

# OPERATOR

August 2018 Edition



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There's a Spida on my  
table. Find out why on  
page 10.

Newsletter of the WATER INDUSTRY OPERATORS ASSOCIATION OF AUSTRALIA

## FROM THE MD'S DESK

Welcome to the third edition of Operator for 2018. It is jam packed with news about our recent activities and it provides us a great opportunity to congratulate the achievements of many of our members and industry stakeholders.

I had the privilege of representing WIOA at Singapore International Water Week recently and it was my first opportunity to attend an International conference outside Australia or New Zealand. I enjoyed my time in Singapore immensely and was able to catch up with some existing water industry colleagues, as well as meet a number of others for the first time. Two things really struck a chord with me from attending and listening to the multitude of speakers. The first is how real climate change is to those who are directly affected by its impacts and the need for action is now. The second is the importance of accepting and then getting on with the job of delivering solid outcomes against the Global Sustainable Development Goals (SDG). In developed countries like Australia, complacency or a “we’re OK why bother” attitude is the norm. Without leadership and a stronger emphasis on delivering the SDG’s, we will be slow in doing our part on the global stage.

WIOA is excited to be staging the Water Industry Safety Event (WISE), which will be held in Melbourne on 24 October. Hosted by Melbourne Water, the event is targeted specifically at the water industry workplace safety representatives and includes a number of presentations, a forum focussing on a water industry incident and a product and services exhibition.

The turnout for the Queensland conference in June was outstanding, particularly considering it followed on reasonably closely after Ozwater in Brisbane. We had near record attendance again this year. The support from our hosts in Seqwater, all the event sponsors and the members of the Queensland Advisory Committee was awesome. A large volunteer workforce at the event shared the workload around. A full report on the conference and all the award winners appears later in this edition.

The first ever South Australian Operations Conference and Expo was held in Murray Bridge on 1 & 2 August and we believe it lived up to all expectations. The feedback to date has been very positive and with just over 180 attendees, the event was considered a resounding success. We are currently seeking comments from attendees and look forward to the possibility of this event becoming an annual fixture in the South Australian water calendar. A report and some photos from the conference also appears on page 9.

Our attention now moves to the Victorian conference in Bendigo in the first week of September which has again received extraordinary support. All 203 available exhibition sites were allocated to companies within 2 days of going on sale. There is a well balanced technical program with a range of platform and poster papers on a variety of topics. The program also includes a Workshop in conjunction with the Victorian Department of Health and Human Services on the Thursday afternoon.

With the second year of the Victorian Network Operator Development Program drawing to a close the feedback from

the participants and their employers has again been positive. As a result of the success of this program, the value of participating has been promoted in both Tasmania and South Australia recently. There is a strong possibility that a similar program may be implemented in other States in 2019.

Interest in Operator Certification has increased considerably in recent months with WIOA staff being invited to present on the topic at a number of water industry events. We have also been working closely with a number of individual water businesses helping them map their plant processes and undertake a training gap analysis. We anticipate that the number of certified operators should increase significantly in 2019 once all the training currently under way is completed. WIOA has worked with the Water Industry Skills Taskforce (WIST) to help develop a consolidated operator Certification Framework combining the requirements of the existing Water and Wastewater Frameworks. The draft document will be discussed at the mid-August WIST meeting and if adopted, will also open the door for operators to be certified against dual or multiple streams.

The Victorian Department of Health and Human Services has also confirmed its intention to adopt the national certification Framework, with a few amendments to suit Victorian requirements. Again, we hope this will encourage participation from more Victorian water corporations.

Our WIOG NZ cousins hosted 17 Australian Operators in May this year as part of the annual Operators tour to New Zealand. They visited a number of water and wastewater sites in the southern regions of the North Island before making their way to Palmerston North for the WIOG conference. Once again they provided an interesting, enlightening and valuable experience for all the attendees. There will be seven Kiwi operators coming over to attend the Victorian WIOA conference in September and in another first, they will fly into Sydney and work their way south visiting a number of plants along the way. Thanks in advance to our NSW members who are hosting the group.

After staging a number of Best Tasting Tap Water competitions around the country, there is only the Victorian event to go. After the Bendigo Conference, we will know the 5 State based Taste Test winners for 2018. Just like 2017, we will be staging a national grand final on 17 October in Toowoomba to coincide with National Water Week. The sample judged the best in the nation will then represent Australia in the International Taste Test competition in the USA in February 2019.

The Advisory Committees in all States are ramping up their activities, with a range of Interest Days and other events planned. Engagement, ownership, contributions and participation by members in all States is a vitally important part of our future plans. 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.

Until next time,

**George Wall** – WIOA Managing Director

## PROFILE OF A MEMBER



**Name:** James Gorman

**Position:** Water Treatment Coordinator

**Employer & Location:**  
SA Water Morgan

**How long have you worked in the water industry and what attracted you to it?**

I have worked in the industry for 7 years starting as a WTP Operator with UGL at Woolpunda WTP. I come from a Mechanical Fitting background and was attracted to the Process control and science for the Water Treatment industry.

**What do you enjoy most about your job?**

I enjoy the Challenges around getting it right all the time. The responsibility of ensuring we supply safe high quality water is what drives me to do my best.

**What are the major challenges in your current role?**

We produce water directly from the Murray River as the source. This source is forever changing so being ahead of and predicting the changes and outcomes is always a challenge.

**How long have you been a WIOA member? (your involvement)**

I have been a member of WIOA for 3 years and have been involved as a representative for SA Water since becoming a member.

**How do you relax?**

Fishing, Cycling & 3D Printing

**Where do you live and what's the best thing about it?**

I live in Cobdogla SA. This is a small town that has direct access to the Murray River. Launching the boat to go fishing is easy, with the boat ramp being only 500m from home.

It is a small community and is a great place to raise a family. The key attractions for the town is the Cobdogla District Club, Primary School and Steam irrigation Museum.

**Quick questions**

**Age:** 47

**Nickname:** James Gorman

**Family Status:** Married 4 Boys youngest just turned 21yo

**Pets:** 2 Dogs, 2 Cats

**Favourite food:** Anything Seafood

**Least favourite food:** Lambs Fry - Yuk

**Favourite TV show:** Big Bang Theory

**Worst TV show:** Any reality finding love show

**Favourite Movie:** Transformers

**Favourite Musical Artist/s:** Powder Finger / Bernard Fanning

**Favourite book:** Lance Armstrong "It's not about the Bike"

**Favourite team:** Adelaide Crows / South Sydney Rabbitohs.

**Ambition in life:** : To Reach retirement Fit and Healthy so I can still trek the Himalayas with my grand children.

**Hobbies:** Dirt Kart Racing

**Best Trait:** Building, Machining, Fabricating, stuff

**Worst Trait:** Impatient. If it needs to be done and it can be done do it now.

**Four people to invite to dinner:** Hugh Jackman, Mark Skaife, Elon Musk, Ben Roberts-Smith

## BUILDING SMARTER NETWORKS



Unitywater is currently working on a number of technology trials set to further cut leaks and bursts, enable better management of the reticulation network and in turn provide better service to their customers.

Unitywater is among the very first utilities in Australia to work with UK smart solutions provider i2O Water to trial technology focused on Pressure Reducing Valves (PRVs) and the use of high-precision data loggers to monitor water pressure and flow around them.

Unitywater has 184 PRVs and they play a vital role in maintaining the quality and reliability of water supply to Unitywater's 316,000 customers by reducing excess pressure across the water network and minimising the potential for bursts and leaks. Surges in pressure can cause pipes to weaken and eventually fail, significantly reducing overall asset life.

i2O's artificial intelligence solution enables utilities to automatically optimise PRVs by reducing network pressures and keeping pressure variances to a minimum.



Unitywater is also placing sensors in water pipes that use acoustics to monitor pressure and flow. When these sensors pick up unusual pressure variations, which can be signs of leaks, they send an instant alert to network operators.

Two acoustic monitoring sensors are being trialled simultaneously. Israeli leak detection technology firm Aquarius Spectrum is supplying its AQS-SYS sensors, while Swiss intelligent water technologies company Gutermann is supplying its HISCAN sensors.

Data gathered by the sensors over time also predict future failure points and track network changes, giving Unitywater a more complete picture of its water network than ever before.



# 2018 QUEENSLAND CONFERENCE REPORT

The **43rd Queensland Water Industry Operations Conference and Exhibition** saw over 800 people from across the water industry attend the event at the Logan Metro Sports Centre on 6 & 7 June 2018.

Klausch Schmidt from Australian Industry Standards provided the Opening Address examining the water industry skills forecast, training issues and the National Water Package. The Keynote Address was presented by Peter Donaghy from Queensland Urban Utilities who spoke about how their organisation is looking to align both their organisational strategy and operational performance.

At the Awards Dinner held on Thursday evening, Tony Cover from Goondiwindi Regional Council won the Leon Henry Memorial, 2018 Queensland Operator of the Year award, and Andrew Hanifin from Unitywater was the winner of the 2018 Young Operator of the Year Award. The Award for the Queensland Operator of the Year (Civil/All Rounder) went to Brad Milfull from Logan City Council. WIOA congratulates all of the award nominees for the outstanding contributions they make to the industry.

A number of employees were recognised at this event including Glenn Twite from Townsville City Council who won the Actizyme Award for the Best Paper by an Operator. The Brian Davis Award for Best Paper Overall was awarded to Claire McInnes from WaterRA and Kelly Newton from SA Water.

The event included a comprehensive exhibition with 112 sites where companies exhibited the latest in equipment, services and process technologies available to the water industry.

Control Logic won the Ron Bergmeier Award for the Best Exhibition Site that included an interactive large screen for attendees to use.

The conference again hosted the Ixom Water of Origin Taste Test that saw the Queensland entry from Livingstone Shire Council go head to head against the NSW/ACT sample from the Port Macquarie Hastings Council. Former AFL footballer and current media personality Peter “Spida” Everett entertained the crowd as a guest judge of the Water of Origin, that just like the State of Origin Rugby later that night was won by NSW. The Queenslanders now hold a 4 to 2 margin over NSW and will no doubt be back to take them on again in 2019.

WIOA also hosted the Queensland Mains Water Tapping Competition that proved to be a great spectator sport. The team from Gold Coast Water & Waste - The Tapping Tubbies recorded the best time to win the title for the third year in a row. Reece Civil and Ixom supported the competition with \$1000 donated to Currumbin Wildlife Sanctuary Animal Hospital on behalf of the Tapping Competition winners. Special mention to the Logan ladies team (Hot Tappers) of Madison Hilleary and Zoe Nelson who in their first heat against the Tubbies took the reigning champs down. The blokes were so keen to win that they broke the tapping drill to register a no result!

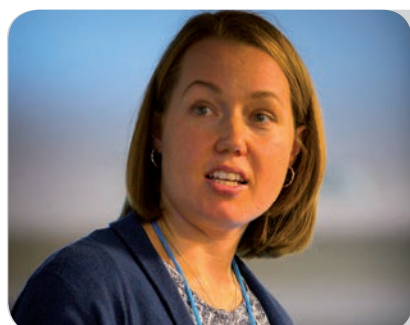
After running a Charity Bowls Day earlier in the year and a raffle at the conference, WIOA presented a cheque for \$2,000 to WaterAid, the chosen charity of the conference host. John Granzien from Seqwater accepted the cheque on behalf of both. Thanks to all the members and supporters who helped raise these funds.



*Enjoying lunch and a chat.*



*Decked out in their Qld colours for State of Origin 1 on the big screen.*



*Fiona Miles from Simmonds & Bristow presented on calibration horror stories.*



*The exhibition is always a great chance to see the latest the industry has to offer.*

# QUEENSLAND CONFERENCE 2018 AWARDS

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



## Queensland Operator of the Year

**Tony Cover** from Goondiwindi Regional Council



## Queensland Young Operator of the Year

**Andrew Hanifin** from Unitywater



## Queensland Operator of the Year (Civil/ All Rounder)

**Brad Milfull** from Logan City Council



## Brian Davis Award for Best Paper Overall – sponsored by Iwaki Pumps

**Claire McInnes** from Water RA and **Kelly Newton** from SA Water



## Actizyme Water Awards for Best Paper by an Operator

- 1 **Glenn Twite** from Townsville City Council
- 2 **Al Law** from Unity Water
- 3 **Jessica Cloumassis** from Queensland Urban Utilities



## Ixom Water of Origin

QLD (Livingstone Shire Council) v NSW/ ACT (Port Macquarie Hastings Council)  
Won by **NSW Port Macquarie Hastings Council**



## Ron Bergmeier Award - Best Exhibition Site

**Control Logic**



## Queensland Main Tapping Competition

**Tapping Tubbies - Trent Roberts and Spencer Stacey** from City of Gold Coast  
\$1,000 donated to Currumbin Wildlife Sanctuary Animal Hospital



## WIOA Conference Charity

**\$ 2,000** Presented to **Water Aid** on behalf of conference host Seqwater



Winner Best Operator Paper, Glenn Twite (R) with Alex Maderasi from Actizyme.



Winner Best Paper Overall – Claire McInnes (L), Kelly Newton with Kathy Northcott on behalf of sponsor Iwaki Pumps.



The team from Control Logic took out the Ron Bergmeier Award for Best Exhibition Site.



# QUEENSLANDERS RECOGNISED

## TONY IS TOPS

Tony Cover from Goondiwindi Regional Council was announced as the winner of the 2018 Leon Henry Memorial, Queensland Operator of the Year sponsored by AWA at this year's WIOA Queensland Conference and Exhibition held in Logan in June.

Tony is the Senior Technical Officer Water and Sewerage at Goondiwindi Regional Council (GRC). A recently promoted operator, Tony manages a small team of operators responsible for maintaining and operating multiple water treatment facilities and pipework. Treating and supplying water in regional areas has a unique set of difficulties including: small teams and budgets covering large geographical areas, difficulty in building and maintaining skilled employees, being isolated from many forms of support and supply chains, constantly changing river water qualities, and environmental hardship (floods, droughts, fires). Despite these difficulties, Tony remains dedicated in making a positive difference to the water treatment, supply, customer service and team dynamics at GRC.



QLD Operator of the Year  
Tony Cover (R) with  
Sandra Hall from AWA QLD.

Among his biggest achievements, Tony played a lead role in transitioning GRC water treatment sites to becoming paperless by

embracing technology and utilising existing software (SWIM Local). This was an enormous achievement and contributed to positive environmental and plant performance outcomes. With a hands-on and face-to-face approach, Tony continues to drive team morale and formal training of operators which leads to enhanced site pride, appearance and operation.

On a day-to-day basis Tony focuses on community needs and the council's customer service excellence by improving water quality and attending callouts in a timely manner and taking time to understand customers' concerns. Tony is very involved with both formal health and safety reporting and auditing, as well as site level safety processes and continues to make improvements each year.

Tony completed an apprenticeship in butchery prior to accepting a position on the Water & Sewage team as a trainee treatment plant operator some 20 plus years ago. He is now employed as Senior Technical Officer who advocates employing local community-based people, takes pride in supplying high quality water to the local community and industry, and takes pride in making sure the council's treatment plants look immaculate.



Tony back in the office in  
Goondiwindi.

## QUEENSLAND YOUNG OPERATOR OF THE YEAR



Described by his peers as the go-to liaison for "challenging" customers, an excellent role model for his team and a regular contributor to his employer's ideas portal, the 2018 Young Operator of the Year - Andrew Hanifin from Unitywater - sets an excellent example at work and out in his community.

Andrew coaches kids' sports and acts as a crisis phone councillor for the Salvation Army when he finishes his day job. He also makes time for further studies having completed all his water industry worker training requirements as well as a Certificate IV in Plumbing and Drainage. Andrew receives a personal and perpetual trophy and an all-expenses paid tour to New Zealand with WIOA in May 2019.

## QUEENSLAND OPERATOR OF THE YEAR (CIVIL/ALL ROUNDER)

The 2018 Operator of the Year Civil/Allrounder was awarded to Brad Milfull from Logan City Council. Brad has been in the water industry for 24 years and a champion for learning and development for much of that time. As a leader for the SEQ water industry worker program Brad has been a mentor for over 75 field staff, a contributor to training materials and a representative on various industry and technical advisory groups.

Aside from trade qualifications, Brad has achieved a Certificate IV Training and Assessment, Diploma of Water Operations and Diploma of Project Management. With a focus on continuous improvement, Brad instigated a range of business improvements above and beyond the requirements of his role. Above all, Brad is a much-loved bloke and a fantastic contributor to his organisation and the industry more broadly. Brad's award includes a personal and perpetual trophy as well as \$1500 to put towards his own professional development.



Young Operator of the Year - Andrew Hanifin from Unitywater (L) with  
Carlie Sargent from qldwater and Queensland Operator of the Year  
Civil/Allrounder Brad Milfull (R) from Logan City Council.

## COL HAYNES JOINS THE IDIOTS

Col Haynes from Unitywater in Queensland is the latest WIOA member to be Inducted as a Delegate of the Inextricably Obstructed Tap Society, joining what is commonly known by the acronym, an IDIOTS member. He joins 34 other individuals who have been recognised by WIOA for their outstanding service to the Association

Col joined WIOA in August 2004 and has been a member for nearly 14 years.

In August 2011, when WIOA created the Queensland Advisory Committee, Col was one of the inaugural Members who put his hand up to help out. He has been an active member of the Qld Advisory committee ever since. He took over as Chair in 2015 from Marcus Boyd and is well into his 4th year in the Chair role.

In the last few years, he has represented WIOA at a number of events in Queensland when they clashed with other events and our staff couldn't get there. He is a regular contributor of reports and articles for our Operator newsletter.

He has attended 8 of the 13 conferences that WIOA has staged since we took over the Queensland event in 2006. It's true to say that Col doesn't like the limelight. You won't often see him up on stage, although we have been able to convince him to have a go at the MC job at the dinners for the last couple of years – a task he has performed very professionally.

Col definitely prefers to get on with things in the background and helps make sure everything runs smoothly. You'll often see him zipping around on a forklift, helping an exhibitor move his equipment around or doing all the odd jobs no-one else wants, (or thinks), to do. We do know that he has encouraged some of the other Unitywater operators to have a go at a platform or poster paper at the conference.

He has helped organise or participated in almost all of the Queensland interest days over the last 5 or so years and has hardly missed one of the Queensland Charity Bowls Day in Yandina.

Through his contribution, Col has played an important role in allowing WIOA to expand and gain the acceptance we now enjoy in Queensland. We need more committed members like him. Congratulations on your efforts from all of us!

The award presentation was conducted at the President's dinner on the Tuesday evening before the Queensland conference. When inducted into the society, all IDIOTS are required to undertake a task of some description to prove their worthiness.

We had heard that living in beautiful Golden Beach on the Sunshine Coast, Col's tinnie got a regular workout and his lure casting prowess was not far behind that of former rugby league player turned TV fishing guru, ET. If he was that good, we thought throwing a lure at something would be easy, so we should toughen things up a bit. A pair of riggers gloves were provided to see just how accurately he could cast under pressure. With the previous Queensland IDIOTS recipeint, Ian Cuthbertson, helping with the target, Col proceeded to cast sideways, nearly hitting Dave Cameron with the (luckily hookless) jumbo sized cod lure.

The second cast was even worse. It also went sideways, nearly took George Wall's head off and broke a big chunk of plaster out of the venue wall into the bargain. At this point it was decided he really was an appropriate IDIOTS member and the rest of the challenge was called off in case he really did do some damage!

He was presented with his IDIOTS pin by Ian Cuthbertson and in the process, became the sixth Queensland IDIOTS member. A very deserving inductee indeed.



*Col (L) receiving the badge from Ian Cuthbertson.*

## RECOGNISING RETIRED MEMBERS #1



### **Pat Welsh - NSW**

Inaugural NSW Operator of the Year, Pat Welsh from Midcoast Water Services has hung up the steel broom and rolled up the hose for last time after 40 years service. Pat began his career with the old Wingham Council in 1978 before the amalgamation with Taree council to form Greater Taree City Council.

He saw the formation of Midcoast Water in 1997 and was still active when Midcoast Water was dissolved and absorbed into the newly amalgamated Midcoast Council in 2017.

Pat began as an operator in the old Wingham trickling filter plant and finished as the Process Coordinator of the Northern Area of MCW. He has seen the position of operator evolve from what was generally regarded as a labouring role, into the highly skilled and technically important role it is today.

Pat was a great supporter of WIOA and intends to continue as an Associate member. He will now pack up the van and, with wife Karen, travel the highways of Australia.

He regards working with Lindsay Walsh as the highlight of his illustrious career.

He also regards working with Lindsay Walsh as the most challenging part of his career.

Good luck mate and Happy Trails.



## A NEW STANDARD FOR FLUSHABLE PRODUCTS

Standards Australia is an independent, non-governmental, not-for-profit standards organisation. They specialise in the development and adoption of internationally-aligned standards in Australia, by bringing together key parties and stakeholders to form a technical committee. WIOA represents the interests of water industry operations, through participation on the Water and Waste Services technical committees.

One of the most recent activities undertaken by the Standards Australia Water and Waste technical committee (WS-041) is the launch of a project to develop a national "Flushability" Standard for products that may be disposed via the toilet, and outlines appropriate consumer information labelling requirements.

The intent of the proposed Flushability Standard is to ensure that material discharged down the toilet; Should not adversely affect wastewater collection and treatment systems, and ensure products are clearly labelled and that there is clear communication to consumers regarding flushable and non-flushable products.

As described in a previous article (Fatbergs – The lurking menace! in Operator November 2017), inappropriate disposal of products and materials via the sewer system poses a major problem to water utilities globally. Here in Australia, a number of water utilities conduct active campaigns to educate the community in what can and can't be disposed of via the sewer system.



*Wet Wipes clogging sewer pumps.*

The development and release of the new Flushability Standard is expected to take around two years, and involves input from manufacturers, water utilities, and industry associations such as WSAA and WIOA. It is hoped that this standard will provide important guidance on appropriate labelling to manufacturers to inform the community on products that can and can't be flushed. For more information on the Flushability Standard project, contact Kathy at WIOA ([kathy@wioa.org.au](mailto:kathy@wioa.org.au)).



*A new Flushability Standard - intended to answer the age-old question of "To flush or not to flush?"*

## QUEENSLAND TAPPING TUBBIES.....AGAIN

**IXOM**

**reece**

**civil**

As the third staging of the Queensland Mains Tapping competition got underway at the Logan conference, the big question on everyone's lips was "would the Tapping Tubbies from Gold Coast Water make it a three-peat" having taken out the last two events.



*Tapping comp under way in front of a large crowd.*

With only 5 teams entered, the odds appeared even more in their favour. Due to the low entries, it was decided to give all teams

two goes at doing a tapping, with the fastest time overall to be declared the winner. This also gave more of the conference attendees the opportunity to see the competition first hand.

*The Logan girls in action.*



In the morning heats, the "Cool Tapping" team from Gold Coast Water set the early benchmark with a time of 1min 40 seconds. The Tapping Tubbies went head to head with the "Hot Tappers", the all female team of Madison Hilleary and Zoe Nelson from Logan CC. The blokes were so keen to win that they broke their tapping drill and failed to register a time! Arguably, they were beaten by the girls who did manage to finish their tapping.

Luckily for the Tapping Tubbies, the best of two heat format meant they had another chance in the afternoon.



*The three-peat winners, Trent and Spencer.*

In the afternoon heats, the "Cool Tapping" team bettered their morning effort posting the time to beat of 1min 36 seconds. With no equipment malfunctions this time, the Tapping Tubbies comprising Trent Roberts and Spencer Stacey recoded a time of 1min 32 seconds to walk away with the trophy for the third straight year.

*The customary victory celebration.*



Reece Civil and Ixom supported the competition and the winning team nominated the Currumbin Wildlife Sanctuary Animal Hospital to be the recipient of a \$1000 donation on behalf of the sponsors and WIOA.



## SOUTH AUSTRALIA CONFERENCE AND EXPO

After a long gestation period, WIOA held its first Operations Conference & Expo for South Australia in Murray Bridge over the first two days of August.

The event was hosted by the Rural City of Murray Bridge and was opened by the Mayor, Cr Brenton Lewis. The boutique nature of the venue gave delegates and exhibitors a terrific opportunity to mingle at close quarters and increased the networking value of the event. The event attracted just over 180 attendees who made their way around the 33 expo sites and sat in on the technical presentations. The support surpassed the expectations of the SA Advisory Committee on this first foray into a SA conference.



*WIOA SA Advisory Committee Chair Robran Cock welcoming everyone.*

The program kicked off with a tour of the local Council's stormwater recycling scheme; a \$14M project which was delivered by Council and the Racing Club. The project utilises recycled stormwater on Council parks and gardens and the race track to reduce reliance on the River Murray which, as the Mayor noted in his address, fell below the irrigation pump suction at Murray Bridge during the Millennium Drought.

Technology was used to great effect with the 'Event App' keeping delegates constantly up to date with the program and other event information. The technical program comprised two guest Keynote speakers along with ten papers over four sessions.

The opening Keynote was delivered by Stewart Kreltshheim from the Victorian CFA who gave a most interesting presentation on the difference between character and reputation; and lessons learnt from the Black Saturday Bushfires and his trips to Kokoda. It is a must see presentation, if anyone has the chance in the future. The second Keynote was from Dean Barnett from Western Water in Victoria who showcased the work being undertaken by the Intelligent Water Network. This program is a great way to trial new technology and techniques and share the information with the rest of the industry.

The papers, many by operators, covered a broad range of topics from large scale upgrades of turbidity meters, sludge blanket profiling trials and increasing gas production on anaerobic digestion to maximise energy generation. It was pleasing to see so many operators step out of their comfort zone and present about the trials and tribulations experienced as a water industry operator. Everyone that presented either learned something, or someone learned something from them, which was an outstanding outcome.

The highlight of the technical program was the paper from Melanie Slimming from SA Water who presented a paper titled

"Saved by the Operator". The presentation outlined how an operator made some clever observations about how his plant runs and undertook some trials of operating levels in the SBR with great success. The outcome was that several million dollars worth of capital expenditure was avoided and compliance was improved. It was a classic example of the value operators provide to an organisation just by understanding the assets they are responsible for. The paper won the Hydramet sponsored award for Best Paper and Mel gets to present it again at another WIOA conference next year.



*Melanie Slimming being congratulated by Damien Lamb from Hydramet.*

Lunch time on Wednesday at the conference was the opportunity to run the fourth

Ixom Best Tasting Tap Water in South Australia competition with thirteen entries from around the state submitted. The grand finalists were Happy Valley (Allwater), Woolpunda (SA Water), Barmera and Summit Storage (both TRILITY). In a hotly contested final it was the small Riverland community's plant at Woolpunda which edged out the competition.

The conference dinner was held at the Murray Bridge Club thanks to sponsors Xylem and Aqseptance with entertainment provided by magician and comedian Warren Jackman who wowed the crowd with his sleight of hand tricks. A roof top walk around Adelaide Oval was raffled off during the event thanks to Piping and Automation Systems with all money raised being donated to WaterAid. A great example of how WIOA are supporting the Sustainable Development Goals through charitable donations.



*Che from Aqseptance Group was part of the dinner entertainment.*

The event would not have been possible without the hard work of all the WIOA staff,

many of who ventured to a South Australian event for the first time. A thankyou also goes to the SA Advisory Committee for their efforts in planning the conference and to the people who acted as session chairs. Also, thanks to Anthony Evans who came across from Wannon Water to lend a hand as a volunteer.

With the new \$20 million Murray Bridge Racing Club function venue slated to open in early 2019, next year's event could prove to be even more successful with more delegates and exhibitors able to fit into the space.

**Contributed by Robran Cock, SA Advisory Committee Chair**

## WATER OF ORIGIN – A WIN FOR NSW

For the first time in many years, New South Wales tasted victory at the **2018 Ixom Water of Origin Taste Test** held at the recent WIOA Queensland conference. The judges found that water from Port Macquarie-Hastings Council tasted slightly better than their Queensland opponent from the Livingstone Shire Council.

General Manager of Kyogle Council Graham Kennett was on the tasting panel for the grand final representing the NSW Water Directorate at the event. He tells the story:

“It was clear that pride was on the line at my first Water of Origin competition at the WIOA conference. It had been a while since the trophy had come down south, and as I walked through the conference wearing my blues shirt loud and proud, it was clear that there was a similar sense of superiority amongst the Queenslanders that we see with the real State of Origin. The groans from the audience when the winner was announced showed that we were greatly outnumbered on the day and added a bit of extra satisfaction to the victory. It was great to see NSW get up this year, and a big congratulation to the team at Port Macquarie-Hastings, and good luck to them for the national level of the competition.”



(L to R) Peter Everitt, Chris Howard, IXOM, Clayton Miechel from Port Macquarie-Hastings Council and Graham Kennett from NSW Water Directorate.

WIOA was fortunate to secure the services of a guest Grand Final judge in Peter “Spida” Everitt. Better known for his exploits as a VFL/AFL footballer for St Kilda, Hawthorn and the Sydney Swans, Spida has now turned his attention to a media career. He can be heard on Gold FM breakfast radio and in partnership with his wife Sheree, he is the creator and co-presenter of television caravan show *The Great Australian Doorstep*. Spida kept the lunch time crowd entertained with a story or two from his AFL playing days.



Peter “Spida” Everitt entertains the delegates with a few AFL stories.

## HOBART WATER REIGNS SUPREME

Tasmanian water treatment plants were pitted against one another in the 2018 Ixom Best Tasting Tap Water in Tasmania competition that was conducted in Launceston on 25 July. Now in its sixth year, the competition allows water from treatment plants from around the state to be judged by their peers on odour, appearance and taste.

After surviving the heats and going into the grand final against two other Southern Tasmanian samples, the sample from Bryn Estyn WTP that provides drinking water to over 200,000 residents in Greater Hobart was judged as having the Best Tasting Tap Water in Tasmania.



Grand Final Judges Brian Carlton - Tasmania Talks, Teresa Travaglia – Ixom, and Robert Smith from Tasmanian Turf Club.

The facility sources its raw water from the Derwent River, is the largest treatment facility in Tasmania and is manned on a 24/7 basis. TasWater services operator Benjamin Button accepted the award on behalf of all the operators at the plant. He said it was great to see the prize go to water straight out of the Derwent River. We all strive to get the best tasting tap water out to the community. It’s a nice win for the South” he said.



Mark Abela (L) congratulates Ben Button from Bryn Estyn WTP with Teresa Trevaglia from Ixom (R).

The winning sample from Woolpunda will now represent Tasmania and go up against the best samples from the other states in the quest for national glory as WIOA continues its search for Australia’s Best Tasting Tap Water. Some of its competitors have already been selected with Port Macquarie Hastings (NSW/ACT) and the Livingstone Shire Council (QLD) representing their states. The Victorian representative will be known following the conference coming up in September.

The taste tests are a celebration of the great job the operational employees and their employing water businesses undertake on a daily basis providing safe drinking water to our communities.



# MENTORING IS GOOD FOR YOU!

## 6 REASONS TO BECOME A MENTOR

Most successful water industry leaders would have at least one person that they can name who played an important role as a mentor, either formally or informally, in their working career. However, in spite of this it can be very difficult to encourage experienced staff to volunteer their time and expertise to be mentors. Some staff don't feel confident in their skills and abilities to act as a professional mentor, whilst others may consider it troublesome and time-consuming. The following are a few reasons why it's not just the mentee that benefits, the mentor does too.

**Demonstrate skills and knowledge.** Well duh, that's obvious! You might say. However, even if you've never considered teaching or coaching, demonstrating skills and sharing knowledge with someone else can be incredibly empowering and confidence-building.

**Develop leadership and management skills.** Being a mentor can be an important first step on the way to becoming a future team-leader, supervisor or manager. It can help you to learn the best methods and strategies to oversee and guide others and get the best out of people on your team.

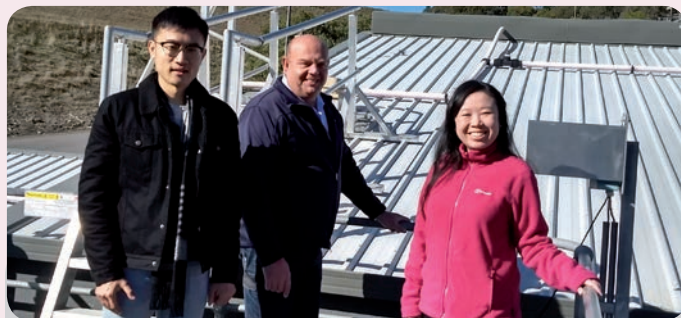
**Increase your networks and contacts.** Although as an experienced and skilled staff member you probably already have a good professional network, a mentor-mentee relationship offers different benefits than other "acquaintance" relationships. You will build a stronger connection to your mentee than other industry colleagues. Additionally, your mentee may introduce you to people to add to your network, and you can do the same for them, too.

**Learn new things.** Although your mentee may be younger or less experienced in your field, it's likely they will know more about a topic you're less familiar with. For example, Baby Boomers and Gen-X's taking on a Gen-Y mentee are likely to pick up some important tips and tricks about using digital technology and social media.

**Gain some perspective.** Even the best job in the world has its boring and mundane elements and it can be easy to feel as though you're not getting anywhere. When you act as a mentor, you have a chance to get some perspective around your own aspirations and career accomplishments. As a mentor, you get to compare yourself to someone who may be just starting out and reflect on your own achievements.

**Feel warm and fuzzy!** Seriously, never underestimate the benefit to your head-space, well-being and motivation as a result of doing something good for someone. Mentoring is an opportunity to help others improve their skills and knowledge, and become better at their jobs. Not only does it help your industry and possibly the profile of your organisation to be an active mentor, but it can also make you feel good by helping someone else.

For more information on benefits and opportunities to get involved with water industry mentoring programs, contact Kathy at WIOA ([kathy@wioa.org.au](mailto:kathy@wioa.org.au)).



*Beatrix and Yanbo, two mentees participating in the Engineering Student Mentoring Program at the University of Melbourne. Here they are learning about drinking water treatment from Konrad Mueller (Veolia).*

## RECOGNISING RETIRED MEMBERS #2



### Neville Whittaker - Victoria

After 43 years in the industry, starting out with the City of Shepparton way back in the 1970's right through to the current Goulburn Valley Region Water Corporation, the day had come – Neville's decision to hang up his boots and retire.

With the retirement party date set, it was time for the organising to start. With over 100 guests expecting to attend, it was going to be a big occasion. The siren had sounded. Kick off time was 2:00pm.

A series of speakers highlighted some of Neville's activities and antics over the years. Many of the stories shared would have made great material for any half decent comedian, but unfortunately, all of it was true!

Neville had been waiting ever so patiently (with minimal interruptions to the other speakers!) for his turn to say a few words. More stories were shared along with some well-earned thank yous.

From WIOA's perspective, Neville has been a staunch supporter of the Association from as far back as the 1980's. He has been an area co-ordinator, regular (and often loud) attendee at the Victorian conference, paper presenter of note including (we think) being the first presenter to drop the magic word more than once during a platform presentation, and more recently on the organising Committee for the Victorian Network Operator Development Program. Many will remember him as MC of the Tapping Competition at the Victorian Conference but no-one will ever forget his infectious laugh.

Always the life of the party, but amazingly supportive of his workmates and water industry colleagues, Neville has been a stalwart of the industry.

The final siren sounded. The time had come to end the game. Neville the winner with 43 years of service. We all wish you well in your retirement.



## **BIRDS EYE VIEW - Facilities Members Operate**

South West Rocks Wastewater Treatment Plant  
& Water Recycling Plant







**1 Inlet Works**

Receiving influent from 3 major catchments, flow monitoring, structure consisting of mechanical step screen, Bypass with a manual rake screen & mechanical screenings(ragging) removal

**2 Grit Removal**

Pista grit

**3 Sequential Batch Reactors**

2 x 3,000 EP each

**4 Oxidation Ditches**

3 x 2,000 EP each

**5 Inground Balance Tank**

Collection of decanted effluent

**6 Effluent Discharge Pumps**

Controlled discharge to the Water Recycling Plant or direct discharge to the Dune Disposal area

**7 Chlorine Dosing Points**

Maintenance control and correctional adjustment for disinfection purposes

**8 Activated Sludge Storage Lagoons**

Capacity 2 x 1500m<sup>3</sup> each

**9 Blower Room**

4 x Tuthill blowers

**10 Administration Building**

Onsite laboratory, control room & Office

**11 Chemical Storage STP**

Bunded area for 18,000L Aluminium Sulphate

**12 Dewatering Building**

Operations of solids removal from the Water Recycling Plant and Water Treatment Plant only

**13 Water Recycling Plant (WRP)**

Membrane filtration with UV & Chlorine disinfection

**14 Chemical Storage for Water Recycling Plant**

Bunded area for 700L Hydrochloric Acid

**15 Clear Water Tank**

Treated water from WRP

**16 Above Ground Balance tank**

1ML Treated effluent prior to WRP

**17 Storage Shed**

Shared storage for water & wastewater operations

# SINGAPORE WATER WEEK

I was fortunate to attend Singapore International Water Week (SIWW) held from 8-12 September. Landing very late on a Saturday night, it was a quick cab ride in light traffic to the motel. My first impression of the City was how clean and modern looking it was. Like all growing cities, there was quite a bit of construction work under way but there were also a number of tourist attractions dotting the night skyline as well. The big wheel and the three towers of the Marina Sands Hotel really stood out.



*Marina Bay Sands Hotel.*

Held in conjunction with the World Cities Summit and the Clean Environment Summit, the SIWW event incorporated a massive exhibition spread over three floors of the exhibition centre. In all, the three separate conferences reportedly attracted more than 25,000 attendees.

Registering for the conference bright and early on the Sunday morning, I bumped into a number of familiar faces from around Australia. There were also quite a few Australians presenting on technology developments during the workshop sessions on the Sunday, highlighting the positive contribution our water businesses are making on the world stage.

The Public Utilities Board (PUB) in Singapore is well renowned for its innovative management of their very scarce water resources, including their strong commitment to recycling and the production of NEWater. The welcome reception held at the marina barrages provided the opportunity to sample a NEWBrew, the world's first beer brewed using recycled water. I did my bit for recycling and tried one, but being more partial to a red wine or two, I was quick to swap over.

What a difference the day of the week makes to traffic. The 10 minute Sunday ride to the Marina Sands Convention Centre turned into 45 minutes in the Monday morning traffic jam.

A number of presentations over the course of the conference stood out, but none more so than the Keynote Address delivered by Ban Ki Moon, the 8th Secretary General of the United Nations. In his speech, he highlighted that the impacts of climate change are now being felt right around the world and we need to take urgent action. Interestingly, he was highly critical of the USA pulling out of the Paris Accord and was concerned about their move away from multilateralist thinking. The other point that both he and many of the other speakers made, is the need for leadership and to take positive action to ensure that we can meet the outcomes required to meet the global Sustainable Development Goals. It is time WIOA became more proactive around the promotion and implementation of the SDGs as well.

With so much happening across all the levels of the conference centre, juggling your time to get the most out of the paper sessions on a wide variety of topics, as well as having a look

through the expo meant very little idle time. With over 400 poster papers on display as well, a considerable amount of time was also needed to read up on some very interesting work, again a lot of it emanating from Australia. On the Wednesday, the AWA hosted a session in conjunction with the Australian Water Partnership which concentrated on Climate Change & Urban Development Water Challenges. A number of speakers outlined issues, particularly in the Indo-Pacific region and it is obvious that much more work is required to manage the effects of climate change in the coming years for neighbours in our region.

Capping off the conference was a tour of the NEWater treatment plant on the Thursday, a very impressive and large RO membrane plant used to supplement the country's water supply.



*Inside the Singapore NEWater plant.*

It was a novel experience to drink bottled "poo" but one I had no hesitation in doing. I have no doubt that reclaimed water will be part of the longer term

solution to our water supply issues in coming years, and if those of us from within the industry are not prepared to drink it, how can we expect our communities to come on board with the concept.

All in all, it was a very enjoyable conference. Importantly, WIOA has forged some new linkages along with consolidating other relationships through meeting and interacting with a range of people.

**Contributed by George Wall, WIOA MD**

## WIOA look-alikes



**Damian Drum MP**  
Member for Murray



**Peter Harries**  
Envirosonic

He might have a few years on him but we think Peter Harries is a dead ringer for former AFL player and coach and now Federal politician Damian Drum.

If you know of a WIOA member who has a look-alike send us a photo.



# WIOA JOINS THE CHOOSE TAP COALITION



More than a billion people worldwide do not have access to safe drinking water – but here in Australia we often take our quality tap water for granted. The Choose Tap program makes tap water more accessible to the community with a range of initiatives focused on sports and recreation, health and wellbeing and an extensive education program.

Choose Tap is a broad, community-based initiative promoting tap water as the best hydration choice for the environment, people's health and their hip pocket. The alliance supports our members who are working diligently providing safe drinking water to communities across Australia and is a natural fit for the association.

The Choose Tap brand can be used by any organisation to advocate tap water. Water utilities are best placed to promote the message as the providers of the product, but this does not preclude other parties from becoming advocates/partners. To date over 17 water utilities across Australia form the Choose Tap Coalition together with several event and business partnerships. The extent of programs implemented, and the amount invested is entirely up to each coalition member. The primary commitments are to use the Choose Tap brand and messaging to advocate tap water, and to maintain the integrity of the brand. There is no compulsion to roll out the full suite of Choose Tap programs.

Tap water is the best choice for your health, the environment and your hip pocket

## Health

- Around 70% of your body is water.
- Staying hydrated is essential for good health.
- A 2% decrease in hydration levels can reduce concentration and attention span by 13%
- Doctors recommend drinking at least 8 glasses of water per day.
- Drinking water is essential for a healthy heart and kidneys.
- Drinking water throughout the day improves concentration.
- Tap water contains fluoride which is beneficial for healthy teeth.
- Drinking tap water instead of sugary drinks can help reduce your risk of tooth decay.
- There are zero kilojoules in tap water.

## Environment

- Over 40% of plastic bottles end up as land fill or litter.
- It takes more than 3 litres of water to produce 1 litre of bottled water.

- There are only five cities in the world that source tap water from protected natural catchments and Melbourne is one of them... that is why our water tastes so good.
- Drinking tap water eliminates the need for plastic packaging. Filling a reusable water bottle from the tap reduces the amount of plastic bottles that contribute to land fill each year.

## Cost

- Australians spend more than \$736 million a year on bottled water.
- The charge for 1 litre of bottled water is up to 2,400 times the cost of tap water.
- The average price of one litre of bottled water is the same as 9,000 glasses from your tap.
- 90% of the cost of a bottle can be traced back to the bottle, lid or label.

Find out more

[choosetap.com.au](http://choosetap.com.au)

[facebook.com/choosetap](https://facebook.com/choosetap)

## SA'S TOP DROP

WOOLPUNDA broke Morgan's winning streak as best-tasting tap water producer in the South Australia at the annual taste test that was conducted as part of the first South Australian Conference and Expo. The Morgan Water Treatment Plant was hoping for an unprecedented "three-peat" after taking home the state title the past two years, but Morgan water treatment co-ordinator James Gorman said nothing is wrong with "a bit of friendly rivalry" between the two Riverland teams

The one-person operated Woolpunda Water Treatment Plant has been producing water since 2009 and was built as part of SA Water's Country Water Quality Improvement Program. It sources and treats raw water from the River Murray before the water is delivered to towns including Woolpunda, Wunkar, Mantung and Cadell, as well as country lands located up to 50km away from the plant.

On average, around 700,000L of water goes through the plant every day. Woolpunda will compete for the nation's best-tasting tap water in October in Toowoomba – the home of last year's Australia-wide winner. The winner of the national competition will then go on to represent Australia in the international competition held in the United States in early 2019.



Winners are gridders - Ardean and James from SA Water.

## NEW ZEALAND TOUR REPORT 2018

As you get older, the years seem to go quickly so it was no surprise when the 4th May arrived and we were off to NZ on the WIOA tour. Quite a few of us were meeting at Melbourne airport and we soon had the head count done. With everyone accounted for, we boarded the plane to Wellington. We arrived to meet our fellow tour members who had flown in from Qld & NSW, as well as our Kiwi Tour Guide, Bruce Nesbit. Once settled into our motel, our group of 17 had a few drinks at the bar while getting to know each other. Bruce led us off to a teppanyaki restaurant for an entertaining, and for Anthony a messy dinner. A few more nightcaps followed on the trip home as we had an early start on Saturday morning.

On Saturday morning we met at the foyer and found our mode of travel was a large bus, with a seat each and Alan as our driver for the week. It was also the first time the “hat” was awarded, a lovely Pirate hat that became the symbol for the group of Gentle Annie Pirates. Anthony was the first recipient for making a terrible mess at the restaurant on Friday night.

Our first site visit was to the Wainuiomata Water Treatment Plant, one of three WTP’s that supply potable water to Wellington. The group was split up for the trip to the river catchment. Some went by 4WD over the mountains while the others travelled through a 3 Km tunnel in a “Jigger” which followed the pipeline supplying water to the plant. Both trips were a fantastic way to see the country before a great lunch organised by the plant operators – thanks Tony and team.



*The Jigger*



*Wainuiomata WTP DAFF filters.*

After lunch, we headed to Paraparaumu WWTP in the Kapiti Coast district for a tour of the activated sludge plant hosted by Dave Bassett. This plant had a very impressive array of solar panels & utilises a pellet boiler to dry sludge. Unfortunately, the end product has to go to landfill as it can't be used as a soil conditioner.



*Dave Bassett showing off the Paraparaumu STP.*

After an overnight stay in Paraparaumu, it was back on the bus for a visit to the Waikanae WTP, operated by none other than our guide Bruce and his team. The plant was very well run and spotless, something that the operators should be proud of. Bruce was able to answer any questions from the time the plant was constructed until now.



*Most of the tour group on the clarifier at the Waikanae WTP.*

Next stop was the Tui Brewery for lunch and a tour of the brewery. On the way, we picked up our second guide, none other than Damien Lawson. The Tui selection paddle of 6 beers of your choice was hard to comprehend for some and found poor Damo struggling to work out why his drinks were numbered differently to everyone else! At the end of the tour, we headed for Napier for the night.

Monday morning arrived and after breakfast and a quick look along the boardwalk, we were on the bus to the Napier WWTP. While touring the screens and grit collection system, we noticed a \$20 note in the bin but nobody seemed interested in retrieving it. The plant has a couple of monster trickling filters that aren't like the traditional rock construction we're used to at home.



*Napier STP trickling filters.*



## NEW ZEALAND TOUR REPORT 2018

Alan the bus driver was running late after refuelling the bus and proudly headed off wearing the “hat” proving that anyone can qualify for it. A quick tour of the reticulation network upgrade in the main street followed, before we headed off to Taihape via Gentle Annie. The road traverses through, over, up, down and around mountains for 110Km's with a photo stop at the halfway mark with Ruapehu in the background.



*The tourists with Mt Ruapehu in the background.*

We arrived in Taihape to meet Fletch & Dan and followed them to the WTP for a tour. We saw the old plant and the new extensions scheduled to be finished within the next week. We had a quick stop to throw a gumboot on the way to the motel before heading to the Working Man's Club for a wonderful dinner. We made our own entertainment for the night which included some very competitive darts and a round robin game of pool. The cash prize went to the winners in Steph & Glenn.

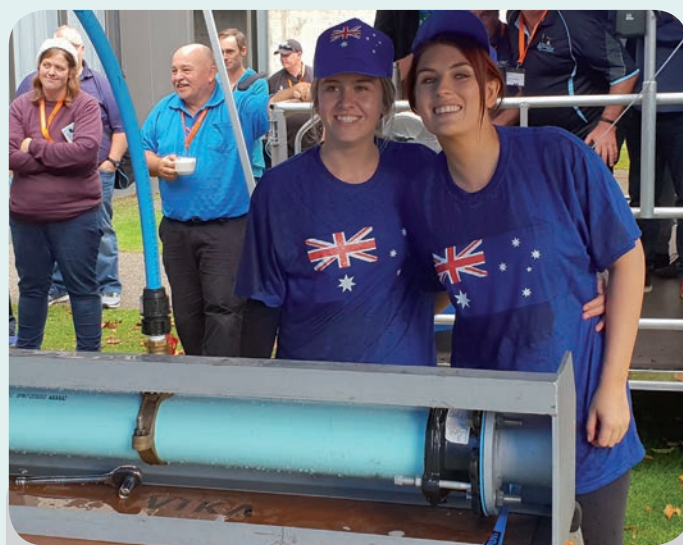
Another early start and after breakfast at the “Flat Hills Cafe”, we stopped off at the Hunterville WWTP to look over the reed beds and lagoon system before arriving at Palmerston North, our home for the next few days. We enjoyed an afternoon of some very competitive Go-Karting including some questionable driving from our tour leaders. We later discovered that an old wound had been festering and revenge is a dish best taken cold, even after 6 years!



*Enjoying some fun but very competitive go-karting.*

Then it was off to the first of our official events, the WIOG Presidents Dinner. It was a great start to the conference and all the related activities that we would be attending and taking part in until Friday. The papers were all well-presented and reflected the knowledge of all presenters on their chosen topic. The trade display was very well set up and it was interesting to see the similarities between both countries.

An addition to the display this year was a live main tapping competition and the rumours going around the building suggested it was going to be the scene of a Kiwi vs Aussie challenge to take out the fastest time. As the competition was heralded, the Kiwi contingent was surprised to learn that they would be going up against the Aussie girls, Steph & Mae. We were all quietly confident of a big win. Of course they weren't aware that the girls had some excellent coaching from Anthony on the finer art of tapping. After exactly 1 minute and 36 seconds the girls were off shopping, had a manicure, cut & colour followed by a coffee and made it back just in time to see the Kiwi boys get covered in water. Well done girls!



*The Aussie tapping champions.*

Friday morning offered the choice of attending a site visit to a WTP, WWTP or a workshop on waste stabilisation ponds. Afterwards, we were back on the bus heading to Wellington for our last night. Some had a rest while others visited the Te Papa museum and looked around the ANZAC display. We had a group dinner for the last time with our faithful guide, Bruce. Saturday morning was spent visiting some of the Wellington tourist destinations as most flights were leaving late afternoon.

Once again, it was a fantastic trip, everyone got on well and enjoyed each other's company. By the end of the week the hat was getting passed around that frequently, it didn't have time to warm your head!

Three things I've learned from the trip;

- No matter how compliant you think your system is, it may not be. Think outside the square and expect the impossible to happen.
- There's not a lot of difference in the challenges faced by operators in both countries and there are some great initiatives undertaken to make things work.
- We currently have a fantastic group of young operators and we need to continue to encourage young people to join the water industry....the older ones are OK too!

Contributed by **Luke McCosh** and **Anthony Evans, Wannon Water**

## RECOGNISING RETIRED MEMBERS #3

### Reflections of the Queensland Water Industry



I started working for Davies Shephard (DS) in 1992 managing their Queensland operation. The company has subsequently gone through six different owners and is now wholly owned by Honeywell.

My move to DS followed around 18 years working in the pump industry for a couple of organisations including Southern Cross and KSB Ajax. I became aware of the yearly conference and exhibition run by WITA (Water Industry Training Association) as DS had been exhibiting at this function for a short while before my arrival at the company, and I continued the involvement.

It wasn't long before I became involved in the WITA committee with stalwarts of that organisation like Leon Henry and Norm White, who both had an exceptional knowledge of the water industry in Queensland. Leon and Norm didn't always agree but both had total commitment to the water industry and working tirelessly to try and improve the knowledge and standards of operators across the state. They were very ably supported by a team of highly capable people from Government departments including Paul McGraw and Brian Davis with others who organised the yearly conference at many different towns and cities across Qld.

On my first visit to Cairns City Council more than 25 years ago, I asked them about meters, and was told 'why do we need water meters, it rains here all the time.' Of course, there was a dry period some years later, and Cairns now of course have water meters and have had for a long time. The last remaining population centre in Australia to my knowledge that fitted water meters around 8 years ago was Hobart, and similar comment was made by some – about why are water meters needed etc...

The old adage of course is still very true, 'if you can't measure it you can't manage it'.

I recall one in Cloncurry where the only accommodation I could obtain happened to be in the 'ringers' pub in town. A couple of relatively sleepless nights followed due to some noisy nocturnal activities of my close neighbours and thin walls. As the Government departments started to withdraw their support of WITA it became increasingly difficult for the old team to organise the WITA events. Partly as a consequence of this change there was one proposed function that was to be held in Stanthorpe that was cancelled at late notice due to general lack of support.

At this stage Brian who was president and Paul who was a very long standing secretary, made contact with WIOA who agreed to manage and operate the WITA events.

Virtually all support by Government for WITA had by this time been withdrawn.

WIOA was totally aligned with the charter and objectives of WITA and importantly WIOA had been very successfully running the Victorian WIOA operation for many years. Perhaps more

importantly, WIOA had developed various training manuals and hands on support for operators.

At the final committee meeting of WITA, I moved that WITA be disbanded and that the remaining material and funds from WITA be transferred to WIOA on the basis that WIOA continue to operate the yearly conference and exhibition and support the Qld water industry. This motion was carried unanimously by Brian and Paul, with us three being the final ones standing of WITA.

I have never doubted the decision that was made on that day. WIOA is an exceptional service organisation for the water industry across Australia, as well as being involved in the NZ industry.

I urge all Councils and water utilities to utilise the services of this great organisation as they provide terrific resources for the critical water operators – who are charged with providing us all with high quality potable, and wastewater.

As I head off to retirement I offer my very best wishes to George and Craig and all of the terrific team who are WIOA, and to the many great people in the water industry that I have got to know over many years.

*Contributed by Ian Pitt – retired from the Water Industry on 13 July 2018*

## THE LIGHTER SIDE

### Where Does Poo Come From?

A little girl walks into the lounge one Sunday morning while her Dad is reading the paper.

"Where does poo come from?" she asks.

The father feeling a little perturbed that his 5 year old daughter is already asking difficult questions thinks for a moment and says:

"Well you know we just ate breakfast?"

"Yes," answers the girl.

"Well the food goes into our tummies and our bodies take out all the good stuff, and then whatever is left over comes out of our bums when we go to the toilet, and that is poo."

The little girl looks shocked, and stares at him with watery eyes in stunned silence for a few seconds and asks:

....

"And Tigger?"



Image - Walt Disney clipart



## THE EMERGING CONTAMINANTS CHALLENGE

With ever increasing numbers of chemicals produced and growing populations, the water industry is faced with increased risk of emerging contaminants in our water sources. So how can they be managed effectively, now and in the future?

At Water Research Australia's OzWater'18 panel session - 'Managing Emerging Contaminants', Dr Annette Davison (Risk Edge), Dr Stuart Khan (UNSW), Ian Law (IBL Solutions), Dr Mark Browne (UNSW), Dr Erica Donner (UniSA) and Dr Stacey Hamilton (Water Corporation) discussed these issues in-depth.

Dr Davison described governance aspects within the ADWG, including water quality hazards and risks and management from source to user. Hazards must be identified and assessed thoroughly to determine if the customer is at risk and reasonable controls established for effective management. The difficulty of this is when insufficient information leads to uncertainty.

The Global Water Research Coalition project (led by Dr Stuart Khan, supported by WaterRA and WSAA) - 'Prioritisation of Emerging Contaminants' aims to provide assistance. Developing a decision support tool comparing potential impacts of different contaminants assists utilities to determine which contaminant/s need further investigation and whether a hazard constitutes a risk to customers.

Ian Law highlighted how Engineered Nanomaterials (ENMs) now occur in a wide range of everyday household products and find their way into the environment, via wastewater discharge. With no current regulations governing ENM discharges and limited work to establish an associated human health impact, ENMs could pose a threat to customers.

Dr Browne's research into the risk of microplastics found they are persistent, bioaccumulative and toxic; can be linked to ecological impacts; and occur worldwide, especially in densely populated areas with wastewater and stormwater discharges. His current research program ([www.launch.org/innovators/mark-browne/](http://www.launch.org/innovators/mark-browne/)) tests the cost-effectiveness of existing methods of avoiding, intercepting and redesigning products (clothes, packaging, microbeads, etc) that cause emissions of microplastics and impact to humans and wildlife.

Dr Erica Donner gave an introduction to the topic of antimicrobial resistance (AMR) which has been identified by the World Health Organisation as 'global health emergency'. There is currently insufficient knowledge to assess the risks associated with AMR in the water cycle. This lack of knowledge also prevents comparison against other known risks managed by water utilities. Dr Donner is leading a national initiative to develop a risk framework and conduct AMR benchmarking for the Australian water industry and regulators.

Clear governance, impact assessment and risk mitigation tools and strategies can all assist water utilities in developing management processes for emerging contaminants. However, another vital pathway is by sharing real-world examples of effective management processes, such as Dr Stacey Hamilton's outline of the model adopted by the WA Water Corporation for its Groundwater Replenishment Scheme.

Overall the panel session generated insights into the management of individual emerging contaminants, as well as revealing the

complexities facing utilities for their combined management in operations.

If you want to be part of the solution, contact [claire.mclnnes@waterra.com.au](mailto:claire.mclnnes@waterra.com.au)

Claire McInnes, Water Research Australia

## WIOA TALKS TECHNICAL WEBINAR – HEALTH BASED TARGETS

Most water treatment operators would have heard of the concept of microbial Health-Based Targets (HBTs). They have been adopted in the Australian Guidelines for Water Recycling, as well as the United States Environmental Protection Agency, World Health Organization and Health Canada guidelines for drinking water. HBTs are also expected to be included in the Australian Drinking Water Guidelines (ADWG) possibly later in 2018. The **WIOA Talks Health Based Targets** webinar, hosted on the 24th May, was a practical and informative series of presentations covering key aspects of the development and implementation of HBTs.

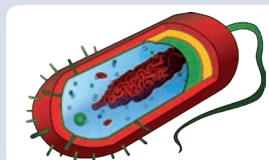
The aim of the webinar was to describe what microbial HBTs are, why they are being introduced into the ADWG, and what their introduction means for the day-to-day activities of operators. The webinar featured three expert speakers, as well as an opportunity for a Q&A session for participants via an online chat. The target audience was everyone in the water industry who is involved in the management of drinking water quality from catchment to tap.

David Sheehan (Coliban Water) gave a brilliant overview of the development of Health Based Targets, including the concept of the Disability Adjusted Life Years (DALYs), how they are derived and a practical example of how they work in terms of impact of pathogens on disease burden in the community. Many webinar participants commented that David's presentation was the most straight forward and understandable explanation of DALYs and HBTs they had heard yet.

Cameron Veal (SEQ Water) talked about how you shouldn't panic if you have a high risk of pathogens in your catchment, because you're not alone! He talked about tools and options for monitoring and assessing catchment risk, a practical approach to sanitary surveys and source water vulnerability and how this translates to Log Reduction Targets.

Finally, Phil Fasham gave a practical presentation of how to apply log reduction targets to the water treatment process, as well as the monitoring and operational strategies to apply in order to get the best treated water quality outcomes.

With the highest number of WIOA Talks participants yet, and fantastic feedback following the webinar, it seems HBTs continues to be a hot topic for the water industry.



*Health Based Targets, a practical way to manage the public health risk of pathogens (bacteria, virus, protozoa) in our source water catchments.*

## TASMANIAN OPERATIONS INTEREST DAY

Operators from across the state of Tasmania met in Mowbray recently to participate in the 2018 Tasmanian Operations Interest Day and Taste Test, put on by sponsors IXOM, Hach and WIOA.

In a slightly different way to kick off the event, the 2017 Tasmanian Young Operator of the Year, Robert MacDonald participated in an interview with George Wall about his experiences on the 2018 WIOA tour to New Zealand. A slide show was played in the background which also prompted some questions and some of the discussions.



Robert MacDonald (R) being interviewed by George Wall.

The Keynote Speaker was Emeritus Professor Nigel Forteath AM from UTAS who discussed some of his experiences in identifying and

monitoring aquatic biota in freshwater lakes and discussed the impact that water quality can have on diversity.

Emeritus Professor Nigel Forteath AM during the Keynote Address.



Other speakers included Garry Lanham, Matthew Robertson, Ben Deeley and Jason Barnett. Between them, they discussed a range of topics including raw water quality issues, water CCPs, waste water OCP's. Kate Blizzard explained TasWater's career framework – "Stepping Stones" and outlined the wide range of opportunities that are now available to staff.

Presentations were also provided by Sekar Arul from Hach on water quality monitoring equipment and testing, and the importance of having calibrated instruments. Penny Griffiths from Ixom also discussed the range of products and services available from Ixom locally in Tasmania.

In addition to the presentations, the day also included the heats and grand final of the Best Tasting Tap Water in Tasmania competition which was won by the sample from the Bryn Estyn WTP.



Putting the Tasmanian Water samples to the test.

"The day was a celebration of the hard work operators put

into providing quality water to TasWater's customers, it was also a showcase of TasWater's skillset with great presentations" TasWater Optimisation Facilitator (SCADA and Electrical), WIOA Tas. Chair and MC for the day - Mark Abela said.

Thanks to all of the speakers and WIOA for putting on a great day for our people. I would like to encourage all operators to be involved in next year's event.

## 2018 WIOA MEMBERS SURVEY

The WIOA team were very pleased to work with University of Melbourne Industry Project Students, Kayley Cuzzubbo and Daniel Hidajat, on the 2018 WIOA Members Survey. The aim of Daniel and Kayley's project was to obtain an understanding of what WIOA members want in terms of the evolution of products and services offered by WIOA. This was conducted in the form of a survey and targeted member interviews. A big thankyou to all of our enthusiastic members who actively participated in the market research exercise. In total we had 342 survey responses, with a further 15 members participating in interviews.

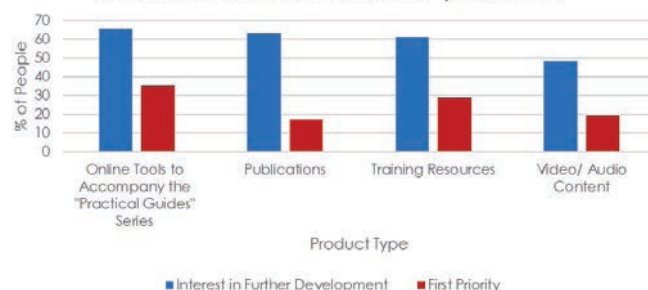
### Awareness of what WIOA have on offer

Members were surveyed based on their current knowledge of our products and services. Members were most aware of our conferences and publications, including Words, Operator and Water Works. The top three ways that members learnt about products and services was through publications (47.7%), word of mouth from colleagues (46.2%) and the WIOA website (42.4%).

### What do members want?

Members were surveyed and interviewed on their level of interest for a specific range of new products and services. These included; online tools and calculators to accompany the Practical Guides series, video/ audio content (webinars, webcasts and podcasts), expanded series of (digital) publications and video and online training resources. There was significant interest and enthusiasm for all categories, with at least 50% of respondents indicating they would like WIOA to offer these.

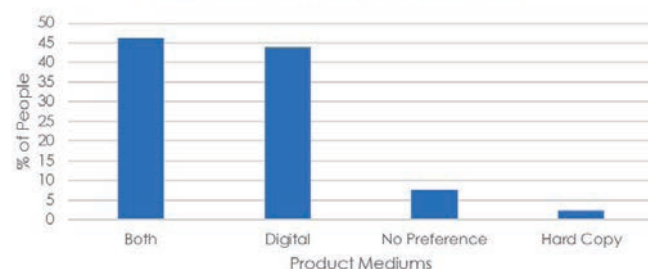
Member interest in future products



### What happens next?

The WIOA team will now work on scoping new ideas to bring more content to our members. This includes expanding on our popular Practical Guides series to bring new titles into the range. We are also looking to build on our early success with the WIOA Talks series, to bring more educational technical content through online, video and audio to our membership.

Desired Format of New Products





## USING NEXT GENERATION DNA SEQUENCING TECHNOLOGY TO BETTER INFORM OPERATIONAL DECISION MAKING

The Australian Water Quality Centre (AWQC) is the first water laboratory in Australia to add Next Generation Sequencing (NGS) technology to their water quality analysis services. This high-throughput DNA sequencing technology has significant implications for public health, optimising processes and conditions within water treatment plants, research and conservation efforts. The benefits of NGS can be realised without the need for any traditional microscopy, culture techniques or complex and time-consuming field sampling, whilst providing more detailed and reliable information.

As an example, AWQC is using NGS (bacterial diversity profiling or bDNA) for detecting bacterial contamination from faecal input such as from livestock, agricultural activity or septic systems. Conventional methods require days of culturing and then only test-specific bacteria can be targeted. The benefit of AWQC's new technology is that all bacteria can be detected from the one sample and test. In addition, that same analysis also reveals what vertebrates, fish and other organisms have been in contact with the water. This information provides the most comprehensive picture of possible contamination inputs and thus enables improved operational decision making. For example, in treatment process investigations high accuracy NGS results allow the implementation of timely, targeted management actions for the mitigation / control of any detected biological contaminants. This allows water treatment plants to significantly reduce any potential impacts through early operational intervention.

AWQC's NGS analytical services have already delivered valuable data in several projects and operational investigations, solving water contamination challenges. The bDNA analysis has been used to characterise nitrifying bacteria in wastewater treatment plants, facilitating the optimisation of the plants. AWQC is also using bDNA to gain better insight into beneficial bacterial communities with the aim of growing them on a larger scale for incorporation into the wastewater treatment process to increase energy and chemical efficiency. Further, AWQC has employed bDNA to locate the source of bacteria in bore water supplies, reservoir management, biofilm clogging, iron bacteria, UV optimisation and general bacterial and faecal bacteria screening.

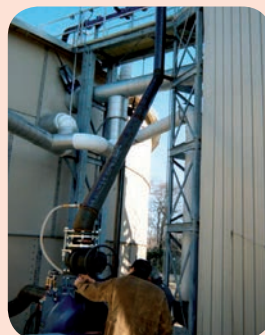
Due to its high degree of accuracy and non-invasive nature, NGS also has major benefits for catchment and conservation management. For example, vertebrate diversity profiling (vDNA) can be used to monitor the presence of native and invasive vertebrate species, for example organisms that are typically elusive (such as platypuses) or ones that were previously unknown within a specific water body, thus negating restrictions imposed by conventional invasive and time-consuming catch-and-release methods. The detailed results also allow targeted catchment surveys, catchment management actions and information on the diversity and abundance of aquatic life in water bodies.

AWQC is currently expanding the NGS technology to include *E. coli* Whole Genome Sequencing (WGS) for host source tracking and blooms, plus macroinvertebrate diversity profiling (mDNA).

For further information contact AWQC on 1300 653 366



## BETTER AERATION SYSTEM FOR FOOD PROCESS



Hydro Innovations introduces the Venturi-Aeration aerators to Australia after the success food processors have had with the products in the USA and Europe. Venturi-Aerators are used in conjunction with Gorman-Rupp pumps and can be mounted on the banks of basins and lagoons instead of needing to be installed in them.

A case study is available that describes the conversion of an aeration system at a soup production facility which resulted in operating cost savings of >\$112,000/year. There was increases in total EQ tank performance to produce a clearer effluent, controlling odours, settling solids, cooling the water and hydrolysing fats, oils and greases (FOG) causing them to float for better removal efficiency.

The original system was to add dissolved oxygen to mix and equalise the contents in the EQ tank with submerged aerators. The submerged aerators were supposed to add dissolved oxygen causing FOG to float so they would not be discharged with the plant's effluent. They also provided cooling of the influent process wash-down water (~40° C). These aerators had been in operation for several years and were not achieving the desired conditioning objectives. Further, whenever one of the submersible pumps plugged or failed, the facility had to rent a crane to remove it for repairs and then had to use the crane to reinstall the repaired pump. A failure of one or more of the submerged pumps was occurring at least once if not twice a year, adding to systems operating costs just for crane rental. The facility was looking for a more viable aeration, mixing and equalisation solution.

The facility engineer replaced the existing aerators with a Model VA-1400 venturi aerator and a T8 Gorman-Rupp pump.

This allows the contents of the EQ tank to be recirculated four (4) times during a 24-hour period achieving greater oxygen transfer and better mixing and equalisation. With better circulation and cooling in the EQ tank the FOG is floated for separation and treatment and is not being discharged with the effluent to the local WWTP, reducing surcharges.

The plant was able to achieve a \$6,000 P/A energy cost reduction, an \$89,000 annual reduction in chemical costs, a \$12,000 annual reduction in non-compliance charges, along with maintenance cost reductions. The facility now has a system that allows it to achieve discharge permit parameters with less concern over maintenance issues and costs.

The complete case study is available from Hydro Innovations by calling on 02 9898 1800 or email [sales@hydroinnovations.com.au](mailto:sales@hydroinnovations.com.au)



## AWMA FISH SCREEN

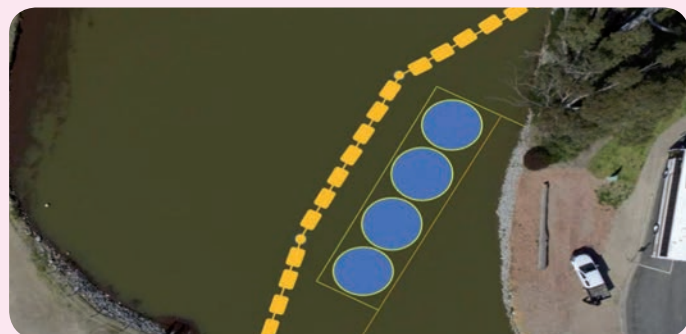
AWMA have partnered with the North Central Catchment Management Authority (NCCMA) to design, construct and install Australia's first conical Fish Exclusion Screen through the Cohuna Irrigation Diversion Screen Project. Funding for the project has been provided by the Victorian Environmental Water Holder (VEWH).

The aim of this project is to boost native fish populations by preventing fish movement out of the natural waterway into irrigation channels. Uninterrupted irrigation flows are also critical, with minimal headloss through the fish screen structure a key design criteria.

A sheet pile wall, manifolds and four Cone Fish Screens will be installed in front of the Number 3 Offtake in the Cohuna Weir Pool. AWMA will design, manufacture, install, commission and monitor the fish exclusion screens. The structure will also utilise AWMA Segmented Stopboards to provide water control and maintenance access.



Conical (cone) Fish Screens have been chosen for this site due to their suitability in shallow water, they have been well proven in diversion pools, rivers and channels, to protect fish from entrainment and impingement. The screens will be submerged below the water level to ensure the area remains aesthetically pleasing. The screens are self-cleaning with a positive brushing action preventing debris build-up, sedimentation, and bio-fouling.



An internal flow baffle distributes flow evenly across the screen surface. A marine-duty hydraulic drive motor rotates cleaning brushes with a control panel allowing user defined cleaning cycles. The cone shaped design is very strong and hydraulically efficient.

The screens weigh 28 tonnes in total and will pass 600ML/d through 3mm wedge wire screens with a head loss of less than 20mm.

All native fish species are crucial in sustaining a balanced aquatic ecosystem. Once fish enter irrigation channel systems they are lost

to their natural environment. AWMA's significant contribution to this project will enable the introduction of new and innovative screen technology to Australia and specifically to manufacturing in regional Victoria



## LILAC HOSE REELS FOR CLEAR IDENTIFICATION

Lilac coloured taps and hoses can be found wherever recycled water is used. But until now, there hasn't been a hose reel to match. When a water treatment plant in Victoria, asked Tecpro Australia if they could produce hose reels to match their recycled water hoses, the answer was a definite "yes!"

You might be surprised to learn there are literally dozens of different types of hose reels, depending on your industry. For example, there are hose reels that transfer compressed air, diesel and AdBlue, oil and grease lubrications, fuels like petrol, aviation fuel and natural gas.

There are also hundreds of different configurations for hose reels including manual rewind, motor driven, slow retractable and heavy duty mining hose reels. And they all come in various styles to suit different hose sizes, lengths and pressures. There are even food-grade speciality reels!

But if you need something specific, Tecpro Australia can produce a customised solution like the Lilac coloured hose reels for the water treatment plant or multi-coloured reels to match your corporate colours. That's why Tecpro is one of Australia's leading hose reel suppliers.

If you are looking for any type of hose reel or a hose reel that comes in a particular colour, contact Tecpro on 02 9634 3370 or visit [www.tecpro.com.au](http://www.tecpro.com.au) to discover their wide range of products.

Tecpro Australia specialises in providing reliable technical solutions for a vast range of industrial applications. The Tecpro team are always willing to go to great lengths to provide customised solutions to suit their clients' requirements.





## H2O RX

**H2O Rx** is now distributing KemKey Foolproof Safety Tanker Couplings.

One of the most common incidents that can happen with potentially disastrous consequences involving chemical storage and handling is the inadvertent filling of a tank with the incorrect chemical. Not only does this cause process problems, but it can also be dangerous if the chemicals react.

Attempts have been made to prevent these incidents by separating tanker fill points, locking away the fill connections, and having operators present at the time of chemical transfer. These however all do still carry a risk of human error.

Hazard prevention relies heavily on engineering controls to prevent incidents.

KemKey couplings instead of standard camlocks provide an engineered prevention of inadvertent connections and the resulting potentially disastrous situations.

KemKey safety couplings use different colours and stencilling to inform users as to what chemical is in any given tank. Based on the colour of the fittings, from a distance anyone can tell the general class of chemical located in each tank. Each colour has a definite shape associated with it. The shapes assure that no matter how hard someone tries, they cannot connect an incorrect hose to a tank and make a chemical transfer thus preventing industrial accidents.

Different connectors simply will not fit.

Importantly they make tanker drivers' jobs easier and safer.

With a range of at least 7 colours and shapes, and available in Polypropylene and PVDF, these couplings will make your tank farm safer by reducing risk of inadvertent mixing of chemicals.

Without KemKey Couplings, accidents can happen! Check out the following links: <https://youtu.be/Tfilm9mttAAI> and <https://youtu.be/MCEErm18T2k>

Contact **Maria Silk Young** (0409) 784-236  
[maria@h2orx.com.au](mailto:maria@h2orx.com.au)

or **Scott Young** (0421) 795-353  
[scott@h2orx.com.au](mailto:scott@h2orx.com.au) for more information



## CSIRO NEWS



### Six reasons you should care about El Niño

Last month the Bureau of Meteorology (BOM) raised their El Niño-Southern Oscillation (ENSO) Outlook to El Niño WATCH meaning that the likelihood of El Niño forming this spring has increased from approximately 25% to 50%.

El Niño is part of a natural, erratic fluctuation in weather called the El Niño-Southern Oscillation, or ENSO. ENSO also has a La Niña phase and a neutral phase. Put simply, ENSO is a series of natural, temporary changes in the climate. The main changes during El Niño include weakening of the trade winds that blow from east to west over the tropical Pacific Ocean, and warming of the water in the east side of the Pacific Ocean near the Americas.

#### Why should we care?

El Niño is a big deal to Australians because the cooler ocean temperatures also lead to less evaporation, less condensation, and, ultimately, less rain over eastern, and parts of northern Australia, the impacts of which can be severe and wide reaching.

BOM scientists advise that predicting and monitoring El Niño, is really important in Australia as the associated climate conditions can have serious impacts on agriculture and food security, public health, water resource management, energy production, and disaster management. Its potential impacts are much more significant than simply a bit less rain.

#### Six key impacts of El Niño

##### 1. Less rain = expensive fruit, vegetables and meat

Nine of the ten driest winter to spring periods on record for eastern Australia occurred during El Niño years, and four of the Murray-Darling Basin's severest droughts were associated with El Niño. The pressure droughts put on our farmers can lead to significant increases in the price of fresh foods.

##### 2. Warmer days = health impacts

Warmer than average temperatures tend to accompany El Niño years, particularly across southern Australia. Heat extremes are more common, as are multi-day warm spells. Hot days can increase the risk of heatstroke and dehydration, particularly in the elderly and children.

##### 3. Cooler nights = more frosts

Interestingly, decreased cloud cover often leads to cooler night time temperatures during El Niño, which leads to more frosts during winter and spring. Apart from a chilly start to your morning, spring-time frosts can also have significant impacts on agriculture.

##### 4. Less cyclones = less damage

One good thing about El Niño is that there are generally fewer tropical cyclones in Australia. This means less damage from the accompanying strong winds, high seas and heavy rains.

##### 5. Less snow (but better snow-making)

With less rain it makes sense that there is also less snow during El Niño. But skiers needn't despair too much; the cold nights and lack of rain mean that any snow that does fall hangs around longer, and means excellent snow-making conditions.

##### 6. High fire danger = more bushfires

Unsurprisingly, less rain and hotter days throughout winter and spring mean high fire danger in summer, which in turn leads to an increased risk of bushfires. And we all know of the devastating impacts bushfires have on those living in affected areas.

El Niño will likely bring more frosts and less snow but the snow we do get will hang around.

Adapted from **CSIROscope** by Fiona Brown, 26 July 2018

## 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:

Michael Clare, Wayne Mills, Liam Bradford, Glenn Twite, Ben Freeman, Rohan Campbell, Ian McGregor, Emily Hyde, Lynette Adams, Paul Stainsby, Maseina Koneferenisi, Alison Crombie, Rhys Oates, Zachary Dobbins, Steven Hall, Andries Erasmus, Susan O'Sullivan, Jason Lindsay, Craig Flavel, Pierce Starkie-Jardine, Adele Mellon, Leigh Hunter, Timothy Heley, Steve Jeffs, Alex Cozzoli, Christopher Tilbrook & Daniel Squire.

New **Corporate Members** include:

HydroTech Group, Nowchem, Alpha Electrics, Sewer Maintenance Shaft, Palintest Australia, CSE Uniserve & Combined Communications.

## QLD CHARITY RAFFLE

Since 1999, WIOA has actively raised funds from a variety of activities including golf and bowls days, raffles and the sale of hats to name a few. Through the generosity of our Members, supporters and sponsors, to date over \$116,000 has been donated to worthy charities from right around Australia.

At the recent Queensland conference, Ian Cuthbertson's name was drawn out of the hat as the winner of the charity raffle and he was a very excited winner.



QLD Charity raffle winner Ian Cuthbertson is a happy chappy

## THE LIGHTER SIDE



## COMING EVENTS

2018

- 5 September **Ixom 2018 Victorian Best Tasting Tap Water Competition**, Bendigo
- 5 & 6 September **81st WIOA Victorian Water Industry Operations Conference & Exhibition**, Bendigo
- 5 & 6 Sept **qldwater Annual Forum**, Gold Coast
- 17 Sept **WIOA Talks Webinar – War on Waste: Biosolids and residuals beneficial use**, Online
- 12 October **FNQ Operations Interest Day** and optional Barefoot Bowls, Cairns
- 17 October **Ixom 2018 Australia's Best Tasting Tap Water Grand Final**, Toowoomba
- 21 October **20th Annual Victorian Charity Golf Day**, Garfield Golf Club
- 24 October **Water Industry Safety Event (WISE)**, Coburg, Victoria
- 30 October **Water Interest Day** in conjunction with CENTROC, Parkes, NSW

## 2018 Committee

### President

**Adrian Rijnbeek**  
Mob 0419 698 367

### Vice President

**Heidi Josipovic**  
Mob 0429 701 237

### Managing Director

**George Wall**  
Ph (03) 5821 6744  
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**Lindsay Walsh** Mob 0427 105 421  
Chairman NSW Advisory Committee

**Colin Haynes** Mob 0419 763 054  
Chairman Queensland Advisory Committee

**Robran Cock** Mob 0407 226 130  
Chairman South Australia Advisory Committee

**Mark Abela** Mob 0448 485 238  
Chairman Tasmanian Advisory Committee

**Anthony Evans** Mob 0419 103 885  
Chairman Victorian Advisory Committee

**Ryan McGowan** Mob 0440 055 508

**Simon Page** Mob 0447 058 377

**Mark Samblebe** Mob 0400 126 141

**Sally Taylor** Mob 0409 307 554

**Glenn Alford** Mob 0423 622 146

## NEXT EDITION

**Article Contribution Deadline for the next edition is 8 October 2018**

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