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Media Conferences



Venue: Ottway 2 Board Room, Melbourne Convention Centre

Clean-up our land, water and waste, warn experts Tuesday 9th May, 09:30

Two international experts on water and waste will be available for interview

Dr. Rob Vertessy, Chief, Land and Water, CSIRO: (02) 6246 5855
Dr. Dennis Paustenbach, CEO Chemrisk, USA

Recycling or disposing, difficult wastes Tuesday 9th May, 12:30pm

How can Australia better dispose of - and even benefit from – hazardous and difficult wastes?

Speakers:

Daniel Fyfe: General Manager, Victoria, SITA (Mob: 0412 230 610)
John Hewitson: Operations Manager, Geocycle, (Mob: 0412 489 474)
Rod McLellan: Projects Director, Major Projects Victoria, (Mob: 0421 615 851)

Koala housing, disaster relief and biohavens... Wednesday 10th May, 10:00am

Today's media conference will investigate the challenges new sustainable ideas face in being taken up by industry and the wider community

Speakers:

Rhett Butler: SkyJuice Foundation – (mob: 0438 880 621)
Deborah Tabart: CEO, The Australian Koala Federation. – (mob: 0407 750 668)
Bernie Masters: Geological and environmental consultant. – (mob: 0408 944 242)
Dr Tanya Plant: Manager, Urban Developments Institute of Australia. – (mob: 0428 928 255)

The great Aussie dream: Zero waste cities Wednesday, 10th May, 12:30pm

Cities around Australia are developing initiatives and infrastructure to move towards achieving zero net waste production. But is this truly achievable?

Speakers:

Phill Johnstone: Principal Policy Analyst – Waste, Dept. Sustainability & Environment, Victoria (Mob: 0408 360 815)
John Lawson: Manager, NSW for Global Renewables. (Mob: 0438 873 475)
Dr Trish McGee: Sustainability Victoria (Mob: 0423 853 90)
John Kernahan: National Marketing Manager, SULO Australia. (Mob: 0412 062 761)

Where are all the Green Buildings? Thursday 11th May, 09:30am

Building environmentally sustainable buildings is gathering pace worldwide, so why aren't there more 'green' buildings in our cities and local neighbourhoods?

Speakers:

Dr Peter Newton: Chief Scientist at CSIRO and Director of Sustainable Built Assets program - (mobile 0418 332 016)
Robert Enker: Sustainability Manager, Building Commission - (mobile Rob is actively involved in the new building performance regulations which are aimed at making our built environment more sustainable.
Peter Szental: Principle of Szencorp – (mobile He works towards delivering sustainability through property development, water and energy efficiency and waste-to-energy projects.

Is recycled water safe to drink?

Wednesday 10th May 12:30pm

Four leading water scientists will clarify this question.

John Anderson: Technical Director, NSW Department of Commerce:

Heather Chapman: Program leader - Sustainable Water Sources program, CRC Water Quality and Treatment, Queensland Health Scientific Services 0400 096 359

Kevin Flanagan: Director Engineering Services, Toowoomba City Council, 0417882499

A/Prof. Greg Leslie: School of Chemical Sciences and Eng. UNSW: 0414 234 345

Media Alert



Enviro 06 Conference & Exhibition

Melbourne Australia 9-11 May 2006

in collaboration with partner associations

- Australian Water Association
- Waste Management Association of Australia

Partner

- Victorian Government

Media Conference

Clean-up our land, water and waste warn experts

Tuesday 9th May, 09:30 – 10:00am

Venue: Ottway 2 Board Room, Melbourne Convention Centre

Two international experts on water and waste will be available for interview at a media conference being held at Enviro 06 Conference and Exhibition, the largest environmental management conference in the southern hemisphere, which begins Tuesday 9 May in Melbourne.

Dr. Rob Vertessy, Chief of CSIRO Land and Water, will address the plenary session of Enviro 06 alongside John Thwaites, Deputy Premier and Minister for Environment Water & Victorian Communities.

Dr. Vertessy will discuss the problem of water scarcity in Australia in the face of a climate change scenario.

Dr. Vertessy is a specialist in the field of forest hydrology and catchment modelling. The former director of Australia's Cooperative Research Centre for Catchment Hydrology, he became Chief of CSIRO Land and Water in 2004 and is a passionate advocate for the establishment of a national Water Resources Observation Network.

Dr. Paustenbach is a leader in the development and application of health and environmental risk assessment in the USA and has published extensively in the fields of industrial hygiene, human and aquatic toxicology, engineering, and risk assessment. Dr. Paustenbach, now chief principal of ChemRisk, will tell Enviro 06 delegates about lessons learned from more than 50 contaminated sites in the USA, and elsewhere in the world.

He is highly experienced in the practical application of risk assessment in the cleaning up and management of soil and groundwater contamination.

Dr. Paustenbach has had extensive experience in addressing community concerns about hazardous wastes left on industrial sites similar to those at Homebush Bay in Sydney and Melbourne's Docklands development.

Both presenters will outline a range of solutions to make Australia's soils, rivers, estuaries and catchments healthier.

Media conference speakers:

Dr. Rob Vertessy, Chief, Land and Water, CSIRO: (02) 6246 5855

Dr. Dennis Paustenbach, CEO Chemrisk, USA

For Media Assistance:

Jenni Metcalfe: Econnect Communication, 0408 551 866

Sarah Bartlett: Econnect Communication, 0404 504 258

Media Alert



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Media Conference: 12.30-1pm, Tuesday 9th May

Venue: Ottway 2 Board Room, Melbourne Convention Centre

Recycling or disposing, difficult wastes

How can Australia better dispose of - and even benefit from – difficult and hazardous wastes such as those from the pharmaceutical and chemical industries?

In an age of recycling, can we recycle hazardous wastes rather than containing them?

Enviro 06 Conference & Exhibition will host a media briefing to address these issues, Tuesday 12.30pm at the Melbourne Convention Centre. Speakers will discuss emerging industry practices of treating difficult wastes, and what is being done by some cities aiming for zero waste targets.

One alternative being presented at Enviro 06 is a process that blends waste into a fuel for co-processing with coal into cement kilns.

John Hewitson from Geocycle will explain the advantages of using waste as a fuel.

“Government is paying big money, 50 cents per litre, to recycle oil,” says Mr Hewitson. “But as a replacement fuel you only get 3 cents return in value. Replacing coal as a fuel is considered to be at least as beneficial for the environment. There is no increase in emissions by using a combination of wastes as fuel, compared to that of burning coal alone.”

Rod McLellan, Project Director for Major Projects Victoria, will outline how new public policies are encouraging alternative technologies to tackle waste management.

“Victoria is leading the way in setting up a new world’s best practice system for managing difficult and hazardous waste,” says Mr McLellan. “A suite of new waste policies has been introduced to encourage industry to go beyond simply ‘reducing, reusing and recycling’ waste. Many companies have responded positively and intend to introduce these new technologies.”

Daniel Fyfe of SITA will facilitate a hypothetical scenario based around a bird flu detection in Melbourne, during the Difficult Waste stream at Enviro 06. The Panel will address a situation whereby Bird Flu is detected in a public place and work through the major issues of each of the participants in a light hearted manner.

Media conference speakers:

Daniel Fyfe: General Manager, Victoria, SITA, 0412 230 610

John Hewitson: Operations Manager, Geocycle, 0412 489 474

Rod McLellan: Projects Director, Major Projects Victoria, 0421 615 851

For media assistance:

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Koala housing, disaster relief and BioHavens...

Wednesday 10th May, 10.00am – 10.30am

Venue: Ottway 2 Board Room, Melbourne Convention Centre

Establishing koala-friendly housing estates, low cost water treatment for disaster situations and BioHavens as wildlife refuges are just three technologies being presented at Enviro 06 in Melbourne this week.

Enviro 06 Conference & Exhibition will present an impressive amount of new environmentally sustainable technologies and products.

Today's media conference will investigate the challenges new sustainable ideas face in being taken up by industry and the wider community

"The world already knows of thousands of ways to be more sustainable – but it's just not happening," argues Deborah Tabart, CEO of the Australian Koala Federation (AKF).

Deborah will be presenting the AKF's development of a koala-friendly, totally sustainable housing estate at Enviro 06.

Rhett Butler of SkyJuice Foundation is the creator of SkyHydrant, a tool for low cost water treatment ideal for use with disaster relief, developing countries and remote communities.

Rhett has experienced some degree of reticence in response to his creation.

"Basically we are in pot of warm water," he says. "We must ensure all developing nations are provided with real, economic and tangible incentives. The alternative is that our planet will not adapt."

BioHavens are man-made floating islands that provide habitat for wildlife, useful for canal housing developments and areas disturbed by the mining industry.

"Sustainability is a journey," says Bernie Masters, who is presenting the BioHaven technology at Enviro 06. "It is not an end point that we can today define. It is a process of continual improvement."

Tanya Plant from the Urban Development Institute of Australia will provide a view of the challenge of converting environmental ideals into realities from the perspective of the development industry.

"The key to increasing the number of developers ultimately making sustainable decisions is to make sustainable development a more financially viable model for doing business," Dr Plant said.

Media conference speakers:

Rhett Butler: SkyJuice Foundation – (mobile 0438 880 621)

Deborah Tabart: CEO, The Australian Koala Federation. – (mobile 0407 750 668)

Bernie Masters: Geological and environmental consultant. – (mobile 0408 944 242)

Dr Tanya Plant: Special Projects Manager, Urban Developments Institute of Australia. – (mobile 0428 928 255)

For Media Assistance:

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The great Aussie dream: Zero waste cities

Wednesday 10th May 12:30pm

Venue: Ottway 2 Board Room, Melbourne Convention Centre

Cities around Australia are developing initiatives and infrastructure to move towards achieving zero net waste production. But is this truly achievable?

It is estimated that each Australian leaves 360 kg of waste per year for collection by councils. Are we doing enough, and what else can be done to make our cities, Zero Waste Cities?

“Waste is the responsibility of every Australian,” says Trish McGee from Sustainability Victoria. “Small changes can help us reach this target with minimum interruption to our day to day lives”

“Victoria's Towards Zero Waste strategy is helping to make the transition towards being a low waste society,” says Phill Johnston from Victoria's Department of Sustainability and Environment. “The communities' progress is encouraging with 53% of waste materials currently being reused or recycled.”

Advanced waste technologies and infrastructure will also play a role in achieving zero waste.

“Our wheelie bins may be replaced by advanced waste chutes, where waste is suctioned through an underground network of pipes,” says John Kernahan from SULO MGB waste technologies.

Waste specialists speaking at Enviro 06, will discuss what needs to be addressed for Australian cities to be Zero Waste Cities.

Media conference speakers:

Phill Johnstone: Principal Policy Analyst – Waste (Mobile: 0408 360 815)
Victoria's Department of, Sustainability and Environment

John Lawson: Manager, NSW for Global Renewables. (Mobile: 0438 873 475)

Dr Trish McGee: Sustainability Victoria (Mobile: 0423 853 90)
Trish has developed the Waste Wise Cities networks work with commercial organisations in Victoria to minimise waste.

John Kernahan: National Marketing Manager, SULO Australia. (Mobile: 0412 062 761)
John is involved in commercialising a new waste collection system, known as Underground Collection Containers, or “Life beyond Wheelie Bins”.

For media assistance :

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Sarah Bartlett, Econnect Communication, 0404 504 258

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Media Conference Where are all the Green Buildings?

Thursday 11th May, 09:30am – 10:00am

Venue: Ottway 2 Board Room, Melbourne Convention Centre

Building environmentally sustainable buildings is gathering pace worldwide, so why aren't there more 'green' buildings in our cities and local neighbourhoods?

Sustainable buildings incorporate the use of innovative technologies which save energy, reduce water use and decrease greenhouse emissions.

"Green buildings deliver a significant economic and social benefit - not just an environmental benefit," says Robert Enker of The Building Commission in Victoria. Mr Enker is one of several keynote speakers attending a special session to examine the trends of sustainable buildings in Australia.

"There is no single approach that will create a rapid community shift towards sustainable buildings," says Peter Szental, a leader in sustainable developments. "We need a mix of mandatory regulations and business initiatives to improve the sustainability of Australia's built environment."

Dr Peter Newton, chief scientist of CSIRO Manufacturing & Infrastructure Technology, says there are three challenges to overcome for the future of sustainable buildings. He believes we need to design buildings and subdivisions to enhance environmental performance, change community attitudes and behaviour toward 'green' buildings, and renovate existing building structures.

The three panellists from the **Enviro 06 Sustainable buildings stream** will discuss their involvement in the rise of sustainable buildings, and what needs to be done to encourage green buildings throughout Australia.

Speakers:

Dr Peter Newton: Chief Scientist at CSIRO and Director of Sustainable Built Assets program - (mobile 0418 332 016)

Robert Enker: Sustainability Manager, Building Commission - (0392856450)

Rob is actively involved in the new building performance regulations which are aimed at making our built environment more sustainable.

Peter Szental: Principle of Szencorp – (mobile 0411 691 550)

He works towards delivering sustainability through property development, water and energy efficiency and waste-to-energy projects.

For media assistance:

Jenni Metcalfe: Econnect Communication, 0408 551 866

Sarah Bartlett: Econnect Communication, 0404 504 258

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Media Conference

Is recycled water safe to drink?

Thursday 11th May, 12:30pm

Venue: Ottway 2 Board Room, Melbourne Convention Centre

Australians are still divided about whether recycled water is safe.

Unlike many countries that have embraced water re-use technology for their drinking and irrigation needs, many politicians and community groups remain sceptical about the cost, benefit and public health risks of treated effluent and wastewater for urban use.

Four leading water scientists will clarify this question at a special media conference during Enviro 06 Conference & Exhibition in Melbourne, this week.

John Anderson from the NSW Department of Commerce says there are many examples in Australia and worldwide that demonstrate how water re-use technology supplements domestic water supplies safely and successfully.

“Technology is not the issue,” says Mr Anderson. “It’s the interaction between the water industry, community, politicians and regulators that’s important. Community understanding and attitudes are the main factors as to the extent to which government will implement these technologies.”

Greg Leslie, of the University of New South Wales, says wastewater technology is absolutely safe. “Treated effluent and wastewater re-use has been going on for years. It’s only now that there is a greater need for it, that the public are re-evaluating its use.”

Kevin Flanagan of Toowoomba City Council says the proposed Advanced Water Treatment Processes for further treatment of effluent from the city’s wastewater treatment plant will produce a water of a superior quality to that which currently enters the city’s normal drinking water supplies.

Australian scientists are also leading the way in assessing trace chemicals in recycled water. Heather Chapman, of Queensland Health Scientific Services, will outline a new water quality monitoring tool that allows scientists to detect hormones, carcinogens, toxins and other contaminants in our water supplies.

Media conference speakers:

John Anderson: Technical Director, NSW Department of Commerce

Heather Chapman: Program leader - Sustainable Water Sources program, CRC Water Quality and Treatment, Queensland Health Scientific Services 0400 096 359

Kevin Flanagan: Director Engineering Services, Toowoomba City Council, 0417882499

A/Prof. Greg Leslie: School of Chemical Sciences and Eng. UNSW: 0414 234 345

For media assistance:

Jenni Metcalfe, Econnect Communication, 0408 551 866
Sarah Bartlett, Econnect Communication, 0404 504 258

Media Releases Summary



Tackling the waste mountain – released Sat, 6th May

Dr John White: Chairman, Global Renewables – 0419 528 478

Paul Howlett: Chair, Enviro 06 Conference & Exhibition, mobile: 0412 500 702

Saving waste \$\$\$ - 4 simple TOP TIPS

Mr Paul Howlett, Chair of Enviro 06, phone 0412 500 702

Wasteland clean up to cost billions

Dr. Ravi Naidu: Director, Cooperative Research Centre for Contamination Assessment & Remediation of the Environment (mob: 0407 720 257)

Dr. Dennis Paustenbach: Contact through media room, Howqua 1, c/o Econnect Communication, 0404 504 258

Relieving the pressure through water reuse

John Anderson, *Technical Director*, Department of Commerce NSW, (02) 9372-7811,
Robert Perey, Knowledge Index, change facilitation consultancy. 02 9699 9113

Green buildings not in the red or adding to ozone hole

Peter Szental: Szencorop mobile: 0411 691 550

Richard Reed: Lecturer in Property, University of Melbourne: mobile: 0402812020

Ballarat residents save on water bills

Bob Ford: Manager, Catchment Policy, Central Highlands Water
(03) 5320 3200, or through Econnect Communication, 0404 504 258

Media Release



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Tackling the waste mountain

It is estimated that each Australian leaves 360 kg of waste per year for collection by councils. For a family of four, that's enough to fill three or more large four-wheel drive vehicles.

Enviro 06 Conference & Exhibition will host a diverse and dynamic forum examining waste management issues from planning, legislature and quarantine to the latest technologies of capturing, converting and capitalising on waste. It is to be held 9-11 May at the Melbourne Conference & Exhibition Centre.

"In our current consumer economy, more than 90% of gross domestic product goes to form waste and about 80% of all saleable products end up as waste, on average within just six months", according to Dr. John White, Chairman of waste processing company, Global Renewables (subsidiary company of GRB Limited).

In a world of declining natural resources and over consumption the management of waste is a rapidly expanding industry and an increasing challenge for governments and legislators around the world.

"The forecast demand for capital expenditure in NSW on waste infrastructure alone is about AUS\$600m over the next 5 years," according to Paul Howlett, Chair of Enviro 06 Conference & Exhibition.

With NSW accounting for some 35% of the Australian market, this estimate could be extrapolated to roughly 2 billion over the next 10 years for waste management infrastructure nationally.

This figure, based on in-house estimates by Wright Corporate Strategy, represents the amount that needs to be spent if all state governments are to meet published targets for waste minimisation.

Highlights of the waste presentations:

(papers at: www.enviroaust.net, Technical Program Search)

Bird flu – Hypothetical or not? - Daniel Fyfe of SITA, paper e6428.

Establishing new hazardous waste facilities in Victoria
Rob McLellan of Major Projects Victoria, paper e6379.

Hazardous waste of alternative fuel? The cement kiln option for sustainability
John Hewitson of Geocycle, paper e6270

Contacts:

Dr John White, Chairman, Global Renewables – 0419 528 478

john.white@globalrenewables.com

Paul Howlett, Chair, Enviro 06 Conference & Exhibition, mobile: 0412 500 702

paul.howlett@wrightstrategy.com,

For media assistance:

Sarah Bartlett, Econnect Communication sarah@econnect.com.au, (07) 3846 7111, 0404 504 258

Media Release



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Saving waste \$\$\$ - 4 simple TOP TIPS

For immediate release, Monday 8 May 06

Waste is likely to cost \$2 billion nationally over the next decade, just for providing the needed landfill sites, waste treatment centres and other infrastructure.

For example, New South Wales is likely to need to spend about \$600million on waste infrastructure over the next five years. This figure, based on in-house estimates by Wright Corporate Strategy, represents the amount that needs to be spent if the state government is to meet published targets for waste minimisation.

“With NSW accounting for some 35 percent of the Australian market, this estimate can be extrapolated to roughly \$2 billion over the next 10 years for waste management infrastructure nationally,” says Paul Howlett, Director of Wright Corporate Strategy and Chair of Enviro 06.

Mr Howlett says there are four top ideas that can be implemented by local councils, businesses and householders with little additional cost or trouble.

1. Provide small sealable red plastic bags to each household for disposal of dry cell and mobile phone batteries in the recycling bins. The red bags can be collected at the recycling plant and the batteries processed.
2. Make kerbside collection of recyclables available to small businesses in city areas. The rubbish collection services already drive past these businesses, the businesses already pay for the service in their council rates, and significant additional amounts of paper and cardboard could be recovered.
3. Send waste collections from CBD high-rise office buildings to paper recovery plants instead of landfill. Upwards of 70% of office waste is paper based, and mostly uncontaminated by food or liquids. This approach would reduce the cost of rubbish collection and disposal for the businesses, increase the amount of paper resources recovered and reduce the demand on landfill.
4. Intercept waste delivered to transfer stations and landfills by self-haul (i.e. those people with a trailer or small truck) and sort to remove recoverable resources and separate wet waste from dry waste. This will increase the recovery of resources and reduce the demand for high-cost landfill space.

Enviro 06 is designed to address the latest in research and practice in the important field of waste management. From green cities to zero waste, both the exhibition and conference will provide valuable insights into the future development of resource and waste management across Australia and around the world.

For detailed program and papers, see the Enviro website: www.enviroaust.net

For interview: Mr Paul Howlett, Chair of Enviro 06, phone 0412 500 702

For media assistance: Jenni Metcalfe: 0408 551 866, jenni@econnect.com.au; Sarah Bartlett: 0404 504 258, sarah@econnect.com.au

Media Release



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See: www.enviroaust.net

Wasteland clean up to cost billions

For immediate release, Tuesday 9 May

Cleaning up Australia's 100,000 contaminated sites will cost over \$5 billion according to experts attending international environment management conference **Enviro 06 Conference & Exhibition**, in Melbourne this week.

Scientists claim there is an urgent need to protect the environment and public health from the effects of chemical and heavy metal contamination from sites in metropolitan and regional areas. Current policies to deal with the problem have been slow, inadequate and sometimes dangerous.

Past and present chemical plants, city dumps, smelters, ports and factories are among the thousands of sites that have spilled toxic waste into our soil, groundwater, rivers and estuaries. Despite considerable efforts to rehabilitate some of the worst sites, many remain hazardous to human health and the environment.

Sustainable and cost effective solutions such as bioremediation, risk assessment and advanced waste disposal technologies are needed according to visiting environmental scientist Dr Dennis Paustenbach, chief principal of the US company ChemRisk.

"Contamination and assessment is a complex field, and involves more than just the simple application of science-based rules," he says. "The difficulty that arises is when our legal fraternity get involved, and the difficulty of resolving issues when there are large sums of money involved."

Dr Paustenbach will discuss at Enviro 06 how to use risk assessment to deal with contaminated sites, drawing on lessons learned from more than 50 sites in the US and elsewhere in the world.

Also presenting is Professor Ravi Naidu, director of the Cooperative Research Centre for Contamination Assessment and Remediation of the Environment, based in Adelaide. Professor Naidu says many chemicals used by industry and farming in the past are still having ongoing harmful effects today.

"There may be major issues with possible arsenic contamination both in rural sites and high value land that can potentially make people sick," says Professor Naidu. "Any toxic substances that are present could lead into the groundwater"

"We need to look at innovative technology for managing contamination and improved data to ensure the quality is based on science," says Naidu. He stresses it is vital that industries and researchers work together to extract value from waste, and work towards long-term solutions. Professor Naidu will discuss his research program at the upcoming Enviro 06 Conference & Exhibition being held at the Melbourne Conference & Exhibition Centre from 9-11 May 2006. Naidu's - research on arsenic poisoning in Bangladesh, India, and China, may have implications - in Australia.

For interview:

Dr. Ravi Naidu: Director, Cooperative Research Centre for Contamination Assessment & Remediation of the Environment (mob: 0407 720 257)

Dr. Dennis Paustenbach: dpaustenbach@chemrisk.com - or through contacts below.

Enviro 06 website: www.enviroaust.net

Media assistance contact:

Jenni Metcalfe: 0408 551 866. jenni@econnect.com.au

Sarah Bartlett, 07 3846 7111, 0404 504 258, sarah@econnect.com.au

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Relieving the pressure through water reuse

For immediate release Wednesday, 10th May

Water reuse technology is tried, proven and safe –it just needs the will and acceptance of the community and governments, according to speakers at Enviro 06 this week.

“Water re-use technology is no longer the issue, it’s the interaction between the water industry, community, politicians and regulators that’s important”, says John Anderson, Technical Director of Sustainable Water Solutions for the NSW Department of Commerce.

Enviro 06 will be showcasing an impressive range of current research and technology already available. There will be 10 separate streams dedicated to water management. The conference provides an excellent forum for allowing better understanding of the technologies available and how they are already being implemented.

“One of the biggest barriers that stop us from using these incredible tools that we *have* to build a better future, is the most common human emotion - fear of the unknown,” explains Mr. Robert Perey, of Knowledge Index.

There are significant plans for industrial use in Australia and intensive research being conducted into recycling water for drinking purposes, but some of our scientists believe things aren't moving fast enough.

“Community understanding and attitudes are enormous factors as to the extent to which government will implement already established sustainable technologies,” says Mr. Anderson

See Enviro’s website for an up-to-date program, beginning 9th May:

www.enviroaust.net

For interview:

John Anderson, *Technical Director*, Department of Commerce NSW, (02) 9372-7811, john.anderson@commerce.nsw.gov.au

Robert Perey, Knowledge Index, change facilitation consultancy. 02 9699 9113
robert_perey@knowledgeindex.com.au

Media assistance: Jenni Metcalfe, Econnect Communication 0408 551 866
Sarah Bartlett, Econnect Communication; 07 3846 7111, 0404 504 258

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Green buildings not in the red or adding to ozone hole – Australia's greenest ever building also economic

For immediate release, Thursday 11 May 06

Commercial buildings in Australia account for at least 10 percent of our green house gas emissions, which can have a significant impact on ozone depletion.

“Commercial buildings are major users of water and energy, and the amount of their greenhouse gas emissions is estimated to increase drastically by the year 2010,” says Peter Szental of Szencorp Sustainable Developments.

Mr Szental will be presenting Australia's first 6-star building redevelopment awarded by the Green Building Council of Australia at **Enviro 06 Conference & Exhibition**. The Szencorp office building at 40 Albert Rd, Melbourne scored the highest points yet and is currently the greenest building in Australia.

The Szencorp office building includes many sustainable technology firsts, including natural ventilation, a fuel cell, water recycling schemes and grey/rain water harvesting. They have decreased water consumption by 82 percent, energy use by 70 percent, waste taken to landfill by 80 percent and the building has zero net greenhouse emissions.

“It is Australia's first zero emissions building,” says Mr Szental.

With Australia needing to reduce green house emissions by 50 percent in the next 30 years, Dr Richard Reed from the University of Melbourne will discuss during Enviro the mechanisms available for developers to achieve zero emission targets.

“Buildings emit a substantial amount of greenhouse gases, but by improving buildings thermally we can decrease emissions,” he says.

Dr Reed has been involved in a detailed analysis of all office buildings in the Melbourne CBD, to assess their energy uses and carbon dioxide emissions. “Surprisingly 12% of all greenhouse gas emissions in Victoria, Australia are derived from commercial buildings,” he says.

According to Mr Szental, we can make huge savings by avoiding additional energy infrastructure investment. The Federal Government has estimated that an additional \$37 billion investment in energy infrastructure is required over the next 15 years. “If all our buildings performed as our does, then this investment could be totally avoided,” he says.

Enviro 06 is designed to address the latest in research and practice in the field of Building Sustainable Cities. From green cities to zero waste, both the exhibition and conference will provide valuable insights into the future development of resource and waste management across Australia and around the world.

For interview:

Peter Szental: Szencorp : mobile: 0411 691 550, Enviro Paper: (e6102)

Richard Reed: Lecturer in Property, University of Melbourne: r.reed@unimelb.edu.au,
mobile: 0402 812 020, Enviro Paper : (e6351)

For program and paper details, see the Enviro website: www.enviroaust.net

For media assistance: Jenni Metcalfe: Econnect Communication, 0408 551 866, jenni@econnect.com.au.
Sarah Bartlett: Econnect Communication, 0404 504 258, sarah@econnect.com.au

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For immediate release, Wednesday 10th May

Ballarat residents save on water bills, thanks to catchment management

Water authorities and the community of Ballarat, Victoria are reaping dividends from effective catchment management, seeing savings of \$15-\$20 per year on the average water bill.

Effective catchment management has delivered real benefits to customers by reducing contamination risk while also avoiding the high costs associated with treating polluted drinking water, according to Bob Ford, Central Highlands Water's Policy Manager

"Because we have been able to contain our cost of treating drinking water, we can also deliver real benefits to our customers," said Mr Ford.

"The direct saving to the average water bill is estimated at about \$15 to \$20 per year, which is huge benefit to the community."

Ballarat's drinking water catchments are open catchments and subject to a wide variety of land uses such as agriculture, transport, recreational and urban uses. All of these activities have the potential to degrade water quality.

"Our catchments are the first barrier, and catchment protection is the most effective way of providing the best quality water possible before it goes to treatment plants for cleaning," said Mr Ford.

The local water authority, Central Highlands Water, has been working to protect its catchment for generations and has recently partnered with three other local water authorities who are to develop a common policy to guide developments in water catchments.

Such policies reduce the risk of inappropriate or excessive developments from occurring in the catchments, helping to protect the quality of the water, to maintain the lower treatment costs.

"By developing effective policies and by working in partnership with local landholders and community groups we have been able to protect and enhance the quality of raw water we deliver to Ballarat's water treatment plants," said Mr Ford.

Bob Ford will be reiterating the importance of catchment planning at Enviro 06 Conference & Exhibition, Australia's premier environmental industry event to be held in Melbourne 9-11 May.

For Interview: Bob Ford (03) 5320 3200 rford@chw.net.au

For more information about Enviro 06 and for media assistance contact:

Sarah Bartlett, (07) 3846 7111, 0404 504 258 or sarah@econnect.com.au

Enviro 06 website: www.envirouast.net

Media Briefs



Media Briefs



Enviro 06 Conference & Exhibition

Melbourne Australia 9-11 May 2006

in collaboration with partner associations

- Australian Water Association
- Waste Management Association of Australia

Partner

- Victorian Government

Queensland

Migrating waders and housing developers win award for partnership excellence (SE Qld/Quirky)

Land developers Hegira Ltd had to build a close working partnership with the community of wading birds in Moreton Bay before they could develop a canal estate at Dux Creek foreshore. Since development approval in 2000, their work to provide alternative sites and upgrade existing sites for roosting waders has been commended by government. More than 100,000 wading birds inhabit the shores of Moreton bay in the summer; however, their numbers have decreased due to the development surge in South East Queensland.

Peter Scott - Sustainability Initiatives Stream (g2), Wednesday 10th May, 8.30am (e6291).

Contact: Peter Scott, HLA-Envirosciences

Phone: (07) 3606 8900 Mobile: 0409 409 584 Email: pscott@hla-enviro.com.au

Queensland's garden city is running out of water (Regional Qld/Water)

The Water Futures Toowoomba Program has been initiated to create a sustainable future for the once vibrant garden city, now running out of water. The program is sourcing water through treated effluent and water reuse. The growing population in Toowoomba City, coupled with the current water shortages throughout Queensland, means that the city needs to find an extra 7,000ML of water per year to meet requirements.

Kevin Flanagan - Water Reuse Stream (s3), Thursday 11th May, 5.00pm (e6384).

Contact: Kevin Flanagan, Toowoomba City Council

Email: k.flanagan@toowoomba.qld.gov.au

SE QLD case studies set out to demystify urban water recycling and harvesting (SE Qld/Water)

Among the first of their kind in Australia, Queensland residential developments are demonstrating the feasibility of creating sustainable living water environments. Three case studies include Cape Di Monte retirement village at Mt Tamborine, Ecovillage at Currumbin and The Farm subdivision at The Gap. Each development involves small water systems which harvest and recycle water, using cutting edge technology and ideas.

David Hamlyn-Harris - Integrated Water Stream (t2), Wednesday 10th May, 11.40am (e6212).

Contact: David Hamlyn-Harris, Bligh Tanner (principal consultant)

Email: david.hamlyn-harris@blightanner.com.au

Gene technology called upon by the water industry (Qld/Quirky)

The use of biotechnology to identify dangerous organisms in our drinking water may be the way of the future. Researchers at Griffith University are testing various DNA techniques to pick up bugs like *E.coli* and *Staph aureus* and *Cryptosporidium parvum*, in sources of drinking water. This approach is believed to be more accurate than the current method, which is critical for public protection from water borne disease.

Helen Stratton - Disinfection Issues Stream (o2), Wednesday 10th May, 2.30pm (e6413).

Contact: Helen Stratton, Griffith University.
Email: h.stratton@griffith.edu.au

If Queensland power stations recycle, then Wivenhoe water levels rise (Qld/ Water)

Somerset and Wivenhoe Dams are at 32% capacity and will be empty by June 2007 if we don't start to see substantial changes in water use. Rather than using recycled water, power stations in South East Queensland are directly accessing Wivenhoe Dam, taking water that could be used for drinking. More use of recycled water for non-drinking purposes will help in saving the little drinking water we have left.

Robyn Maddalena -Water Reuse Stream (s3), Thursday 11th May, 11.15am (e6433).

Contact: Dr Robyn Maddalena, Queensland Health
Email: robyn.maddalena@health.qld.gov.au

Queensland caravan park waste savvy (Qld/Water)

The Ocean View Caravan Park in Maleny, Queensland, is using new sewage treatment and reuse technology, the Biolytix system. Biolytix is a membrane-managed system that can produce top quality recycled water, reducing demands on drinking water by 50%. Residents are using the recycled waste water for irrigation, gardening, washing cars and flushing toilets.

Tony MacCormick -Integrated Water Stream (t2), Wednesday 10th May, 3.00pm (e6243).

Contact: Tony MacCormick, Biolytix Technologies
Phone: (03) 6428 3170 Mobile: 0418 445 210 Email: tony.maccormick@memcor.com.au

Insects fight back from the dead against insecticides (Qld/Quirky/Environment)

Researchers have identified insect and bacterial genes that can break down pesticides in minutes—the natural breakdown process takes years. The enzyme has been trialled by the Indooroopilly Golf Course to reduce toxic pesticide run-off that has potential high impacts on human health.

Robert Van Merkestein -Difficult Wastes Stream (u1), Tuesday 9th May, 4.40pm (e6331).

Contact: Robert Van Merkestein, Orica Watercare
Phone: (03) 9283 6283 Mobile: 0401 710 701 Email: rvm3@orica.com.au

**Developments breaking down barriers to wastewater reuse
(Qld/ water, waste)**

Two new developments in Queensland, Sunrise at 1770 and Couran Cove Island Resort, are using localised wastewater treatment systems for on site water reuse. As well as decreasing household costs, these systems have a number of environmental benefits. Although some management risks need to be considered, Queensland's sustainable developments are demonstrating water reuse throughout Australia.

David Wiskar -Sustainability Initiatives Stream (g2), Wednesday 10th May, 12.00pm (e6068).

Contact: David Wiskar, Wide Bay Water Corporation

Phone: (07) 4197 4143 Mobile: 0417 720 211 Email: davidw@widebaywater.qld.gov.au

Victoria

Rewarding offices doing more with less (VIC/Waste)

Waste Wise Cities Network provides recognition and support to Melbourne businesses that minimise their waste. Initiated by the Victorian Government and waste authorities, the project has 75 businesses already on board, working to reduce the 80,000 tonnes of waste produced each year by offices, hotels and restaurants combined. A goal of zero waste production is aimed at reducing green house gas emissions released from Melbourne's CBD.

Trish McGee -Zero Waste Cities Stream (w2), Wednesday 10th May, 2.30pm (e6178).

Contact: Trish McGee, Sustainability Victoria
Phone: (03) 9653 6945 Mobile: 0423 853 490 Email: trish.mcgee@sustainability.vic.gov.au

The Szencorp building gets a 'Green Star' (VIC/Urban sustainability)

A five-storey commercial building in South Melbourne is leading the way in sustainable urban development in Australia. Producing zero green house emissions, the Szencorp building is Australia's first corporate building to be awarded a 6-star rating from the Green Building Council of Australia and a Green Star for its energy efficiency. Owner Peter Szental believes his development will be a benchmark for future 'green buildings' in Australia.

Peter Szental -Sustainable Buildings Stream (j3), Thursday 11th May, 2.20pm (e6102).

Contact: Peter Szental, Szencorp Sustainable Development, Melbourne
Phone: (03) 9867 1655 Email: peter.szental@szencorp.net

Melbourne's greenhouse gas emissions set to increase (Melbourne/Environment)

Researchers have demonstrated that greenhouse gas emissions from Melbourne office buildings will increase significantly if no serious action is taken. Richard Reed from the University of Melbourne, with help from the Melbourne City Council, collected information such as age, floor area, physical location and electricity and gas usage for a sample of CBD offices. The findings support the need for more sustainable practices in the property sector.

Richard Reed -Sustainable Buildings Stream (j3), Thursday 11th May, 5.10pm (e6351).

Contact: Richard Reed, University of Melbourne
Phone: (03) 8344 8966 Mobile: 0402 812 020 Email: r.reed@unimelb.edu.au

A few small steps to reach 80% water and energy efficiency (VIC/Urban development)

The Sharland Oasis display home in Geelong has reduced water and energy consumption by 80% compared to average Victorian homes. This was achieved by reducing mains water use for kitchens/bathrooms, using rainwater and recycled grey water, and using high energy-rating appliances and innovative technologies such as solar power. These few simple changes demonstrate how we can better manage water and energy in our homes.

Nicole Patterson -Sustainability Initiatives Stream (g2), Wednesday 10th May, 9.30am (e6356).

Contact: Nicole Patterson, Barwon Water
Phone: (03) 5226 2362 Mobile: 0400 964 033 Email: nicolep@barwonwater.vic.gov.au

Saving water with the web (VIC/Water)

Using the internet to build relationships could be the latest tool to save water, claim Fitzgerald Marketing Group and Deakin University. Water retailers are hoping they can target people that use too much water by developing relationships with them through the internet.

David Fitzgerald -Community & Environment Stream (h3), Thursday 11th May, 2.00pm (e6179).

Contact: David Fitzgerald, Fitzgerald Marketing Group,
Phone: (03) 9329 6576 Mobile: 0412 484 485 Email: david@fmginteractive.com

Just say no (VIC/Environmental)

A campaign to deter people from using plastic bags successfully turned awareness into action, claims the Highlands regional waste management group. The 'Say NO to plastic bags' campaign made it easy for people to change their behaviour by getting traders to promote the message and provide reusable bags. The campaign demonstrated partnerships and marketing playing a big role in getting people to change their behaviour.

Rosemary Angus -Community & Environment Stream (h3), Thursday 11th May, 11.30am (e6096).

Contact: Rosemary Angus, Highlands Waste Management
Phone: (03) 5333 7770 Mobile: 0408 428 855 Email: rosemary@issltd.com.au

New South Wales

Turning trash into environmental treasure (NSW/Stormwater)

For a long time, urban stormwater has been seen as a source of pollutants. Now, the possibility of turning it into an alternative source of irrigation water is here. Stormwater in Sydney has been captured and used to water the greens of the Manly Golf Club. The pilot study showed that groundwater can be treated to a level appropriate for use on playing fields and gardens, reducing demands on precious drinking water.

Melanie Schwecke -Sustainable Initiatives Stream (g2), Wednesday 10th May, 2.20pm (e6167).

Contact: Melanie Schwecke, CRC Irrigation Futures
Phone: (02) 9976 1606 Mobile: 0427 991 682
Email: melanie.schwecke@manly.nsw.gov.au

Incentives for reducing household water consumption (Sydney/Water)

Ian Kiernan from Clean Up Australia believes that government incentives will promote public interest in water sustainable households. With Sydney water consumption exceeding safe levels by 30% for the past three years, a new way of thinking is needed. Although most residents have welcomed water restrictions, little positive effects will be seen until changes such as plumbing modifications and rainwater tanks are made.

Ian Kiernan -Urban Sustainability Stream (b1), Tuesday 9th May, 3.00pm (e6322).

Contact: Ian Kiernan, Clean Up Australia
Phone: (02) 9692 1202 Mobile: 0408 269 233 Email: tjohnson@cleanup.com.au

Unlikely partnership surprises all, bringing people and wildlife together (NSW/Quirky)

The Koala Federation and Gold coast building developers Ray Group have forged a partnership that has created a wildlife-friendly residential development. The prime development site along the coast of northern New South Wales is one of the last havens for wild koalas. To accommodate both parties, the two groups designed and built a residential estate based around the environmental needs of the koalas.

Deborah Tabart -Sustainability Initiatives Stream (g2), Wednesday 10th May, 8.50am (e6121).

Contact: Deborah Tabart

Phone: (07) 3229 7233 Mobile: 0407 750 668 Email: dtabart@savethekoala.com

Learning from a living laboratory (NSW/Water)

Residents in a small suburb of Newcastle managed to save water, money and improve their local environment by getting involved in a 'living laboratory' project run by Newcastle City Council. The 'Kotara roof to creek project' diverted rain into tanks and converted street drainage infrastructure to improve the local creek and enable residents to be more water efficient. Hunter Water Australia, the University of Newcastle, water industry suppliers, plumbers and local residents worked together on the project.

Michelle Collins-Roe -Community & Environment Stream (h3), Thursday 11th May, 11.30am (e6067).

Contact: Michelle Collins-Roe, Hunter Water Australia

Phone: (02) 4941 5837 Mobile: 0408 204 016 Email: michelle.collinsroe@hwa.com.au

Goulburn's strategy for water sustainability (NSW/Quirky)

The Goulburn City Council has built an advanced wastewater treatment plant to combat their lack of water security. The new system is a multi-barrier approach that uses technologies such as micro-filtration, ozone and reverse osmosis, producing 6ML/day of high grade recycled water. The benefits for Goulburn are long-term drought security and an improved local water cycle, both leading towards water sustainability.

Luke Johnson -Water Reuse Stream (s3), Thursday 11th May, 5.30pm (e6409).

Contact: Luke Johnson

Email: luke.johnson@goulburn.nsw.gov.au

Australian Capital Territory

Ethical investors seek Green Star (ACT/urban sustainability)

Australian Ethical Investment Ltd is planning to build a new head office in Canberra that is completely ecologically sustainable. The commercial building will reach a 6-star Green Star office design standard by following all environmental standards. The company is working with specialist green building advisors and a design team with expertise in sustainable urban development to turn a building they have purchased into an exemplar green building.

Warren Overton -Sustainable Buildings Stream (j3), Thursday 11th May, 3.00pm (e6090).

Contact: Warren Overton, Green buildings advisor, Energetics Pty Ltd

Phone: (02) 6297 5948 Mobile: 0407 274 823 Email: overtonw@energetics.com.au

National

Australian invention providing clean water to world (National/Water)

Developing countries and disaster-struck areas where water quality is poor now have a solution. The Skyhydrant, developed by Rhett Butler of the SkyJuice Foundation, is a portable membrane water purification system that requires no power, and is easy to clean and operate. The membrane removes solids, bacteria, parasites and large viruses, producing 20 litres of clean water per person/day at a cost of 50c per person per year.

Rhett Butler -Integrated Water Stream (t2), Wednesday 10th May, 2.00pm (e6317).

Contact: Rhett Butler, Skyjuice Foundation
Mobile: 0438 880 621 Email: rhett.butler@optusnet.com.au

Office plants-help us work harder (National/Quirky)

Polluted air in city offices is costing the Australian community \$12 billion per year due to health and work impacts, according to Ronald Wood from Innovative Plant Technology. His company uses plants to remove airborne chemicals and increase Indoor Environmental Quality. Plants enhance our work performance by decreasing our exposure to pollutants and providing cleaner air.

Ronald Wood -Sustainable Buildings Stream (j3), Thursday 11th May, at 4.30pm (e6142).

Contact: Ronald Wood, Innovative Plant Technology
Phone: (02) 9654 1264 Mobile: 0414 695 588 Email: iplant@bigpond.net.au

Man-made islands (National/Quirky)

Islands made of polyester and mesh, tailored to size and implanted with water loving plant species, are increasing the presence of local wildlife and improving water quality in developed areas. BioHaven floating islands have been shown to increase the presence of water birds around the water body as well as the number of fish that use the island for shelter.

Bernie Masters -Sustainability Initiatives Stream (g2), Wednesday 10th May, 8.40am (e6400).

Contact: Bernie Masters, B K Masters
Email: bmasters@iinet.net.au

Rubbish sucks (National/Quirky)

Rubbish could be sucked from buildings through a network of underground pipes to collection stations, providing a more aesthetic, cleaner method of waste disposal. SULO MGB, one of Australia's largest suppliers of waste solutions, is actively researching new waste technologies to improve collection from public places.

John Kernahan -Zero Waste Cities Stream (w2), Wednesday 10th May, 12.00pm (e6258).

Contact: John Kernahan, Sulo MGB
Phone: (02) 4348 8188 Mobile: 0412 062 761 Email: j.kernahan@sulo.com.au

Australia relieves Pacific islands of their POPs (National/Waste)

The Australian Government's new 'POPs in PICs' program allows Persistent Organic Pollutants (POPs) from susceptible Pacific Island Countries (PICs) to be shipped to Australia for destruction. POPs are chemicals that remain intact in the environment for long periods and are toxic to humans and wildlife. This removes the exposure of the local Pacific communities who cannot manage the chemical products locally.

Daniel Todd -Difficult Wastes Stream (u1), Tuesday 9th May, 3.00pm (e6141).

Contact: Daniel Todd, GHD

Phone: (03) 8687 8738 Mobile: 0400 662 677 Email: daniel_todd@ghd.com.au

Australian water shortage by 2030 (National/Water)

The Water Services Association of Australia predicts that, even if consumers reduce water consumption by 10%, Australia will have a water shortage by 2030. All Australian water infrastructures follow the 'one pass' principle—source water, use it, then dispose of it. The only sustainable solution is for cities to push towards a closed loop system that requires alternative water supplies, recycling and demand management.

Steven Kenway -Urban Sustainability Stream (b1), Tuesday 9th May, 11.40am (e6100).

Contact: Steven Kenway, CSIRO, Future Cities

Phone: (07) 3327 4087 Mobile: 0419 979 468 Email: steven.kenway@csiro.au

Is waste our new source of fuel (National/Energy)

Strategies to manage difficult waste disposal may also solve the problem of alternative fuel sources. Most wastes are disposed of by incineration and landfill; however, technologies that convert wastes into sources of fuel are more environmentally and economically friendly. For decades, the global cement industry has used cement kilns to reuse high levels of waste as raw material and alternative fuels.

John Hewitson -Difficult Wastes Stream (u1), Tuesday 9th May, 11.50am (e6270).

Contact: John Hewitson, Geocycle.

Phone: (03) 8792 5411 Mobile: 0412 489 474 Email: john.hewitson@cemaust.com.au

Urban development polluting groundwater (National/Water)

Groundwater exists beneath the earth's surface and is a major source of fresh drinkable water. However, leaking mains, sewage pipes, spillages and car leaks can make groundwater undrinkable due to toxins and bacterial loads. Better methods for urban planning, groundwater management and groundwater protection are needed to protect this water source.

Ken Howard -Urban Groundwater Stream (p2), Wednesday 10th May, 8.30am (e6073).

Contact: Ken Howard, University of Toronto

Email: gwater@utsc.utoronto.ca

New sources of water need new safety measures (National/Water)

The push to find alternative sources of drinking water has also put pressure on the water industry to implement new strategies to ensure safety. The water industry must protect the public and the environment from emerging contaminants that may result from technologies such as water recycling, desalination and rain harvesting.

Heather Chapman -Water Reuse Stream (s3), Thursday 11th May, 3.10pm (e6382).

Contact: Heather Chapman, Queensland Health Scientific Services
Phone: (07) 3274 9180 Mobile: 0400 096 359 Email: heather_chapman@health.qld.gov.au

Huge organic demand but no farmers (National/Rural)

Over 20,000 farmers have left conventional farming in the last decade while the demand for organic products on our shelves is outstripping supply. We continue to import organic grain and dairy products to meet our shortfalls. The Organic Federation of Australia says organic production is increasing at 6 -15% per year, while consumption is growing at 25-40% per year.

Andrew Leu - Organics Recycling Stream (v1), Tuesday 9th May, 4.30pm (e6434).

Contact: Andrew Leu, Organic Federation of Australia
Phone: (07) 4098 7610 Mobile: 0428 459 870 Email: leu@austarnet.com.au

Western Australia

Partnering to manage water in wheat belt (WA/Water/Wheat)

Government, universities and catchment groups in the West Australian wheat belt have come together to develop tools to help manage water in rural towns. This research project used the WAVES model to create salinity impact plots for each of the towns and wants to deliver water management plans to all rural towns involved.

Anthony Barr - Urban Groundwater Stream (p2), Wednesday 10th May, 11.00am (e6289).

Contact: Anthony Barr, CSIRO land and water.
Phone: (08) 9333 6280 Mobile: 0400 004 082 Email: tony.barr@csiro.au

Community works (WA)

People are more likely to protect drinking water sources if they participate in government discussions on the subject, suggests Marion Burchell of the Water and Rivers Commission, Western Australia. The Quin nip town water source protection plan is an example of how to successfully involve local people in government processes. It is an excellent case study that shows how community engagement theory, when put into action, can result in people taking environmental responsibility.

Marion Burchell - Community & Environment Stream (h3), Thursday 11th May, 11.30 (e6074).

Contact: Marion Burchell, Department of Agriculture,
Phone: (08) 9368 3177 Mobile: 0419 853 250 E-mail: mburchell@agric.wa.gov.au

New Zealand

High expectations, but no one wants to pay (New Zealand/Environment)

New Zealand local councils are developing environmental plans to link with the communities' desires for their area. It seems communities demand a high level of service, but are usually not willing to pay for it. The Dunedin City Council is the first in New Zealand to produce a Long Term Council Community Plan that outlines the services offered by the Council and what the community expects from them.

Tony Avery - Asset Management Stream (r3), Thursday 11th May, 10.30am (e6414).

Contact: Tony Avery, Dunedin City Council

Email: tony.avery@dcc.govt.nz



Enviro 06 Conference & Exhibition
9 - 11 May 2006
Melbourne Exhibition & Convention Centre
Australia



Building Sustainable Cities

TOP STORY IDEAS

Enviro 06 – the one stop information source for environmental research, management policy, industry and on-ground work.

Enviro 06 is attracting up to 6000 delegates, trade visitors and exhibitors from Australia and overseas. Those present will be from industry, government, research, universities, consultancies, as well as companies and other organisations wishing to enhance their environmental performance.

The concurrent Mayors Asia-Pacific Environmental Summit (MAPES) will draw 200 local government leaders from around the world to the event.

Some highlights:

(most papers can be obtained from www.enviroaust.net - Technical Program Search)

1) WASTE TREATMENT

Five Streams at **Enviro 06** will look at alternative disposal technologies of our wastes with the ambitious target of creating sustainable cities with zero waste.

Melbourne plans for a future with zero waste

“Melbourne 2030 and planning for waste management”

Dr Phil Johnstone (Dept Sustainability and Environment Victoria) – Zero waste cities stream

Wednesday 10th May, 8.30am, paper – e6455

Waste program taking Melbourne by storm

“Waste Wise Cities Networks (Zero Waste Victoria)”

Trish McGee (Sustainability Victoria) – Zero waste cities stream

Wednesday 10th May, 2.30pm, paper – e6110

Rubbish sucks: Wastes could be sucked from our future homes

“Alternative collection technologies: for advanced resource recovery”

John Kernahan (SULO MGB Australia)– Zero Waste Cities Stream

Wednesday 10th May, 12:00, paper - e6258

Challenging government policy on waste

John Lawson from the Australian Council of Recyclers will challenge government policy in an open workshop designed to create some lively debate on industry policy.

Workshop – Zero Waste Cities Stream

Wednesday 10th May, 16:30

**** Media Conference :** Media Room, **Enviro 06 – Zero Waste**, Wednesday 9th, morning tea break **

2) WATER

The social acceptance of water re-use is a common theme throughout the conference.

“Water re-use technology is no longer the issue, it’s the interaction between the water industry, community, politicians and regulators that’s important,” says former Deputy Prime Minister John Anderson, leader of the Water Re-use Stream.

“Community understanding and attitudes are enormous factors as to the extent to which government will implement these already established technologies.”

Enviro 06 Water Re-use Stream presents 3 successful international case studies that could assist the Australian community gaining confidence in the safety of recycled water.

Australians might also be surprised to learn that there a number of examples around Australia of industry and agriculture already using recycling technology.

The 9 water Streams at **Enviro 06** will cover catchment management, treatment technology, the recycling debate, de-centralised water systems, conservation and water as an asset and how to manage it.

Some notable presentations:

Water re-use (Grey Water/ stormwater)

Let’s use less of it, think of new ideas and do it now

Ian Kiernan describes the need for Australians to develop more responsible attitudes to using water. He emphasises that many of the supply options being considered are antiquated and inefficient and new technologies and attitudes require encouragement.

“Establishing a sustainable water supply for Sydney”

Ian Kiernan - Urban Sustainability Stream

Tuesday May 9th 15:15, paper - e6322

Will we have enough water to keep our gardens?

“Can grey water productions keep up with the watering requirements of urban gardens?”

Mick Battam (URS Corp.) - Sustainability Initiatives Stream

Wednesday 10th May, 15:10, paper - e6229

National guidelines on water recycling

“National guidelines on water recycling and indirect potable re-use”

David Cunliff (SA Health) - Water Re-use Stream

Thursday 11th May, 14:00 – 14:30, paper - e6389

Water-wise office buildings

“Water conservation with on-site grey water treatment and re-use in office buildings”

Guenter Hauber-Davidson - Sustainable Buildings Stream

(updated program) Thursday 11th May 14:00 – 14:20 paper - e6108

**** Media Conference : Media Room, Enviro 06 - Water Re-use, Thursday 11th May Lunch ****

Source water/catchment protection

Enviro 06 looks in depth at the issues around protecting our sources of drinking water, reducing the need for large scale, expensive treatment schemes downstream:

Why our catchments need protection

“Planning catchments for our water future”

Bob Ford (Keynote speaker), Central Highlands Water – Catchment Management Stream

Tuesday 9th May, 10:30 – 11:00, paper - e6021

Enviro 06 www.enviroaust.net For media assistance: Jenni Metcalfe (jenni@econnect.com.au, 0408 551 866); Sarah Bartlett (sarah@econnect.com.au; 0404 504 258)

How to: protect our catchments

“Research priorities for source water protection: A drinking water perspective.”

Jen Guice (CRC WQT)– Catchment Management Stream

Tuesday 9th May, 16:30 – 16:45, paper - e6363

Just what is urban development doing to our groundwater flow?

“Effects of Urban Development on Groundwater Base Flow in Streams” (Melbourne river case study)

Carl Damon (Sinclair Knight Mertz) – Urban Groundwater stream

Wednesday 10th May 9.30am, paper – e6392

Groundwater forum – “The billion dollar costs of urban groundwater but few action plans.”

Peter Dillon, CSIRO: Chair

Urban Groundwater Stream; Wednesday 10th May, 16:30

Wastewater treatment**Melbourne eco-village shows how to reduce waste**

“Wastewater system design as the WestWyck Ecovillage”

Simone Lange (Van De Graaff & Associates Pty Ltd) – Sustainability Initiatives stream

Wednesday 10th May 11.30am, paper – e6232

Water wastes and catchment protection need equal attention

“Reusing reclaimed wastewater for drinking- Challenges for sustainable water management”

Vasanth Aravinthan (University of Southern Queensland)– Water Re-use Stream

Thursday 11th May, 14:30 – 14:50, paper - e6007

Three streams that focus on water treatment technologies:

- State of the art in wastewater treatment (I1)
- Natural organic matter (NOM) - The water quality issue of the noughties (N2)
- Disinfection, UV and ozone (O2)

3) SUSTAINABLE BUILDINGS

The ecological footprint of the average Australian is currently 3.5 times the global average. The challenge for urban designers in the face of projected population growth figures for Australia is to create sustainable dwellings by reducing energy consumption and gas emissions to help curb this rising figure.

Current population predictions for Australia ecologically unsustainable

“Roadmap for a green transition of Australia’s built environment”

Peter Newton (Chief Scientists, CSIRO Manufacture & Infrastructure Technology) (Keynote) – Sustainable Buildings Stream

Thursday 11th May, 10:40, paper - e6417

12% of Victoria’s greenhouse gases coming from Melbourne’s offices

“Melbourne’s 2020 Vision: Towards Carbon Neutral Office Space in the CBD”

Richard Reed (University of Melbourne) - Sustainable cities stream

Thursday 11th May, 5.10pm, paper - e6351

Australia’s first zero emissions building awarded

“Delivering and rating performance of leading edge sustainable buildings”

Peter Szental (Szencorp sustainable development)- Sustainable Buildings stream

Thursday 11th May, 2.20pm, paper – e6102

Energy efficient building regulations in place 1st May 2006

“Victorian building regulation vision for the future: energy efficiency measure for non residential buildings”

Robert Enker (Building commission) - Sustainable Building stream

Thursday 11th May, 11:00, paper – e6418

**** Media Conference, Media Room, Enviro 06 - Sustainable buildings; Thursday 11th May, 10:00****

4) BIRD FLU - Difficult Waste, Hypothetical

The implications of the spread of Bird Flu (or Avian Influenza Virus) may be far reaching whether it reaches the stage of causing a Human Pandemic or remains solely as an avian virus.

A panel will look at how Australia might deal with a bird flu epidemic and how the infected birds would be disposed of and where. The hypothetical will focus on the liability implications surrounding the site of the initial outbreak, for example if it were from ducks in "Vicland Royal Botanical Gardens", what body would be responsible? This will be a light-hearted look at a very serious subject but will also attempt to answer the hard questions of potential scenarios.

Panel:

Regulator: Bruce Dawson, EPA
 Government Policy (I): Andrew Cameron, DPI
 Government Policy (II): Rodney Moran, DOH
 Treater/Destroyer: Max Spedding, Stericorp
 Lawyer: Baker & McKenzie Solicitors: Ann Moon

Chair: Daniel Fyfe (Sita/Stream Leader) - Difficult Waste Stream, Tuesday 9th May, 17:10

5) SKYHYDRANT

Cheap, simple, portable water treatment technology – a positive success story

Catalysed by the 2004 Asian tsunami and facilitated by the Clean Up Australia network, SkyJuice has developed Skyhydrant™, which produces high volume drinking water at a cost of 50c per person per annum.

The technology is completely sustainable. No power is required to operate the filtration system and there are no chemicals involved, hence the low running cost. The system exceeds all guidelines set by the UN for sustainable solutions.

Skyhydrant™ is compact high volume membrane filtration system designed for developing nations (specifically the Millennium Development Goals) and disaster relief applications. The filtration barrier is a micro porous membrane that removes suspended solids, bacteria, helminthes (minute worms), protozoa such as Cryptosporidium, and some viruses. This "disinfection" process when combined with chlorination (to ensure viruses are killed) produces safe drinking water from the majority of non-saline surface and ground waters. The chlorine treatment is not required to produce clean drinking water but SkyJuice recommends it for residual disinfection.

"Skyhydrant™ - Sustainable low cost membrane treated drinking water for disaster relief and developing nations"

Rhett Butler (SkyJuice Foundation) - Integrated Water Stream (photographs available)

Wednesday 10th May 2pm, paper - e6317.

6) BIOHAVENS

Floating islands fix up waterways

BioHaven is a very natural looking floating island product that provides harbour for bird and fish life and has demonstrated aesthetic and water quality improvements. The islands are made of polyester mesh filled with peat and planted with water-loving plants. They can be tailored to almost any size and shape.

"The Use of BioHaven™ Floating Islands for wildlife enhancement, aesthetics and water quality improvements"

Burnie Masters (B K Masters & Associates/Floating Island) - Sustainability Initiatives Stream (photographs available)

Wednesday 10th May, 08.40am, paper - e6400 (picture provided)

7) KOALA BEACH ESTATE

Created in partnership with the Australian Koala Foundation, Koala Beach Estate is a unique residential estate situated on the far north coast of New South Wales (near Pottsville). Developed by the Ray Group and championed by the late Brian Ray, 'Koala Beach' provides a world-leading model of how people and wildlife can live together. Valuable habitat has been protected for all time and special measures are in place to protect the area's koalas and other natural values.

"Koala Beach Estate: A model of how people and wildlife can live together"

Deborah Tabart (Australian Koala Foundation) - Sustainability Initiatives Stream

Wednesday 10th May 08:50, paper - e6121

8) INDIVIDUAL RESPONSIBILITY & GOVERNMENTS ROLE IN ENGAGING THE COMMUNITY

The need for behavioural change – making water saving cool

"Engaging our community - marketing water conservation." Savewater Alliance, Victoria and NSW.

Michael Smit – Community & Environment Stream

Thursday 11th May, 16:30, paper -e6048

Modern human beings have lost touch with nature

"The environment and taking personal responsibility"

Henk van Leeuwen – Community & Environment Stream

Thursday 11th may, 14:00, paper – e6092

Case Study - Vic

"The secret to engaging business is showing what's in it for them", says Rosemary Angus, Manager of Waste Wise Education from the Highlands Regional Waste Management Group (HRWVG). In a successful campaign to involve small business and its customers in reducing the use of plastic bags, HRWVG promoted the positive action of business' participation in their marketing efforts and used a large model cow character to elicit public interest with a talking point.

Rosemary Angus – Community & Engagement Stream

Thursday 11th May, 10:30, paper – e6096

Program



<http://www.enviroaust.net/e6/pdfs/e6%20PROGRAM.pdf>

or collect hard copy from registration desk.

**New
Technologies
from Exhibition**



The following pages contain new products from a selection of exhibitors at Enviro 06 as seen in the latest issue of Westwick-Farrow Publishing's Industrial Technology magazine, Waste Streams.

Air pollution control system



The Cleanswitch modular oxidiser is a regenerative thermal oxidiser (RTO) that is claimed to remove 99-plus per cent of volatile organic compounds (VOCs) without using a VOC entrapment system.

With a thermal efficiency rating of up to 97%, Cleanswitch provides operating economy. Under normal conditions, it will run in a self-sustaining mode that does not require any additional fuel to destroy VOCs and achieve clean air compliance.

The Cleanswitch takes its name from Megtec's valve that keeps cleaned air totally separate from dirty process exhaust. The valve uses a double-air seal, which ensures the integrity of the valve is maintained for the life of the equipment. This valve design virtually eliminates pressure spikes typical of poppet valve systems. In addition, smooth flow transition between heat recovery chambers eliminates process upsets that result from pressure changes during a valve switch. This makes the unit applicable for pressure-sensitive processes.

The oxidisers feature a modular construction. Control housings are skid mounted to simplify and speed installation, which also improves access. Units are pre-wired and prepiped at the factory for improved quality control and trouble-free start-up.

Other features include: up to 20% lower electrical costs claimed; sizes up to 90,000 scfm, 142,000 Nm³/h; 1-3 day installation time; trouble-free operation for low maintenance costs; and a state-of-the-art control system.

Megtec Systems Australia

Suite 37/21 Aristoc Road, Glen Waverley 3150

Water treatment



The Pall Aria AP-series packaged water treatment system is easy to install, operate and integrate into a system. It provides all the benefits of a membrane system in a small footprint.

The efficient, pre-engineered design is claimed to save money on initial purchase, installation, maintenance, power, chemicals and waste disposal.

The system has been used to reduce or remove turbidity, viruses, bacteria, cysts, oocysts, iron, manganese, arsenic and organics from surface, ground and wastewater sources.

Pall (Australia) Pty Ltd

PO Box 600, Cheltenham 3192

Wastewater treatment plant

Clearflux MBBR wastewater treatment plants using the AMB Bio Media technology developed by EEC Global Operation LLC offer a robust and cost-effective alternative in domestic and industrial wastewater treatment.

Standard package plant models from 60 to 400 m³/day effluent flow capacity come in prefabricated, skid-mounted tank systems. They are suitable for transportation in ISO freight containers and are ready to hook up once they reach their destination. These plants are suitable for resorts, residential developments, mining, winery and dairy industries, to name a few.

Larger Clearflux MBBR plants up to 500,000 PE capacity can be designed and built into concrete structures for towns and cities on request. The principles of the technology can also be used for upgrading the capacity and performance of the existing treatment systems like oxidation ponds and activated sludge plants.

The plant can handle 10 times the loading of a conventional activated sludge plant in less than one fifth of the space. Their inherent flexibility enables them to be designed to handle shock loadings and variations in pH and temperature better than most systems. With simple operation procedures and minimal maintenance requirements, they produce reliable results in BOD and Nutrient removal that satisfies stringent regulations.

Moltoni Infra Tech Pty Ltd

1/32 Ledger Road, Balcatta 6021

UV disinfection system



The bersonInLine + medium pressure UV disinfection system is designed specifically for drinking water and wastewater disinfection, the system combines the low maintenance, high efficiency and small footprint of the original bersonInLine system with enhanced performance, features and controls.

Independent bioassay validation suggests that the improved hydraulics deliver good disinfection performance with less energy. Independent microbiological studies have also suggested that the closed-pipe design of medium pressure UV systems eliminates the possibility of photoreactivation, a biological phenomenon that allows microorganisms to repair their DNA.

The bersonInLine + features the new UVtronic control system, which records operational data for record keeping and analysis. It includes fault alarms which aid in diagnosis of performance problems. In addition, the controls allow for remote diagnostics to be performed on the system by Berson technicians at their headquarters in the Netherlands.

The UV system's automatic cleaning system has also been improved, aimed at reducing maintenance costs. For wastewater effluents with high levels of fouling constituents, chemically-assisted cleaning can be used to remove difficult deposits on both the quartz sleeves and UV monitor probe.

*Contra-Shear Technology
5 Houghton Street, Linley Point 2068*

Technology for the reduction of filterable reactive phosphorous (FRP)



During the last decade, the significance of FRP reduction from the water column and the sediment P release control in preventing algal blooms has been recognised. In order to control the P level in water bodies, a number of chemical methods, such as alum or ferric chloride, have been used over the last few decades. However, many scientific studies have demonstrated significant limitations associated with these methods, including the re-release of the sorbed P when physiochemical characteristics of the water body, such as its alkalinity or redox conditions, are changed. In addition, key water quality parameters, such as the pH and conductivity of the water body, can also be affected.

Given the role of the FRP in phytoplankton activity and the limitations of the currently used chemical methods, there is a great need for a technology that can reduce the FRP concentration of the water column and prevent the release of the sediment P under a wide range of chemical conditions (pH, salinity and redox), without affecting the key water quality parameters. The need has been met by a modified bentonite product known as Phoslock.

It removes FRP effectively as it descends through a water column. As it settles, it forms a capping on the bottom sediment preventing any further release of FRP into the water column.

The product has been demonstrated to have a rapid FRP uptake kinetic, removing 90% of it within the first four hours. In addition, it is shown to operate within a wide pH range (5-11), without any significant change to the pH of the water body.

It performs efficiently in a wide range of water bodies, ranging from natural waterways, aquaculture and a variety of waste waters such as sewage treatment holding lagoons, farm dams, poultry, dairy and piggeries. Furthermore, the removal of arsenate, selenate and molybdate has also been demonstrated.

*Phoslock Water Solutions Ltd
235 Sutherlands Road, Riddells Creek 3431*

Information

The FlowView Portal flow information reporting tool is a web-hosted system that delivers customised reports and allows the user to control data and viewing parameters.

It can replace the traditional hard copy reports obtained from a flow monitoring project and provide the user with a virtually unlimited database of historical data. This electronic information is customised to the preferences of each user.

The system is suitable for both temporary and long-term flow monitoring projects, and is compatible with all existing ADS monitors and equipment.

*ADS Environmental Services
Pty Ltd
12/38-46 South Street,
Rydalmere 2116*

Biosolids process evaporator

The RDP Technologies Hybrid Evaporator combines the benefits of drying and lime pasteurisation.

Features include: Class A pathogen reduction provided by EPA approved time and temperature parameters; volume reduction achieved through evaporation of water; and low capital cost using RDP's biosolids heating. The flexible end product can be customised to meet local demands.

*Environmental Resource
Management (Qld) Pty Ltd
PO Box 764, Kenmore 4069*



www.westwick-farrow.com.au

Benchtop centrifuges

The Sigma 3-18 and 3-18K high-speed benchtop centrifuges have maximum speeds of 16,000 and 18,000 rpm respectively.

The easy-to-use, air-cooled 3-18 has a maximum capacity of 4 x 250 mL and is suitable for use in medical and research laboratories.

The refrigerated 3-18K can be used for tasks which require centrifugal forces up to 30,000 g. The 3-18K enables rotor and chamber pre-cooling to -20°C and allows temperature control up to $+40^{\circ}\text{C}$. Even at the highest speeds and during long runs, $+4^{\circ}\text{C}$ can be maintained.

Both models offer 10 linear and 10 quadratic pre-programmed acceleration and deceleration curves as well as 50 storage places for additional programming needs. Important programs or functions can be PIN code protected.

Rotors include the 40 x 15 and 16 x 50 mL fixed angle rotors for cellculture tubes. A 48 x 1.5/2.2 mL fixed angle rotor with polysulfone lid spins the microtubes. The 24 x 1.5/2.2 mL swing out rotor with windshield achieves 14,000 rpm and 16,215 x g.

The maintenance-free induction drive motor and microcontroller enables pre-selection of speed, rotor, time, temperature and gravitational force. The magnetic rotor identification prevents rotors from over-speeding and an imbalance cut-off switch ensures that users cannot destroy the centrifuge by operating with incorrect parameters.

All Sigma cooling systems use CFC-free refrigerants.

*John Morris Scientific Pty Ltd
PO Box 447, Willoughby 2068
PO Box 6348, Auckland DC, New Zealand*



Online air pollution particle monitoring

MARGA (Monitor of inorganic species in AeRosols and their related own GASes) is an air monitoring instrument that measures the concentration of inorganic species in aerosols and their related gas phase components in ambient air.

The Marga monitor can measure any adjusted particle size cut-off, for instance PM10 or PM2.5.

The instrument draws in a controlled volume of ambient air. Water-soluble gases are quantitatively absorbed by a wet rotating denuder. Based on the difference between the diffusion velocity, aerosols will pass the denuder and are collected in the Steam Jet Aerosol Collector. Syringe pumps separately collect both solutions before assayed on a Cat- and Anion Ion Chromatograph (IC).

The IC can test for the following gases and ions with detection limits from 0.1 to 0.05 μm^3 : gases — HCL, HNO_3 , HNO_2 , SO_2 , NH_3 ; aerosols — Cl, NO_3 , SO_4 , NH_4 , Na, K, Ca and Mg.

The instrument provides an hourly insight into the concentration of the inorganic components of air pollution enabling a greater understanding of the make-up of particulate matter (PM) pollution.

*MEP Instruments
PO Box 1880, North Ryde 2113*



www.westwick-farrow.com.au

Wet and dry grinder



The F series Muncher is a heavy-duty, twin shaft, low speed grinder for both wet and dry material.

Waste is fed into the unit via a feed hopper and in turn passes through a series of high-strength cutters. The two shafts revolve at different speeds to pull part, crop and shear any solids while allowing the liquids to pass straight through. The solids are reduced to a small consistent size with a volume reduction of 40-70%. This allows reduced costs for transportation, landfill reduction or can increase revenue by providing a homogenous product which facilitates increased production

of biogas. Waste becomes a profitable revenue stream by powering users' processes or being sold into the grid.

The Muncher can disintegrate: fruit and vegetable waste including pineapple husks, cores, peel and seeds. Full items such as cabbages and melons are no problem; meat and poultry offal, bones and skin; animal by-products; cereal biscuit and bonemeal; brewery waste; dairy waste; fish waste, shells and seafood by-product; cans, plastic cutlery, paper plates and cups, plastic bags; and cardboard packaging.

The unit is self-cleaning, featuring auto-reversing blockage protection.

*Mono Pumps (Australia) Pty Ltd
338-348 Lower Dandenong Road, Mordialloc 3195*

Wastewater pumps



The submersible wastewater pumps range of Danish-built PXPumps has a design which is centred around minimising life cycle costs (LCCs). This is achieved by improved hydraulic and electrical efficiencies.

Many of the features of the pump focus on durability, ease of maintenance and reduced down time. For example, the fast lock, quick release stainless steel latch-bolts enable simple, fast removal and re-fitting of the pump volute, helping minimise down time. The bolts can be left in place to save time and avoid any components being accidentally misplaced.

The 'minimiser' adjustable wear ring system assists in reducing clogging, minimising spare parts requirements and maintaining maximum hydraulic efficiency for the life of channel impeller pumps.

Longevity is aided by the pump's Ecoflu sealed cooling system which delivers good performance

while protecting the pump internals from blockages, silting and corrosion. Ecoflu is a standard feature on PX2 and PX3 models from 2.5 through to 22.0 kW.

Clogging is almost a thing of the past due to the range of Vortex impellers for each and every application.

The Fast Seal system comprises pressure-tested double mechanical cartridge seals and minimises wear rates and provides ease of servicing even on site without special tools.

The pumps are fitted with Class H insulated electrical motors which carry European efficiency rate — EFF1.

The range starts at 0.55 kW and extends to 85.0 kW, making them suitable for a broad range of applications.

Allight Pty Ltd

12 Hoskins Road, Landsdale 6065

Biological odour treatment



Bioway's bioreactor vessels consist of standard modular components that are manufactured from FRP. Systems feature the PermaPac structured synthetic media that ensures an even pressure drop across any given area and has an estimated lifespan of over 25 years.

Systems can handle any airflow and H₂S removal of up to 5000 ppmv per unit. For example, with WWTP it can normally guarantee a minimum of 99% H₂S removal and at the same time, with the same reactor a minimum of 95% removal of other odour components.

The system features no media change-out, no chemicals, small footprint, low operating pressure and is robust and operator friendly.

Customised odour elimination solutions can be developed for specific air or water situations.

Bioway Australia Technologies Pty Ltd
58 Tras Street #03-02, Singapore 078997

Online COD analyser

Chemical oxygen demand (COD) is the total quantity (both organic and inorganic) of oxidisable components in a sample. Unlike total organic carbon (TOC) which only determines carbon derived pollutants, COD measures all oxidisable pollutants.

COD has become the International Standard method for measuring the quality of effluent and wastewaters. It has to a large extent replaced biological oxygen demand (BOD) as COD can be performed in 1-2 h while BOD takes 5-7 days.

The 2019 Digester uses a combined digester, condenser and cuvette colorimeter module enabling the analysis to be performed on a modified 2019.

The 2040 is recommended for more complex analysis requirements. It is able to analyse multiple streams and can be configured to analyse for more than one analyte eg, COD and NH₃ or COD and Cl.

It can also be combined with a UV cell, which provides a COD result every 2 mins, making the instrument a combination of two analysers that in conjunction produce a validated result every 2 mins and a certified result every 1-2 h and has remote access capability.

Both the ADI 2040 and ADI 2019 COD analysers conform to: ISO 6060, ASTM D 1252, DIN 38409-44, EPA 410.4 and NEN 6633.

MEP Instruments
PO Box 1880, North Ryde 2113



www.westwick-farrow.com.au

Ion chromatography

The Metrohm 861 Advanced Compact IC is used for ion chromatography and water analysis. It has a compact design, high sensitivity, low detection limits, comprehensive automation possibilities — all combined with easy handling.

The unit ensures no injection peak, no carbonate peak and a stable baseline. It combines two effective suppression techniques into a single instrument, namely the second generation of the Metrohm Suppressor Module (MSM II) for chemical suppression that coincides with a new development — the Metrohm CO₂ Suppressor (MCS).

The elimination of the carbonate peak removes interferences during the quantification of analyte anions. The absence of an injection peak improves the determination of rapidly eluting anions such as fluoride and also allows larger sample volumes to be injected.

From 5 ppb bromate up to 500 ppm phosphate, no matter with or without suppression, the unit determines everything that can be recorded using conductivity: standard anions in wastewater, drinking or surface water; perchlorate in soil eluates; sulfite, sulfate and thiosulfate in the paper industry; chloride, nitrite, nitrate and sulfate in the cooling water of conventional and nuclear power stations; phosphate and citrate in cola drinks; and cyanate, azide and even chlorate in explosives.

Numerous anion applications for the unit are available in more than 200 application notes, accessible online at www.metrohm.com

The IC can be completely controlled from a PC. The IC Net software carries out both instrument control and data evaluation. With IC Cap the operation of the unit becomes workforce-friendly: a single mouse-click is all that is needed to start a measurement. Both IC Net and IC Cap are included in the standard equipment of the 861 Advanced Compact IC.

MEP Instruments Pty Ltd
PO Box 1880, North Ryde 2113

Contaminated land remediation

Innova Soil Technology has developed an innovative thermal desorption process (DFTD) for the remediation of contaminated sites.

The DFTD process is suited to treating all organic-based contaminated soils, ranging from hazardous gasworks residues to scheduled wastes. The process can deal with soils contaminated with petroleum hydrocarbons, PAHs, PCBs, OCPs, explosives, dioxins and furans.

Because the DFTD process is fully mobile, it can treat contaminated soils on the site where they were generated, eliminating the need for transport of hazardous materials on public roads.

The process is suitable for on-site remediation of quantities between 20,000 to 100,000+ tonnes and a clean soil suitable for beneficial on-site reuse is produced.

Remediation of a 6000 tonne stockpile of PAH impacted soils for Koppers Australia was recently completed.

The project involved treatment of the soils through Innova's Direct-heated Fast-quenched Thermal Desorption over a 4-week period of 24 hour/day operations.

Soils with TPH levels up to 30,000 ppm and PAH levels up to 13,000 ppm were successfully remediated to below acceptance levels for commercial/industrial land reuse; in most cases, residential land-use standards were achieved.

Innova Soil Technology
PO Box 2183, Dangar 2309

Water quality testing

The Photometer 8000 is designed using the latest electronic and optical technologies. It is a direct reading colorimeter which covers a full range of tests for clean and wastewater using tablet reagents and Tubetests. Applications include effluent, drinking water, cooling towers and boiler plant testing.

The instrument is designed to provide fast analysis for test laboratories. Dynamic Active Light Level Compensation in the optical system eliminates drift and ensures accurate measurements immediately from switch-on with no warm-up required.

Analysis methods can be called up directly or via a user-specific method list where commonly used combinations of tests can be set up. Automatic method setup and wavelength setting allow the user to simply push in the tube and the instrument does the rest.

The instrument is fully software driven, with a large backlit touch screen providing easy access to all instrument functions. A multisize cell holder adjusts automatically to all tubes from 13-20 mm diameter with no inserts or adapters required. The system memory allows up to 1000 results to be stored and can be uploaded to a computer. Results are fully audit trailed with sample number, time and date attached.

Palintest Australia
PO Box 318, Padstow 2211

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www.westwick-farrow.com.au



Mobile silt traps



The Siltbuster range of mobile silt traps is suitable for construction sites, concrete and mortar plants, quarries and any site where the conservation of water is required.

The units require no power, moving parts, filters nor manpower, other than periodically draining the sludge.

The principle of the range is simple — particles that settle faster than the velocity of the waste through the Siltbuster plates will be removed while particles which settle slower will continue with the flow to the outlet. The

slower the flow of waste through the unit, the finer the particles that can be removed.

The mobile silt traps are designed to remove fine particles like silt, raw cement fines and other solids from industrial wastewater, groundwater and surface water runoff. The mobile skid-mounted and compact units are suitable for construction sites, restricted spaces and temporary situations.

The units are claimed to outperform conventional settlement tanks and lagoons up to 20 times their plan area. They can also be linked together to cope with a wide range of flows, pump sizes and particle characteristics. The mobile range is capable of treating flows from 1 to 100 m³/h.

All standard units are equipped with a scum board to retain floating material and can be configured to operate as dedicated oil/water separators by redirecting the flow through the unit. Units can also be linked together to cope with larger flows, slower particle settling characteristics or high solids loading.

*Dickinson's Environmental Services
12-13 Warrior Place, St Marys 2760*

Self-cleaning water filtration



Tekleen self-cleaning filters provide users with automatic self-cleaning without interruption to the flow. A differential pressure switch monitors the pressure differential between the inlet and

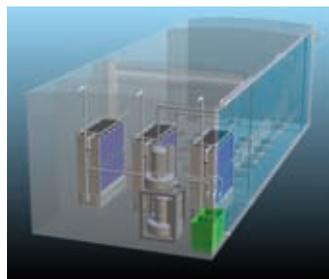
outlet which increases as dirt particulate is trapped by the screen. When the preset differential pressure value is reached the filter performs a cleaning cycle that lasts only 5 s and uses less than 10 L of water without any interruption to the flow.

The filter will save time and money that would otherwise be spent cleaning and replacing cartridges, bags, screens and spray nozzles.

Filter sizes range from 1 to 24" and screen sizes start from 5 µm.

*Royce Water Technologies Pty Ltd
19 Robinlee Avenue, Burwood East 3151*

Wastewater recycling systems



Aquacell, a new division of Clearwater Technology, specialises in industrial, commercial and domestic wastewater (grey and black) recycling for non-potable reuse. An efficient process incorporates membrane bio-reactor technology to produce Class A water at the source, without the use of chemicals.

Aquacell is suited to multi-dwelling and commercial properties, single dwellings, sewer mining, new and existing property developments.

It has been developed as a modular unit, allowing it to be scaled up or down easily. Systems are remotely monitored to ensure consistent optimal performance.

*Aquacell Water Recycling Systems, Division of Clearwater Technology Pty Ltd
PO Box 7091, Leura 2780*

Water level and temperature monitor



The LevelTroll from In-Situ, for water level and temperature monitoring, contains sensors, data logger and an internal power in an 18.3 mm diameter housing. Built entirely from titanium that is beam welded to eliminate O-ring seals, it is suitable for a range of applications, even marine environments.

The Twist-Lock cables are extendable. System integration is simple with Modbus, SDI-12 and 4-20 mA communication capability.

*EnviroEquip Pty Ltd
13A Rocklea Drive,
Port Melbourne 3207*



www.westwick-farrow.com.au

Water quality monitor



The DataSonde 5X Multiprobe is designed specifically for users who want to extend the duration of their sonde deployments. Suitable for 'X-tended' deployments, the central cleaning system brushes away fouling and sediment from DO, pH, ISEs, Chlorophyll a, blue-green algae, Rhodamine WT and turbidity sensors.

The brush fibres are designed to retain their effectiveness throughout their life. These fibres will not separate over time. Replacement brush kits are available and easily removed/installed by the user. One central motor cleans all the sensors, minimising power consumption, and reduces moving parts.

Self-cleaning turbidity, Chlorophyll a, Rhodamine WT and blue-green algae sensors are now available. The self-cleaning turbidity sensor offers several benefits for operators, including: ISO 7027 compliance, extended range (3000 NTU) with good resolution, 90° small aperture optics to reduce false readings due to particulates and other debris, fixed parking position to ensure consistent data collection after each cleaning cycle, good performance in low NTU environments due to enhanced noise-cancelling technique.

*Aqualab Scientific Pty Ltd
PO Box 419, Castle Hill 1765*

Chassis and cabinet units

Sinamics G130 chassis units and Sinamics G150 cabinet units have been designed for variable-speed drives in machine building and plant construction. The units have been specially turned to the requirements of drives with quadratic or constant load characteristics with medium performance requirements without regenerative feedback. It is advantageous to use variable-speed drives wherever bulk, liquid or gaseous materials have to be moved, transported, pumped or compressed. Such applications basically include: pumps and fans; compressors; extruders and mixers; and mills.

Sinamics G130 provides a modular drive system for machine builders and plant constructors which permits a drive solution tailored to their applications. It consists of two modular, standalone components: power module and control unit.

The user-friendly AOP30 operator panel is available for start-up and local operation. Predefined interfaces, either via a terminal block or Profibus, facilitate drive start-up and control.

The G130 chassis units are available for an output range from 315 to 800 kW.

Sinamics G150s are ready-to-connect AC/AC converters in a standard control cabinet. They are available with cabinet widths from 400 mm upwards in intervals of 200 mm, in various degrees of protection up to IP54, and with two design versions. The cabinet units are available for an output range from 75 to 800 kW.

Version A offers sufficient space for all available options. Different designs permit the power supply and motor connections to be located at the top or bottom. This results in high flexibility for the plant installation.

Version C is a space-saving version envisaged for applications where the power supply components are accommodated in a central low-voltage distribution and need to be provided again in the control cabinet.

*Siemens Ltd
885 Mountain Highway, Bayswater 3153*



Mobile washdown and water recycling

The ecoClean Truck is capable of washing 600 m² of hardstand areas while using and recycling about 1200 L/h of water. The cleaning equipment operates at 5000 psi pressure and the truck does not rely on external power supply or mains water during a normal 10 h work day.

The recycling part of the truck was developed by Clearmake and is fully automated. Water is recovered and recycled, which saves money and the environment. The cleaned areas (eg, in cold rooms or storage areas) can be reused immediately, which reduces down time.

*ecoClean
7/5 Gallimore Avenue,
Balmain 2041
Clearmake Pty Ltd
21 Project Avenue,
Noosaville 4566*



www.westwick-farrow.com.au

Digital dosing pump

The 209 TrueDos pumps (0.004 to 20 L/h dosing rate) have integrated high-performance microelectronics and speed regulated drive technology. The dosing rate is simply entered in L/h and the pump takes care of the rest.

The TrueDos 222 extends these features to higher rates of up to 150 L/h and many features have been developed for special dosing tasks. The pump is equipped as a standard with a double diaphragm dosing head. If there is a working diaphragm defect, the pump continues to dose with the robust protective diaphragm.

For applications where the dosing diaphragm is monitored, there is one optional dosing head with integrated differential pressure sensor.

The users benefit with: a diaphragm rupture signal immediately sent; the exchange of the diaphragm postponed arbitrarily, as the process continues running due to the protective diaphragm without loss in quality.

The Slow Mode decelerates the suction and the pressure stroke systematically and the specially developed valve combinations ensure high process quality even for the most viscous media. Chemicals can be added without connecting dilution or treatment systems.

The pump keeps energy costs low, due to the advanced EC motor technology. Maximum efficiency is also ensured. A further advantage of this drive technology is that even at dosing rates of 150 L/h, it offers smooth and virtually continuous dosing. This produces smooth pumping and mixing of media, resulting in process reliability.

The optional flow monitor offers smart dosing error diagnosis and reliable monitoring of excess pressure. The maximum backpressure allowed is input and if this pressure is exceeded, the pump shuts down until the fault is corrected. The TrueDos 222 is claimed to be smaller, lighter and quieter than conventional dosing pumps in this capacity class.

Alldos Oceania Pty Ltd

Unit 3/74 Murdoch Circuit, Acacia Ridge 4110

Industrial cleaning products

The series of Quick Break degreasers/cleaning products is designed for use with water treatment equipment and water recycling systems.

Clearmake engaged a team of chemical engineers to formulate the products specifically to improve the recycled/treated water qualities and to avoid problems with the discharge quality while using conventional cleaning chemicals not suitable for use with water treatment equipment.

Other degreasers/cleaning products are high in alkalinity and contain detergents that are not designed to work with water treatment equipment. The use of those products creates an oil/water/detergent emulsion which requires much more complicated and expensive equipment to process it. As a result, the discharge does not meet regulatory requirements.

The Quick Break technology has produced a product that is rapidly biodegradable and is presented in translucent colours to minimise the loading of chemical dyes in the waste stream and the environment.

The products are named in accordance with their colour, which makes usage and reordering simple including: Blue 42 — water-based degreaser; Red Devil — solvent-based degreaser; Green Machine — vehicle wash; Gold Nugget — water-based heavy equipment cleaner; Vanquish — hand cleaner; and

Vanquish — body shampoo.

The products are suitable in industries such as mining, transportation (airlines, railway, trucking), car rental agencies, marinas, food industries, mechanical workshops, heavy equipment and construction companies.

Clearmake Pty Ltd

21 Project Avenue, Noosaville 4566

Non-intrusive actuator



The Limitorque Accutronix MX is a non-intrusive, double-sealed, smart electronic actuator. It is suitable for industries such as power generation, petrochemical and water/wastewater treatment.

The actuator has an absolute encoder that doesn't require battery backup. Additional features include easy configuration in six languages and LimiGard circuitry, which safeguards the actuator from spurious electromagnetic interference.

It can provide torque output of up to 2307 Nm. Several other enhancements have been made to the current unit, including replacement of an outdated perforated through-hole PCB controls set with SMT (surface mount technology) controls. An improved ACP (actuator control panel) with recessed knobs has also replaced the original controls cover.

The double-sealed terminal block compartment prevents moisture ingress into the control enclosure.

Acrodyne Pty Ltd

PO Box 640, Bayswater 3153



www.westwick-farrow.com.au

Heavy metal analysis

Applikon has developed an online voltammetric analyser called the ADI 2045 VA.

Voltammetry is a classical metal ion analysis methodology being widely used in research and academia. It is an electro-analytical technique that derives analyte concentrations from measurements of current as a function of applied potential.

Voltammetry has a number of advantages over other trace metal ion assay techniques, including: able to analyse highly ionic solutions like sea water or effluent; cheaper than ICP and AAS; minimal running costs; doesn't require expensive combustible gases or expensive lamps; doesn't require calibration for the majority of analyses; standard addition methodology virtually eliminates matrix interferences; can analyse non-metals such as anions or organics; differentiate oxidation states (speciation) eg, Cr III and Cr VI, FE II and Fe III; can differentiate between free and bound metal ions to determine bio-availability; multiple ions can be tested for at once eg, Pb, Cd, Cu and Zn; and detection limits in the ppb and even ppt for some ions.

With online VA the continuous monitoring of sample streams for heavy metals such as cadmium, cobalt, copper, lead, manganese, nickel and zinc is now possible.

MEP Instruments

PO Box 1880, North Ryde 2113

Ventilation and indoor air quality analysis



Indoor air quality checks provide information about whether employees are working in an agreeable climate.

The testo 435 provides the possibility of analysing and adjusting indoor air quality. The probe for indoor air quality (IAQ) measures the parameters CO₂, % relative humidity and indoor air temperature. Pressure and indoor air speed are parameters that can also be measured. The Lux probe measures the light conditions in the place of work and also the repetition frequency of screen monitors. Dewpoint exceedances and mould growth are examined with the surface probe and the air humidity probe.

Temperature and humidity measurement are integrated in the thermal probe. Flow speed, volume flow, air humidity and air temperature can thus be measured in one test run. Different measurement principles can be used depending on the

flow speed and application: hot wire probe (0-20 m/s) for precise measurement of low speeds; 16 mm vane probe (0.6-40 m/s) broad measuring range; 60 mm vane probe (0.25-20 m/s) for integrating measurement, eg, at ducts; integrated differential pressure probe; and simple pitot tube measurement, suitable for high air speeds and impure air.

The unit is simple and efficient to use. The instruments can alternate between user profiles, similarly to a mobile phone, for the applications channel measurement and IAQ measurement.

The measurement reports provide the user with the data from channel measurement, long-term measurement and turbulence measurement. The company logo can be integrated into the form.

The availability of measuring instruments is a deciding factor. The costs are huge if work cannot be continued because measuring instruments are not available. A carrying strap enables safe transportation and a magnet ensures good handling during flow measurement.

It is available in four versions. Depending on the demands of the application, it is offered with or without built-in differential pressure measurement and instrument store, PC software and with different probes for different applications.

Testo Pty Ltd

PO Box 2041, Bayswater Village 3153

Refuse vehicle

The Sport Gen V side loader refuse vehicle is designed to improve the speed and capacity of lift times as well as provide operator comfort and productivity. It is the latest addition to the MJE range of refuse collection equipment comprising side, front and rear loaders.

The vehicle is designed with the use of finite element analysis and features a one-piece bin lifter and grab assembly, phasing cylinders for faster lift times, larger hardened pivot pins, tapered spring arms, larger bearings, one-piece roof and wall construction, work hardening hopper floor and Canbus electronic controls.

It is suitable for collection of refuse, recycling and green waste industry.

*MacDonald Johnson
Engineering
65-73 Nantilla Road,
Clayton 3168*



www.westwick-farrow.com.au

Chemical analysis



ChemScan manufactures a range of single and multi-parameter online process chemical analysers to measure chemicals at municipal drinking water treatment plants and municipal wastewater treatment plants or in an industrial process involving liquids.

The process analyser can be thought of as an online ultraviolet-visible spectrometer, designed to collect the full absorbance signature of a sample at 256 wavelengths. This is accomplished by drawing a volume of sample into a flow cell, transmitting known intensities of light through the sample and detecting the intensity of light that remains at each wavelength in the range.

The standard instrument detects light from 200 to 450 nm. Special versions of the instrument can increase the number of wavelengths and extend the range through the visible spectrum.

The instrument applies pattern recognition techniques to the full absorbance signature of a sample in order to detect multiple chemical parameters using a single analyser. A manifold system is used to monitor multiple sample points in a process.

The unit can detect any chemical substance that absorbs light in the ultraviolet or visible wavelength range. Absorbance in this wavelength range is typically associated with the bond structures of specific molecules. Ions of nutrients, ions of heavy metals that form coordination compounds in water, unsaturated (double- or triple-bonded) hydrocarbons and aromatics are usually good candidates for analysis using ultraviolet or visible spectrometry.

Chemicals that possess natural absorbance characteristics can be detected directly using primary absorbance techniques. Chemicals that do not possess natural absorbance require the assistance of a reagent for indirect detection using secondary analysis techniques.

ChemScan has developed many primary and secondary analysis methods that take advantage of the multiple wavelength detection capability to simplify the analysis. It can also perform multiple primary and secondary analyses of a sample.

All analysers are designed to perform automatic zeroing and cleaning. Deionised water is used as the zero standard, while dilute acid or bleach is the typical cleaning solution. Zero and clean intervals are operator selectable from the analyser menu.

Royce Water Technologies Pty Ltd

19 Robinlee Avenue, Burwood East 3151

Contaminated groundwater treatment technology



Clearflux Electrocell technology has been developed to treat heavy metal contamination in groundwater.

The technology uses an electroplating cell to remove heavy metals from the concentrated contaminated groundwater. Pre-treatment is required to achieve more efficient results, if there are other contaminants present.

It has been used in a treatment plant which was designed, built and commissioned by Moltoni Infra Tech to treat arsenic, nitrate and ammonia contamination in groundwater. After treatment with the technology, arsenic concentration has been reduced from 600 to 0.05 ppm.

Moltoni Infra Tech Pty Ltd
1/32 Ledger Road,
Balcatta 6021

Water chlorination and disinfection

The Steadichlor and Instachlor tablets offer a simple and effective means of water chlorination without the need for complex dosing equipment.

Steadichlor tablets dissolve in water to provide a slow, steady chlorine release. Two ranges of tablets are available, with 4.5 and 13 g chlorine content.

Instachlor tablets are rapid dissolving chlorine release tablets. The tablet ranges are 2.5, 50, 250 mg, 1 and 5 g available chlorine content.

The ranges are selected to suit a wide variety of uses including a convenient means for chlorinating water in tanks, storage containers, wells or small reservoirs, and wastewater in tanks or effluent streams. The tablets can also be used to prepare solutions for sanitising and sterilising equipment or cleaning of pipelines and plant equipment.

Palintest Australia

PO Box 318, Padstow 2211

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Pump controller

The MultiSmart pump controller combines 'out-of-the-box' pump control with the flexibility of open protocols and high-speed communications.

It is easy to use and operational changes such as resetting pumps or adjusting setpoints can be made without external help.

Standard functions have been pre-programmed into the pump controller, providing ease of use plus advanced functionality for up to nine pumps.

Features include automatic pump cycling, maximum off-time to prevent odours during low activity periods, random duty starts to prevent fat build-up in wells and redundant level sensing.

Multitrode Pty Ltd
PO Box 4633, Eight Mile Plains 4113



Spraying systems for roofing manufacture



AutoJet Technologies, a division of Spraying Systems, has developed automatic spraying equipment to increase throughput in the manufacturing of webbing-style roofing material.

Common problems encountered without appropriate measures include sticking of the webbing material to rollers, equipment jamming and web rupture through uneven temperature distribution.

The range is suitable for manufacturing operations such as removing excess water from the web ready for packing (WindJet Air Knife); spraying of soap solutions to form a non-stick barrier and nail marking without the use of excessive paint (AutoJet Spray Controllers and software).

Spraying Systems Co Pty Ltd
7 Sara Grove, Tottenham 3012

Spraying Systems NZ Ltd
46 Abel Smith Street, Wellington, New Zealand

Filtration technology



Amiad Filtration Systems, filtration medium is constructed of fine threads wound in layers around a grooved plastic spool cassette. The system is designed for fine filtration down to 3 µm and combines the advantages of surface and depth filtration.

Typical applications include: the removal of Cryptosporidium from drinking water; effluent treatment; and reverse osmosis and membrane protection.

Amiad Water Systems Pty Ltd
3/15 Brisbane Street, Eltham 3095

Environment risk assessment program

Aquarisk is a program developed by the Australian Nuclear Science and Technology Organisation (ANSTO) and commercialised by Hearne Scientific Software.

The software is designed to measure and assess the biological impact of any environmental hazard as a result of mining and other industrial processes. It also predicts the degree by which concentrations of toxic substances need to be reduced in order to achieve the minimum environmental impact. Ultimately, it improves the efficiency of environmental management while adhering to the guidelines implicit in Australian and overseas environmental standards.

While Aquarisk was intended to be used mainly with aquatic systems, its versatility and ease of use have enabled its function to be applicable to any environment where there is an identifiable environmental hazard.

Hearne Scientific Software Pty Ltd
Level 6, 552 Lonsdale Street, Melbourne 3000

Sewer odour control

The OCS Ferrogard systems comprise a range of automated flow-paced chemical dosing units for sewer odour control. They are available in a range of sizes allowing for a whole-of-system approach from small flows in upstream catchments through to large carrier mains.

The operation of the Ferrogard dosing pump is linked to the sewage pump. When the sewage pump operates it sends a signal to the dosing pump to operate. Product is dosed directly into the rising main. Controls are used to prevent unnecessary overdosing.

Advantages include: delivers dose directly into the rising main thus avoiding contact with pump station infrastructure; delivers the precise dose at the precise time; dosing is self-regulating for diurnal and seasonal flow patterns; and product usage is kept to the minimum required.

Odour Control Systems (Aust)
Pty Ltd
PO Box 179, Islington 2296

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Membrane filtration system

Siemens Water Technologies has developed a line of packaged membrane filtration systems enabling small communities and industrial users to obtain the benefits of advanced filtration technology with low cost and quick delivery, installation and start-up.

The Axim pressurised membrane filtration system is a completely pre-engineered factory assembled and tested water treatment plant that contains many of the operational features of the most advanced municipal drinking water plants. Designed to be a completely functional, self-contained system, it is ready for immediate online use. The system is suited to small communities, resorts or developments, or industrial users, and is available in six sizes from 5 to 45 m³/h.

At the heart of the system are Memcor CMF-L microfiltration membranes, designed to remove suspended solids, colloidal particles, cysts and bacteria which are common contaminants of drinking water. Feed water treated by microfiltration produces a filtrate of less than 1 mg/L suspended solids and turbidity typically below 0.1 NTU and silt density indexes (SDI) below 3. This performance meets all current drinking water requirements and produces good quality RO feedwater from virtually any raw water source.

Built into the system is Memcor's Pressure Decay Test (PDT) to prove the membrane integrity. The test can detect a single broken fibre, whereas the most sophisticated particle counters cannot. The PDT can validate a 4+ log removal of particles in the 3 micron range. CMF-L membrane technology operates by filtrate being pushed from the outside (shell) to the inside (lumen) of each hollow fibre under pressure. CMF-L technology is a self-cleaning system where a low-pressure air scour and liquid backwash remove the solids build-up on the membrane surface at regular intervals. Periodically, a chemical cleaning procedure is used to fully restore membrane performance.

The system includes all membrane modules, piping, instruments and controls; fully assessed and tested, and contained within a stainless steel frame. Easy access for moving is provided with forklift clearances. Standard accessories and options are available to enhance the functionality of the system and to address specific integration requirements of each plant.

*Siemens Group Industrial Solutions and Services (I&S)
885 Mountain Highway, Bayswater 3153*

Algae control device



SonicSolutions is an ultrasonic algae control device that gets rid of algae without harming other aquatic life. The unit floats just below the water's surface and kills algae by producing a precise frequency of ultrasonic waves that disrupts and destroys the cellular functioning and structure of the algae.

It is easy to use and is safe for all fish, plants and other aquatic life, and it can even help lower pH and TSS.

It is claimed to be safer and more cost effective than chemical algacides for pools, reservoirs, fish and farm ponds, lakes, lagoons, tanks, and many other water management applications.

*Royce Water Technologies Pty Ltd
19 Robinlee Avenue, Burwood East 3151*

Spraying systems for meat and poultry processing



Autojet Technologies, a division of Spraying Systems, has developed automatic spraying equipment based on its Autojet Pulajet to cost-effectively apply chemicals such as anti-microbial reagents in meat and poultry processing lines.

Common problems encountered without appropriate measures include over-spraying in order to avoid occurrences such as mould, uneven admixture of seasoning ingredients as well as wastage of chemicals caused through variations in production line speed and product morphology.

The range is suitable for manufacturing operations including ready-to-eat meat products, patés, poultry and frozen product.

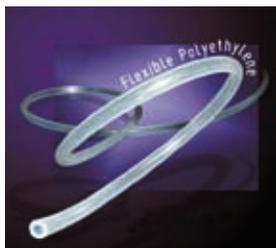
*Spraying Systems Co Pty Ltd
7 Sara Grove, Tottenham 3012*

*Spraying Systems NZ Ltd
46 Abel Smith Street, Wellington,
New Zealand*

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Antimicrobially protected fittings and tubing



Eldon James antimicrobially protected, single barbed fittings incorporate natural properties of silver which inhibit the growth of a broad range of microorganisms. The components are designed with AgION, an EPA recognised silver ion technology, built into the product.

As a result, flow path areas within Flexelene silver tubing and all surface areas of the fittings are protected against build-up of bacteria, biofilm, mould, mildew and fungi that can degrade quality, affect taste and

cause odours.

Unlike organic-based antimicrobial agents found in antibacterial soaps, silver is an inorganic metal ion that has not been shown to contribute to the creation of 'super bugs' like those resulting from overuse of antibiotics.

Silver ions at the surface of the tubing and fittings that come in contact with bacteria and other microbes disrupt the electron transfer and respiration within their cells.

Silver is non-toxic to humans. The silver ions in AgION antimicrobial are 100% inorganic. Studies have demonstrated that the acute toxicity of AgION antimicrobial is less than that of ordinary table salt. AgION antimicrobial protected fittings and tubing are safe and effective for use in food and water contact applications.

The silver tubing will remain efficacious for over 40,000 L of use under operating conditions likely to be seen in dispensing applications. The antimicrobial compound works proactively against a broad spectrum of bacteria, fungi and other microbes. In laboratory studies, AgION protected fittings have been proven to reduce bacteria on the surface by as much as 99.999% or a 5-log reduction.

Victoria Fittings & Valves Pty Ltd
11 Thornton Crescent, Mitcham 3132

EnviroSys is a web application providing a data capture and repository function, storing time series and static data types, images, audio, video and electronic documents/files, against which national/international standards and guidelines can be applied and reported on. It manages general data monitoring, and reporting to statutory authorities on health, safety and environmental accountability, while ensuring data integrity and accountability, thus adhering to the relevant standards, such as ISO14001.

The system includes both spatial and non-spatial tools to analyse and maintain data, and includes direct interfaces to MS Office, GIS tools, end user reporting tools and statistical analysis tools. It can also interact with handheld devices with communication links. This allows users to use the system to collect data while on location. The data can be manually entered or collected from static monitoring devices and auto-loaded into the system.

The system can manage data samples, sample locations, tests, test methods, analysts, devices, results and calculated results. Guidelines can be created allowing notification of data exceedences based on registered high and low value exception levels. One of the key features is a mechanism that will alert managers to exceedences via either SMS or email.

SRA Information Technology
Level 5, 97 Pirie Street,
Adelaide 5000

Waste containment system



The Aerobin is a waste containment system for home and garden waste management. The system uses a 'lung' or aeration core to promote aerobic decomposition of organic matter. Together with thermal insulation to conserve heat losses, the system works quickly and efficiently all year, even in cooler regions, producing fertile compost, rich in humus for the garden.

No need to turn and very easy to use, the unit is completely pest and pet proof.

The unit has been tested and proven to achieve the highest performance in composting against world ranking compost units at Swinburne University of Technology, Environment & Biotechnology Centre.

The unit is suitable for use by householders,

body corporations and contractors. It is made of a sturdy plastic with an aeration core to promote aerobic decomposition, it recirculates moisture from wet organic waste material which assists in faster aerobic breakdown of the material.

A mix of wet and dry kitchen and garden waste is simply dropped into the top of the unit and some time later the humus can be removed from the side door in the lower compartment.

Global Environment Management Australia Pty Ltd
63D Wadham Parade, Mount Waverley 3149

Ground compactor



Hiedyc 3, Hiedyc 4 and Hiedyc 5 are the three models of High Impact Energy Dynamic Compactor technology developed and used to compact loose or soft ground and for volume

reduction in landfill operations.

The compactors impart vertical energy into the ground to depths ranging from 3 to 6 m. Compaction is achieved by three-, four- or five-sided compactor modules towed by a tractor.

Regular use of the compactors in landfill operations enables the landfill layers to be compacted, which extends the life of the landfill operation, reduces leachate production and removes future settlements and differential settlements. Hiedyc ground treatment can also be used for strengthening the ground in reclaimed areas; industrial and residential developments; and road, airport and container port pavements.

*Infra Tech Pty Ltd
PO Box 441, Willetton 6955*

Diaphragm control valve



The pneumatically-operated Type 2730 diaphragm control valve, with plastic body, comprises hermetical separation of fluids from the operating mechanism by the diaphragm, and is rated for use with potable water and sterile applications as well as with aggressive waste fluids.

The unit includes a pneumatically-operated piston actuator, which is designed to facilitate frequent alteration to the defined stroke. The valve is suited to applications and processes in which a controlled flow rate is frequently altered.

The valve is suited to standalone operation and is also designed for trouble-free inclusion in a customised modular component or as a building block in a comprehensive water or waste system. It can be actuated by top or side control positioners, TopControl 8630, SideControl 1067 or SideControl 8635, for continuous regulation. The valve has an optional, integrated PID controller, to enable linking with flow, level, pressure or temperature sensors to perform standalone process control.

Another option is the integration of Fieldbus networks, which include DeviceNet and Profibus. This option allows for standalone control, with communication back to a central system to receive a setpoint and reply with process information, valve position, etc.

*Bürkert Fluid Control Systems
PO Box 312, Seven Hills 1730*

*Bürkert Contomatic NZ
PO Box 12895, Penrose 1135*

Measuring cell

The AquaCell range of measuring cells for chlorine, chlorine dioxide and ozone has been updated and now has a modular structure. The same basic housing is used for the entire range and the difference between the various types is limited to a small number of key components geared to the relevant function.

The range operates according to the potentiostatic three-wire electrode principle in which the measurement is taken directly in the actual sample water. There are three types of measuring cell in the range: 314-330, 314-630 and 314-930.

The electrode cleaning process has been improved. The type of measuring cell with electro-motorised cleaning, like the hydromechanical variants, now also has a cleaning impeller that ensures optimal cleaning due to its newly designed arrangement in relation to the measuring electrodes.

The major advantage is that there are no longer any small parts that can move around freely and easily get lost. This means that maintenance work is much quicker and easier.

All three types come with a temperature sensor permanently integrated into the measuring electrode. This ensures that — in combination with an appropriate measuring amplifier — the effect of temperature fluctuations on measurement of the disinfectant and pH values can automatically be compensated for. Consequently, no separate temperature sensor is required.

The sample water control system has been equipped with a fine-precision adjusting spindle. The control device has an upstream filter cartridge to stop dirt particles getting into the measuring cell from the outset. The design of this cartridge enables it to be removed and dismantled easily for cleaning. As a result, the measuring cell is now also suitable for water treatment involving high levels of contamination.

The range comes with an integrated calibration vessel — the bottom of the pH and redox electrode mount has a screw vessel for adding the relevant buffer solution. This saves the operator considerable time as there is no need to remove the electrodes for calibration.

The unit has special shut-off spindles installed on the inlet and outlet sides so that the water supply can be shut off for maintenance purposes. This is particularly important for types of measuring cells that can be pressurised as no additional installation kits are now required.

If the water quality changes, it is easy to switch from hydromechanical to motorised cleaning thanks to an easy-to-operate conversion kit.

The measuring cells can be connected to existing Conex 35x and Aquaserver 353 measuring amplifiers. No software update is required.

*Alldos Oceania Pty Ltd
Unit 3/74 Murdoch Circuit, Acacia
Ridge 4110*

Water quality probe



The multi-parameter Troll 9500 water quality probes from In-Situ is lightweight, accurate, durable and reliable.

It has a corrosion-resistant body that is suitable for marine and brackish water, in addition to freshwater applications. The diameter is such that it will fit in a standard 50 mm groundwater monitoring well for in situ groundwater applications.

Suitable for long-term deployment and continuous data collection in both surface and groundwater, it has the option of internal logging with the capability of storing 4 MB (1,000,000 individual readings). The battery compartment takes 2 x D-cell batteries in either alkaline or lithium and has an IP67 rating to eliminate the risk of water entry to the electronics. Lithium batteries typically power the unit for up to 12 months.

The probe is capable of monitoring up to nine parameters simultaneously — temperature, pressure, level, depth, dissolved oxygen (optical sensor or clarke-type), conductivity, pH, oxidation reduction potential, total dissolved solids, resistivity, salinity, nitrate, chloride, ammonium, ammonia and turbidity.

The Optical DO Sensor (RDO) was independently tested by the Alliance for Coastal Technologies. In other tests it was shown to be not impacted by sunlight (photobleaching) and does not hydrate over time.

The Twist-Lock cables offer the ability to connect two short lengths of cable together to produce a longer cable. The cables are constructed such that they will not stretch and have a break-strength of 136 kg.

It is available in five versions to accommodate a variety of monitoring applications — from basic measurements of a single parameter, up to remote long-term deployment with telemetry. It interfaces with an ultra-light, rugged PDA for water profiling or with any notebook computer. Additional outputs include SDI-12 ASCII streaming output or binary command protocols for longer-term tests or to interface with existing data loggers and SCADA systems.

Calibration is made easy with the Quick Cal solution, an all-in-one buffer solution to enable the user to accurately calibrate pH, EC, ORP and DO all with the same bottle in about 5 mins.

EnviroEquip Pty Ltd
13A Rocklea Drive, Port Melbourne 3207

Aerator/mixer

The Aspiro Plus Blower Assisted aerator/mixers for water and wastewater aeration are a development from the Aspiro aspirating aerators. They use an additional blower to force air into a hollow shaft and eject it into a highly mixed water stream below the water's surface.



Not only are there efficiency gains, the operational flexibility that flows from being able to separately control air injection by turning the blower on and off makes these units even more versatile. They can therefore act as an aerator or as a straight mixer, which makes them suitable for SBR-Type or other batch type applications.

The units are available in sizes from 7.5 to 75.0 kW.

Patrick Charles Pty Ltd
PO Box 449, Crows Nest 2065

Pressure system controller



The Torrium water pressure system controller increases the convenience and reliability for users who rely on an electric pressure pump system for their home water supply.

The controller 'thinks' using advanced microprocessor technology, to ensure a constant water flow is available at all times. It adapts immediately to the pressure system conditions to ensure optimum user satisfaction with the water supply without pump cycling or variations in water pressure and flow rates.

When coupled with the right pump, it can ensure that heavy demand created by multiple water outlet use does not result in pressure fluctuations. Also, the risk of a pump continuing to run without water is avoided, as it will automatically sense if a loss of water supply or prime is reached and will shut the system down as a protective measure.

If there is a leaking or dripping tap, a slow filling toilet cistern, water over-temperature or other system faults, it will quickly adapt by measuring the system pressure, flow, temperature and timing.

The controller is now standard on all Davey electric pressure pump systems including the HP models as well as the XP350, XJ, HS and M Series ranges, which address the water supply needs from a small cottage right through to the premium pressure systems for large multi-storey homes with multiple bathrooms.

Davey Products Pty Ltd
Locked Bag 101,
Ferntree Gully 3156

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