



## Thoughts from your Branch Manager

Last week, I spent a couple of days in Sydney in meetings with all of the AWA staff. In addition to some training for the new Customer Relationship Management software, we had a workshop with Belinda Moore (nee Busoli) on Membership.

One of the key activities was identifying what we, as staff, thought the Association should be, what were the attributes and values that we should engender. Some of the core values that we identified were: professional; industry leader; valuable; approachable and influential and we were very heartened to see that in the preliminary results from a recent survey of members, these entirely overlapped with what our members thought we were.

But, don't worry, we are not going to rest on our laurels, we will keep adapting our program of activities to meet the changing nature and knowledge of the water sector.

We always maintain flexibility in our events program so we can respond to opportunities when they arise and a superb example of this is a talk by Dr James Barnard. At the Singapore International Water Week, Dr Barnard will receive the Lee Kwan Yu Water prize in recognition of his contributions to the development of Biological Nutrient Removal Wastewater treatment processes. We are delighted to announce that he will be in Perth the following week and will talk at one of our evening technical sessions.

On an entirely different subject now, on page 2, Department of Water dry season response director Greg Davis has encouraged south west water self suppliers (SWWSS) to be ready for the wet season and as a SWWSS with a very low dam at the end of summer, I have made sure that I am .

Almost two years ago, I wrote a short article about designing the most Waterwise house that I could and identified a list of products on the wish list . Now that the house is almost complete I have updated the list. Many of the items made it through to installation, but a couple fell off due to cost, running costs or both.

- All wet areas together on south side of house to reduce pipe run.
- Heat Pump water heater - works without direct sunlight. Steibel Eltron wwk 300A which runs on a timer from 10am - 5pm during warmest part of the day and using power from 2.2kw grid connected solar array.
- Nature Loo - composting toilet - no water required - solar panel runs extraction fan. Installed in shed as a test, wouldn't use in house -vinegar flies.
- Caroma Profile 5\* toilet with integrated hand basin - tap runs as soon as you flush - encourages everyone to wash hands & uses water twice.
- Grey water reuse system - to keep as much as practical out of septic tanks. Gator Pro connected to shower and laundry and will water fruit trees.
- Hot Water Recirculator - no wasted water when waiting for hot. Installed hot water system next to shower instead.
- Quench - recirculating shower - 4L of water is filtered, heated and recirculated for as long as you, want, 10, 20 or even 30 minutes will use 4l of water (solar panels mean that power is not an issue - nice idea but \$5000+ was too much).
- Dragonfly M18 - air to water generator condenses 20L pd at 650W - installed extra rainwater tank instead, now have 180,000 l capacity
- Perfect Flow Ultimate Shower Head 5.5l/minute - the end user can not tamper with the flow rate by simply removing a restrictor - just went with standard 3\* shower with 5\* kitchen sink mixer.

Cath Miller  
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Australian Water Association  
Western Australian Branch

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Keeping you informed in WA Water

## Lower Collie surface water allocation plan: for public comment

Facing the challenges of expanding industry and declining rainfall are two important aspects considered in the development of the Department of Water's surface water allocation plans for the Lower Collie management area.

The Lower Collie surface water allocation plan: for public comment and Lower Collie surface water allocation methods report have been released for a public comment until 5pm, 29 August 2011.

"We have developed the plan to set how surface water will be managed in Lower Collie given the challenges brought by a drier climate, and increasing water demand in the south west of the state," A/Director General Maree De Lacey said in releasing the draft plan.

"The plan will help maximise the amount of time that people can take their full entitlements and will maintain key ecological and social values in the lower collie for future generations."

The planning process involved stakeholder and the community groups including Harvey Water, the Brunswick River Restoration Action Group (BRAAG), the Department of Agriculture and Food, Harvey Shire Council, Leschenault Catchment Council, Worsley Alumina Pty Ltd, Nyungar elders and traditional owners.

"The department has used information from meetings as well as detailed environmental, social, cultural and indigenous studies completed in the area over the past five years to set allocation limits and local licensing policies," Ms De Lacey said.

"The majority of surface water used in the area is delivered from Wellington reservoir, to the Collie irrigation district to irrigate pasture for beef and cattle. The plan details the objectives, allocation limits and local licensing policies that will direct access to water in the area."

"It also details the environmental water provision requirements for the Worsley freshwater lake and the Wellington reservoir which define how water is released from these reservoirs to maintain downstream values."

Ms De Lacey said the Lower Collie surface management area was divided into twenty four smaller areas called resources, and the department had set an allocation limit for each resource.

"We have set these allocation limits based on a future climate prediction, using the CSIRO's median future climate scenario to estimate runoff and stream flow in the area at 2020."

Ms De Lacey added there is currently water available for licensing in sixteen out of the twenty four resources in the plan area.

"The plan will ensure that water users are able to get as much water as possible, on a regular basis, and that key social and ecological values in the area will be maintained for future generations," she said.

The plan, together with supporting and technical documents, is available from [www.water.wa.gov.au](http://www.water.wa.gov.au) or contact Bev Thurlow on (08) 9726 4111 or email [allocationplanning@water.wa.gov.au](mailto:allocationplanning@water.wa.gov.au)

## Desal Discovery Centre to open

Australia's first Desal Discovery Centre will be unveiled in September – showcasing water security and desalination science to school groups, policymakers, industry and the general public.

The Desal Discovery Centre is an initiative of the new \$5 million [National Centre of Excellence in Desalination Australia](#) (NCEDA) pilot testing facility being built at Murdoch University's Rockingham campus in Western Australia.

Its September 4 official opening coincides with the [International Desalination Association World Congress](#) in Perth where thousands of water and desalination experts will gather.

The new Centre will explain the benefits and opportunities desalination offers to Australia as the only fully sustainable new source of water independent of drought and climate change able to meet increasing population growth and industry demands.

NCEDA CEO [Neil Palmer](#) says Perth is already reliant on desal – 17 per cent of its public water supplies come from the Perth Seawater Desalination Plant at Kwinana, and this will jump to more than 30 per cent later this year when the [Southern Seawater Desalination Plant](#) comes online at Binningup.

"The continuous flow of water from desalination dramatically reduces likelihood of summer water restrictions," Mr Palmer said.

"Drinking water from desalinated seawater is cheaper than rainwater tank schemes and often cheaper than stormwater collection and treatment. The carbon footprint of desalinating water is also already considerably less than that of home air conditioning or of running a domestic hot water service."

From September, visitors to the new Centre will be able to view a 3D walk-through of a municipal desalination plant and be taken on an animated virtual journey through the desalination process.

Mr Palmer says the Desal Discovery Centre's Edulab is designed to capture young schoolchildren's imaginations with the science and engineering of desalination technologies, fostering future generations of scientists.

Run by a fulltime science educator it will engage up to 36 students at a time offering a mix of scientific demonstration and small group activities linking content to the education curriculum.

NCEDA is also working with the tertiary education sector to increase the number of university graduates with specialist skills in desalination across the country, and the number of PhD students employed by desalination companies.

### SPECIAL EVENT: DR JAMES BARNARD

We are delighted to announce that Dr James Barnard, "the Father of Biological Nutrient Removal (BNR)", will be in Perth on Monday, 11 July and members are being offered this special opportunity to hear James Barnard speak - see page 6 for more details.

At the Singapore International Water Week (4 July to 7 July) Dr James Barnard will receive the Lee Kwan Yu Water prize in recognition of his contributions to the development of Biological Nutrient Removal Wastewater treatment processes. The Lee Kuan Yew Water Prize 2011 is a prestigious award that recognises outstanding contributions towards solving global water problems by either applying technologies or implementing policies and programmes which benefit humanity.

## Department advises self suppliers to prepare for wet season

The Department of Water is advising the state's south west water self-suppliers to prepare dams and storage catchments in order to maximise rainfall harvesting over the wet season.

Department of Water dry season response director Greg Davis said self-suppliers would benefit from ensuring water storage infrastructure and water storage catchments were well-prepared to receive the predicted rainfall.

"Self-suppliers in the south west need to make sure they clean the silt out of their dams and tanks while they still have access," he said.

"Silt washed into dams reduces the reliability of water catchments and cuts down storage volume. Silt also reduces dam depth thus increasing the volume of water lost to evaporation."

Mr Davis said self-suppliers should also check gutters and other rainfall harvesting fixtures to ensure they are functional and able to maximise any rainfall, and contemplate putting in extra rainwater tanks or increasing roof catchment space to improve water harvesting.

"By improving water harvesting and catchment on-site for both domestic and livestock use, we can ensure that we make the most of the rainfall that we receive over the winter months," he said.

Mr Davis added changes in rainfall patterns in 2010 resulted in low rainfall run-off into water tanks, catchments and reduced groundwater recharge in the south west of the state.

"Users who rely on streams for stock and domestic water need to be aware that streamflow in many areas has been significantly reduced and make provision for other water sources," he said.

Self-suppliers need to consider:

- Removing silt from traps and inlets to dam
- General maintenance of piped outlets and spillways
- Checking sealing of wall for cracks
- Installing extra rainwater storage

*\* Note: A self-supplier is a person not served by the scheme water system who obtains their water supply from rainwater tanks, bores or dams.*

## Margaret River leads the way on environmental protection

Author: Andrea Barnard

Curtin University and Winewatch have recently secured \$300,000 funding from the Australian Government's Caring for our Country program to provide further support to the wine industry. The funds will be used to continue assistance to the Margaret River wine industry to secure membership of Entwine Australia, the wine industry's national environmental assurance scheme.

Curtin's Head of Department of Environment and Agriculture, Professor Mark Gibberd, said the high level of local engagement in the scheme to date demonstrates the considerable value much of the wine industry place on their local environment.

"The Margaret River area is well recognised for its high biodiversity and aesthetic values, its unique cave systems, magnificent coastline, and interesting and diverse landscape," Professor Gibberd said.

"The reputation and appeal of Margaret River wine rests in part on these values and it is in the wine industry's best interest to ensure that the environment is protected."

Winewatch Project Officer, Genevieve Hanran-Smith, said the funding would enable Winewatch to assist companies to meet the requirements of environmental certification.

"Over the last 18 months we have funded preparation of nearly 70 biodiversity protection plans, fencing and re-vegetation of 8km of creek-line on Chapman, Wilyabrup and Boodjidup Brooks, as well as extensive environmental weed control and improvements to wastewater irrigation sites and chemical washdown areas," Ms Hanran-Smith said.

Since the scheme's launch in December 2009, 11 wineries and 67 vineyards in the Margaret River wine region have demonstrated their commitment to protecting the environment by completing the training required to achieve Entwine membership. Thirty of these have achieved environmental certification following an independent third party audit, and it is envisaged that most of the remaining 48 enterprises will progress to certification over the next twelve months.

### Technologies for Climate Change Adaptation – Water Sector Guidebook released

This guidebook, Technologies for Climate Change Adaptation—The Water Sector, has been made available by the UNEP Risoe Centre and will help both developed and developing countries understand means of increasing resilience to the uncertain effects of future climate change.

Drawing from the climate change literature, published case studies, and ongoing research at the Water Institute in North Carolina, the guidebook describes adaptation strategies in the categories of water conservation; storm water control and capture; resilience to water quality degradation; preparation for extreme weather events; diversification of water supply (including a reference to Perth Seawater Desalination plant); and mitigation.

This practical guidebook avoids unnecessary theoretical discussions, minimizes the use of jargon, and makes every effort to be clear and self-explanatory. Accessibility is enhanced by first laying the technical groundwork for basic concepts before gradually taking the reader through higher levels of complexity.

[http://www.waterinstitute.unc.edu/media/TNAhandbook\\_Water.pdf](http://www.waterinstitute.unc.edu/media/TNAhandbook_Water.pdf)

Elliott, M., Armstrong, A., Lobuglio, J. and Bartram, J. (2011). Technologies for Climate Change Adaptation—The Water Sector. T. De Lopez (Ed.). Roskilde: UNEP Risoe Centre. 128 pp.

The WA Branch of the Australian Water Association invites you to:

## Mobile Water Purification - Container mounted WTP

**Thursday 23<sup>rd</sup> June from 5.30pm**

**Dr Peter Kesners, WAT Australia**

<b>Location</b>	Derbarl Yerrigan Room, Water Corporation John Tonkin Centre, Newcastle Street, Leederville
<b>Agenda</b>	5.15pm Arrival and Registration 5.30pm Presentation 6.30pm Refreshments
<b>Abstract</b>	<p>The Mobile Modular Water Treatment Plant is the winner of the 2010 AWA WA Water Innovation Award. The plant is installed in a 20" container and trailer mounted, it is readily deployable and operational with minimal installation.</p> <p>Traditionally, water treatment plants have been assembled on-site from components. A thorough site preparation and civil engineering precedes the actual plant assembly, which involves the mobilization of skilled staff and production tools and equipment. Subsequent testing and operational qualification of components follows, before a plant is ready for commissioning. Installations are straight forward given the availability of skilled technicians and adequate infrastructure. Alternatively, transportable treatment plants are an emerging trend which is gaining momentum. These usually small to medium capacity plants are produced in modules with skid or container mounting. Assembly and pre-commissioning is performed in centralized manufacturing facilities.</p> <p>The technical advantages of centralized production include quality assurance, occupational health and safety compliance and a high degree of professional expertise in production from a low fluctuation staff base. Additionally, the economical aspects of centralized production ultimately position mobile plants as very attractive water treatment solutions. WAT Australia's modular mobile plant and applications will be presented.</p> <p><i>Dr. Kesners began his studies of water chemistry in industrial water treatment 1979 in the laboratories of German based Mogul-Eurotherm GmbH. He holds degrees in Chemistry from the University of Hamburg and a Doctorate from the Technical University Hamburg-Harburg. The thesis is entitled "On-Site and On-Line Water Analysis with Gas Chromatography – Mass Spectrometry using Polymers for Phase Separation and Enrichment". He is a founder of WAT Norderstedt, Germany and WAT Australia. Dr Kesners is patented in marine water treatment application and a developer of water sustainability online training resources. He lectures at the Challenger Institute of Technology. Dr. Kesners is a Chartered Chemist and Member of the Royal Australian Chemistry Institute.</i></p>
<b>Registration Fees</b>	<b>FREE</b>
<b>Enquiries</b>	<b>Cath Miller</b> Phone: 0416 289 075 Email: <a href="mailto:wabranh@awa.asn.au">wabranh@awa.asn.au</a> Fax: 08 6210 1675
<b>RSVP</b>	<b>Monday 20<sup>th</sup> June to Cath Miller (Numbers required for catering)</b>
<b>REGISTRATION JC0211</b> <b>Delegate Details</b> (please detach this section if faxing back)	Name (S) _____ Position _____ Organisation _____ Telephone(w) _____ Mobile _____ Facsimile _____ Email _____ Special/Diet Requirements: _____
<b>Sponsors</b>	

## Water Future Forum: Water in Changing Climates Young Water Professional Perspectives

*Reported by AWA WA YWP*

AWA Western Australian Branch and its Young Water Professional (YWP) committee hosted the inaugural Water Future Forum, on Thursday 26<sup>th</sup> May. The half-day conference was held in the Perth Convention Centre, where 70 delegates heard from key note speaker and award [winner of the National Young Water Professional of the year](#), Josh Byrne, followed by 3 different, yet interconnected streams of our water industry. Presenters shared a young perspective on the changes in: political and regulatory climates, climate change and social climates, resulting in an integrated perspective of the water future in Australia.

Eelko van Der Vaart – WA YWP president - and Amanda Hazell - National YWP president, opened proceedings highlighting the numerous benefits of the association's membership and upcoming events such as the mentoring program, to be launched at July's mid year mingle event. With the high quality of the speakers and the diversity of the audience, the industry is shaping to have an integrated and well communicated future in the hands of today's young water practitioners.

**Josh Byrne**, demonstrated how it is possible to have a green and functional garden in Perth's harsh and dry weather, while maintaining a low demand on treated drinking water. Josh covered the potential water reuse applications and showcased a tangible real-life example of sustainability in action, the Grove Project – jointly funded Library and Community Centre for the Town of Cottesloe, Shire of Peppermint Grove and Town of Mosman Park. Josh explained – *“The integrated wastewater system at The Grove has been designed to supply a proportion of landscape water demand for irrigation (i.e.: substitute for bore water); effectively manage and utilise nutrients from the wastewater stream for landscape plant requirements; recharge the shallow aquifer to offset bore water use for seasonal landscape demands that exceed available wastewater volumes; and reduce volumetric and pollutant concentration loadings on the mains sewer.”*

**Chris Pepperell**, a chemical engineer and greenhouse gas consultant from Melbourne, highlighted the water industry reporting guidelines for the National Greenhouse and Energy Reporting System (NGERS). Chris introduced NGERS in relation to the future carbon pricing regime, the guidelines' definition for water treatment facility and also discussed the NGERS reporting requirements. The presentation covered case examples from Melbourne Water and Sydney Water and explored the NGERS measurements determinations in methane and nitrous oxide emissions. Mr Pepperell concluded explaining the next steps to finalise the NGERS Guidelines for the Water Industry to be presented at the WSAA energy and greenhouse network meeting on 30 May 2011.

**Michael Voros**, a lawyer working with legal and strategic issues for the evolving Australian and global new 'green' economy, presented on Australia's progression to carbon pricing in the political arena. He helped the audience to better understand the carbon price proposal explaining the 2 phase implementation approach with an initial fixed price from 1<sup>st</sup> July 2012, followed by an emissions trading scheme in the second phase. Michael explored the current political scene and its key players' drivers in the carbon price debate. Michael indicated that the proposal will assist behavioural change as emissions intensive goods and services will be more expensive (including water services). He concluded his presentation with the question *“Why is it an YWP issue?”* His answer was that it is a YWP issue because these changes (political, climate, social etc) are related to now and to the future; Carbon pricing is all largely new so provides a great opportunity for the young professionals to run with it.

**Katrina Annan**, the winner of the 2006 Undergraduate Water Prize, presented an informative and entertaining summary of the significant weather events we, in WA, experienced during the 2010 – 2011 La Nina season. The tropical cyclones, floods and tornados that considerably changed the scenario in the North West of our state kept the Bureau's staff on their toes during the season. Several gauging stations exceeded previous rainfall and level records, such as the Nine Mile Bridge in Carnarvon that peaked 7.80m on Monday 20 December (previous record was 7.63m in 1960). Continuing with her highly informative presentation, Ms Annan taught us the characteristics of La Nina and El Nino, the South Oscillation Index, the El Nino Southern Oscillation (ENSO) cycle and the Indian Ocean Dipole. In a nutshell these represent the position of warm/cool waters, strength and wind direction, atmospheric pressure gradients and local convection. Katrina advised that the outlook for the 2011 winter rainfall will be drier than average for the southwest of WA (and ensured everyone understood that the extremely dry 2010 winter was not to be taken as an average year reference), which brought us all back to the reality after an interesting, humorous and well informed presentation.

**Graham Currie**, the Engineers Australia Young Professional Engineer of the Year 2010, presented the Aqwest Bunbury Water Board plan to maintain its customer services during a major natural event or disaster. Graham started his presentation by highlighting recent global and Australian events such as the earthquakes in Christchurch and Japan, Brisbane floods and Victorian bushfires. After his introduction, Graham ran the audience through the extensive preparation that Aqwest is undertaking to ensure business continuity in case of a major disruption. This preparation includes, amongst other points, the proposal to build a dedicated facility to ensure critical processes are restored as soon as practicable after a disaster.

## Water Future Forum Report (continued)

Disaster management and business continuity was the theme of the YWP workshop conducted at OzWater'11 in Adelaide earlier in the month. And although during major crisis mainly senior water professionals are kept awake, it is was good for the audience of young professionals to be exposed to the responsibilities that water utilities hold in the community.

**Elise Paskett**, the Water Corporation's project manager for the *Margaret River Water Smart Project* - [winner of the 2010 AWA Program Innovation Award](#) - explained the Corporation's initiatives in water efficiency that are helping to address the water supply pressures in Western Australia's drying climate which is combined with rapid population growth. Again, the audience was locked into a highly informative and passionate presentation that not only indicated the current (water) situation with future demand/supply estimations, but also provided a detailed insight on how the Water Corporation progressed from piloting and successfully implementing Community Based Social Marketing projects to securing Federal government funding for the implementation of the Integrated Regional Water Efficiency projects, both in the North West and in the Great Southern Regions of Western Australia. Elise took us through the journey of changing the way we use water in a vibrant in a highly informative and comprehensive presentation.

**Matt Walsh**, a founding director of Engineers Without Borders Australia, is currently working to help build world class sustainable cities. Matt presented, with a great humour, the concepts that today's planners and engineers are facing to ensure the future of our cities. Matt explained – "*Resilience is the capacity of a system to absorb disturbance and still retain its basic function and structure*". In some parts of the world, and in Australia, we have great examples of how to implement and achieve designs that will use - instead of disposing - waste as a resource. Matt presented several case studies such as the Grocon Pixel Building and the Council House 2 in Melbourne – both with design that incorporates rainwater harvesting, on-site black & grey water treatment and other innovative measures. From overseas, Matt showed us a case study of Hammerby Sjostad, City of Stockholm. Matt finished off by bringing the presentation back to Western Australia, highlighting the Stirling City Centre biophilic design including the stormwater capture, wetland and ground water recharge. His presentation was well received and through a combination of humour and thought-provoking ideas, gave the delegates something to talk about during the networking drinks.

The conference brought together a great range of presenters that spoke on very different, but complementary subjects related to the future of the Water Industry in Australia. The forum covered the full range of changing climates from the regulatory and political climate, the natural climate through to the social climate including behaviour change and community based initiatives.

WA's first Water Future Forum was a success and certainly lived up to its theme **Water in Changing Climates**.

## WA Water Industry Lunch

27th July 2011 - Hilton Hotel

Guest Speaker: Maree De Lacey  
A/Director General, Department of Water

Following in the footsteps of Hon Dr Geoff Gallop, Hon John Kobelke, Kim Taylor, Sue Murphy and Hon. Dr Graham Jacobs, Maree De Lacey will be the guest speaker at the AWA Water Industry Lunch on Wednesday 27th July 2011. Register online now.

[https://events.awa.asn.au/getdemo.ei?id=219&s=\\_43S0PJY1](https://events.awa.asn.au/getdemo.ei?id=219&s=_43S0PJY1)

- \$90 Members
- \$110 Non Members
- \$65 Retired/YWP/Students
- \$750 Corporate Table of 8

We are delighted to announced that Freehills have kindly agreed to sponsor this event. Freehills is an Australian-based international law firm and a leading legal advisor to the water and wastewater industry. [www.freehills.com](http://www.freehills.com)



## NEW Accredited Chlorine Operator Training Programme NWP277A Work Safely with Liquefied Chlorine Gas

Hydramet is pleased to announce that the popular Chlorine Operator's training course has now been accredited to the equivalent unit in the Water Training Package. Part of the Certificate II in Water Operations, the qualification gained by attending the accredited Hydramet course is NWP277A, Work Safely with Liquefied Chlorine Gas.

The course is designed for Operators with a specific responsibility for disconnecting and connecting liquefied chlorine gas containers. According to Australian Standard AS2927:2001, The Storage and Handling of Liquefied Chlorine Gas all personnel directly involved in the operation and maintenance of chlorine systems shall be properly trained.

The unit of competency covers the requirements for working safely with liquefied chlorine gas, including the safe changeover of gas containers, the safe transport, handling and storage of liquefied chlorine gas containers and the implementation of emergency procedures.


Hydramet's NWP277A course can be conducted as an in-house course on-site for companies with six or more delegates. For smaller numbers Hydramet offer public courses at their offices. The first scheduled public course for NWP277A Work Safely with Liquefied Chlorine Gas is at Hydramet's Head Office in Perth on Wednesday 24th August 2011.

# Event Notices



The WA Branch of the Australian Water Association invites you to:

## The Looming Food Crisis and Biological Nutrient Removal Monday 11<sup>th</sup> July 2011 from 5.30pm Dr. James Barnard, Black & Veatch

<b>Location</b>	Derbarl Yerrigan Room, Water Corporation John Tonkin Centre, Newcastle Street, Leederville
<b>Agenda</b>	5.15pm Arrival and Registration 5.30pm Presentation 6.30pm Refreshments
<b>Abstract</b>	<p>We are delighted to announce that Dr James Barnard will be in Perth on Monday, 11 July and members are being offered this special opportunity to hear his talk.</p> <p>Dr. James Barnard is recognized internationally as "the Father of Biological Nutrient Removal (BNR)." He has a celebrated 40-year career that includes groundbreaking work that forms the basis for all BNR process configurations in use today.</p> <p>Biological nutrient removal has come of age and is now applied world-wide. 'The expected population growth over the next 30 years corresponds to 220,000 new people to feed every day, with the implications of the requirement for drastic increases in the food supply and at the same time dealing with the great increase in the pollution load from this population and the impact on eutrophication. It is just logical that treating used water should address recovering and using the resources such as energy but especially nitrogen and phosphorus for sustainable solutions to the looming food crisis</p> <p>At the Singapore International Water Week (4 July to 7 July) Dr James Barnard will receive the Lee Kwan Yu Water prize in recognition of his contributions to the development of Biological Nutrient Removal Wastewater treatment processes. The Lee Kuan Yew Water Prize 2011 is a prestigious award that recognises outstanding contributions towards solving global water problems by either applying technologies or implementing policies and programmes which benefit humanity.</p> <p><a href="http://www.youtube.com/watch?v=TFsfBUhgfQY">http://www.youtube.com/watch?v=TFsfBUhgfQY</a></p>
<b>Registration Fees</b>	<b>FREE</b>
<b>Enquiries</b>	<b>Cath Miller</b> Phone: 0416 289 075 Email: <a href="mailto:wabranh@awa.asn.au">wabranh@awa.asn.au</a> Fax: 08 6210 1675
<b>RSVP</b>	<b>Wednesday 6<sup>th</sup> July 2011 to Cath Miller (Numbers required for catering)</b>
<b>REGISTRATION JB0711</b> <b>Delegate Details</b> (please detach this section if faxing back)	Name (S) _____ Position _____ Organisation _____ Telephone(w) _____ Mobile _____ Facsimile _____ Email _____ Special/Diet Requirements: _____
<b>Sponsors</b>	 <b>BLACK &amp; VEATCH</b> Building a world of difference.  <b>WATER</b> CORPORATION

## AWA YWP GWRT Tour

On Wednesday the 20th April, a group of thirty toured the Water Corporation's Groundwater Replenishment Trial site and visitors centre in Craigie as part of an AWA Young Water Professional technical tour.

The Water Corporation's Senior Environmental Engineer Palenque Blair and Scientific Officer Simon Higginson took the group around.

There was a real thirst for knowledge amongst the group, with many questions both about the advanced treatment process that turns wastewater into very pure recycled water, the groundwater system and the potential for use of groundwater replenishment at a larger scale as a drinking water source for Perth.

After a site tour and watching the video that is part of the communications package on the project, the AWA YWP's had put on some soft drinks and nibbles that along with the sunset through the trees, provided a lovely setting for growing and reinforcing networks.

The perspective of one of the visitors on the day is provided below from Yevgen Salamatin, the AWA Treasurer and a YWP.

### **Yevgen's perspective:**

*I would strongly recommend visiting the GWRT information centre. They will talk a lot about technical and physical process of the whole GWRT thing. I couldn't understand all of it as I am a finance guy. However, you will learn very important things, if you didn't listen to it at school during the science classes, that not a single drop of water is lost on Earth, except those bits that are taken by astronauts into space. Same rule applies to the sewage. What does it mean? It means that nature itself keeps recycling water for us, like it or not. Well, all I can say is that I trust reverse osmosis more than I trust the ground.*

The Water Corporation is keen to engage the community on the prospect of groundwater replenishment as a drinking water source and there are two websites where you can have your say: <http://c2030.landcorp.com.au/topic/139> and <http://www.facebook.com/home.php#!/pages/Perths-Groundwater-Replenishment-Trial/200677719976535>

AWA has organised another tour on Tuesday 18th October to coincide with the National Water Week Recycling and Groundwater conference, but if you would like to organise your own group to visit the site, tours can be booked through the website: [http://www.watercorporation.com.au/G/gwr\\_tours.cfm](http://www.watercorporation.com.au/G/gwr_tours.cfm)



## Dr. Carla Boehl Finalist in Awards



*The finalists at the awards gala dinner. From left: Dr Christobel Ferguson, Dr Carla Boehl, and Anna West*

**Dr. Carla Boehl was awarded as finalist in the Water Industry Woman of the Year category in the Australia Water Association's National Conference Ozwater'11 in May.**

The award recognises Carla's work over the past four years in Queensland at Townsville Water and at WA's Water Corporation and recognises her efforts towards advancing the profile of all women in the water industry.

As an award finalist, Carla demonstrated champion qualities that benefit others in the water industry and a focus on both the community and environment.

This award has been given in the honour of Nancy Mills and recognises significant projects, products, initiatives, achievements and/or services of females within the water industry.

Carla works as Specialist Engineer for Water and Hydrocarbons. She is the Vice-Chair of the Women in Engineering Committee from Engineers Australia.

Carla loves being an engineer and feels very proud of her professional achievements, as well as the way she manages her work-life balance. She's always motivated to share her experiences and inspire girls and other women to succeed.

### **Catching up at Ozwater**

*Image from left: The Water Corporation's Cris Carvalho who organised the YWP Water Future Forum in May; Award Finalist Dr Carla Boehl; Water Corporation's Amanda Hazell who is currently National YWP President and Young Water Professional of the Year Josh Byrne of Josh Byrne and Associates.*

## The 2011 Thiess Annual WaterAid WA Ball will be held at the Hyatt Regency Grand Ballroom on Friday July 1st.

The annual WaterAid WA Ball is the premier fundraising event for WaterAid WA, with an expected attendance of over 300 guests. This event is designed to bring together individuals and organisations with an interest in helping provide improved water supply and sanitation services to those in developing countries. Tickets are \$200 per person and tables of 10 can also be booked.

The 2011 Thiess Annual WA WaterAid Ball will bring together members of Western Australia's community and water industry for a night of fun and philanthropy. Funds raised through your involvement in the Annual WA WaterAid Ball will support projects that provide safe drinking water and improved sanitation to thousands of people throughout the world's poorest countries, including Papua New Guinea and East Timor. For more information about WaterAid visit [www.wateraid.org.au](http://www.wateraid.org.au).

**When:** Friday 1 July 2011, Pre-dinner entertainment 7:00pm, Doors open 7:30pm until midnight

**Venue:** Hyatt Hotel Perth

**Dress:** Black tie/Cocktail

MC Tod Johnston. Entertainment by Peace Love & All That Stuff.

Charity auction of unique items and artworks.

To reserve a table or become a valued sponsor of the 2011 Annual WA WaterAid ball please register by COB Friday 24th June 2011.

Tickets available on [www.wateraidwa.com.au](http://www.wateraidwa.com.au)

Enquiries welcome on 0407 464 715.



Still...



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It all started back in 1898 on the 350 mile Golden Pipeline in Western Australia. Since that time we have proudly served the Australian water industry continuously with a broad range of locally manufactured products and services. This tradition is maintained today by the 1300 employees at Tyco Water.

## YWP WA Mentoring program launch

A mentorship is a working relationship between an experienced and a less-experienced professional. It is widely acknowledged to be an effective tool for professional development. A good mentor can help their mentee in many ways, such as giving guidance in setting career goals, comparing different options for further study or specialisation, managing work – life balance, developing “soft” skills, and more. Mentoring can also benefit the mentor, helping them relate to more junior staff, perhaps in motivating them to reevaluate their own careers.

At the Mid Year Mingle on Thursday 21st July, the YWP network in WA is launching a mentoring program in 2011, to facilitate mentorships for water professionals. While many members, particularly those working for larger organisations, may already have access to great mentors, we know there are others who don't. Some may work for smaller companies and prefer to have a mentor who isn't a direct supervisor; others may find that they haven't found anyone in their discipline with whom they have formed a rapport. Some may have the perfect person in mind but don't want to initiate a mentorship without support.

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*“Early in my career, I was lucky enough to have been influenced by people who wanted to make a difference, and provided me with a clear vision of what professionalism was about.*

*Little things were important, and how we related to people was as important as paying attention to the technical details.*

*Today, this early influence is referred to as mentoring, and when I look back over the opportunities to develop individuals, the rewards have been returned manifold.*

*I see many of my once graduates as peers now, in positions of influence in many global and local organizations, and that in itself is return on investment of our personal time we have given over the years.”*

**Vince Cinanni – Emerson Stewart General Manager Utilities and Environment and prospective YWP Mentor**

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We invite you to express your interest in joining the program by, either as a mentor or a mentee by . Some people may even feel comfortable in both roles – mentoring someone less experienced and having their own mentor as well. We will send out a short questionnaire to respondents, to create a profile of mentors and mentees. The mid-year mingle will give all participants an opportunity to meet each other, and then mentors and mentees will be paired up, with some guidelines to get them started. The YWP committee will be there to facilitate the relationship along the way.

Please express your interest in being a mentor or a mentee by Friday 24th June to the YWP mentoring coordinator Rosemary Edwards at [ywp\\_wa@awa.asn.au](mailto:ywp_wa@awa.asn.au)

**H<sub>2</sub>Oz**  
careers in water

## National Water Week 2011

Healthy Catchments, Healthy Communities

### National Water Week calls for this year's ambassadors!

National Water Week (NWW) will run from 16 – 22 October this year, and the theme is 'Healthy Catchments, Healthy Communities.'

National Water Week is the only nationally-focussed event designed to assist our community to take actions that help protect and conserve our most precious resource - water.

AWA's National Water Week Ambassador Initiative was a huge success last year and due to the positive response from both schools and community it will run again this year.

The initiative aims to raise community awareness and improve understanding of water issues in Australia and globally.

As a NWW ambassador you will have the opportunity to share your knowledge on the water sector through visits to schools and community groups to present on a range of topics.

To support ambassadors and to reduce the time commitment of taking part in this initiative a selection of presentations and guidance notes have been prepared that can easily be taken and used when visiting schools and community groups.

Last year WA Branch Committee Member Peter Devellerez of Parsons Brinckerhoff visited the Herne Hill Cub Scout Group and talked to them about “Water and Environment” and “What happens to Wastewater”. “There were about 25 girls and boys of 8-10 years old. I don't know if they learnt anything but I had a ball.” Peter Said

Shaun Triner of Dampier Salt Ltd went to Gingin District High School to talk to 60 Year 1 and 2 students. He had a bit of a challenge making the wordy slides relevant for small children, but made his own water demonstrations with plastic containers, salt and food colouring.

“I found this a great experience and would recommend others take the opportunity in future.” he said

This is a fantastic opportunity to raise awareness and educate communities across Australia about some of the key water issues affecting Australia and the rest of the world. If you are interested in becoming a National Water Week ambassador please contact Fleur Johnson at [fjohnson@awa.asn.au](mailto:fjohnson@awa.asn.au) or register on the Official National Water Week Website

<http://www.nationalwaterweek.org.au/>

## Karina Congdon



**Qualifications** – BE (Environmental), BSc (Zoology)

**Current Employer** – Water Corporation

**Current Position** – Project Manager, Major Projects

**Describe a typical workday** – Lots of organizing and communicating; bringing

the right people together, coordinating approvals and consultants, and the odd site visit.

**Children** - nope

**How do you maintain balance between your work and personal life?** – By having lots of things to look forward to in my personal life!

**What did you want to be when you grew up?** – So many different things! An air hostess, a teacher, a travel reporter, a lawyer, a journalist, a scientist. Not sure how I ended up an engineer...

**What is your dream job?** – Something involving bringing people and ideas together.

**Career path** – A broad range of roles across the Water Corporation – wastewater planning, catchment management and project management. Currently working on a project in Mundaring which brings a lot of my past experience together.

**Career highlight** – Achieving something that some said couldn't be done - Practical Completion of the Stirling Dandalup Trunk Main a summer early, and celebrating with the Southern Seawater Desalination Team it being the first integration asset to be completed!

**What are the important qualities required to be a good manager?** – Excellent communication skills, ability to inspire and motivate others, being approachable & available.

**Any Volunteer roles?** – YWP committee member

**List your Green credentials** – walking to work, try and buy veggies at the market, energy efficient light bulbs

**Dogs v Cats** – Dogs

**Your Pets** - None

**Sports** - hockey

**Rugby v AFL v Soccer** - AFL

**Hobbies past/present** – travel, bushwalking, reading, cooking, going to the beach, seeing the odd play and going out for breakfast!

**Music - in car/on iPod** – Birds of Tokyo, Josh Pyke, Temper Trap

**Favourite book?** The Handmaids Tale by Margaret Atwood

**What are you reading now?** – Tree of Man by Patrick White – as part of a book club. It's definitely a book club or English Essay kind of book!

**Favourite film?** – I'm a sucker for Captain Jack Sparrow in Pirates of the Caribbean

**Must Watch TV Show** – Desperate Housewives. (Slightly embarrassed about that.)

**Last Holiday** – I had a fantastic 6 week holiday over xmas. Went to a friends wedding in France (a proper white wedding, in the snow!), hung out with wedding guests in Provence, spent xmas in Whistler with my brother, and checked out some more of Canadas beauty.

**What was your first job?** – Working in the records department at uni doing hours and hours of filing...

**What can't you do without?** – Family. And the beach



The 2011 program will have a strong focus on the management and recovery of our rivers and waterways, in accordance with the overall theme, **The Value of Rivers**. Concurrent sessions, keynote presentations and study tours will allow delegates to participate in discussions on the economic, social and competing values of rivers as well as showcasing case studies and practical examples. To maximise knowledge sharing and networking opportunities, this year's program will encourage interaction among delegates through different feature sessions, workshops and networking events. Keep checking the website - [www.riversymposium.com](http://www.riversymposium.com)

## Membership News - June 2011

Please welcome the 9 new members who joined the WA Branch in May.

Member Type	First Name	Last Name	Organisation	Member Since
Corporate Plus	David	Murphy	United Group Infrastructure	30/05/2011
Individual	Jaafar	Roz	Auswater	26/05/2011
Individual	Michelle	Vojtisek	Department of Health WA	25/05/2011
YP Year 1	Natalia	Shishkina	Department of Health WA	23/05/2011
YP Year 1	Andrew	Wyber	Water Corporation	23/05/2011
Individual Discount	Igor	van de Ploeg	Water Corporation	16/05/2011
YP Year 1	Carol	Matasci	GHD Pty Ltd	11/05/2011
Individual	Chris	Vigus	JCLEM CONSULTING	4/05/2011
Individual Discount	Matthew	Stenhouse	Water Corporation of Western Australia	3/05/2011

## Drinking Recycled Sewage !!!!

The alarmist headlines in The West Australian about drinking recycled sewage drew a quick response from some of our readers who sent the following letters in to The Editor.

Dear Editor

I was dismayed at the headline (Recycled sewage may soon be on tap, 27/5).

The Report was reasonably well- balanced referring to "treated wastewater" and "effluent treated to a drinking standard before being pumped into Perth's groundwater". Also it is made clear that the treated water would also be subjected to more natural treatment as it percolated through the aquifer over several years.

Unfortunately, the first paragraph of the report refers to "recycled sewage", as does the unfortunate headline. It is not difficult to work out that these references are misleading and deceptive.

In the present parlous state of the water supply in the south west of the State because of low and diminishing winter rainfall, any initiative to make better use of the State's water should be welcomed and not impeded by unnecessary and inaccurate references to "recycled sewage".

A hysterical campaign in Toowoomba, Queensland, referring to recycled sewage defeated an attempt in that community to alleviate a chronic water-supply problem in the recent past. The type of headline used in this newspaper on May 27 could lead to a similar outcome here.

While there are differences of opinion among experts, it is clear that the trial which has been conducted so far has been subject to in-depth monitoring and no doubt this will continue in the years ahead.

So far the results appear to have been very encouraging. I would suggest that this should have been the point made in your headline.

Kelvin Lord  
West Perth

Dear Editor,

People concerned about treated sewage wastewater recharging groundwater aquifers prior to its use as human drinking water (West, May 28-29; "Water plan a 'health gamble'") should visit Orange County in southern California. Since 1936, the county's water board has been recharging its groundwater aquifers with treated water from the Santa Ana River which is in part fed by the upstream discharge from 45 sewage treatment plants. The groundwater is then recovered for human use. Over 1.4 million people have been drinking this water for decades with no ill effects.

In 2008, the Orange County Water Board began to treat 48 million tonnes of sewage wastewater each year for direct injection into its aquifers with human consumption thereafter. Some 600,000 people now rely on this water for their daily needs.

One of the solutions to Perth's water crisis is the reuse of the 100 million tonnes of sewage wastewater which is discharged into the ocean each year. With no evidence or even any suggestion that people are suffering ill effects from consuming highly treated wastewater elsewhere in the world, we do not need to reinvent the wheel, provided that we use world's best practice to ensure there are no adverse impacts from a solution which has large social and environmental benefits.

Yours sincerely  
Bernie Masters

## WA Water Event Calendar

AWA WA Technical Event: Mary Turonek – Griffith Hack	Water Innovation - How are we doing	24-Feb-11
AWA WA Technical Event: Jeff Charrois CWQRC	Global Drinking Water Research AWA	17-Mar-11
AWA WA Technical Event: ERA WRMP Briefing	City West Function Centre	14-Apr-11
<i>AWA YWP GWRT Tour</i>	<i>Craigie 4pm</i>	<i>20-Apr-11</i>
AWA WA Technical Event: Bill Barber Biosolids	AECOM	16-May-11
AWA WA Technical Event: Steve Hruddy et al	issues for drinking water quality half day	17-May-11
WA Branch Seminar: Water Future Forum	<i>Half Day Joint with YWP</i>	<i>26-May-11</i>
AWA WA Technical Event: Peter Kesners WAT Australia	Modular Mobile Treatment plant	23-Jun-11
<i>WaterAid Ball</i>	Hyatt Winter in July	01-Jul-11
AWA WA Technical Event: Dr James Barnard	The Award Winning Father of BNR	11-Jul-11
<i>AWA YWP Mid Year Mingle</i>	<i>Mentoring Event Launch</i>	<i>21-Jul-11</i>
AWA WA Water Industry Lunch	Acting D/G DoW Maree De Lacey	27-Jul-11
AWA WA Water Awards Showcase	PCEC Cocktail Party	04-Aug-11
AWA WA Technical Event: Neil Palmer NCED progress	NCED progress	18-Aug-11
AWA WA Technical Event: Asset Management ISO 55000	with Spec Net	31-Aug-11
<i>IDA World Congress Sept 4-9</i>	PCEC	<i>4-9 Sept</i>
Meet the Board Cocktail Party + Annual Members Meeting	Hilton Hotel	07-Sep-11
AWA WA Technical Event: Department of Water	Water Services Bill	28-Sep-11
AWA WA National Water Week Seminar: Recycling	with GWRT Site Visit	18-Oct-11
AWA WA Undergraduate Water Finalist Presentations		25-Nov-11
WA Water Awards 2011 Gala Dinner	Ballroom 1 PCEC	25-Nov-11
<i>AWA YWP My Water Career</i>	<i>Venue - TBA</i>	<i>01-Dec-11</i>

WA Branch Events

*Other Water Events*

*YWP Events*

*WaterAid Events*

### Branch Committee

#### AWA WA Branch President

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Cris Carvalho, Water Corporation

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Andrew McTaggart, URS Australia Pty Ltd

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Garth Walter Water Corporation