

DIVERSITY & INCLUSION IN THE WATER INDUSTRY

2022 SA, WA AND NATIONAL TASTE TEST WINNERS

INAUGURAL
TASMANIAN MAIN
TAPPING
COMPETITION



FIGHTING CABOMBA
IN WATER BODIES

February 2023 The Water Industry Operators Association of Australia Magazine







From the EO's Desk - Dean Barnett

Welcome to 2023 and our first edition of Operator for the year.

As an introduction, I am Dean Barnett, WIOA's newly appointed Executive Officer as of January 2023. I have a passion for the water industry and have spent 30 years within a Victorian water corporation, and the last 8 years involved in supporting innovation, collaboration and the networking of ideas and solutions at Intelligent Water Networks. I have also been a member of the WIOA Network Operator Development Program committee since it began. I am a big believer in equality and value the opportunity to also be a part of WaterAble, which is a network of people with disability and their allies in the Victorian water industry.

Out of work, my family consist of my wife Narelle, daughter Tahlia, and our 2 Border Collie dogs Marlee and Bailee. My happy place is on the water boating, as I don't call it a fishing trip just in case I don't catch any. We also enjoy caravanning and exploring this amazing country that we live in. I am a Western Bulldogs supporter and enjoy going and watching a few games. I also believe in giving back and do so via a few volunteering roles that I have.

For me, WIOA has the same values and motivations nationally, which made it an easy decision to join this enthusiastic and motivated team, which includes our staff, board, volunteers, state and general committees.

WIOA works very close with our members and has a range of individual development opportunities which range from WIOA committee involvement, event support, public speaking, and industry articles in our WIOA publications.

One of my first tasks with WIOA is to reach out to the Members through a survey to gain your thoughts on what we currently do and to seek ideas for any other opportunities to support our members. There will be two separate surveys, one for the individual members and one for the Corporate



members. They will only take a few minutes to complete, and we hope that you will support them once they are circulated.

I would also like to introduce an exciting new initiative, the Australian Water Industry Operator Exchange Program 2023, a collaboration between WIOA, WSAA and Peter Mosse. This will create the opportunity for operators to spend time at another organisation to share learnings and collect ideas to take back to their organisation. Expressions of Interest close 31 March 2023 and to find out more, please contact us at info@wioa.org.au

Until next time.

Dean Barnett
WIOA Executive Officer

February 2023

Cover Glenn Lewindon from Viega Presenting at the Networks Interest Day held in Albury in November 2022

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Managing Editor George Wall

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Member Profile - Ivan Wild

Water Treatment Coordinator

Position Water Treatment Coordinator

Employer GWMWater

Nickname With red hair I have too many to write

Favourite Team The Mighty Hawks

Pets One dog called Moppy

Favourite food Lasagne

Least favourite food Pumpkin

Favourite TV show Anything to do with sports

Worst TV show Married at First Sight

Favourite Movie A Knight's Tale

Favourite Musical artist/s Bob Marley

Ambition To live long enough to retire then become a full-time fisherman

Hobbies Playing pool and fishing

Best Trait My friendly nature

Worst Trait Can have a short fuse when I don't get listened to

Who do you admire? Eddy O

Favourite saying I am going to have a scratch in the kitty litter

Four people you would invite to dinner

My four sons because we have not had a really good session for a long time, with children being born and Covid, also 3 of them living interstate makes time together very hard to impossible.

How long have you been a WIOA member? Have been a member for around thirty years.

Your involvement with WIOA, what contributions are you hoping to be able to make? Love attending the WIOA conferences and finding new innovation then taking it back to GWMWater hopefully to implementing into our WTPs for a better running plant.

How long have you worked in the water industry and what attracted you to it? Have been around for 33 years, starting with the St Arnaud council / water board. I was not trying to get into the water industry as it was just a job at the time but as years went by and the water treatment plants where getting built my interest and passion for the job intensified.

What do you enjoy most about your job? Training new staff, finding new innovation to implement in to the plants and the interaction with my work mates.



What are the major challenges in your current role? Vast changes in the water quality especially with the plants supplied by the Murray river water. Trying to keep a small team happy with standby on call rosters and working over the Christmas period.

Thoughts on the water industry at the moment We seam to a have a lack of trained water treatment plant operators that want to work in the bush. We don't have enough training providers.

How do you relax? Fishing, just sitting in my boat, listening to the radio having a refreshment just waiting to catch the big one.

Where do you live and what's the best thing about it? Living in Kerang for the past year and a half I am close to my youngest son and three of my grand kids and only 20 minutes to the Murray River being Barham and Murrabit.



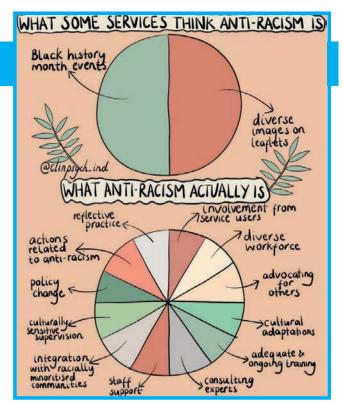
Ivan at Barham with a 98cm Murray Cod

D&I in the Water Industry

Diversity and inclusion (D&I) in the water industry is an area that has experienced significant development, both in terms of the groups we are aware of who need to be considered as part of D&I, and what that involves. As an example, D&I for women in the mid-20th Century focused on issues such as women not being dismissed when they marry, to now have parental leave for all parents and monitoring whether D&I has been achieved.

That leave for all parents is also a good lead in to the topic of how D&I benefits others, not only those directly being focused on. In fact, there has been growing evidence of the broader business benefits of D&I - but those benefits require proper action to realise the benefits.

A recent diagram published on LinkedIn (from Instagram at @clinpsych_ind) illustrates the nuanced extent of actions that is involved in implementing professional-level approaches to D&I. As can be seen, good D&I extends beyond tokenistic measures to implementing information gathering and management, change management, teamwork, and personal responsibility. as with all change, it takes time, effort and care to implement effectively. WIOA has been working on D&I for several years now, which began with senior level commitment to change, and is now being driven by key staff and a Diversity and Inclusion Group.



One of our upcoming activities is a webinar scheduled for 27 April 2023. This webinar will be focused on the VicWater organisation WaterAble, which promotes awareness of, and ways to include and benefit from, people with various disabilities. Please join us to continue the discussion about how WIOA can continue to be a safe and inclusive organisation for everyone.

Contributed by Kayleen White, SMEC Engineer, and WIOA Director

A little bit of Dartmouth Dam History

My dad's family the Walsh's and the Petersons owned the land that Dartmouth dam was built on.

In 1972, the three states Victoria, NSW, South Australia and the Commonwealth ratified an agreement to construct Dartmouth Dam. To build the dam, the State Rivers and Water Supply Commission had to acquire the land, which was referred to as the 8 mile and the 6 mile. My father's home was in the 8 mile. This was at the junction of the Dartmouth and Mitta Mitta rivers.

In 1973, I was 10 years old and dad took us in to the 8 mile for the last time, before the land was flooded. He told us the stories of where he grew up, trapped rabbits, hand milked cows and mined for gold. The only remains were a few bricks where the family's 13 children grew up and the old barn where they used to make the moonshine.

The dam was constructed from 1973 until 1979 and with a capacity of 4 million megalitres, holds 7.5 times the volume of Sydney Harbor. The prime purpose of the dam is to supplement releases from Lake Hume to

increase supplies to the Murray river system in dry seasons. The dam wall was the largest earth rock wall in the southern hemisphere, is 180 meters high and consists of 10.5 million cubic meters rock and clay.

The dam was never to spill as the catchment



Peter & Jo's grandchildren Brax and Ayla at Dartmouth in 2022

was small. But it has spilled 12 years after it was built in 1990, and then again in 1992, 1993, 1996 and the latest in 2022 which was an amazing sight. It was great to take the grandkids there and tell them the same stories that my father told me all those years ago.

Contributed by Jo and Peter Tolsher

FNQ Interest & Charity Bowls Day 2022

It was great to participate in the annual FNQ Interest day followed by the optional TRILITY Charity Bowls afternoon in Cairns on Friday 7 October 2022.

All up, over 50 water and wastewater staff from FNQ Councils and Corporate members attended the technical information presentations in the morning. A total of 36 stayed on for the optional charity bowls afternoon which was a great opportunity to meet and network with each other. The opportunity for the Far North Community to get together again face-to-face was really appreciated.



FNQ Interest Day - delegates

The Keynote address was delivered by Tim Merrett (North Burnett RC) and covered the cleaning of scale from inside the supply pipes in the treated water reservoir.

There were a number of presentations by the local councils and organisations. John Bishop provided an overview of the Cairns Freshwater Creek alum dose adjustment project. Morris Hammill from Mareeba SC talked about the refurbishment of the Granite Creek SPS and Lachlan McCulloch did an excellent presentation about the indigenous WASH program that the team from Queensland Health are running in the indigenous Councils.



Craig Hanran from Cook SC talked about issues that flooding have had on the raw water and the steps they have taken to treat it to a suitable standard. Douglas Shire

Council was represented by Peter White, who presented an informative paper on finding a membrane that works. Mark Gwynne from Cairns RC talked about their sewer pump station monitoring, reporting and other issues.

Finally it was great to meet Jess Dean from qldwater who provided an update on the Operator Programs supported by the Queensland Water Regional Alliance Program (QWRAP) elsewhere in the State.

The technical side of the day was sponsored by Cairns Regional Council, Water Treatment Services and Reece Civil plus Viadux. After a very tasty lunch and "networking" with fellow colleagues and suppliers, we headed out for the running of the FNQ Water Main Tapping competition.



FNQ - tapping comp under way

Brian Boldiston from Cairns Regional Council was the head judge and MC and provided a turn by turn description of the competition. Reece Civil and Viadux supplied all the tools and equipment and were onsite to ensure everything was used correctly.

The winners in 2022 were again the Cairns Regional Council team of Jay Singleton and David Moran.

The final part of the day was the Charity Bowls afternoon sponsored by TRILITY along with Amiad Water Systems, Aguatec Maxcon, Coogee, Endress + Hauser, Hach, McBerns, Professional Pump Services and Irrigation, ProMinent, Remtron, Royce Water Technologies and Xylem. This was also a time to have a chance to talk to fellow staff from other Councils and all the suppliers. All in all, an enjoyable afternoon was had by all who participated.

The winners of the Tradies cup was the team representing Hach of Anand Raj, Shane Bandiera from Cassowary Coast RC and Jay Singleton from Cairns RC.

The winner of long bowl across the green was Matt Reusch from TRILITY.

FNQ Bowls - getting it close

Each year WIOA rotates the responsibility for nominating a charity to receive the proceeds from the bowls afternoon and this year it was Cassowary Coast Regional Council's turn. The cheque for \$2,400 was allocated to the Cassowary Coast Paws and Claws.



Thanks to all the sponsors for their involvement and everyone at WIOA for the effort in putting this great event together.

Thanks to Cairns RC and Reece & Viadux for setting up the water main tapping competition, one of the highlights of the day. I would also like to thank John Bishop (Cairns RC), Simon Page (Cassowary Coast RC), the presenters and all who participated. Without you, there wouldn't be a FNQ Interest Day.

Contributed by **Shane Bandiera**, Cassowary Coast Regional Council

The grass is greener at Snake Valley Golf Club

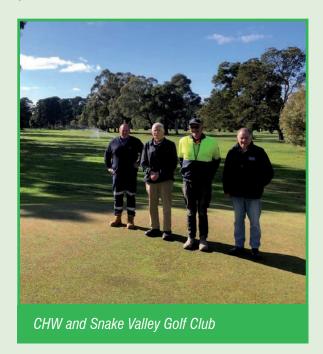
Central Highlands Water (CHW) continues to support healthy, active lifestyles by providing recycled water to sustainably irrigate and green sporting facilities and important community assets year-round, like Snake Valley Golf Club.

CHW's Managing Director, Jeff Haydon said, "We are committed to continuing to support community assets with recycled water into the future."

The President of Snake Valley Golf Club, Mr Terry Clark said, "Before Central Highlands Water began supplying us with recycled water, we would close each summer, because the course was so dry."

"This project has made a significant difference to our club. Without this water, we wouldn't have survived. Our greens have gone from brown to green," said Neil Clifford, Vice President of Snake Valley Golf Club.

"Where there was once synthetic grass and sand scrapes, there is now year-round green tees and greens," Mr Clifford said.



This sustainable project utilises Snake Valley residents' hybrid septic systems as the initial source. Liquid waste is now taken off the top of septic tanks and sent to the lagoon-based treatment system next to the golf course. This water is then treated to Class C recycled water standard and then used to irrigate the course.

FNQ Charity, Cassowary Coast Paws & Claws

Cassowary Coast Regional Council nominated Paws and Claws to receive the \$2,400 donation, the proceeds from the 2022 FNQ Charity Bowls day. WIOA received a lovely thank you email with some of the content noted below.

Good morning WIOA,

The managers, committee and volunteers would like to thank you for your generous donation. At Paws and Claws the staff and volunteers welcome cats and dogs from all walks of life. Unfortunately, we do get animals that have been abused or abandoned.

For example, a female wolfhound and her 12 puppies were left abandoned in a house in Mission Beach. When they were found 2 puppies had died and the mother was not in a good way, although she continued to nurse her babies. They were instantly taken to the vet. The mother needed surgery to remove the placenta as it hadn't come away after birth. She also required fluids and antibiotics as she had an infection. With the care and attention of the staff and volunteers the mother and her babies were all successfully rehabilitated and rehomed.

We have also had a cat brought in where the previous owner had put his cigarettes out on the cat's nose.

Again, after the care and attention he found a loving forever home.

A lot of people have no idea what we do here at Paws and Claws. We have to



to staff from Paws & Claws

gain the trust of these animals. Give them the time and attention to regain their strength and health so they can be rehomed. We have help from amazing volunteers and disability groups. They come in and donate their time so these animals get the best chance in life.

They also get a lot out of it too. Especially people with disabilities where they get unconditional love from the animals. We have seen a number of people with anxiety, depression or just social isolation blossom into confident, fun loving people.

Before our animals go to their forever home they are vet checked, vaccinated, microchipped and desexed. Without generous donations from organisations like yours and the generous support from members of the community we wouldn't be able to provide the service we do.

Regards

Caroline Mason (Assistant Manager)

TRILITY has your training needs covered

Industry professionals delivering industry-based training services



Our rich history in operating, maintaining, and servicing water and wastewater assets across Australia and New Zealand has led us to enter the 'industry knowledge-based training' market - and why we are working toward establishing ourselves as a Registered Training Organisation.

It is with much anticipation that in 2023, we commence our Training Services. We intend to deliver Certificates II, III and IV in Water Industry Operations across Australia excluding Western Australia.

Our team of highly skilled industry professionals who will be providing our training services, will be supported by comprehensive training materials and online support resources. We offer a range of in-person and online courses to ensure we meet the educational needs of our sector.

To ensure you receive updates from our Training Services Division, and to register your interest in courses under the National Water Training Package for 2023, email us at training@trility.com.au



Tassie Operators at Bendigo

For the first time, TasWater supported the attendance of 10 operators at the Bendigo conference in June 2022. Led by the Chair of WIOA's Tasmanian Advisory Committee, Stephen Westgate, the group certainly got into the spirit of the event and participated fully. A team narrowly missed out taking out the main tapping competition and Brielle Gray, also a member of the WIOA Advisory Committee was a gust judge in the Ixom Best Tasting Tap Water grand final.

Apart from meeting new people from interstate, the operators had the chance to meet one another and learn more about what happens within Tasmania.



Some thoughts about the event from the attendees are as follows.

Graham Boxhall - Coordinator Waste Water East

"I found that it was a great networking opportunity to catch up with companies and also look at new technology that is available in the water industry."

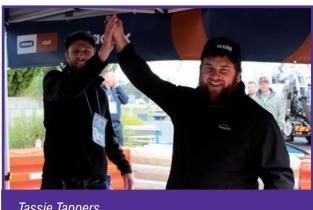
"Whilst at the conference I took the opportunity to discuss a foaming issue we currently have at Rosny STP with SNF. SNF happened to be in the state the following week and made an appointment to come to Rosny and check out the issue".

Trent Turner - (Acting Senior Operator)

"It was a fantastic trip to be able to talk face to face with people you speak to on the phone. We got to see new technology that's coming through on the market that we would not normally know about. We also saw what other corps do in different aspects of pump stations and treatment plants"

Jamie Brown – Water Service Operator Trainee

"As a water service operator we face lots of problems, being able to go over to Bendigo with others from other companies was really beneficial for me. One of the most beneficial and exciting things for me was seeing the brands of equipment and devices that we use and talking to people about them and learning about other options.



Tassie Tappers

One thing I found really interesting was a sewer pump company that had a pump the same as ours that we use in our sewer pump stations, this company had the pump cut in half and talked me through all the insides all the specs.

I also really enjoyed meeting new people within TasWater and having conversations about similar problems, it was good to put a face to a name. Overall it was a great experience and it was really beneficial for me. I am very thankful for the great opportunity to go to the conference and I would love the opportunity to go to more of these and get involved in more things like this"

Brielle Gray – Water Operator North West

"I found the WIOA conference a highly beneficial event. Learning new and improved ways of doing things was great. Being able to watch case studies sparks new found interest in multiple aspects of our roles within the water industry.

I also had the privilege of attending a breakfast for women in the industry. This was incredible to see the diversity and how far forward the water industry has come. I loved meeting other like minded women that paved the way for myself and many others. TasWater could benefit immensely sending a team of people, not limited to service delivery".

Clint Brown - Treatment Plant & Distribution Operator WWW

"The opportunity to put some faces to names and also to meet new people and create some networks with organisations around Australia was beyond valuable. I got a chance to discuss some issues we have in our area with people that could show me first hand other options available to us and possible new equipment that is now available that would benefit our operations.

Well worth the trip as I now have many more avenues I can contact to help solve any problems that I may need help to deal with or for resources I need to acquire".

Vale Graham Thomson

We were all saddened to learn of the sudden passing of Graham Thomson in December 2022.

Thommo was a long standing Member of WIOA and he did a mountain of work through the 1990's and early 2000's. An IDIOTS member, former Committee Member, Kwatye Award winner and great supporter of WIOA, he was one of those really nice people. The number of people who attended his funeral service was testament to the respect that everyone held for Thommo.

Having retired from Barwon Water a few years ago he had turned his hand to training, working with the team at Water Training Australia. With boss Mike Rankin overseas but watching online, Nev Whittaker spoke from the heart about the connection Thommo made with the WTA team and most importantly, all the students that he was passing his knowledge on to.

Thommo also had an occasional role with the NODP Committee and rarely missed the opportunity to come along to the Bendigo conference and catch up with everyone. He looked forward to seeing where the Association was heading and having a chat with us all.

We knew of his passion for sailing, this was the topic of his IDIOTS induction. We also knew that he was involved in Rotary. It was nice to hear of how he had also made his mark in the service of the community with Rotary, and the appreciation, love and respect that had grown as a result of his substantial efforts.



Graham Thomson

Always calm and thoughtful, I don't think he had a mean bone in his body. I can't recall him ever having a bad word to say about anyone. We lost one of the world's true gentlemen, with Thommo's passing.

Our condolences are extended to Graham's family at this sad time, along with his extended water industry family, everyone who was lucky enough to have known or worked with him.

Contributed by George Wall, WIOA MD

Mackay Water Crowned Qld's Top Drop Again!

Attendees at the Queensland Water Directorate's annual forum sniffed, swirled, sipped and scored nine water samples in a blind taste-off event over lunch at the Kurrawa Surf Club as part of the Best of the Best Queensland Water Taste Test. They selected Mackay Regional Council's Nebo Road sample as the best tasting water in Queensland in 2022.

This was Mackay's first win for the Nebo Road Water Treatment Plant but fourth win overall with water previously from the Marian Water Treatment Plant taking the crown in 2018, 2019 and 2021. Other accolades for Mackay include winning the Water of Origin at the WIOA Conference in June 2022, the National Ixom Best Tasting Tap Water competition in 2019 and 2020 and winning silver at the 2020 International Water Tasting Competition in Berkeley Springs, USA.

Emma Fisher from Mackay Regional Council accepted the trophy on behalf of the Mackay water team. Emma said the win showed Mackay locals just how high quality the tap water was, thanking



Emma receiving the award on behalf of Mackay RC

the "unsung heroes" at the Nebo Road treatment plant for their tireless efforts in providing safe, reliable water all year-round.

The winning sample is sourced from the Pioneer River and undergoes conventional treatment before being distributed to households and businesses in Mackay.

New South Wales Operations Interest Day – Albury City Council

The WIOA New South Wales Advisory Committee delivered another successful Operations Interest Day that was hosted at Albury City Council in November 2022.



WIOA Committee Member Jill Busch kicking the day off

The main theme of the day was around topics related to Network operations issues.

Over the course of the day, we had 34 people in attendance from across the state.

The Operations Interest Day was designed to promote networking between organisations, share different work processes and show case new technology.

This consisted of some key topics being safe excavations, infiltration and inflow within sewer networks, conducting water quality risk assessments for water main break repairs and recommissioning, options for pipe cutting greater than 300mm, conducting small sewer patching in house, new technologies for crimping different types of pipes, a showcase of Albury City Projects and a demonstration of a chlorine dosing trailer.



Jamie Reed from plumBOSS doing a cutting demo

We would like to acknowledge the support from Albury City Council, Goulburn Valley Water, Mott Macdonald, plumBoss, Viega, Thermo Fisher, Reece Civil for supporting this valuable day.



Jackson Wright and Bailey Anderson doing a pipe repair demo

If you are interested in holding a Special Interest Day in your state, please contact your WIOA State Advisory Committee Chair or WIOA directly at info@wioa.org.au

Contributed by **Jill Busch** – AlburyCity and WIOA Committee Member

Belated Trophy Presentation

TasWater, TRILITY and the team at the Rossarden WTP won the Gold Medal for Best Municipal Water at the 2021 Berkeley Springs International Water Taste Test



competition. The winner trophy was mailed to WIOA but with several COVID related restrictions, we were not able to meet face to face to pass the trophy on.

Fortunately, restrictions eased in 2022 and the trophy was presented by George Wall to Paul Sweet, TasWater Operations Centre Manager at the Interest Day in Spreyton.

The Lighter Side





BIRDS EYE VIEW - Facilities Members Operate

Winneke WTP

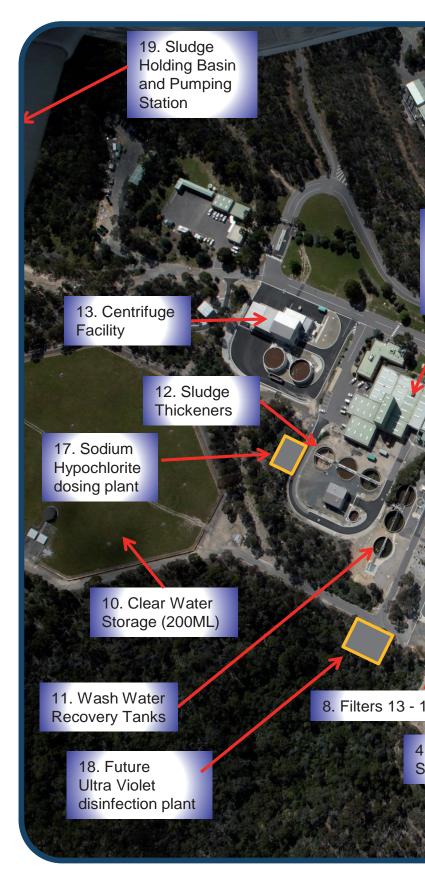
The Sugarloaf reservoir project – which included construction of the Yering Gorge Pumping Station and Winneke Water Treatment Plant – was completed in 1981. Sugarloaf reservoir is the fourth largest of Melbourne's storage reservoir with a capacity of 96,000 ML.

Most of Melbourne's water comes from protected catchments and requires minimal treatment. However, the water at Sugarloaf requires full treatment as it is collected from more open catchments downstream of farms and towns. It is also described as an off-stream reservoir as it has no natural inflow. Instead the Yering Gorge Pumping Station draws water from the Maroondah Reservoir via the Maroondah Aqueduct and the Yarra River, and pumps this in to the Sugarloaf Reservoir.

The Winneke Water Treatment Plant then draws water from the Sugarloaf Reservoir and can treat up to 560 ML/d, providing between 30 - 50% of Melbourne's daily water usage.

The raw water is processed through the Winneke Water Treatment Plant before delivery to the Preston Reservoir and other service reservoirs in the northern and western areas of metropolitan Melbourne. From here it is drawn into supply by the retail water companies.

As water from Sugarloaf reservoir receives full treatment prior to consumption, some recreational activities such as sail boating and fishing are permitted within the reservoir under certain conditions.





Tasmania Interest Day and Main Tapping Contest

Tasmania held an interest day on 23 February 2023 with the theme centred around network operations. Following the mornings speakers, Tasmania ran its inaugural mains tapping contest. Sponsored by Reece, Viadux and TasWater, teams came from across the state to show off their skills. There was even a team of contractors participating.

The day was a huge success with around 30 operators attending the mornings interest session. We welcomed 3 guest speakers from Reece, Zezt, and WIOA, covering sewer network innovation, pipe material selection and safe mains repair.



David Hughes from Zezt presenting

It was great to see people back in a room learning, networking and asking searching questions. The WIOA committee in Tassie would like to thank Keith Raufer from Reece, Dave Hughes from Zezt, and WIOA's George Wall for taking the time to deliver 3 great and informative presentations.



The Huon Hulks cheer squad

The morning events finished with a spot of lunch whilst the brand new Tasmania tapping rig was set up out the back of the building. The event was live streamed to all TasWater staff, and it was awesome that over 50 people joined us live, including the TasWater CEO, to watch the events unfold. We even had a cheer squad with their own banner supporting their favourite team. Anticipation was high and the value of a lot of behind the scenes practicing was about to be clear for all to see with no place to hide.

The competition was held with 6 teams over 3 timed heats with the eventual winners being the "Wild West Tappers" of Lynden Thurstan and Cameron Lusk from Queenstown in a respectable time of 2 mins and 8 seconds. They have now gone



The comp under way

into training mode ready to participate in Bendigo in late March, to test their skills on the big stage. The event also saw several failures due to a little too much enthusiasm with water spouting everywhere and broken equipment, which all added to the drama and excitement.

Thanks to our sponsor Reece & Viadux the guys will be donating \$1000 dollars along another \$500 with from **TasWater** the Cancer Council. Thanks also to all the TasWater staff who helped with the set up and staging of the day along with Brielle and helpers for making the very impressive trophy



that was presented to the winners.

A big thanks to the sponsors and WIOA for making this event a success.

the trophy

Look-alike

It was great to see John Park at the AWA Victoria Dinner, proudly wearing both the WIOA IDIOTS pin and the AWA service award. We couldn't resist the opportunity showcase the resemblance to comedian Gary McDonald, aka Norman Gunstone.



John Park



Gary McDonald

Rous County Council wins Team of the Year Award 2022



Congratulations to the Operators from Rous County Council who were named as the 2022 Team of the Year on the WIOA reconnects day in late 2022.

During February 2022 Lismore and its surrounds experienced unprecedented rainfall, flooding townships, destroying distribution systems, and creating near untreatable water sources.

Staff rallied together, worked around the clock for days on end, sleeping on-site to prevent loss of water that would have further damaged infrastructure and prolonged the recovery effort.

Many staff were isolated or stood down for safety reasons leaving remaining personnel to work together as one team with one purpose of supporting the region in the best way they knew how during a once in a lifetime, devastating event.

The entire staff pitched in to clean, relocate, and restock depots to new locations out of flood damage to continue business as normal and barely prevented the town from running out of water or being placed on boil water alerts which would have been both catastrophic and unactionable.

With source water quality well outside of plant operating capacity, many work arounds were implemented including direct filtration in a typically DAFF based set up using ozone/BAC filters and new operational control points to ensure that water quality remained in spec.



Rous County Council staff

Dose pumps were jerry rigged to pump higher capacities, batch strengths were altered to allow usable dose rates, constant jar testing and dose alterations were performed to allow best quality water to be produced under quickly changing circumstances. Many staff operated out of makeshift workspaces with minimal tools after the majority of the stock and main operational site was destroyed by floodwater. New workplaces were created off site in the months following and most staff worked well outside their normal duties to ensure business continuity.

The Rous County Council team wins the opportunity to select WIOA Practical Guides for their staff to the value of \$2,000 courtesy of award sponsor TRILITY.



Rous County Council staff

SA & WA Taste Test 2022

With COVID still impacting WIOA's ability to deliver face to face events in South Australia and Western Australia in late 2022, we decided to stage the Ixom Best Tasting Tap Water competitions as part of an online webinar in late October.

Water suppliers were invited to send a sample of their finest drops across to the WIOA office in Shepparton. The plan was to use the WIOA staff and the Committee and Board members located in Northern Victoria as the independent judges and the date for the testing was set.



SA and WA Taste Test

Then came the rain. Like much of the north of Victoria, Shepparton was drenched and experienced near record flood levels. Fearing the worst, WIOA MD George took all the samples to his home and started working on Plan B.

Both access roads in and out of his housing estate were completely flooded, so no one was getting in or out for several days. With the assistance of a couple Goulburn Valley Water staff who also live in the same estate, a few phone calls later provided a rent-a-crowd of neighbours and interested onlookers ready to help with the judging. The samples were all laid out in George's front yard and everyone helped to sort out the finalists and the eventual winners.

The grand finalists for South Australia were from Loxton, Renmark and Murray Bridge. The winner for 2022 was from Murray Bridge.

The grand finalists for Western Australia were from Busselton, Pemberton and Wyndham. The winner for 2022 was from Wyndham. Congratulations to everyone for participating and well done to the winners.

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per quarter.)



COURSES OFFERED IN THIS PROGRAM: NWP30219-NWP30222 Certificate III in Water Industry Operations (Treatment) NWP30219-NWP30222 Certificate III in Water Industry Operations (Network)



Simmonds & Bristow The Regional and Remote Water Specialist

RTO 1735 ABN 33 010 252 418

Ixom Best Tasting Tap Water in Australia 2022

The grand final of the 2022 Ixom Best Tasting Tap Water in Australia competition was held in Casino, NSW on Saturday 12 November 2022.



Ixom Grand Final samples

The event was hosted by the 2021 national winners, Richmond Valley Council, at the Primex Field Days. This very large event provided the perfect location not only to involve the public in tasting the best water from around the country, but also to share the message about what a fantastic job our water industry operators do in servicing our communities and providing safe drinking water on a 24/7 basis.

The operators have had to deal with a lot lately, particularly those on the eastern side of the country. We have had huge fires in 3 states in 2020, then COVID, followed by some



Judging under way

massive floods in 2022 and into 2023. Through all this, the operators have been there every day, keeping our systems operational, and looking after our communities in very trying circumstances. We really can't praise or thank them enough for what they do.

Sharon Davidson from Richmond Valley Council did an amazing job helping us to set up for the event and helping to make it run so smoothly on the day. WIOA was also fortunate to have help from some of the participants with Mark Chilinski from Melbourne Water, Andrew McVey from Shoalhaven Water, Tony Grueber from TasWater and Leah Tomasi from Ixom. WIOA would like to acknowledge Ixom's ongoing support of the Best Tasting Tap Water competition.

With the Mayor and Deputy Mayor of Richmond Valley Council coming along, a total of 260 field day attendees participated by tasting each of the six entries.

Our congratulations are extended to all the finalists in:

- NSW/ACT Bamarang WTP Shoalhaven Water
- Queensland Nebo Road WTP Mackay RC
- South Australia Murray Bridge WTP- TRILITY
- Tasmania Fern Tree WTP TasWater
- Western Australia Wyndham WTP Water Corporation
- Victoria Cresswell WTP Melbourne Water

As with every final, there can only be one winner. Well done to the team from Melbourne Water who were declared the winner on the day. A media flurry followed with radio interviews on ABC Melbourne and 3AW, all very keen to point out what they believed to be true anyway - that Melbourne does have the best water in the Country. The Victorian Premier, Dan Andrews also chimed in with a Facebook congratulating post Melbourne Water. This was interesting given that there



Dan Andrews FB Post

was a media embargo under way, given that the Victorian State election was the following weekend.

The Melbourne Water sample was also submitted as Australia's representative in the International Water Taste Test competition in Berkeley Springs in the USA on 25 February 2023. Unfortunately, unlike Rossarden in 2021, they failed to finish in the top five in the Municipal Water category. Better luck to the winner from 2023, which will be decided at an event to be hosted by Melbourne Water in November 2023.



Winning team from Melbourne Water

Operator Exchange Program



WIOA in partnership with the Water Services Association of Australia (WSAA), are collaborating with a new initiative being the first Australian Water Industry Operator Exchange Program.

The aim of the Operator Exchange Program is to provide selected operators with an opportunity for development outside of their direct employment. This is to be achieved by spending time at another organisation's water treatment plant, wastewater treatment plant, or field services depot.

The participating operator can share experiences with processes, monitoring, technologies, equipment used and then take those learnings back to their organisation for consideration and discussion.

How Would the Exchange Work

The exchange does not have to be reciprocal and can be an operator from one organisation visiting another organisation's facility for one week. Participating organisations will need to support the program and their employee's expenses i.e. accommodation, travel and any out-of-pocket expenses.

WIOA will provide a co-ordination role, and the opportunity to share employee learnings and development with the broader water industry and other participating organisations. WIOA will arrange an introductory meeting between the participant and the participating organisation prior to the exchange taking place.

WSAA will promote the Program and assist with facilitating collaboration and identification of leading practice.

How to Nominate

The first step in the process is for your organisation to express an intent to participate in the Program. Simply email us at info@wioa.org.au with the subject of Australian Operator Exchange Program to nominate your organisation and also to provide the details (name, title, email address and mobile number) of a high level contact for further development of the Program and communication with your organisation. First round Expressions of Interest close 31 March 2023.

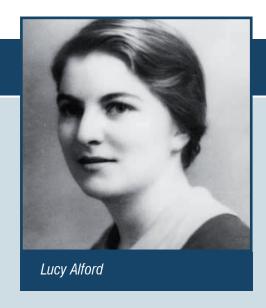
Women in Water

March is #WomensHistoryMonth. It's the perfect occasion to share the impressive story of bacteriologist Lucey Alford, from Melbourne's very own Scienceworks Pumping Station.

Lucey was the first woman employed in a technical role by the Melbourne Metropolitan Board of Works, which provided water supply, sewerage and sewage treatment to the city. She and her two female assistants were the only three women who worked there before it closed in 1965.

After Lucey became head of a new section at the Pumping Station, she embarked on a working holiday overseas, including two months at the Metropolitan Water Board in London and laboratories in the US. She came back to Melbourne with knowledge of new innovations in microbiology and water treatment.

Here's to all of the women like Lucey who've faced challenges and seized opportunities in the world of STEM!



Sourced from the Museums Victoria Facebook Page.

https://m.facebook.com/story.php?story_fbid=pfbid0Z JwPQoHddDkaFK1dBzm55X4nTALWWhZh3Suvboq1BL 5GkuiLRPcZVEDgHmxG4F35I&id=100064839546608 &mibextid=qC1gEa

New biological control released against invasive Cabomba weed

Australia's national science agency, CSIRO, and one of the nation's largest water companies Seqwater, are using a tiny defender – a weevil smaller than a grain of rice – to help stop an exotic weed spreading through Australia's waterways.

Cabomba
(Cabomba
caroliniana)
is a fastspreading
aquatic weed
from South
America
and unless



addressed, could take over many of Australia's waterways.

After years of rigorous research in South America and Australia, scientists have released Cabomba's ancient enemy, the Cabomba weevil (Hydrotimetes natans), into Lake Kurwongbah, a water asset managed by Seqwater, north of Brisbane. This is the first release of a biocontrol agent against cabomba anywhere in the world.

CSIRO scientist Kumaran Nagalingam said Cabomba was originally introduced to Australia in 1967 as an aquarium plant and has since spread along the east coast of Australia from Cairns to Melbourne.

"Cabomba grows up to 5cm a day, strangling native ecosystems, choking waterways and impacting native aquatic animal and plant populations," Dr Nagalingam said.

"We also know that platypus numbers are lower in Cabomba-infested creeks compared to those un-infested in northern Queensland. "Our research in South America shows that the cabomba weevil spends its entire life feeding only on cabomba and extensive research in Australian quarantine has confirmed the cabomba weevil is not a risk to native plant species," he said.

The cabomba weevil was tested on 17 Australian plant species closely related to Cabomba as the most likely plants to be a potential food source for the weevil. Native plant species were offered to three generations of weevils to eat for their entire life cycle. The weevils ignored the Australian plants, feeding only on Cabomba.

Seqwater Senior Research Scientist David Roberts recalls the long hard road to get to this point.

"It has been 19 years since Seqwater supported the first efforts to find a biocontrol agent for Cabomba in its home country of Argentina. It is great to finally see a



successful control agent that is ready for use in southeast Queensland to halt the ongoing spread of this costly weed," Dr Roberts said.

"Cabomba forms dense clumps that reduce light and water quality. The weed is so thick it makes recreational activities such as swimming, fishing and canoeing both difficult and dangerous. "The weed also reduces the water holding capacity of dams and significantly adds to the cost of treating drinking water," he said.

In line with Department of Agriculture, Fisheries and Forestry protocols, every Cabomba weevil was inspected for hitchhikers in the form of parasites or pathogens before leaving quarantine. The weevils were then massreared in glasshouses so there are enough of them for a successful field release.

Seqwater, in consultation with CSIRO, has constructed a purpose-built weevil nursery near Lake Kurwongbah. Here, more weevils are being reared in preparation for future releases of this promising biocontrol agent across other South East Queensland lakes with Cabomba weed infestations.

Biological control is a sustainable, effective and relatively cheap method to manage pests like Cabomba. Mechanical methods can be prohibitively expensive and only work in the short term, until the weed rapidly grows back. It costs Seqwater about \$170,000 a year to manually remove Cabomba from just three of its lakes.

Further releases of weevils are planned for Lake MacDonald, near Noosa. CSIRO is also investigating releases in central Queensland, northern NSW, and potentially the Northern Territory.

AgriFutures Australia led projects which formed part of this research: 'Biocontrol solutions for sustainable management of weed impacts to agricultural profitability' (2016-2020) and 'Underpinning agricultural productivity and biosecurity by weed biological control' (2019-2022). This project is funded by the Australian Government Department of Agriculture, Fisheries and Forestry, under the Rural R&D for Profit program with co-investment from Seqwater. We also acknowledge the collaborative support from the aquatic weeds team from the Queensland Department of Agriculture and Fisheries.

For further information please contact:



www.seqwater.com.au

The mental health continuum



It can be hard to talk about mental health. Maybe your family and friends feel uncomfortable talking about it. Maybe you don't know where to start or how it relates to you.

Beyond Blue has developed the mental health continuum to help you talk about social and emotional wellbeing. It will give you the words to describe how you're feeling, and to ask how others are feeling. It can also help you decide what steps to take to look after your mental health right now.

Healing

My moods have been more stable and I'm thinking more clearly. I'm starting to feel like myself again. I'm becoming aware of the therapies that are working for me and I will continue to use them.

Healthy

I feel stronger and more resilient. I have a better understanding of myself and am better equipped to handle stress moving forward. I know what coping strategies work for me, and I will use them alongside practising self-care.



Why a mental health continuum?

Our mental health can change gradually over time. We might start to feel unsettled, but move back to feeling healthy in a few days. Or we might move from feeling unsettled to really struggling. This is when we may need to seek professional support.

Many of us will experience a mental health crisis in our lives, but we don't stay in crisis. We'll move beyond the crisis into a period of healing and then another healthy period when we've recovered.

You may be healthy, unsettled, struggling, in crisis or healing, and you can move back and forth between these stages. Learn about what these stages look and feel like, and find actions and support options.

Healthy

I feel capable and confident in my ability to handle daily pressures. I am thinking clearly and am hopeful about the future. I will maintain my healthy routines and stay connected with loved ones.

Unsettled

I haven't been myself lately. I feel irritable and am having trouble concentrating. I'm not quite sure why I'm feeling the way I am.

Struggling

My mood swings have been more frequent. I feel distressed and a growing sense of hopelessness. I've been withdrawing from the things I normally like to do and the people I am close with.

I feel worthless and unable to control my negative thoughts. Daily tasks feel impossible. I need professional support immediately.

For more information, visit the Beyond Blue website at



https://www.beyondblue.org.au/mental-health/ what-is-mental-health

No Bugs here

Delegates at the 2022 WIOA conference in Bendigo were interested to a see a star wars style machine wandering around the expo puffing a steam like mist into the air. The unit was actually a BIOzolv robot generously provided by Dean Braden from ECA Australasia which helped



form part of WIOA's COVID response.

The BIOzolv machine creates a very dilute form of hypochlorous acid (hypo) yet safe, powerful & effective which can deactivate any airborne COVID particles as well as putting a very light dusting on surfaces to kill any pathogens attached. These systems are available to be used in open office spaces, airports, conferences, hotels, schools, shopping centres, supermarkets etc. Available in different sizes to suit each of these spaces.

For further enquiries please contact info@ecaaustralasia. com.au OR visit www.toucaneco.com.au

CORPORATE MEMBER NEWS

Utility reduces aeration energy use by 32% with liquid diffuser cleaning



Aeration can account for as much as 60% of a wastewater treatment plant's energy consumption, with energy use increasing when the aeration diffusers get clogged.

A wastewater treatment plant in Spain reduced its aeration energy use by 32% without disrupting operations. Almunia de San Juan wastewater treatment plant is located in the Huesca province of Spain. The plant's aeration system maintains a dissolved oxygen (DO) level of 1.2 mg/L by regulating when its blowers start and stop.

The blowers automatically stop when DO exceeds 1.7 mg/L and start again when DO reaches 0.2 mg/L. In order to reduce energy consumption, it is important to optimise the oxygen transfer through the diffusers, as well as the start-up and shutdown of the blowers.

In early 2021, the plant's energy consumption by the blowers increased and operators suspected that the diffusers were clogged by calcium carbonate build-up from the water.

A convenient diffuser cleaning process

The solution was simple but impactful. Xylem proposed restoring aeration system efficiency with diffuser liquid cleaning, which uses a proprietary nozzle dosing system to introduce formic acid into the air supply line from the top of the basin.

This method evenly delivers the cleaning agent to the diffusers and dissolves the salts embedded in the pores of membranes. Once the accessories of the cleaning kit were mounted on the pipe collar, the dosage of formic acid was introduced.

Prior to the liquid cleaning process, pressure in the air supply line was 0.53 bar, at the injection point. After one hour, it was 0.48 bar, and on the third day after the cleaning, after all the cleaning agent had been consumed, the pressure decreased to 0.47 bar for average flow.

Energy consumption reduced by 32.6%

The step from 0.53 to 0.47 bar is nearly a 12% drop in pressure, since the oxygen flows more easily through the diffuser into the biological reactor. The blowers can now operate using less energy while still reaching the dissolved oxygen setpoint.

In the face of high energy prices, these savings give the wastewater treatment plant a significant reduction in its operational costs.

Learn more about Xylem's diffuser liquid cleaning service at https://tinyurl.com/3a9a5mdn

Swan Unveils New Portable Water Monitor

Water industry operators have been eagerly awaiting the launch of Swan's Chematest 42, an innovative portable instrument designed to revolutionise water monitoring and testing. The device boasts an array of features that make it the ideal tool for water operators; such as its impressive rechargeable battery, data export using the Chematest App, cost optimisation (low reagent costs), and a cuvette check routine to detect any maintenance needs.

The handheld device has been engineered to measure multiple parameters for professional calibration and verification. The instrument can capture photometric measurements, for monitoring disinfectants like chlorine, nephelometric measurements, as well as optional sensor-based measurements including pH, ORP, and conductivity. What differentiates the Chematest 42 from its predecessors is its capability to accurately assess turbidity in compliance with ISO 7027-1 and US EPA 180.1 specifications. This makes it the perfect tool for a range of water applications, from domestic drinking water to industrial and swimming pool use.



The Chematest 42 is perfect for on-the-go water professionals who need reliable results in a short time frame. With its ability to accurately measure basic water parameters with ease, Swan's latest offering is sure to bring convenience and peace of mind to water industry operators across Australia.



marketing@swan-analytical.com.au



https://swan-analytical.com.au/products/ chematest-42/

CORPORATE MEMBER NEWS

Valve Exercise vs Replacement - The Real Costs

The big decision for corporations water is valve exercise V's replacement. Valvemax offers specialist valve maintenance, valve exercising and pipe



cutting equipment in Australia. Their valve exercising and maintenance programs consist of valve location, valve box vacuuming, assessing, inspecting, report and analysis which is all part of the service.

There are several factors to consider when determining whether to exercise or replace a valve.

Downtime Reduction - Time is money, and one valve failure can shut down an entire network. All systems are required to either have reliable components, backups /redundancies or possess the capability for speedy maintenance processes. Process uptime is critical, and the long-term cost of poor quality should be factored into the initial valve selection.

Ease of Repair - Ease of repair starts with a valve design that facilitates simple disassembly. The availability of replacement parts, trained technicians and service tools are also critical for ease of repair. In addition, there must be ready access to the valve to perform repairs.

Ease of Replacement - There are several considerations that go into the replacement decision including ongoing costs. Firstly, the availability of the replacement valve, valve connection and access to the valve for cutting and removing it.

Customer Disruption - Unplanned downtime and disruptions to water can have significant effects on a community. Exercising and maintenance is a faster, less time consuming, less likely to cause inconveniences than replacement.

The Wachs Standard LX Valve Maintenance Trailer with ERV-750 hands-free hydraulic valve exerciser was used to free up an old, seized 600mm valve that had the potential to hold up upgrade works as part of a Hunter Water project.

Exercise or replace?

Now we've looked at some of the pros and cons of exercise and replacement, the time will come where a decision must be made to exercise or replace a valve.

For more information.



(03) 9088 6060



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Gas Flaring Systems

Hydroflux has been supplying gas flare systems for wastewater treatment decades. plants for **Biogas** flares are required to allow biogas to be safely burned off when it is not being re-used, to avoid the release of the



methane-rich biogas to the environment.

Methane is a potent greenhouse gas and according to the UN environment programme, it is 80 times more potent over a 20-year period to global warming than CO2. Safely combusting the biogas converts the CH4 in the biogas to CO2, which reduces not only the greenhouse potential but also odour emissions and release of H2S.

The MTU series Biogas Flare is an enclosed, natural draught flare for the safe and efficient combustion of biogas, sewage gas or landfill gas. They have been developed by Gastechnik Himmel GmbH as a specialized supplier for flares and gas handling equipment, and are tried tested and proven in hundreds of applications worldwide. The MTU series flares are available in various sizes for a gas throughput of 50-3000 Nm3/h. If a higher gas throughput or combustion of special gases is required, a special flare system or combined modules can be offered.

Typical deployments are thermal disposal of combustible surplus gases such as in biogas, sewage and landfill gas plants.

All control functions are housed in a weatherproof and ready-to-connect control cabinet. All gas pipework is made of stainless steel 316 that is welded, blasted, and passivated. The support structure and flare shroud are made from 304 grade stainless steel.

As soon as the start command and the required gas inlet pressure to the flare are present, the flare burner starts. The automatic gas burner controls the electrical ignition process automatically and monitors the flame during operation.

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CORPORATE MEMBER NEWS

Pipeline Solutions

Detection Services specialises in multi discipline pipeline solutions and state of the art technologies covering the water and wastewater industries.

Are you worried about experienced staff retiring soon, taking away all the critical operational insights? Does the workforce feel challenged when it comes to finding the best course of action?

In partnership with TeamSolve, Meet Lily!



the Workforce's Knowledge and Experience and making it highly accessible with better insights, making it easier to capture experiential human knowledge of all types, at all levels and in all settings.

Lily absorbs checklists, procedures, user manuals notes, documents providing feedback and information to operators at the click of a button. You can view Lily at work via a short video on YouTube. https://www. youtube.com/watch?v=0y913fRJpuo

Efficient Operations and Maintenance (O&M) of industrial assets rely mostly on human experience where field teams must have the right knowledge at their fingertips to ensure accuracy in maintenance work and reduce human error or asset failure. For life-critical systems such as water and wastewater, the need for accuracy and efficiency in O&M is undisputed and must be addressed effectively. Lily is revolutionising how human experience and know-how can be made accessible to every worker in the industrial world through recent advances in Al platforms and especially in generative Al for large language models.

For more information,



C 1300 722 835



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m https://online.fliphtml5.com/lrnuj/tgrk/

The Power of Two: Nitrate and Nitrite in One

The new NT3 Series Sensors from Hach® bring greater accuracy, simplified maintenance. and dual capability parameter for nitrate and nitrite to your monitoring toolbox. Backed by a legacy of reagent-free UV absorbance technology expertise, Hach's NT3100sc UV Nitrate and NT3200sc UV Nitrate and Nitrite Sensors are equipped your meet unique application needs. Whether measuring nitrate and nitrite in municipal wastewater



treatment plants, surface water, untreated water or treated drinking water, you'll have the choice of three different path lengths to fit your measurement ranges and turbidity compensation needs.

The NT3 Series gives peace of mind with improved accuracy and a lower limit of detection at 0.02 mg/L*. Additionally, Hach's proven wiper technology keeps systems clean and the enhanced one-step, toolfree, wiper replacement reduces maintenance time and improves experience. These advancements help optimise plant performance and ensure regulatory compliance now and into the future.

The NT3 Series Sensors are equipped with Advanced Prognosys, Hach's predictive diagnostic system that uses internal smart sensors to proactively alert you of potential measurement issues, so you have confidence in process health and avoid unplanned downtime.

The Hach team understands your facilities' problems are unique, and have developed service plans that can help give peace of mind about maintaining and supporting the NT3 Series Sensors.





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New Members

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

New Individual Members

Christopher Toole, Damian Bourke, Jarryd Boustani, Andrew Nixon, Matthew Cruickshank, Mark Barrass, Hayden Kelly, Thomas Sumners, David Linsen, Matthew Dunn, Vineeth Modem, Eve Wallace, John Ford, Rebecca Huang, Anthea Fernando, Philip Kearney, Harris Tahau, Joel Brown, Tenielle Tugwell, Raju Ranjit, Josh Van Hout, Shaun Pinney, Timothy Cole, Stephanie Garrick, Radka Jack, Scott Ferguson, David Turner, Nathan Dick, Andrew Veitch, Scott Thompson, Adam Gumley, Kate Bardy, Paul McMillan, Elle Hamilton, Mark Thornton, Tom O'Brien, Callum Butler, George Hills, Izaak Terlich, Michael Manhood, Scott Leonard, Blair Kettle, Brydie Campbell, Ben Minchinton, Kendall Krause, Chaminda Jayasena, Kade Hammond, Holly Grant-Court, Melinda Glew, Sebastion Smith, Amandeep Singh, Peter Willey, Mark Johnson, Gavin Duncan, Amanda Hazell, Rachel Russell, Alasdair Turnbull, Brett Fisher, Chase Olson, Mason Coote, Jonathan Ryan, Tom Rawlins, Rowan Payne, Luke Boyd, Martin Roverts, Curtis Gordon, Celia Brown, Bridey Pearn, Michael Evans, Derek Van Someren, Aiden Foord, Steve Awizen, Christopher Foley, Michael Didimiotis, Kim Gerbers, Jonathan Hook, Matt Hartup, Daniel Robinson, Ravi Kant, Dulshan Gardiya Hewage, Dulshan Hewage, Brendan Tyndall, John Van Wijk, Aaron Gladman, Warwick Hansen, Jordan Lee, Ryan Butler, Jane Fontana, Hunter Richardson, Danny Freeman, David Peake, Madeleine Borg, Michelle Smith, Hamish Tullett, Juki Wahl, Dale Yeates, Amanda Lugton, Shane De Haan, Jo-Anne Michael Matthew Nelson, Lisa Worcester, Owen Beebe, Shyan Swaminathtan, David Murray, Travis MacLeod, Alex Murray, Fran Rounsefell, Scott McCarthy, Nik Amin, Jo Oppenhuis, Michael Robinson, Chris McMillan, Terry Annan, Darcy Steer, Caitlin Praag, Meghan De Spirt, Emma De Spirt, David Brown, Paul Donohue, Rachelle Anderson, Susan Hayes, Mathew Leehane, Luke Davidson, Troy Hubble, Glen Bardsley, Ben Taylor, Nathan Cook, Nathan Bourke, Grant Bourke, Darren Edlerfield, Brett North, Stephen Tregaskis, James Weel, Stephenie Nicolson-Lesak, Kiel Tripcony, Paul Quirk, Michael Fielder, Parthee Gana, Tyler Tiffin, Bowie Quillerat, Deon Du Plooy, Hannah Sulzberger, Michael Hartwell, Bala Gurunathan, Brayden Jackson, Tom Chamberlain, Carl Dorl, Tyler Cowden, Kristen Walker, Zachary Webster, Madison Spaulding, Brody Jones, Peter Stanley, Reece Abbott, Filippo Vico, Amy Mitchell, Keegan Honess, Alex McLean, Tim Renggli, Kain Cameron, Duncan McGregor, Anthony Musso, Loui Macri, Matthew Smith, Rueben Baker-Bennic, Christopher Ryan, Joshua Browning, Phillip Martin, Mitchell Wyss, Bayley McGowan, Lilly Hose, Michael Hassett, Muhammad Abdullah, Frank Mooney, David Sechtig, Jonathan Steel, Shaine Chappell, John Warne, Caleb Jenkins, Brad Bennetts, Brad Thompson, Rendall Williamson, Kaitlyn Clapp, Phillip Powell, Locky Magee, Gavin Rhodes, Brett Bolton, Brendon Williams, Trevor Cavanagh, Ian Bulmer, Ben Falconer, Sue Turner, Joe Zapasnik, Mark Aberley, John Adams, Jaimes Alick, Andrew Avery, Tim Brewer, Wade Burling, Peter Degens, Bon Dorrenboom, Tarin Field, Jason Gabell, Troy Juffs, David Lovejoy, David McKay, Antony McKeith, Dwayne Mooney, Andrew Moore, Niloshree Mukherjee, Peter Nash, Daelin O'Connell, Robert Palmer, Grant Roberts, Tim Samebell, Adam Sibley, Stephen Simmins, Rob Stainland, Ange Van Walle, Ryan Closter, Sophie Bangs, James Hibbert, James Nichols, Luke Dickson, Roger Moore, Tharun Kesavan, Tom Baldwin, Tim Bell, Tejas Vyas, Sam Mahoney, Oscar Morales, Kim Eves, Bowden Grace, Navin Sivanthan, Sonali Pinge, Britney Ollson, Shaun Warner, Kelly Minors, Marc Whitty, Jaysen Considine, Trent Howlett, Myles Gellie, Kyle Bocos, Shane Willet, Sha Doh, Shane Spark, Catherine Ryan, Mick Harris, Jesse Hatcher, Luke Spasic, Daniel Schache, Ben Williams, Craig Clyne, Alan Joyce, David Guest, Jason Haby, Matt Thompson, Danny McGee, Kambez Akrami, Karen Pollock, Tai Giang, Greg McKay, Greg Fisher, Stanley Swan, Jaini Shah, Travis Brown, Tegan Overall, Shaun Gatt, Matt Hedger, Matthew Young, Casey Clothier, Conner Owers, Mark Wilson, Sam Boal, Ben McGuick, Russell Barber, Josh Huggers, Ben Mathieson, Emilea Spence, Alex Ahearn, Phoebe Nash, Ben Harris, Shaun Gillies, Pete Hargraves, David Escriva, Rodney Goodwin, Karl Humphreys, Ben Strickland, Aleks Lalic, Jake Milligan, Gavin Green, Michael Atkinson, Robert Dwight, Derek McLaughlin, Alex Luchetta, Alistair Newton, Greta Pullen, Naomi Struve, Linda Shi, Natalie Bolton, Luke Rice, Matthew Zubrinich, Nathan Schulz, Adam Watson, Simon Plush, Arthur Woolcock, Ashley Coombe, Peter Grant, Ben Elliot, Brad Clow, Scott Smith, Russell McSorley, Gavin Ray, Emma Thompson, Shane Krueger, Tim Robertson, Eddie McGarry, Michael Gallant, Stuart Edwards, Thomas Campbell, Tas Hodgson, Craig Flaval, Kimberley Krieg, Dulcie Turci, Wayne Phiilips, Matthew Hind, Robert Moir, Katie Koto, Yash Wimalasiri, Gretchen Marshall & Kelly Mutzelburg.

New Utility Corporate Members

Australian Antarctic Division.

New Corporate Members

South East Water, Robertson Technology, Pentair Australia, HMS Industrial Networks, Chesterton Customseal, Tradelink, Able Liquid Waste, Triangle Waterquip, Detection Services, Lovejoy Services, Novolabs, Gastech Australia, IDEXX Laboratories, Hygrade Water Australia, Alpha Biogas, Concrete Canvas, Hydroflow Australia, Sustainable Liquid Technology & Kinder Australia.

WIOA Coming Events

29 & 30 March 84th WIOA VIC Water Industry Operations Conference

& Exhibition, Bendigo

WIOA Talks - Water Able, online 27 April

19 & 20 July 47th WIOA QLD Water Industry Operations

Conference & Exhibition, Sunshine Coast

1 & 2 November 15th WIOA NSW Water Industry Operations

Conference & Exhibition, Canberra

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