abu-Orf](#) (AECOM, Philadelphia, PA) - DC WASA Adopts Thermal Hydrolysis for Anaerobic Digestion, Pretreatment: Conceptual Design Details for the Largest Cambi System
- [Bruce R. Johnson](#) (CH2M Hill, Englewood, CO) - Applications of Variable Environmental Conditions on Biological Sludge Production in Wastewater Treatment

The Webcast will be held on 28th April 2010 (US time; In Australia and New Zealand the event will be **29<sup>th</sup> April**). As this webcast originates from the US, the times are not very convenient for Australia and New Zealand. Nevertheless they are:

- New Zealand – 29<sup>th</sup> April, 6am-7:30am
- Australia (Eastern) 29<sup>th</sup> April, 4am-5:30am
- Australia (Central) 29<sup>th</sup> April, 3:30am-5am
- Australia (Western) 29<sup>th</sup> April, 2am-3:30am



Solids Reduction Reg  
Form.doc

Arrangements are being made to get a copy of the webcast for anyone who is interested but can't participate at these times.

If you would like to register to participate in this event, please complete the adjacent registration form and email it to Julie Santacroce of the Water Environment Foundation at [jsantacroce@wef.org](mailto:jsantacroce@wef.org)

## Research Corner

The fate of trace organic compounds is an emerging issue in biosolids management. Research interest is turning to this area in Australia and New Zealand and overseas. The Water Environment Research Foundation (WERF) is initiating a research program in the area to provide information to regulatory and other public agencies, product manufacturers, and other responsible entities to support informed regulatory and policy decisions. WERF's research initiative will build on existing efforts and use a combination of laboratory and field studies to determine potential human and ecological exposure to key trace organics in biosolids-amended.

As a first component of this research WERF has released a report on the [Fate of Estrogenic Compounds During Municipal Sludge Stabilization and Dewatering](#). This project convened a team of experts in the fields of environmental engineering, environmental chemistry, and hydrogeology to evaluate the occurrence, fate, and transport of estrogens in biosolids resulting from wastewater treatment. Initial findings were encouraging. The research team found that concentrations of most trace organic compounds decrease through the solids portion of the plant. An extended comment on this project, with external links is available on the ANZBP website ([click here to go to the site](#))

As this is a topic identified by ANZBP subscribers as being of interest, contact has been made with WERF to look at opportunities for the Partnership to be involved in WERF's research. In the meantime, if you'd like to know more a presentation by the WERF project leader is available for download [here](#)

## From the ANZBP Team

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