

OPERATOR

August 2013 Edition



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James Coonan with Shane Wohlsen from Iwaki Pumps in Qld. See full report page 6.

Newest WIOA member, hat and all... Read about the NZ Tour on Page 14.



Old Operator of the Year - Chris Hughes. More on Page 6.

Newsletter of the WATER INDUSTRY OPERATORS ASSOCIATION OF AUSTRALIA

FROM THE EO'S DESK

There has been an amazing amount of activity since the May 2013 edition of Operator was published. The Queensland Operations Conference was staged on the Gold Coast in early June and was a resounding success with record attendance. A full report on the conference and all the award winners appears later in this edition. We are now finalising the arrangements for the Victorian conference in early September. The exhibition is a sell out yet again and the conference is a "must not miss" event for Victorian based operational people. Registration forms or visitor passes are available from the WIOA website.

As a result of changes to the Victorian Associations Incorporation Act, WIOA needs to update our Constitution. In a process which took a number of months to complete, a sub-committee worked through our existing Constitution and the new model rules and provided a report and draft constitution to the Committee for consideration. The Committee agreed with the report and approved the calling of a Special General Meeting to discuss the proposed changes. Members are invited to attend the Special General Meeting at the Bendigo conference on Thursday 5 September at 10.30am where the proposed changes will be discussed and voted on.

The Association's member numbers and demographics have changed considerably in the last 5 or 6 years as we have expanded nationally. As part of the strategic planning process, the WIOA Committee has been looking at structures and systems to allow members in all States to have a voice. As a result of the good work and success of the WIOA Advisory Committees in Tasmania and Queensland, interested members have now established similar Committees in both New South Wales and Victoria as well.

The role of the Advisory Committees is to be the voice of the member and provide advice on the services, events, issues and opportunities required in each State. There have been a range of site tours, interest days and charity events already held and the idea is to set a program of events in each State, and where possible, rotate the locations to give the maximum opportunity for member access. We hope that members will support the efforts of the Advisory Committee members, attend the events and participate in all the other opportunities on offer to network and share knowledge.

In recognition of our skills development work, WIOA was recently invited to be part of the Water Industry Skills Taskforce (WIST), the CEO level group established to promote and oversee a nationally coordinated effort to address the skills shortage in the water sector. At the June meeting, the WIST was assigned responsibility for progressing the national Operator Certification Framework. The meeting determined that to be successful, the Framework must be industry led and close collaboration between state and territory regulators and water businesses is crucial. The WIST has assumed the role of Framework Owner on an interim basis, with further discussions on the implementation of the Framework to be held at the October WIST meeting.

The WIOA Certification Scheme is gaining momentum with seven Victorian operators now certified and another 20 or so applications currently under consideration. We have met with representatives from a number of Victorian water corporations to further outline the process and a certification update presentation was provided as part of the Victorian Advisory Committee day at Winneke WTP.

WIOA was requested to develop and deliver a "Principles of water and wastewater" training seminar tailored mainly towards operators in remote and aboriginal communities in North Queensland.

The seminars have been held through June and July in Cairns, Biloela, Cooktown and Napranum (near Weipa) and were all very well attended. There will also be a Membrane operation seminar in Cairns later in the year as an extension of this project.

Apart from doing the actual training, it was a pleasure meeting the operators, inspecting some of their systems, giving a few operational tips and hearing and discussing their issues. It is really apparent that due to their isolated locations, the operators are starved of opportunities to learn new things and network with fellow operators. Depending on location, there is also a lack of technical support and many operators are working with less than ideal systems and infrastructure. WIOA is looking at ways that we may be able to tap into our own member base so that we can provide more opportunities to share knowledge in the future.

As part of their skills improvement strategy the Queensland Water Directorate (qldwater) has partnered with WIOA to deliver Distribution Seminars in areas where the numbers of attendees may not normally have been viable. We recently completed seminars in Kingaroy and Mackay and previously in places such as Longreach and Biloela. We congratulate qldwater for a new project about to start where technical experts (such as WIOA Technical Advisor, Peter Mosse) will be visiting and reviewing a range of water systems. They will work with the engineering and operational staff to review the systems, look at ways to optimise performance using the existing infrastructure and most importantly, provide ongoing mentoring to the operators to ensure the success of the optimisation process. There may also be a role for WIOA in the project through our range of seminars.

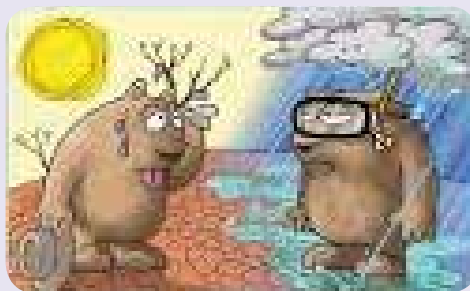
Finally, the Committee has decided not to increase WIOA's Membership fees for 2014. They will remain at \$25 for Individual Members and \$220 for Corporate Members. Invoices will be sent to all Members in November with payment due 1 January 2014.

Until next time,

George Wall – WIOA Executive Officer

DID YOU KNOW? CLIMATE RECORDS BROKEN ACROSS AUSTRALIA

From September 2012 to March 2013, Australia registered the hottest summer, the hottest month, the hottest day and the longest national scale heatwave on record. It was the hottest summer for Australian sea-surface temperatures. There were 476 verified weather station records and 17 national, State and Territory area-average records. You can find this information, as well as other climate information, on the Bureau's website: www.bom.gov.au



RAY CRILLY – RETIRES AFTER 45 YEARS

18 April 1968 to 26 July 2013

What an amazing achievement – one that very few people could ever lay claim to.

Ray commenced his working life in 1964 as an Apprentice Plumber with the Echuca Water Trust. He joined Melbourne Metropolitan Board of Works 4 years later as a Pumping Station Attendant, operating the main sewage pumps at Kew and Brooklyn.

In August 1974, Ray successfully applied for a leading hand maintenance position in the Eastern District. It was from there he first learnt to deal with all areas of water supply maintenance, as well as gaining experience in supervising a maintenance team.

Two years later, Ray became Assistant Operator at the Nunawading Treatment Plant, which at that time was considered to be one of the ultra-modern plants. He obviously did a fantastic job there, because in 1978 he was promoted to the role of Operator in Charge of the Keilor Treatment Plant. Ray commenced at Keilor whilst the plant was being constructed and was given full responsibility for the commissioning of the new plant, which he continued to successfully operate until 1992.

During this period Ray trained several new Operators and was instrumental in his encouragement for Operators to attend the Water Training Centre and increase their formal qualifications and knowledge of Sewage Treatment. Ray took every opportunity to further his technical knowledge and was one of the first Operators to receive the Certificate in Wastewater Operations.

In 1992 Ray was transferred to the larger and more complicated Brushy Creek plant as Operator-in-charge. In 1997 Ray received the 'Operator of the Year' Award at the WIOA Engineers & Operators Conference. The highest award an Operator, both water and sewer can receive in Victoria. This is also when Ray first joined WIOA and he has been a member ever since.

In 1998, Ray took on the added responsibility of Treatment Plant Co-Ordinator for the whole Northern area. However, not long after, with the retirement of John Sorensen the Eastern Region co-ordinator, Ray became co-ordinator of both the Northern and Eastern regions.

Ray continued in this dual role until June 2006, when again the Northern and Eastern co-ordinator roles were split, with Shane Smith becoming Eastern Region co-ordinator and Ray again taking on the role of co-ordinator Northern Group.

His major focus in this period was overseeing the handover of the Wallan Treatment Plant and Cameron's Lane re-use site, as well as the new Aurora Treatment Plant with its Class A recycled water facility.

In 2012 Ray stepped down from the co-ordinator role to focus on operation of the Craigieburn and Whittlesea Treatment Plants and provide support to the implementation of a new team structure. Ray's immense knowledge and willingness to share it with operators and engineers coupled with the leadership he has provided over many years have been greatly appreciated by all who have worked with Ray.

Congratulations Ray, on a remarkable 45 years service to the business.

Contributed by Stephen Graham from Yarra Valley Water



Ray (L) being congratulated on his retirement by Stephen Graham from Yarra Valley Water.

PROFILE OF A STAFF MEMBER

Name: Ann Austin

Position: Administration Officer

Employer & Location: WIOA - Shepparton

Where did you work before WIOA? I was employed at GV Water for 12 years as an administration officer in the records department. In need of a change I left GV Water and moved to City of Greater Shepparton (Council) where I worked as an admin officer at Aquamoves (gym) for two years before starting at WIOA at the end of April 2012.

What do you enjoy most about your job? The continuous changes and learning something new each day.

How do you relax? Running and holidays on the beach.

Where do you live and what's the best thing about it? Shepparton. The usual answer my family and friends are here. Good sporting facilities and opportunities.

QUICK QUESTIONS

Nickname: Annie

Family Status: Married

Pets: Dog, Fish, Bird

Favourite food: Anything, as long as I don't have to cook.

Least favourite food: Burnt sausages.

Favourite TV show: Mrs Brown's Boys

Favourite Movie: Sleepless in Seattle

Hobbies: Gardening, being outdoors

Best Trait: When things get tough being able to work/push through and come out the other side.

Worst Trait: My hair

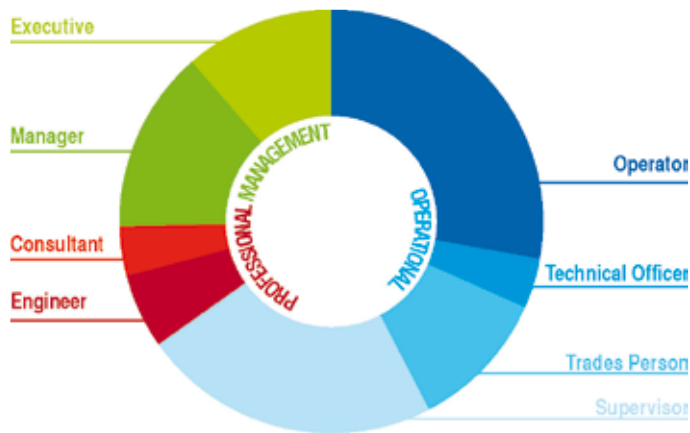
Four people to invite to dinner: Brendan O'Connell, Tim Watson, Julie Hoornweg, Shelly O'Donnell



Ann Austin

QUEENSLAND CONFERENCE – RECORD ATTENDANCE

Over 800 people attended the 38th Queensland Water Industry Operations Conference and Exhibition held at Parklands on the Gold Coast on 5-7 June 2013.



Qld conference attendee demographics

The technical program covered a wide range of relevant topics. In particular, the Keynote address delivered by long time WIOA member and supporter Ian Johnson from Paradox Ignited, provided an eye opening focus on safety for everyone in attendance. Ian shared his story as a survivor of an industrial accident in the water industry and the impact it had on his life, his family and workmates.

The event culminated in the official awards ceremony on Thursday evening that saw Chris Hughes from Unitywater announced as the winner of the prestigious “Leon Henry Memorial - Queensland Operator of the Year” award.

Another big winner on the night was James Coonan from Toowoomba Regional Council who was judged as presenting both the Best Paper Overall and the Best Paper by an Operator.

Congratulations to NSW for taking home the trophy as winner of the State of Origin Water Taste Test, a competition that was conducted on the Wednesday of the conference, coinciding with Game 1 of the Rugby State of Origin. Delegates did a blind tasting of water supplied by this year’s Orica NSW Water Taste Test winner (Taree, Mid Coast Water) and last year’s Orica Best of the Best Queensland Water winner (Ayr, Burdekin Shire). The result was very close, with NSW winning by only 7 votes.



Support for the State of Origin was split down the middle

WIOA also presented two charity donations at the event on behalf of its members who helped raise funds through a Charity Bowls Day conducted earlier in the year and a raffle at the conference. The Queensland Flood Appeal received \$1,500 and \$500 was presented to the Salvation Army – South East Queensland Branch.



- 1 Syd Heylen Junior entertains the crowd
- 2 Delegates inspecting the exhibition
- 3 Operators at the pre-conference tour
- 4 Marcus Boyd chairing the Qld Advisory Committee meeting

AWARD WINNERS

Congratulations to all the award winners from the Queensland Conference and Exhibition.

Queensland Operator of the Year sponsored by AWA

Chris Hughes, Unitywater

Queensland Young Operator of the Year sponsored by qldwater

Tyren Cavanagh, Cairns City Council

Queensland Operator of the Year (Civil/All Rounder) sponsored by qldwater

Jason Vade, Gold Coast City Council

Brian Davis Award for Best Paper Overall sponsored by Iwaki Pumps

James Coonan, Toowoomba Regional Council

Ecolab Prize for Best Paper by an Operator

1st James Coonan, Toowoomba Regional Council

2nd Todd Chapman, Gold Coast City Council

3rd William Smith, Logan City Council

Ron Bergmeier Award for Best Exhibition Site sponsored by WME Media

Winner – Endress + Hauser

QUOTES FROM PARTICIPANTS

"This was by far the best conference in the water industry that I have ever had the fortune of attending. The amount of information I was able to gather was invaluable and every sector of the industry was more than willing to help and share their knowledge. I know for sure that I will return again next year." **Mathew Liston**, Maranoa Regional Council (Delegate)

"Best value for money Water Industry conference in Queensland." **Peter West**, Grundfos Pumps (Exhibitor)



Alex Madarasi (R) congratulates James Coonan from Toowoomba Regional Council, winner of the Best Operator Paper

ECOLAB



The Endress & Hauser team who won the Ron Bergmeier Award for best exhibition site

WME
Environment Business Magazine



STATE OF ORIGIN WATER TASTE BATTLE

Delegates at the WIOA Queensland Conference at the Gold Coast conducted a blind water taste test on the same night as the first rugby league State of Origin match.

After winning the 2013 best tasting water in NSW title recently, the MidCoast Water sample from the Bootawa Water Treatment Plant was pitted against Queensland's 2012 Best of the Best Water Taste Test winner from Ayr in the Burdekin Shire. The result was close, with NSW winning by only 7 votes, 42 to 35.

NSW Water Directorate Executive Officer, Gary Mitchell was full of praise for the operators across the country, especially in NSW and said "a first up win over Queensland is great and it's very pleasing to know that the Queensland taste testers prefer NSW water!"

A disappointed qldwater acting CEO Dave Cameron mentioned that the event had been good fun except for the result and that he was gutted to see the trophy going South.



Gary Mitchell and Dave Cameron face off in the State of origin competition



WIOA's George Wall congratulates the NSW team - from left Malcolm Nix, George, Gary Mitchell and Jason Zabell

QUEENSLAND OPERATOR OF THE YEAR



Chris Hughes

The AWA Queensland Branch sponsored 2013 "Leon Henry Memorial, Queensland Operator of the Year" was presented to Chris Hughes from Unitywater, at the recent WIOA Conference Awards Dinner.

Chris is the Unit Leader Treatment Plants and has worked for 28 years in the water and sewerage industry. He started work as a Fitter and Turner

with Caboolture Shire Council in 1984 before becoming Assistant Water Treatment Plant (WTP) Operator at the Caboolture WTP.

After completing his Certificate II in Water Treatment, Chris was appointed to the position of Operator at the Bribie Island WTP. The merger of Caboolture Shire's water and sewerage businesses prompted Chris to complete his Certificate III in Wastewater Treatment, and he gained sewerage experience by operating STPs at Bribie Island, Burpengary East and Woodford.

When Unitywater was formed in 2010 Chris was responsible for supervising the operation of five Sewage Treatment Plants in the Caboolture region. In 2012 he volunteered to supervise an additional three plants in the Pine Rivers area. Chris was motivated purely by the desire to achieve best practice outcomes for these plants. Four of these plants have recycled water treatment capabilities and Chris' lengthy experience in water treatment, recycled water and sewage treatment allows him to trouble shoot water and sewerage issues with ease.

Chris' work ethic is unmatched. He makes himself available 24/7 to take work-related calls and regularly rosters himself on during weekends or overtime to fill staffing gaps and ensure high standards are being met. His practical input into the design of major STP upgrades has been extremely valuable, leading to innovative environmental solutions and preventing any costly design errors or safety issues. Chris is driven to achieve excellence in sewage treatment and his passion for the industry and exceptional people skills make him an inspiring and well respected supervisor. He strives to bring out the best in his operators, encouraging them to take on extra responsibility and to broaden their skills by working in different plants.

Chris supervises 18 individuals and his management style is very collaborative, inclusive and encouraging and operators feel that they can generate ideas for operational improvement and that these ideas will be listened to and acted on wherever appropriate.

Chris' great knowledge of the industry and warm, genuine manner means that he is very accomplished at investigating and addressing any customer complaints. Creating a safe work environment is a key priority for Chris and he has a strong focus on training staff to ensure safety and compliance. He has initiated a number of improved work practices that have enhanced the safety of the work environment and led to operational efficiencies.

While he is a very practical operator, Chris is also technologically competent and has researched and facilitated the introduction of Operator 10 data management software to manage Unitywater's compliance reporting. Chris' sustained passion for and commitment to the industry, his technical expertise across water treatment, recycled water and sewage, and his exceptional ability to inspire and motivate those he works with makes Chris a deserved winner of the 2013 Queensland Operator of the Year.



Chris at work



JIM COONAN REFLECTS ON THE QLD CONFERENCE

As an operator from Toowoomba Regional Council's Wetalla WRF, the Gold Coast WIOA conference was a great opportunity to share knowledge with people employed in the same industry as myself.

I feel that anyone who attends the WIOA organised Water Industry Operations Conference and Exhibition would return with new or better knowledge from people who have been in the industry for a period of time and have the experiences or new ideas that I have not been exposed to before.

It was great to be part of Toowoomba Regional Council who sent a large delegation to the conference and I would encourage other organisations to follow suit.

Just like the Certificate IV training I am currently undertaking, attending these conferences is an important part of developing to be a better operator. Being the first paper I have done, I was encouraged and supported by my Supervisor, John Paulger.

After the nerves at the start of the presentation and all the way through to the end, I was glad to have contributed and shared a part of our Solar Hall operation process at the Wetalla WRF. I would encourage more Operational Staff to give it a go. The old cliché 'If I can do it anyone can.'

I was honoured to receive the Brian Davis award for the Best Paper Overall at the Queensland Water Industry Operations Conference and Exhibition, presented by his wife Debbie and daughter Lisa. Unfortunately I never got to meet Brian but was reliably informed by John Paulger, who knew Brian for over 35 years, that Brian was a huge part of the success and continuation of this Annual Conference now entering its 39th year.



Jim Coonan with Debbie and Lisa Davis

I'm looking forward to heading down to Victoria in September to do the paper again at the Victorian conference and meeting a whole bunch of new people.

Contributed by Jim Coonan, Toowoomba Regional Council

Editors Note: In recognition of his contribution to the water industry in Queensland and in particular for operators and the conference, from 2013 onwards the Best Paper Overall presented at the Queensland Conference will be known as the "Brian Davis Award". Sadly, Brian passed away in October 2012 from pancreatic cancer and Jim Coonan had the honour of being the inaugural recipient of the award named after Brian.



HIGH ACHIEVERS AWARDED

Congratulations to Tyren Cavanagh from Cairns Regional Council and Jason Vade from the City of Gold Coast who won the 2013 Young Operator of the Year and Operator of the Year Civil/ All Rounder Awards for Queensland respectively. The winners were announced at WIOA's Operations Conference on the Gold Coast on 5 June 2013 and the awards are sponsored by the Queensland Water Directorate.

These awards are a fantastic opportunity to recognise staff in our industry and both Jason and Tyren have demonstrated strong initiative and a commitment to continuous improvement through innovation in their work. The pair will join the WIOA delegation on the New Zealand study tour in 2014 which includes the Water Industry Operations Group annual Conference.

QLD YOUNG OPERATOR OF THE YEAR 2013

Tyren Cavanagh from Cairns Regional Council is a worthy example of someone who demonstrates commitment, initiative and innovation in their work.

During his two and a half years in the industry he has progressed from Assistant Operator to 2IC of three wastewater treatment plants where he has developed and reviewed SOP's and safe work practices and introduced a number of new spreadsheets and other business improvements.

While education is a key part of our awards submissions – and Tyren completed the Cert III within 12 months – we are also looking for operators that can show initiative. Tyren fits the bill perfectly.

When Tyren identified that phosphorus results in the final effluent at a treatment plant were well below the licence limits, he initiated a 24 hour discrete sampling programme on the final effluent to review the phosphorus levels which led to a process by which Alum dosing was gradually decreased over several weeks. In developing the programme and results, the hydraulic retention time from point of Alum dose to final effluent sample point had to be considered. Not only did the study result in a direct saving of Alum usage of approximately \$50,000 pa, it also resulted in a reduced maintenance program for the pumping equipment, and reduction in lime usage. Another benefit of the reduced Alum usage is that the lime usage has also reduced. The procedures have now been incorporated throughout the other Wastewater Treatment Plants.

QLD OPERATOR OF THE YEAR CIVIL/ ALL ROUNDER AWARD 2013

Jason Vade's nomination impressed the judges not only for the sheer number of testaments he received, but also for his impressive track record in customer relations and engagement through his work as a maintenance officer and in various other roles over his almost seven years in the industry.

Jason has demonstrated a commitment to continuous improvement including training and support for other staff in work processes while at the same time furthering his own qualifications, completing the qldwater Cert II civil operations and maintenance program in record time. He is now well on the way to completing Cert III in Water Operations (Civil).

Jason made a lot of people's lives much more pleasant when he played an important role in the substitution of odour dosing units with activated carbon drums, minimising customer complaints that resulted from hydrogen sulphide releases from gas valves on sewers near residences.

His employer is just as pleased with the approximately \$34,000 p.a. business saving resulting from the project. Fitting activated carbon drums on sewer gas valves throughout the network has lowered the number of odour complaints received by council and has enhanced its reputation. The actions also allowed council time to work on finding the source of high hydrogen sulfide without the extra pressure of customer complaints. Jason then implemented a preventative maintenance program for odour control units, helping in the design of new ground breaking odour units, again leading to more cost efficiencies.



Young Operator of Year, Tyren Cavanagh with Dave Cameron from qldwater



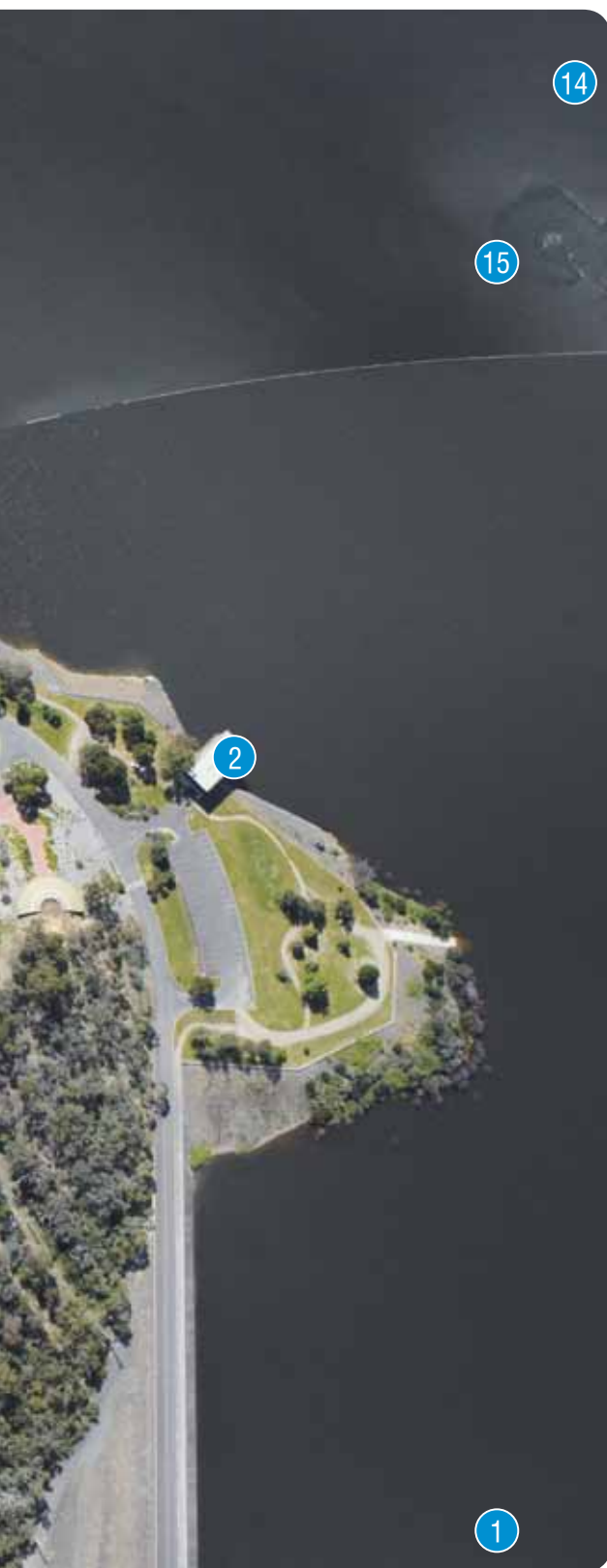
Jason Vade (L) with Dave Cameron from qldwater

WINNEKE WATER TREATMENT PLANT

Less than an hour from Melbourne, the Winneke Water Treatment Plant treats up to 50% of Melbourne's Drinking water processing up to 55% the city uses every 24 hours). The WIOA Victorian Advisory Committee was fortunate to have held its inaugural meeting at the facility that c



0 million litres per day (roughly half the water coincided with a tour of the plant in July.



- 1 **YERING GORGE PUMPING STATION** draws water from the Maroondah Aqueduct and/or Yarra River and supply Sugarloaf Reservoir via a delivery main. The station has the capacity to pump variable quantities of water up to 1,000 ML/d.
- 2 **DRAW OFF STRUCTURE** intake from the reservoir, can be varied in height of intake depending on level of reservoir, season of the year and raw water quality.
- 3 **RESERVOIR PUMPING STATION.** There are two pumping stations, the Reservoir Pump Station (RPS), 3 pumps with capacity of 120-400 ML per day, and the Reservoir Supplementary Pump Station (RSPS), 3 pumps with capacity of 70 ML per day.
- 4 **INLET CONTROL STRUCTURE** pre-dosed water (Lime to provide pH buffer and Alum for coagulation and flocculation) then enters the Inlet Control Structure which contains two inlet channels and an array of penstocks. These direct and balance flow to clarifiers 1-4 and 5.
- 5 **CLARIFIERS 1-4** water is dosed with polyelectrolyte to further aid flocculation prior to entering the clarifiers. Around 95% of solids in the water should be removed in this process. These tanks are a square design and have 125ML/d capacity each.
- 6 **CLARIFIER 5** water is pre-treated as the same for Clarifiers 1-4. This clarifier was built after clarifiers 1-4 and is a round design and has a capacity of 125ML/d.
- 7 **FILTERS 1-12** further treatment of suspended solid particles. Filter beds consist of finely and uniformly graded sand and gravel layers through which the settled water flows by gravity. Each filter can treat up to 1ML/d.
- 8 **FILTERS 13-16** built as part of the design upgrade that included clarifier 5, these filters can treat up to 1ML/d and are the same in design as filters 1-12.
- 9 **CHEMICAL SERVICES BUILDING** houses the chlorine, hydrofluosilicic acid, alum, caustic soda, polyelectrolyte and lime storage and dosing units. This includes three 25 tonne chlorine storage tanks (2 duty and 1 which can undergo maintenance at any time), two 25kL hydrofluosilicic acid Tanks and three 100 tonne silos for lime. Due to the quantity of chlorine stored on site, Winneke WTP is classed as a Major Hazard Facility.
- 10 **CLEAR WATER STORAGE** located 40m to the south-west of the WTP and 200 ML capacity.
- 11 **WASH WATER RECOVERY TANKS** fed from filter back wash and treats the suspended solids in this stream into supernatant and sludge. Supernatant is returned to the reservoir while the sludge is collected and treated by the sludge plant.
- 12 **SLUDGE THICKENERS** the treated sludge is separated into thickened sludge and supernatant. Polyelectrolyte is dosed to aid further thickening through coagulation. The thickeners produce up to 43 tonne/d. At this stage of the process the stream is 2-3% solids concentration.
- 13 **CENTRIFUGE FACILITY** The thickened sludge is fed into the clarifiers to remove moisture before being loaded into transfer trucks. It is pre-dosed with polyelectrolyte to aid coagulation. At this final stage of the process the sludge is treated to 20% solids concentration.
- 14 **SUGARLOAF HYDRO** recovers energy from gravity fed water flow into the Sugarloaf Reservoir via the Sugarloaf Pipeline. The water flow from the pipeline drives the hydro turbine, generating electricity which is fed into the Sugarloaf Reservoir. This reduces the Winneke site's need for grid electricity. Maximum power output is 4MW
- 15 **RESERVOIR AERATION SYSTEM** the reservoir is almost completely aerated combining the natural circulation system as well as the construction aeration system, to improve the quality of the raw water during all seasons.
- 16 **MAIN ADMINISTRATION BUILDING & CONTROL ROOM** houses engineering offices, conference rooms, interactive models and operation room.

VICTORIAN INTEREST DAY

On Thursday 18th July, Melbourne Water hosted a WIOA water interest day at the Winneke WTP. The event was attended by the maximum of 40 WIOA members, with a number of members on the waiting list. WIOA members from Wannon Water, South Gippsland Water, Veolia Water, North East Water, Lower Murray Water, Hunter Water, Goulburn Valley Water, Gippsland Water, Barwon Water and of course Melbourne Water participated in the days activities, along with a number of company representatives and members from the Department of Health.

Once all the site inductions were complete, the Melbourne Water operations staff conducted a site tour of their Treatment facility. The tour began with an interactive touch screen display of the plant layout and features with a brief explanation of how the process works.



John de Boer leads one of the tour groups at Winneke WTP

We then had a walk through the entire facility where the operators had the opportunity to explain in more detail how their plant runs, what chemicals were used and why. Like most of the other visitors to Winneke WTP, I was blown away with the sheer size of the place and not only the volumes of water they treat, but the amount of chemical storage onsite. For example they have 600,000L of Alum storage and have three 20 tonne chlorine tanks. The Melbourne Water operators did a great job with the site tour and I'm sure everyone who attended got a lot out of the experience.



Winneke WTP dosing pumps



Chlorine tanks

After lunch David Sheehan from the Victorian Department of Health presented on where the industry is heading in the future with water quality targets and the microbiological risks associated with water treatment. David gave a brief overview of the exhaustive ADWG drafting and review processes. He then gave an overview on how the Department is trying to manage the microbial risk associated with drinking water and the steps that will need to be put in place throughout the treatment process in order to achieve a desired log removal to meet the desired Health based target as set out in the ADWG. David also mentioned how significant Operator Certification was in recognising the importance of the role of the operators to ensure the production of safe drinking water.



David Sheehan from Victorian Department of Health

George Wall from WIOA then explained how the Operator Certification process was coming along. He showed how certification is achieved by operators and what training was required for each level of certification. Seven Operators have now been certified with another 20 plus operators with applications currently being reviewed.

Once the presentations were completed a meeting was held to form the "WIOA Victorian Advisory Committee". All interested members were invited to become members of the committee and Anthony Evans from Wannon Water was elected inaugural Chairperson. The role of the Advisory Committee is to, identify the types, range and scope of services and events considered appropriate for Victorian water industry operational staff; to assist with the organisation, promotion and staging of events; provide Victorian based information for inclusion in WIOA publications; to encourage participation and knowledge sharing with water industry related personnel employed in the private sector; also to inform WIOA of training issues specific to Victorian operational staff.



Victorian Advisory Committee Chairman Anthony Evans (L), with WIOA President Russell Mack

Overall it was a great day and I would highly recommend to any members to participate in these events in the future.

Contributed by Aiden Staley, Gippsland Water



Hydro plant able to recover energy from gravity fed water flow into the Sugarloaf Reservoir via the Sugarloaf Pipeline.



Checking out the clarifiers

NSW INTEREST DAY

The NSW Water Industry Interest Day opened with an address from Craig from WIOA welcoming all in attendance and commenting on the high level of interest and attendance shown in the day's event.



All the attendees at the NSW Interest Day

Craig went on to show the cross section of WIOA membership and how the Association was growing and the demographics of membership changing across the country. These changes have contributed to the need for the establishment of state based committees that can be the conduit to WIOA staff and the general committee and assist WIOA to take on issues faced by water industry operators and associated professionals.

The second address was from MidCoast Water's Daniel Brauer who gave an insightful presentation on ground work and ethos in to the direction and reasoning for the process that made up Bootawa dam water treatment today. Dan spoke about the importance of delivering a premium treatment facility for the Midcoast water customers.

The Ozone Disinfection presentation was delivered by Louis Wiar from Xylem water solutions. Louis spoke about the effectiveness of Wedico ozone system disinfection with different raw water characteristics and the integral part ozone makes in a modern day water treatment plant.

THE BOOTAWA WATER TREATMENT PLANT TOUR

MidCoast Water's Process Control Co-ordinator Geoff Kerr provided a bit of history about the plant as well as an overview of the processes. We then split into two groups with operators Craig Stone and Jason Zabell leading the groups on a very process intensive tour. Delegates on the tour were commenting on the cleanliness of the lime room and the excellent design making most operators very envious of the Bootawa facilities.



Louis Wiar from Xylem explaining some of the features of the Bootawa plant to attendees.



Outside the chemical storage area.

After the tour everyone enjoyed a casual lunch and the chance to catch up with other operators from other facilities across NSW and over 14 suppliers to the industry.

The WIOA NSW Advisory Committee Meeting elected Lindsay Walsh as the Chairman of the NSW group - congratulations Lindsay.



NSW Advisory Committee Chairman Lindsay Walsh (L), with Trent Miller



Attendees weave their way around the plant

Several interesting topics were raised but the two main focus items were the unified training and professional development needs of operators and potential locations for future events conducted by the NSW Advisory Group.

The location of the next meeting was divided into two directions with the ability to bring in more regional councils and keep it accessible for the current attending councils and Water authorities.

In summary this was a well-organised day with great outcomes and attendance with big thanks to Midcoast Water and Geoff Kerr for hosting the event.

Contributed by Trent Miller, Xylem

EDITORS NOTE: Xylem (via Trent) kindly sponsored the lunch and donated a brand new BBQ to the NSW Advisory Committee that was used to cook the lunch and will also be used at future events.



CELEBRATING 40 YEARS

The 40th Anniversary since the formation of AWWOA/WIOA ticked over in 2013. In fact, our very first name was neither of the above acronyms. It was actually the Wastewater Purification Plant Superintendents & Operators Association. We were fortunate all those years ago to have committed and visionary people such as Ray Holloway, Vic Jones and Stan Franzi as the driving force behind the establishment of the Association.



Chlorine training course circa 1980 from WITC. Ray Holloway is at far right and Vic Jones is in the front row, 3rd from left.



Stan Franzi, inaugural Victorian Operator of the Year, 1980

The role of the Association has continually evolved over the past 40 years, but a strong emphasis on training, skill and competency development of people in water industry operational roles has always been maintained.

Having walked down memory lane last year producing the book to celebrate the 75th anniversary of the Victorian conference, we are keen to discover as much of the WIOA history as possible as well. Many organisations lose historical documents and photos over long periods of time and it is not until you start researching that you find that a lot of this is gone. WIOA cherishes our history and we want to ensure that future generations can appreciate all the great work of the Association as well. If any member has any photos, thoughts or any interesting memories, stories or anecdotes about anything to do with WIOA, we'd love to hear from you.

In order to help celebrate the 40 year anniversary, all past Presidents and Secretaries have been invited to a dinner at the Victorian conference in Bendigo. A check of our honour board reveals that we have had 17 different Presidents, 6 Secretaries and 5 Life Members in the past 40 years, some of whom have served a number of terms and multiple roles. We even have one "recycled" President that has come back for a second term 12 years after his first (don't we Russell!).

The more recent Executive members proved fairly easy to track down as many still work in the water industry or are involved on the Committee or Board. Tracking down some of the others was a much more difficult and at times, frustrating task. We followed every lead we could and located some of them with the assistance of members and by using the WIOA network. Some from the early days have long since retired or moved interstate and despite our best efforts, we just couldn't locate a handful.

The office was abuzz on a couple of occasions when we managed to follow all the threads and found someone who was supposedly dead, to be very much alive and well! We even have a few who have taken the opportunity to take up our invitation and come along to the dinner and the conference for a look.

It was really pleasing for me personally to be able to have a chat with some of the "old timers", many of whom I've never met, even though I have been employed in the water industry since 1989.

The stories relayed and issues to be dealt with haven't changed much. A consistent theme has definitely been change and ongoing structural reform. This is evident when we think about the break-up of the old Victorian State Rivers and Water Supply Commission and the Melbourne Metropolitan Board of Works in the 1980's, the amalgamation of Victorian council based water trusts and sewerage authorities in the 1990's, the SEQ region reforms in the 2000's and the Tasmanian industry in the 2010's. Depending on which report you read, it would not be that surprising to see more changes in NSW and Queensland in the future as well.

The other really interesting thing from the discussions was that regardless of the era, despite continual improvements in technology, tools and equipment, there hasn't really been a time in our industry when everyone wasn't flat out. Also true is that the person at the grass roots level, the operator, who keeps our treatment plants and infrastructure purring 24/7, will always be there. WIOA has a strong commitment to ensuring operators receive appropriate training, opportunities for improvement, and recognition commensurate with their very important public health protection role and we hope to be still servicing our members in another 40 years!

Contributed by George Wall, WIOA Executive Officer

Chip in for Charity at the 2013 WIOA Golf Day



Sunday 20th October 2013
Euroa Golf Club

Victoria, 11am assembly

Register: www.wioa.org.au/golfday.htm

**PLAYING &
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TASSIE TOUR

Distillery Creek WTP & Ti Tree Bend WWTP.

A nice sunny morning was put on by the Ben Lomond Crew. It was a top morning to have a look around the new Distillery Creek WTP, with a good roll up especially from our Southern counterparts and it was great to see some corporate members come along for the day as well.

We were put in the hands of Chris to guide us around the plant. He was very informative on the history and the running's of the old plant with a lot of the structures still on site but not in use. It was interesting seeing the old then the new, hearing about some of the discussions with operators on the design of parts of the new plant and then also hearing that not all the suggestions were taken on board (what's new?).



The operators at the Distillery Creek WTP

Quite a few of the operators at the tour ran similar plants to Distillery Creek and there was a lot of discussions between the group on different aspects of the plant, particularly regarding the philosophies in design with the pipe work layout and control systems.

We then headed back to the meeting room where we had some discussion on what operators would like to see from WIOA and listened to what some of the ideas coming from the corporate members in what they could offer WIOA in the form of other activities or training days. That's when lunch arrived and everyone had a nice feed of sandwiches and party pies.

We Headed to Ti Tree Bend WWTP to have a look around. I must point out at this time even though we followed each other there, Craig managed to get lost for the second time in the day. The nice day the crew had put on decided it would turn to crap and the beanies and caps that were handed out earlier in the day came in handy.

We were then handed over to Mark who led us on a very informative tour of the plant. With a lot of the operators coming from water background, it was interesting listening to some of the comments when walking around the plant. One point that raised the eyebrows was the amount of flow that comes through the plant in a storm event and how the crew manage these events.

The re-use facilities with the effluent for washdown and burning the methane gas through the boiler system was also of interest.



The laboratory at the Ti Tree WWTP

A big thank you to Chris & Mark for being our guides for the tours and for passing on their knowledge and history on the plants.

Also a thank you to the corporate members Grant & Tommy from Pumptec Tasmania & Owen & Jessie from Thermo Fisher Scientific who came along for the day and for passing on their expertise as well.

Contributed by Daren Lord, TasWater North West (formerly Cradle Mountain Water)

UNITYWATER MAGNESIUM INNOVATION

Unitywater will save close to half a million dollars in chemical costs and significantly improve its operational efficiency, thanks to an innovative approach to producing Magnesium Hydroxide Liquid (MHL) using recycled water.

Over one million litres of MHL, also known as 'Milk of Magnesia', is added to raw sewage by Unitywater each year to reduce odour and protect underground assets against corrosion.

Like most water utilities, Unitywater has had to rely on external chemical suppliers to provide this critical product. However, thanks to a beneficial new partnership with local experts, Wise Waste Solutions, Unitywater now has the tools to cheaply manufacture MHL directly from its Maroochydore Sewage Treatment Plant.

Unitywater CEO, George Theo said: "After two years of careful development, we now have the ability to produce MHL at a fraction of the cost using a resource we have plenty of - recycled water.

"The savings realised by the construction and operation of this batching plant at Maroochydore will increase exponentially as more MHL dosing sites are built across our network. Next financial year alone, we will save close to half a million dollars in chemical costs thanks to this new approach."

The innovative batching plant technology was patented by local specialists, Wise Waste Solutions, a company with almost 20 years experience in the waste water industry.

"The ability to reproduce a vital product like MHL - the antacid of the sewer network - will place Unitywater ahead of other water utilities across Australia and around the world," said Wise Waste Solutions Managing Director, Brett McCasker.

"It is an innovative approach, which will result in significant cost savings for Unitywater."

Since its inception in July 2010, Unitywater has been working hard to identify and implement more efficient practices to keep prices as low as possible for its customers.



L-R – George Theo, Unitywater CEO; Brett McCasker, Wise Waste Solutions and Scott Barnes, Unitywater cutting the ribbon



Unitywater MHL batching Plant at the Maroochydore STP

FNQ SEMINARS

Many thanks to Anil Gupta from the Qld Department of Local Government Community Recovery and Resilience (DLGCRR) and George Wall from WIOA for organising and presenting the excellent Principles of Water and Wastewater seminar held in July in Cooktown. This seminar was one of many being held in a variety of locations in North Queensland including Cairns, Biloela, Cooktown and Napranum (Weipa).

The day before the seminar, a tour of the Wujal water and wastewater facilities was undertaken by many of the seminar attendees. The tour, followed by the seminar was a great opportunity for small councils both indigenous and mainstream to get together and share information as well as learn from each other's experiences.



Inspecting the Wujal water & sewer facilities

Attendees in Cooktown came from Wujal Wujal Local Aboriginal Council, Hopevale LAC, Cassowary Coast Shire Council, Tablelands Regional Council and Cairns Regional Council, which included operators from the soon to be Douglas Shire Council.

Due to our remote location, it is difficult for our staff to access this sort of seminar and they are rarely run right on our doorstep like this. All the attendees went away better operators with more knowledge and a pocket full of phone numbers!

Wujal had a mix of trainees and old hands attend. For the old hands, it was a great refresher, while the trainees were amazed at the scale and scope of our industry.



Some of the seminar attendees in Cooktown

The video and Georges presentation on the Walkerton incident (if you don't know about it you better get along to a WIOA workshop quickly!), really struck a chord with the indigenous community's operators. It is normal for them to have to deal with complaints from the public due to their lack of understanding that the untreated river water could make them sick or even kill them.

The presentation gave the operators a wealth of information which they can use and take to their community. Also, the penny has dropped for all of us that complacency is not an option in our industry!

We all look forward to the next local event and many thanks to DLGCRR and WIOA from the Wujal water team and I'm sure all the other attendees as well.

Contributed by Peter Kirchmann, ESO team leader, Wujal Wujal water and waste

WIOA NZ TOUR 2013

Take 16 Aussies all involved in the water industry, a couple of Kiwis whose main job we understand was to keep us under control and a sheep shearing, handy man, jack of all trades bus driver and what have you got? We'd love to tell you but the old adage applies, what happens on the trip – stays on the trip.



The Aussie tour group in Queenstown

Well, there are a couple of things that we can share. From May 24th to June 2nd this year the annual WIOA Operator's Tour of NZ took place. 16 Aussies from Victoria, New South Wales and Queensland participated in a tour of the southern part of the south island of New Zealand. We were ably guided by Stu Craib and Damian ("Kiwi Damo") Lawsen from WIOG. Finally we were well looked after by "Gunner" our bus driver who had a wealth of local knowledge and seemed to have a relative in each town we visited.



*One of our
the Kiwi
tour guides,
Damian
Lawsen*

The tour took in the Alexandra WWTP, Cromwell WTP, Lumsden WTP, TeAnau WTP, the WIOG Conference in Invercargill, Invercargill WTP and WWTP, Milton WTP and Dunedin WWTP. We were also very fortunate to visit the Manapouri Power Station which was an impressive piece of infrastructure. Touring the plants provided an insight into the challenges faced by operators in NZ and also the similarities and differences in how they run their plants.



Tour of the TeAnau WTP

WIOA NZ TOUR 2013 cont.



Manapouri Power Station

There was also the opportunity to take in a number of 'tourist' type activities. Free time was available to explore Queenstown (bungy and jet boating for the brave) and rugby in Dunedin among the highlights.



Darren "superman" Sharman bungee jumping.



The tee shirt the rest of us should have bought

The annual WIOG Conference was an excellent opportunity for the Aussies to get to know the Kiwis better and learn more about operational issues 'across the ditch'.



Part of the operators challenge at the conference



Ken Jones from Rotorua modelling the latest in conference attire



The Aussies enjoying the conference pre-dinner drinks



The newest Kiwi IDIOTS member, Martyn Simpson

It's appropriate to finish with the 3 biggest highlights of the trip. The first was the experience of getting outside Australia and seeing how water operations take place in NZ. The second was spending time with our Kiwi counterparts and further developing the close relationship shared between WIOA and WIOG. The third was getting to meet different people involved in the water industry across Australia, network with each other and develop friendships.

So, thanks again to WIOG for hosting us and all the work they put in to coordinate the tour. Thanks also to George Wall from WIOA for all the hard work he put in setting things up from this end. If you get the chance to participate in one of these tours - jump at it - you won't regret it.

I'd love to tell you about the skinny dipping late at night when it was just about to snow...but remember, what happens on the trip - stays on the trip.

Contributed by - Ryan McGowan (Goulburn Valley Water) and **John Harris** (Wannon Water).

Ryan and John were the WIOA tour guides on this trip.



ROYCE MEMBERS PRIZE

For the second year in a row a Tasmanian member has won the WIOA Lucky members Draw.

The lucky winner of the 2013 WIOA members draw (sponsored by Royce Water Technologies) was Darrin Lawler from TasWater (formerly Cradle Mountain Water). Darrin won a \$1,000 travel voucher that we are sure will be put to good use. Last year it was Craig Griggs from Southern Water who won the prize and by all accounts the Tassie boys are looking for a hat trick of wins.

Arthur Kokolekos from Royce Water Technologies caught up with a very happy and appreciative Darrin on a beautiful day in Burnie at the wastewater treatment plant. Arthur has confirmed their support for the award for another year and is racking his brain for another fantastic prize for WIOA members. "Royce Water Technologies is proud to support the operational people in the water industry and we look forward to providing another great prize in 2014".



WIOA Lucky Members Draw Winner Darrin Lawler (L) receives his travel voucher from Arthur Kokolekos from Royce Water Technologies

NEW MEMBERS

Welcome to the following people and companies who have recently joined our Association as a Member or Corporate Supporter.

New **Individual Members** include:

Harry Beyer, Philip Green, Tom Kenyon, Mario Brischetto, Nadia Chineegadoo, Leigh Trevaskis, Kevin Venville, Bob James, Lachlan McTaggart, Neville Bell, Dwayne Lazar, Cameron Willmott, Shane Stephens, Nada Sridharan, Tori McLennon, Chris Browning, David Ottewell, Bradley Dockrill, Tom Fraser, Peter McDowell, Heidi Josipovic, Steven Lonie, Rob McKenzie, Simon Uren, Mark Abraham, Craig Desmond, Bob Maddocks, Surane Gunasekera, Trent Miller, Tony Schultz, Ian Martin, Gary Sparshott, Liam Wright, Arch Murray, Greg Bonnett, Scott Quarrell, Jason Knight, Zoren Radojkovic, Brandon Hearne, Heather Winch, Chris Taranto, Peter Morice, Aaron Mitchell, Frank McShane, Brett Hambling & Don Hood.

New **Corporate Members** include:

Dive Works Subsea Solutions, Dezurik, Power Industries Australia, John Guest Pacific, Strongform Industrial Tanks, i2o Water, Cyndan Chemicals, Platycat Snatcher, Kerrick Industrial Equipment, Dail Before You Dig & Reece Australia.



COMING EVENTS 2013

- 4 & 5 September 76th Annual WIOA Vic Water Industry Operations Conference, Bendigo
- 9 October Tasmanian Advisory Committee Interest Day and Tour of the Huon WTP
- 20 October Victorian Charity Golf Day, Euroa Golf Club
- 24 October Membranes Seminar, Cairns (TBC)
- 30 October Victorian Advisory Committee Interest Day and Tour of the Melton WWTP

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NEXT EDITION

Article Contribution Deadline for the next edition is 16 October 2013

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