Operator

November 2020 The Water Industry Operators Association of Australia Magazine

OPERATOR OF THE YEAR AWARDS

SPIRIT OF AUSTRALIA AWARD WINNERS

ADRIAN JOINS THE WIOA IDIOTS

BEST TASTING TAP WATER TAS, WA, VIC

COVID-19 CLOSE TO HOME

KWATYE AWARD WIN

ROSSARDEN WTP PRODUCES THE BEST TAP WATER IN AUSTRALIA

A message from the President

Welcome to the fourth and final addition of Operator for 2020. What a roller coaster year 2020 has been for everyone. Living in Victoria and working in NSW was definitely an eye opener for me during the second COVID wave. Every time I crossed the border into NSW it was like driving into a different country and really highlighted the sacrifices Victorians have made over the past few months.

I would like to recognise all our members, who through these testing times have continued to provide essential and safe water and wastewater services to their communities.

We are lucky to have such flexible, dedicated and passionate people working in this industry who ensure the taps keep running and the toilets keep flushing.

COVID has been a major disruptor in 2020 for WIOA with all of our face to face conferences and events cancelled. The WIOA team worked quickly and provided a totally different option to allow us to deliver services to our members - Virtual Water.

I would like to thank everyone who helped pull Virtual Water together. Our amazing sponsors who believed in the concept and helped us to make the platform viable cannot be thanked enough. Additionally, the 50 companies who participated in the expo and displayed their products and services, and the presenters who delivered relevant and informative presentations were also integral to the platform succeeding.

There is now almost 24 hours of technical content in the On-Demand area available inside the auditorium for members to watch in their own time.

The Platform has also been used to present many awards to recognise the outstanding efforts of our members. With great support from Ixom, the Best Tasting Tap Water competition was held with samples coming in from all around Australia. In the national Grand Final, the sample from the Rossarden Water Treatment Plant in Tasmania took out the top prize.

I would also like to congratulate Immediate Past President Adrian Rijnbeek who was inducted as the 40th IDIOTS member recognising his substantial contribution to WIOA.

The WIOA team is excited to be able to bring back face to face conferences in 2021, subject to COVID restrictions of course. I look forward to catching up with you all and hopefully returning to some sort of normal. All the best, enjoy this edition of Operator, and I hope you all have a safe, happy and festive Christmas.

Heidi Josipovic

November 2020

Cover TasWater and TRILITY employees share the spoils of victory having won the Ixom 2020 Best Tasting Tap Water in Australia.

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In this issue

Member Profile
Paul Gregg

Supervisor Water & Wastewater Treatment Plants

Employer Cowra Shire Council.

Nickname Greggy.

Favourite team Parramatta, Swans and Blues.

Pets American Blue Staffy.

Favourite food Seafood.

Least favourite food Cucumber.

Favourite TV show Kindig customs.

Worst TV show Reality shows.

Favourite Movie The Big Labowski.

Favourite Musical artist/s Iron Maiden.

Hobbies Car/bike restoration, fishing.

Best Trait Patience.

Worst Trait When patience runs out.

Who do you admire Adam Gilchrist.

Favourite saying or quote Wakidooo.

Four people you would invite to dinner?
Ozzy Osborne, Adam Gilchrist, Dave Murray and Wayne Gardner.

Ambition in life To be happy.

How long have you been a WIOA member?
About 7 + years.

Your involvement with WIOA?
Currently a member of the NSW Advisory Committee.

How long have you worked in the water industry?
20+ years.

What do you enjoy most about your job?
The variety of people and the work.

What are the major challenges in your current role?
Budget restraints and keeping up with technology.

Thoughts on the water industry at the moment
I think the industry is going gang busters and would encourage young people to get on the train and hang on.

How do you relax?
Beer, pool, grand kids, beer, fishing, beer.

Where do you live & what's the best thing about it?
Cowra NSW. It's not too big or small and far enough away from cities but close enough to the rural centres.

Welcome Finn

Congratulations to WIOA President Heidi Josipovic and husband Jamie who welcomed Finn Michael Rossato into the world on Sunday 25th October.

Both are doing great and Finn is a little brother to Archie and Indy who have described him as a little legend.

Congratulations to all from everyone at WIOA.

Bronze for WIOA Wonders

WIOA participated in the ***qldwater*** trivia event that was held in conjunction with the 2020 Queensland water taste test.

The WIOA Wonders took the lead early on, only to be overtaken right at the finishing line. Well done to The Highlanders taking out the first prize, followed by The Defenders in second place and the WIOA Wonders third.

Adrian Rijnbeek joins the IDIOTS

In 2004, WIOA developed a special service award designed to congratulate members and recognise their commitment to the vision and philosophies of WIOA and their active promotion of the Association

In WIOA circles, it is actually an honour to be called an IDIOT - it means you have been Inducted as a Delegate of the Inextricably Obstructed Tap Society. The award has its own symbol - the twisted tap and all IDIOTS need to wear the tap at all WIOA events, otherwise they will be required to pay a fine which goes to charity.

This year the IDIOTS Society welcomed the 40th IDIOTS member in Adrian Rijnbeek from Xylem.

- Adrian has been a WIOA Member since March 2005
- Victorian Young Operator of the Year 2008
- Committee member from 2012 to 2018
- Board member from 2017 to 2020
- Vice President 2015 & 2016
- President 2017 & 2018

Adrian being presented the Victorian 2008 Young Operator of the Year Award by Peter Quinn.

Adrian has been a regular MC at conference dinners, taste tests and other events. He has been a great help at conferences and events assisting with the setup, packup and anything else that needs doing and has actively promoted WIOA through his role with Xylem.

Adrian has shared his technical knowledge by helping develop the program and then assisted running the pumps training day as part of the annual Network Operator Development Program.

Congratulations Adrian on your award, your involvement with WIOA is greatly appreciated by all members.

Adrian, Master of Ceremonies at a WIOA conference.

IDIOTS - symbolised by the twisted tap.

The Lighter Side

I JUST BOUGHT MY HUSBAND A "GET BETTER SOON" CARD HE'S NOT SICK… I JUST THINK HE COULD BE BETTER

Tipping goes down to the wire

The winner of the WIOA NRL footy tipping competition was decided at the final siren of the Grand Final. James Blannin from Stevco Seals and WIOA MD George Wall were both tied on 126 points going into the Grand Final. With both James and George being Melbourne Storm supporters it looked like they would still be tied after the GF, with James winning due to his lower points margin from throughout the year.

In a bold move to snatch outright victory, George rolled the dice and tipped the Panthers to upset the Storm in the GF. The result is history and our congratulations are extended to James for coming out victorious.

Tasmanian Operator of the Year - Ben Halton

The highly sought-after Tasmanian Operator of the Year Award was presented to Blackmans Bay wastewater operator Ben Halton. Ben is an emerging leader who has played an important role in ensuring a successful commissioning of the new Blackmans Bay Sewage Treatment Plant.

Ben demonstrates a "no nonsense" attitude to the operations and approaches problems with a clear and simple approach that leads to the quick resolution of the issues. Ben (and the Blackmans Bay team) has shown a great attitude with the construction and commissioning of the new Blackmans Bay facility. This was a "brownfield" project which repurposed a number of process units from the old Sewage Treatment Plant to the new one. This required careful planning and good teamwork between the construction company and the TasWater operations team. Ben played a leading role in ensuring all risks were identified, properly considered and managed. Various process cut-overs and temporary operating modes were required as part of the project. These were managed with a minimum of fuss, thanks to Ben's leadership and the attitude of the team.

The upgraded Blackmans Bay STP has been operating for just over a year. The operators are ensuring optimal performance of the plant and resolving all the small construction and commissioning issues. Ben plays a key role in ensuring all these issues are identified, understood and rectified. He has worked to develop standard operating procedures for the new plant.

Ben Halton, Tasmanian Operator of the Year.

Ben is a highly competent operator, an emerging leader, contributes significantly to optimising our treatment plant operations, and played a significant role in ensuring that the plant upgrade was a success.

Ben has developed into a highly capable and conscientious operator. He is passionate and committed to the success of his team and the business. He strives to uphold the values and behaviours of the business and demonstrates maturity and dedication to WH&S in the workplace.

Ben played a vital role as site operator and liaison with principal contractor in the Blackmans Bay STP and network upgrade. His operational skills and dedication were invaluable to the success of the project and provided immense support to the existing plant operations during a chaotic construction environment. He demonstrated invaluable maturity and sound decision making and readily adapted to constant changing operational conditions. He has a mature and pleasant demeanour and is highly respected by his team.

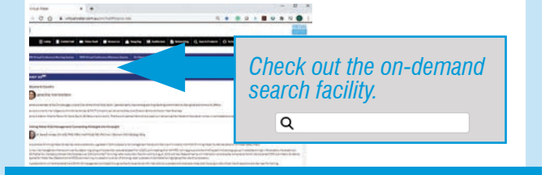
Virtual Water - a Fantastic Operator Resource

Since opening the doors to the Virtual Water platform, 1,221 individuals have registered to access the platform. This is just under the number of people who would traditionally attend the Victorian Conference and Exhibition which is our largest event. The number is close to the average combined attendance at our conferences in NSW, Queensland.

The exhibition has received over 5,505 booth visitations, with 1,491 clicks on the content that our exhibitors have made available. Over the 11 live Days, there have been a total of 90 presentations by operations staff from every Australian State, including nine Keynote Addresses.

A total of 81 of the presenters have given their approval to post a recording of their presentation to the On-Demand section of the auditorium to allow everyone to access and watch in their own time.

There is a search box that can assist in finding content that is of interest and we will be adding additional categories in the near future.



The on-demand content is a great resource for all.

Importantly, there is 23.45 hours of content there to view. In addition to the presentations, we have utilised the platform to recognise the achievements of members with 27 separate awards presented to extremely deserving winners since Live Day 1.

Tasmanian Young Operator of the Year - Luke Chivers

Luke Chivers took out the Tasmanian Young Operator of the Year award for his work optimising system performance and ensuring safe access to drinking water at the Campbell Town Water Treatment Plant (WTP).

Luke has been with TasWater for six years and in the water industry since leaving school. "It's a massive achievement, a big tick off the bucket list that's for sure but at the end of the day I'm no different to any other operator in our team. We all go out of our way to do the best we can," he said.

Luke exemplifies the TasWater culture and behaviours and leads by example, setting new standards in teamwork and professionalism. Luke has proven to be an exceptional role model for operators and existing senior team members.

In his relatively short career, Luke has elevated himself to a point of exceptional technical competence and he continues to identify and drive sustainable improvement opportunities. Luke has embraced the recent change to water quality regulations and has been an ambassador for culture change. Luke has identified and implemented treatment plant upgrades in his area and has minimised water quality risk to levels well above expectation.

Luke Chivers, Tasmanian Young Operator of the Year.

Luke was highly engaged in this process of developing SOP's for TasWater facilities and his input has been invaluable in guiding the strategic direction of this project.

Luke has a can do attitude and is respected and trusted by his team and the wider business. He has displayed passion for delivering an exemplary customer experience and is able to juggle the challenge of providing consistent safe supply whilst being mindful of the aesthetic quality.

Luke is a go to operator for his knowledge and experience, promotes positive teamwork and continually delivers outstanding performance above expectation.

Ian Retires & a Look-a-like

I am sadden to inform all my WIOA colleagues that I am retiring from the Water Industry on 2 October 2020. This date is earlier than I had anticipated (being such a young person of course) and is happening on health grounds. The upside is that there is no more On Call duties on weekends to stuff up my activities

I will really miss my involvement with WIOA who I regard as an essential service provider to the ongoing improvement of our industry. A couple of years ago you really surprised me with membership to the IDIOTS group which is such an honor and privilege. Rest assured at every opportunity I have to promote WIOA I will and if I see an event or similar, I'll drop in and say hi. Thank you to everyone who I have met over the years and I wish WIOA all the very best in the future.

Yours Sincerely, Ian Cuthbertson

Ian Cuthbertson

George Lucas

Editor's note:

WIOA congratulates Ian Cuthbertson on his career in the water industry. He has been a stalwart at our Queensland events for many years and his efforts and support have been greatly appreciated.

We think Ian is also has a fair liking to American film director and Star Wars franchisee George Lucas.

All the best in retirement Ian, may the force be with you.

Queensland Operator of the Year - Civil/All Rounder

Brett Donald of Mackay Regional Council has been awarded this year's Operator of the Year (Civil/All-Rounder).

Brett is a qualified Plumber and has worked for Council for the past seven years. Last year he enrolled in the Regional Water Industry Worker Competency Training Program along with workers from surrounding councils and has just completed his Certificate III in Water Industry Operations. As part of the program, Mackay hosted a number of training blocks and Brett stepped up to provide support to the visiting councils by running site safety inductions and tours.

Brett has a no-nonsense attitude to his work and pays particular attention to getting the job done in a timely and professional manner. He is regularly required to lead jobs in the field and has a high safety record with no recorded issues and a good rapport with team members and contractors on his sites. His pre-start musters and toolbox talks are extremely thorough so that everyone on site knows what the job is and all risks and controls have been identified. Brett prides himself on ensuring his job site is organised, customers are kept informed of progress and ensures the job is done right the first time.

Brett regularly steps up to fill any gap in the weekly On Call roster and supports his team when needed. His work ethic and safety attitude are a great example for others to follow.

Well done Brett and thank you to all the nominees for the great services they provide to their communities. Brett's prize includes a trophy and $1500 towards professional development initiatives.

Queensland Young Operator of the Year

The Queensland Young Operator of the Year for 2020 is Benjamin Haddock from Southern Downs Regional Council.

Ben commenced working as an Assistant Operator at the Stanthorpe Wastewater Treatment Plant three years ago and late last year was successful in applying for a role as an Assistant Operator at the Water Treatment Plant. Due to extended drought conditions and the need to make some major operational changes at the plant, Ben was thrown in the deep end and needed to learn and apply new knowledge extremely quickly in his new role.

To maintain water supply, Council began carting water from Connolly Dam to Stanthorpe's raw water storage tanks. Water quality from the dam was poor and difficult to treat, with high levels of Manganese, as well as algae, taste and odour problems. Ben was actively involved in the operational investigation into new treatment processes to successfully treat the dam water and his determination and dedication motivated the rest of the operational team to perform over and above expectations.

An Operator position recently became available at the Stanthorpe Wastewater Treatment Plant and although Ben was enjoying his time in water operations he was keen to get back into wastewater treatment and was successful in gaining a promotion to Operator. Ben takes his responsibilities seriously and is studying for a Certificate IV in Water Operations. He is meeting his increased responsibilities in a professional manner and is highly regarded by his work colleagues. Ben will receive a trophy and funding to participate in one of WIOA's Operator Tours to New Zealand.

Queensland 2020 Operator of the Year

Congratulations to Mark Vairy from Mackay Regional Council (MRC) who was announced as the 2020 Leon Henry Memorial Queensland Operator of the Year.

Mark came into the Treatment team from Council's Aquatic Facilities where he was a lifeguard. Council decided that the Aquatic facilities would be outsourced, so staff were redeployed into other areas of Council, and Mark decided that he wanted to become a water treatment plant operator.

Mark started out as an assistant operator at the Nebo Road Water Treatment Plant (WTP). It was a role that he struggled to adapt into, and it wasn't clear whether a career in the water industry was going to suit him.

Mark then went into the Pioneer Valley to see if working in a smaller team that covers a range of small water and wastewater facilities would suit him better. It was here that Mark started to shine. He really adapted to operating multiple plants, having to multi-task and make process decisions on his own and this boosted his confidence. Mark quickly put his hand up to do a Certificate III in Water and Wastewater Operations and has his leadership qualities started to come through.

The Marian WTP was built in 2015, replacing a bore water scheme that had only chlorination for a treatment process. In contrast the new Marian WTP is a surface water plant that has complex treatment processes. Mark was the first to put up his hand to operate the plant, and he learned the new processes, undertook troubleshooting and defect management. Since then Mark has optimised every physical and chemical process at Marian so that the plant produces a high-quality product in a very efficient manner.

In 2019, Mark commenced training to meet the requirements of the national operator certification framework and he was granted certified status by WIOA in March this year. Mark is the first operator from MRC to be certified.

In 2019, the MRC Water Treatment Team underwent some structural and organisational changes. Change can be scary for some and there will always be those that will oppose it. Mark however, was the champion of the change and explained it to other staff and gained their support.

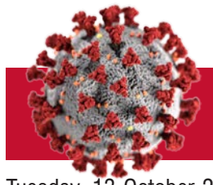
Mark testing the Mackay water.

Mark continues to show and develop his leadership, and this has positively affected the team. When the opportunity for a team lead of water treatment presented, Mark put his hand up and was duly appointed to the position. This meant that ironically Mark would return to Nebo Road WTP, but this time as a leader rather than an assistant operator.

Mark continues to show and develop his leadership, and this has positively affected the team. For winning the Award, Mark will receive a trophy and funding to participate in WIOA's Operator Tour to New Zealand - COVID depending of course.

FLASHBACK
Filter Beds - 1880

Filter beds at Sandhurst Water Works (Bendigo).



COVID-19 Close to Home

Ann "over deep cleaning".

Tuesday, 13 October 2020, had been just another "normal COVID-19" day working from home. It was my week to be working, these days that's only every third week (the WIOA administration staff are currently working on a rotating roster) like many other businesses work practices that have changed.

Late in the afternoon David (my husband) arrived home from work, earlier than usual, which I immediately thought was odd. He walked up to the window of the room which I have set up as my home office. With his mask on and a worried look in his eyes, he said "grab a mask put it on and don't come near me, I have something to tell you" I knew straight away what was about to unfold.

A staff member from his workplace had tested positive to "Coronavirus". What did this mean?

All staff at his workplace were immediately tested as they were all now considered "close contacts", it was a long, anxious 3 to 4 hour wait, waiting for the test results. All "close contact" tests are given priority and David's results came back within 3 hours, fortunately he received a negative result. Two other staff members were not so lucky they received positive results bringing the total of staff with the virus to three. All family members living at the same residents as the staff, (positive or close contacts), also had to be tested and quarantine at home for a minimum of 14 days, that included me!

We were advised that any "close contacts" were to separate themselves from all other family members, if this was not possible alternative accommodation was found. This meant we were always to wear masks indoors, we no longer shared the same bedroom, bathroom, lounge chairs, cutlery, glasses and many more household items which we take for granted. It's amazing just how many items at home are shared. We found ourselves wiping door handles, kettles, light switches, tables, bench tops, fridge handles, remotes, the list goes on.

We strategically placed disinfectant and paper towel around the house, this was our new go to for most of the day, whilst wearing disposable gloves. We had contact tracing calls each day checking our physical and mental health and that we were home. The army, police and council workers were doing their bit knocking on our door and also checking we were home. Even though we could not open the door to them we talked through the window beside the door.

Grocery shopping became a whole new experience ordering online and having them delivered to our doorstep something I have not done before but may consider continuing. Sherryn was also helpful dropping off papers and the occasional alcohol.

David's work vehicle did not move for 14 days as it was also in quarantine and had to be deep cleaned before being used again. The deep cleaning team of three arrived at our house in their large truck, they open the doors and jumped out in their white, head to toe suit, blue surgical footwear and masks, it was like a scene out of a Hollywood movie.

On day 11, we had to be retested and wait for a negative result. Day 12 we had a medical phone consultation and finally on day 14 we received written confirmation that our quarantine period had ended.

Now back to "normal COVID-19" lifestyle we have a greater appreciation and understanding of this terrible virus and why the government and health team had to put Victoria back into hard lock down. The virus spreads so quickly and easily with no exceptions and we have all seen the sadness the virus can bring to families. STAY SAFE!

*Contributed by WIOA administration team member **Ann Austin**.*

How COVID-19 Sewage Testing Works

Scientists now know that the genetic signature of SARS-CoV-2, the virus that causes COVID-19, can be detected in sewage samples. In fact, sewage analysis can detect the virus' presence in a population days before positive cases or clusters show up in results of public screening programs.

Sewage sampling can detect virus levels within a wastewater catchment, the rate of increase over time, whether the virus is mutating out from epicentres, or if new strains are being introduced from outside the catchment

Dr Paul Bertsch is a member of a joint CSIRO - University of Queensland team that's been at the forefront of research into the use of wastewater surveillance for detecting SARS-CoV-2 in the population. He explains how the method works.

Why sample raw sewage? And how do you detect coronavirus?

We now know that people start shedding the virus in their faeces about two to three days after first being infected with SARS-CoV-2, well before they show symptoms of COVID-19, if they notice any symptoms at all.

After it's flushed into the sewerage system, the virus gradually disintegrates, leaving behind fragments of its unique RNA signature. The RNA encoded gene fragments recovered from sewage are the unique fingerprint of the SARS-CoV-2 virus.

Filtration techniques separate out the nano-scale viral and gene fragments from untreated wastewater, then 'amplify' the fragments, enabling isolation and confirmation of the virus's fingerprint over genetic material present in the sample.

We see news images of people being swabbed at testing points, isn't clinical testing enough?

Wastewater sampling can't replace individual sampling, it should be seen as complementary, providing unique information. It's not feasible for everyone in a community to be tested individually. Wastewater sampling is like an early warning system that covers an entire community. Especially in the early stages of COVID-19, many people will be asymptomatic. Some may never show symptoms and others may not want to be tested.

Modelling showed that up to 2.5 billion people globally could be monitored using wastewater surveillance, through regular sampling of 105,000 wastewater facilities. The US study also suggested billions of dollars could be saved globally through reducing the need for individual testing and reducing the cost of across-the-board restrictions and economic shutdowns.

Is sampling wastewater for coronavirus safe?

Coronavirus is fragile and quickly rendered unviable, that is, not contagious, by detergents and the other surfactants in wastewater, and by typical water treatment processes. It is important to note that research to date suggests that drinking water is safe.

How accurate is wastewater sampling?

The US study estimated wastewater surveillance could detect one SARS-CoV-2 infection for every 100 people at the very least, in a monitored water-treatment catchment. At best, it could detect up to one infection per two million people.

Our own researchers have confirmed that SARS-CoV-2 RNA seems to persist long enough in warmer conditions to permit detection, in other words, wastewater testing for the virus is reliable across a range of temperatures.

How long does it take to get a result?

SARS-CoV-2 can appear in faeces within two or three days of infection. Wastewater samples can be analysed within one to two days. By contrast, it usually takes from five days to two weeks for people to develop symptoms severe enough for them to be tested.

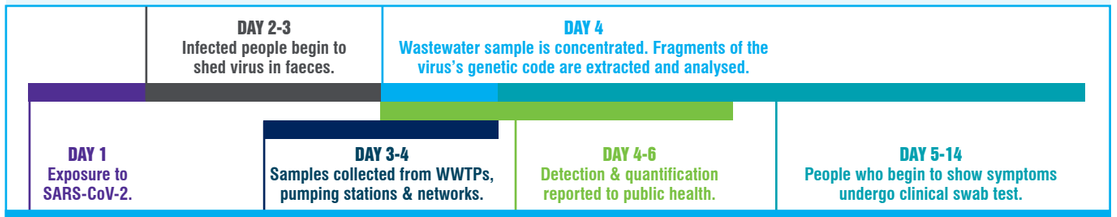
What about the future?

Some experts say we're a long way from having a vaccine. So a national wastewater surveillance program or network could help Australian authorities detect and contain emerging COVID-19 clusters faster and more cost-effectively. The technique can also be used to detect the virus in smaller populations, like aged-care facilities, schools and prisons, where COVID-19 prevention is particularly critical.

With biosecurity, nations tend to be reactive rather than proactive. Scientists, disease ecologists, and epidemiologists have been predicting the emergence of other pandemics following the SARS and MERS outbreaks earlier this century.

We need to prepare for future pandemics. Permanent sewage surveillance economics stacks up, it costs little, compared to closing down economies.

*Adapted from article in the **CSIRO ECOS Snapshot newsletter**, September 2020.*



Monitoring sewage for early detection of COVID-19 outbreaks.

Yalgoo is the best in the west

Samples from Busselton, Bunbury and Yalgoo competed in the grand final of the Ixom Best Tasting Tap Water in Western Australia.

The competition was held under lock down conditions and the ultimate winner was the Water Corporation's Yalgoo Water Treatment Plant.

Yalgoo is primarily supplied by 3 bores. The treatment process involves multimedia filter, Electro Dialysis Reversal (EDR) treatment for nitrate removal and an ion-exchange media filter for arsenic removal. Chlorine is dosed for oxidation prior to the multimedia filter to assist in the removal of arsenic. A portion of water bypasses the EDR to reach a desired blend. Water is stored in the Clearwater tank, chlorinated and supplied to the town site.

Electro Dialysis Reversal is a low pressure technique where ions migrate through ion-conducting membranes due to the passage of DC electric current. Feedwater requirements for EDR are generally less stringent than that for RO, ultrafiltration and nanofiltration as it is not a filtration process.

During EDR divalent ions experience a greater force in the electric field of an electrolysis cell and tend to be removed at a higher rate than monovalent ions. A typical reduction in TDS for a single pass through an EDR 'stack' is 50%.

Yalgoo WTP.

Woolpunda water wins SA again

Water produced from SA Water's Woolpunda Treatment Plant (WTP) in the Riverland of South Australia, 170 km north-west of Adelaide, has been awarded the state's top drop in this year's South Australian competition.

The plant is staffed by a single operator, who monitors performance and performs day to day maintenance tasks. It also won the state competition in 2018.

Woolpunda is one of SA Water's smaller sites both in physical size and supply area, providing water to less than 800 people, but it works just as hard as any other site, getting around 700,000 litres of water a day through more than 240 kilometres of pipe, including to country lands located up to 50 kilometres from the plant.

Water is treated with chloramine, a disinfection method particularly suited to very long networks with lower numbers of customer connections, meaning the water takes longer to get to properties and a higher water age.

Woolpunda WTP 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 it's delivered to towns including Wunkar and Mantung.

Woolpunda WTP.

Mildura reigns in Victoria

Mildura water supply system consists of two water treatment plants, Mildura 7th Street and Mildura West, which serve a total population of 47,913 in the City of Mildura and surrounding rural residential areas including the townships of Irymple, Merbein, Cabarita, Birdwoodton, Nichols Point and Cardross.

The system draws its water direct from the Murray River from within the Mildura weir pool. The 86.4 ML/day Low Lift Pump Station delivers water directly to an 80 ML/day Treatment Plant. Treated water is fed to two in-ground storages, with a combined capacity of 9.7 ML. High Lift Pumps of 113 ML/day capacity transfer the water into the reticulation system, 2.7 ML elevated storage (Tenth Street), 10 ML ground level storage (Fourteenth Street) and 7.5 ML ground level storage at Merbein (through 7.0 km of 450mm diameter main).

Both Fourteenth Street and Merbein storages are trim chlorinated.

Water from the storage at Fourteenth Street ground level storage is re-lifted into a 0.3 ML elevated storage.

Mildura WTP.

Rossarden is Tassies best

Eighteen water treatment plants from every corner of Tasmania were put to the test, with the top three making their way into the Grand Final to vie for the WIOA 2020 Ixom Best Tasting Tap Water in Tasmania. Water treatment plants Bryn Estyn, Mole Creek and Rossarden battled it out for top honours.

Ultimately it was the sample from the Rossarden Water Treatment Plant drawn from the reservoir in the town that was awarded the prestigious award.

The raw water is sourced from the Aberfoyle Creek off the back of Ben Lomond Mountain and gravitates to the treatment plant via a 3.4 kilometre pipeline.

The Rossarden Water Treatment Plant was built by TasWater as part of the 24 glasses Regional Towns Water Supply Program. It has a Granulated Activated Carbon (GAC) which is a filter that removes chemicals and odour from the water which helps contribute to its taste. Once treated, the drinking water is then stored in a new service reservoir ahead of being pumped to Rossarden's residents.

The water from Rossarden demonstrates TasWater is providing great tasting, safe and reliable drinking water to all parts of the state.

Rossarden WTP.

Queensland's top drop

Water from a pristine dunal water system at Waterpark Creek and treated at Livingstone Shire Council's Woodbury Water Treatment Plant has been selected Queensland's top drop at the 2020 Best of the Best Queensland Water Taste Test.

Water Park Creek Weir is a small 1.3m high concrete weir located on Water Park Creek. The weir has been the primary source of water for the Capricorn Coast from Yeppoon to Emu Park. Water is pumped from the weir to Kelly's Storage which is adjacent to the Woodbury Water Treatment Plant which processes the Capricorn Coast water supplies.

Livingstone water has always performed well and it has the beer to prove it… after winning the competition in 2017 Livingstone Shire Council immortalised its winning water in a very tasty limited-edition craft beer, Livingstone Lager with a tropical twist of Pineapple.

Coming in at a close second place, reigning champions Mackay Regional Council was knocked off its perch after a string of wins including the 2018 and 2019 state titles.

Woodbury WTP.

Wauchope wins NSW/ACT

The Wauchope WTP has been awarded the Ixom 2020 Best Tasting Tap Water in NSW/ACT.

This is the second win for the team from Port Macquarie Hastings Council having won the award in 2018 with a sample from the Port Macquarie WTP. This year they competed in the Grand Final against samples from Icon water in Canberra and the sample from the Mathoura Water Treatment Plant supplied by the Murray River Council.

The Port Macquarie Hastings Council team treats the water from the Hastings River and supplies around 13,000 residents in Wauchope.

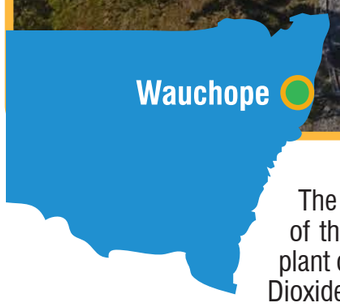
Wauchope Water Treatment Plant (WTP) was constructed in 2007 to meet the growing demands of the Wauchope Water Supply System. The bulk water prior to the treatment plant consists of raw water conditioning for hardness and pH with Lime & Carbon Dioxide dosing and the addition of Fluorosilicic Acid for dental health. The Water Treatment Plant is an Ultra Filtration (UF) Submerged Membrane Plant with disinfection prior to the water being sent into the distribution network.

Wauchope WTP.

PORT MACQUARIE HASTINGS

BIRDS EYE VIEW - Facilities Members Operate

Wauchope Water Treatment Plant



The Wauchope WTP was constructed in 2007 to meet the growing demands of the Wauchope Water Supply System. The bulk water prior to the treatment plant consists of raw water conditioning for hardness and pH with Lime & Carbon Dioxide dosing and the addition of Fluorosilicic Acid for dental health.

The Water Treatment Plant is an Ultra Filtration (UF) Submerged Membrane Plant with disinfection prior to the water being sent into the distribution network. The current plant capacity is 7ML/d and is currently undergoing a significant upgrade to increase the capacity to 21ML/d. These upgrade works consist of two additional UF skids, new chlorine gas storage, dosing and injection equipment and the installation of baffles into the 5ML Clearwater tank to ensure the correct chlorine contact time (CT) is achieved.

NSW/ACT WATER TASTE TEST

1. Lime Silo & Dosing
2. Lime Injection
3. CO^2 Vessel & Dosing
4. CO^2 Injection
5. UF Membrane Filtration
6. Clearwater Tank
7. Clearwater Booster Pump Station
8. Wash Water Clarifier
9. Wastewater Pumping Station
10. Future Reservoir
11. Future Pre-Clarification

Rossarden wins Best Tasting Tap Water in Australia

Water from the Rossarden Water Treatment Plant in Tasmania has taken out the top prize in WIOA Ixom's Best Tasting Tap Water in Australia competition.

The Rossarden Water Treatment Plant, which is run in partnership with water services provider TRILITY, beat every other finalist from around the country to win the coveted award.

TasWater Senior Water System Optimisation Scientist and WIOA Tasmanian Advisory Committee Chair Stephen Westgate said "it's a great result for the community and is particularly pleasing because Rossarden was part of our 24glasses Regional Towns Water Supply Program. The goal of the program was to bring potable water to many small Tasmanian towns. The Rossarden plant was completed in 2018, before that the town was on a Boil Water Alert," Mr Westgate said.

"We replaced everything from the raw water pipeline coming from the pristine Aberfoyle Creek on the back of Ben Lomond, including a new state-of-the-art treatment plant and the brand new distribution system which we operate and run in partnership with TRILITY," he said.

TasWater & TRILITY staff celebrate winning the national title.

The plant services around 110 connections and uses a modern multibarrier approach that incorporates UF filtration, granular activated carbon, calcite remineralisation and disinfection via sodium hypochlorite.

Raw water is fed from Aberfoyle Creek and pre-treated through a self backwashing 100 μm screen before passing through 2 ultrafiltration membrane units in parallel.

Ultra-filtered water is then feed to Granular Activated Carbon (GAC) and calcite contactors to reduce excess dissolved organics and increase hardness in the final water. UV transmissivity (UVT) is measured on the outlet of the GAC filter to indicate when the GAC filter media has exhausted.

Treated water from the calcite contactor is then dosed with sodium hypochlorite before being discharged into the Clear Water Storage (CWS).

The award recognises TasWater's engineers and scientists' excellent work in delivering great-tasting, safe, and reliable drinking water to Tasmania's regional communities.

TasWater looks after more than 60 water systems state-wide and it's the second time Tasmania has won the national award. In 2016 water from TasWater's Barrington Water Treatment Plant was named the best in the country.

Rossarden's water will now go up against global competition in the International Best Tasting Tap Water Competition in West Virginia next year.

More information on TasWater's 24glasses Regional Towns Water Supply Program can be found at:

www.24glasses.com.au

Lowood Pump Station Dry Well Access

The existing external and internal access were deemed noncompliant and unsafe by maintenance and operational staff, which made it difficult for maintenance/inspections for Seqwater staff and contractors alike. The original access internally was of the 1950's vintage and served its purpose up until now, where there are more stringent rules in relation to Workplace Safety. Access is required to the base of the dry well which is 18m deep and 4m diameter, and houses 2 x Raw Water Pumps.

Pensar were contracted to design, supply, fabricate and install the structural steel external stairway access, internal spiral staircase and access hatches, along with Davit bases which are a part of the confined space rescue plan.

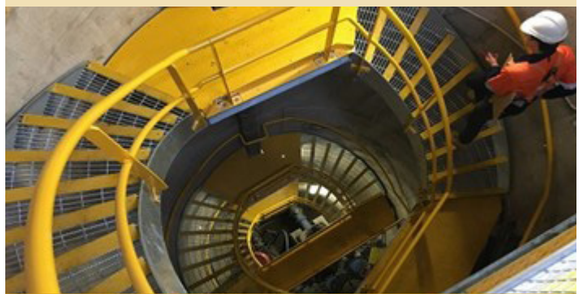
3D Scanning was used for the design of what the final outlay would look like, and this proved very useful throughout the project. The use of Rope Access experts from Height Dynamics, allowed the work to be done safely and there were Zero safety incidents recorded.

A highly skilled workforce in the use of rope access and retrieval were formed in 2 teams, one team organised people and equipment at the top level for the difficult task of removing existing stairs and ladders via a second team working inside the tower. Every piece of existing access steelwork had to be removed separately and in turn when installing the new spiral staircase.

Seqwater staff were able to access the switchboard room for the duration of the project and this was achieved through high levels of Communication and control measures such as EWPs and Rope Access options.

During the project there were other pieces of work that included electrical isolation and redirection of cables and conduits to allow for the equipment to be installed. Seqwater operators worked with the contractors by utilising the submersible raw water pumps in the Brisbane River, so as to reduce the noise levels inside the dry well.

*Contributed by **John Granzien** from Seqwater.*



The internal spiral staircase.

ECHO - Ergonomics for Car, Home & Office

Ergonomics is the interaction between a person and their environment. For any workstation, there are various factors to consider when considering ergonomics including:

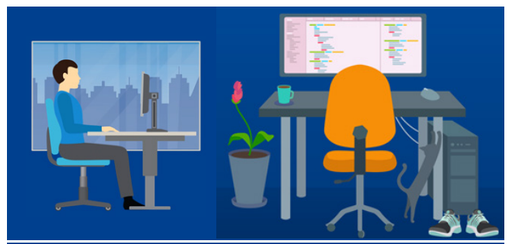
- Work practices and schedules (including frequency of breaks and changing of posture)
- Light, noise, ventilation and ambient temperature
- Equipment and furniture
- Physical activity

Traditionally, ergonomic set-ups are managed through checklists and paper-based approaches. Melbourne Water recognised the need to create a self-service tool that reflects the modern learner - quick to use, available online and accessible in their own time. We partnered with Victoria University to develop ECHO, a tool that aligns with one of Melbourne Water's core value of care and the prioritisation of the safety and wellbeing of our people and colleagues.

ECHO reflects the diverse nature of our workforce and provides guidance for both desk and vehicle-based workstations using an engaging and holistic approach. It also provides practical information and recommendations for those working remotely which has been prioritised due to the impacts of COVID-19. ECHO's highly interactive design provides users instant feedback on their existing workstation set-up, including the potential health impacts of sub-optimal postures and positioning. Graphics and animations are used to guide users to a more appropriate set-up.

ECHO is hosted on a website that can be accessed on computers and mobile devices, and is available to not only Melbourne Water but the Australian Water Industry. Since its launch, ECHO has been recommended by 96% of its users, proving its effectiveness in improving ergonomic in a variety of contexts. Melbourne Water and Victoria University are proud that ECHO won the LearnX Award for Best Micro/Bitesize eLearning Design.

*Contributed by **Adrian Sucipto** from Melbourne Water.*



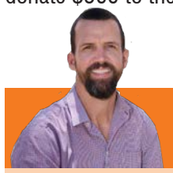
The easy to use ECHO interface.

mwecho.s3-website-ap-southeast-2.amazonaws.com

Spirit of Australia Awards

Australians are renowned for coming together to provide help and support each other during times of need, and we all know that 2020 has been one of the toughest years we have experienced.

With that in mind, WIOA with support of TRILITY created the Spirit of Australia Awards to recognise members who demonstrate the Australian spirit of mateship. The compassion and unconditional kindness of these members who have supported others during these challenging times was acknowledged with one person in each State recognised. Each recipient was able to donate $500 to their nominated charity, courtesy of Award sponsor in TRILITY.



Northern Territory

Jethro Laidlaw, Power & Water

Jethro identified an opportunity for students in aboriginal communities to raise awareness of cultural values about water throughout the NT, while helping customers and colleagues learn more about the challenge of providing essential services in remote communities.

Queensland

Bill Collie, Urban Utilities

Bill is a caring leader and both at work and at home is supportive of everyone. Bill is very active in the Urban Utilities wellbeing programs and introduced a free physiotherapy service for all operators and other staff requiring this kind of treatment.

Western Australia

Jessica Wilson, Water Corporation

Jessica worked tirelessly in coming up with an initiative and facilitating funding to support those at need. $100,000 went towards a range of COVID-19 relief projects and wellbeing support such as community food packs, personal protective equipment (PPE), health supplies and other support packs.

New South Wales

Jill Busch, Aqualift Project Delivery

Jill's support and dedication to many water industry areas of interest has continued to see her championing issues including; operator education, water quality management, reservoirs impacted by Telcos and greater diversity and inclusion in the water industry.

SA

Matthew Gulliver, TRILITY

Matt genuinely has the best interest of his neighbours and community at heart, and always looks to help those in need. After the bushfires, he helped collect and distribute preloved tools to the charity "Tools for blokes" and he donated hay from his property along with signing up to help Blaze Aid by donating his farming skills.

Tasmania

Damien Lavelle, TasWater

Damien has been a long-time contributor to both the water industry and his local community including as a mentor of young and upcoming operators and through his involvement in local football as a player coach and committee member.

Victoria

David Dickson, North East Water

David is a selfless worker who puts the community and his team ahead of himself. This was shown during the fires that devastated the North East of Victoria. During these times David managed to keep the loss of water supply to a minimum, maintaining water quality and keeping his staff safe despite his own new home being under threat of the fire.

2020 Kwatye Award Winners

Water Corporation's Jessica Wilson and Jordin Payne.

The 2020 Kwatye Award was announced on 9 September 2020 with the support of new sponsor TRILITY, and our congratulations are extended to Jordin Payne and Jessica Wilson from Water Corporation in Western Australia.

Jordin Payne

A proud Nimanburr woman and traditional owner from Broome with family ties to Yawuru, Djugun, Nyul Nyul and Bardi families on the Mid Dampier Peninsula. Jordin specialises in engagement with Aboriginal language groups, strategic communications, and relationship building.

Jessica Wilson

As Senior Advisor - Customer and Stakeholder North West Region for Water Corporation, Jess delivers communications and stakeholder engagement for the North West Region of Australia. She coordinates the Kimberley Grants Program and plays a significant role in maintaining positive relationships with language groups through the region.

Their project titled Aboriginal Community Services, North West Operations was a first of its kind for Water Corporation that went beyond traditional cultural awareness training into tailored localised water learning.

Participants from the Kimberley and Pilbara regions were guided by cultural elders and traditional owners on Country in three separate sessions to learn about water stories, ways of knowing water, water management and truth telling.

The sessions empowered employees with local cultural water knowledge to allow them to navigate their spaces with respect and appreciation for Aboriginal ways of knowing and their ongoing connection to water and country.

The program looks beyond the initial sessions into genuine collaborative partnerships that reinforce positive relationships and continue the water learning in the towns the operators and trades teams live, work and care for.

Jordin and Jessica chose Feed the Little Children as the recipient of the $1,000 donation that was provided to on behalf of the award sponsor, TRILITY.

Unconventional tools to remove cotton waste

Day to day operations of a water treatment facility have a wide range of tasks that include, but are not limited to; process monitoring, asset, project and contractor management. Occasionally, we also have to attend breakdown maintenance which recently included the removal of a 'cotton waste blockage'.

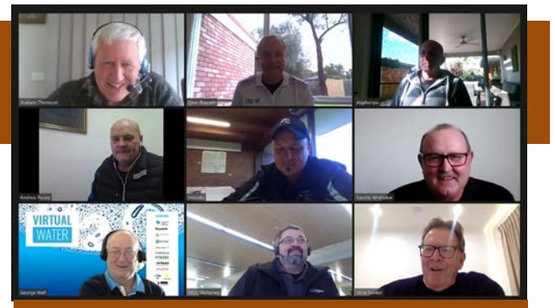
Most wastewater treatment plants have screens, in Victor Harbor case the screens are slightly finer than some conventional plants due to the membrane process in order to maintain the integrity of the membranes.

100kg cotton waste blockage.

The 'cotton waste blockage' weighed in at over 100kg and was made up of a combination of cotton waste, wet wipes, Lego, bottle caps and anything else people can fit down the toilet!

Some unconventional tools used in the clean out.

NODP 2020
On Again - Off Again



NODP committee members catch up over zoom.

The 2020 Victorian Network Operator Development Program (NOPD) commenced in February with a group of 14 Operators from around Victoria (including one from Albury in NSW).

After completing the first two sessions, the group were gradually coming out of their shell and starting to engage with one another. All this came to an abrupt halt at the end of March courtesy of COVID-19 and lock downs.

The organising Committee met regularly and with one eye on the gradually easing restrictions in June, agreed to restart the program in July. There was still some trepidation from water businesses about letting their staff attend face to face events, but the majority were OK with the program restarting in late July. It was hoped that things would continue to improve and that we may be able to return to face-to-face sessions in August.

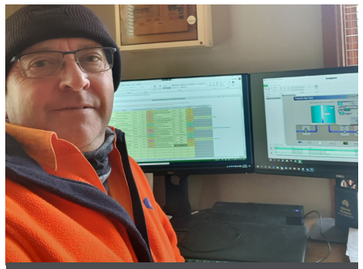
The Committee agreed to organise the program for Session 3 in July and made sure that it was able to be delivered online if needed. Unfortunately, July saw the resurgence of the virus in Victoria the need for introduction of even tighter restrictions, particularly in Melbourne.

Session 3 was held online and at the end of the day, the participants were asked whether they would like to continue online or wait until we could get back to face-to-face sessions. There was a unanimous vote to suspend the program, (again) and reinstate it when we can get back to face-to-face sessions. The general sentiment conveyed was that a major outcome of the program was the engagement with and learning from the committee and presenters; along with building a network of peers that could be called on in the future. These outcomes were not able to be achieved using the online format.

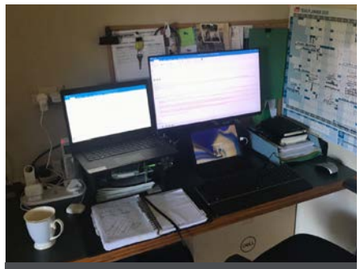
The Committee has agreed to monitor the situation with COVID-19 and will look to resume the program in a face-to-face format when it is safe to do so, most likely in 2021.

Victoria in Lock Down - Members Experiences

We asked some of our Victorian members about their experience in getting through lock down and changing work practices due to the COVID-19 pandemic.



Dave Reyne working from home.



Anthony's home desk.

Outdoor meetings become the norm.

Dr Dave Reyne | Ae Anthony Evans | Ap Andrew Povey | Hj Heidi Josipovic | Ms Mark Samblebe

How was your working week impacted by COVID-19?

Dr Working from home seemed like a great idea early on but that didn't last long! I have found that I am far more productive working from home as there are few distractions, no hallway meetings or long coffee breaks! I have been working longer hours than normal due to the office being right there all the time and have found weekends don't feel the same, still feels like work.

Ae Mine wasn't impacted all that much, there was some things we couldn't do or places we couldn't go but as time moved on, we adapted as well. All our contractors that we engage from lock down areas have had the required COVID Plans, permits and we minimised contact as much as possible.

Ap The Civil Maintenance and support teams are split in two so if we have a COVID case we do not have to stand the entire work force down.

Hj Office staff work from home. Operators continued to work as normal, but we ensured they didn't have to work at the same site so we always had 2 separate teams for water and wastewater. Separate lunch areas were created with staggered lunch breaks.

Ms Reduced travel, frontline work is now all but a distant memory. The travel restrictions have made some projects unfeasible to deliver with the travel 'isolation' rules (time and cost) and permit restrictions in place.

If you could find silver lining to your COVID-19 experience, what would it be?

Dr If anything has come out of it that is a positive is the fact that I have been spending heaps less money!

Ae I haven't been late for work once! I think there will more opportunity to work from home in the future as we have the evidence to show and sometimes it just makes sense. The other thing is no cough, cold or sore throat, we have all been guilty of going to work with one of these symptoms as we don't feel too bad. Now it is a punishable offence, it is a perfect opportunity to take up the work from home option in the future.

Ap Probably that we can communicate without face to face contact as there are many technologies to help us in this space but some much is lost in virtual communication.

Hj Less meetings! Everyone worked together as a team with ideas to protect each, more flexibility working from home which has brought the team closer together. Less colds and flu due to the social distancing and the rest of our council have a better appreciation for the importance of the water and wastewater team, in particular our operators.

Ms Family! The first lock down was a forced break which was well overdue, allowing me time to spend with my four kids and wife Brooke.

Young Trainees provide boost for Water Sector

Eleven new trainees have begun careers in the water industry as part of Seqwater's traineeship program, creating employment opportunities amidst the pandemic.

With COVID-19 forcing employees and businesses to adapt the way they operate, Seqwater has changed the delivery of its traineeship program, enabling it to continue to foster the next generation of water industry professionals.

Over the past few months, eleven young adults commenced traineeships across a range of positions including water supply operators, dam operators and rangers, via the utility's Next Generation program.

Seqwater Chief Executive Officer, Neil Brennan, said the trainees had been selected from a pool of more than 300 applicants.

"The Coronavirus has indeed posed a range of new challenges, which have required us to adapt to allow the traineeship program to continue while keeping our staff safe," Mr Brennan said.

"Orientation activities have had to be conducted via video link and TAFE workshops will likely be done online later in the year.

"In terms of on-site training, trainees have been working with a single mentor to take them through their daily job responsibilities, with social distancing requirements adhered to at all times."

Mr Brennan said it was important to continue developing and nurturing the next generation of water industry professionals to make sure South East Queensland remained a leader in the planning, supply, management and delivery of water.

"Our Next Generation graduate, apprentice and trainee programs are essential to securing and developing the necessary human resource capacity to support the growing region," he said.

"Having a new intake of water workers helps support our field and site-based staff, who are already doing an outstanding job, to keep supplying quality drinking water and maintaining water and catchment assets every day during these challenging times."

Seqwater aims to employ up to 40 graduates, trainees and apprentices in any given year, which represents about five per cent of its workforce.

Since the Next Generation program was established over 2011-2012, Seqwater has employed 134 graduates, trainees and apprentices.

Among the latest intake of trainees was 23-year-old Taylor Wilson, who said working at Seqwater had been a goal of hers for a while, with the traineeship offering the opportunity to learn from water industry experts and gain valuable hands-on experience.

Seqwater trainee Operator Supply, Taylor Wilson, working on site at Beaudesert Water Treatment Plant.

"Having lived through the Millennium Drought growing up - and as our region continues to deal with dry conditions - I'm proud to be working for an organisation that plays such an important role in ensuring a safe and reliable water supply for South East Queensland," Ms Wilson said.

"I'm looking forward to expanding my skills and meeting the challenges of providing water to communities, from large urban centres to rural farmers – no matter what the weather."

Since June 2019, Seqwater has employed 25 operation trainees and apprentices in line with its program. Seqwater's newest employees will be based in a variety of locations:

North (Sunshine Coast and Moreton Bay)
- Six Operator Supply trainees
- Two Electrical Apprentices

Central (Ipswich, Somerset, Lockyer Valley and Brisbane)
- One Electrical Apprentice
- One Mechanical Apprentice
- Five Operator Supply trainees
- One trainee Dam Operator

South (Redlands, Scenic Rim and Gold Coast)
- Five Operator Supply trainees
- One trainee Dam Operator/Field Ranger
- One trainee Ranger
- One Electrical Apprentice

*First published by WIOA Media partner Monkey Media in **Utility Magazine**.*

www.utilitymagazine.com.au

Renewed Commitment to Reconciliation

Unitywater has renewed its commitment to reconciliation with the launch of its second Reconciliation Action Plan (RAP) during NAIDOC Week.

Unitywater Executive Manager Customer Delivery Rhett Duncan said Unitywater launched its first plan in 2018 and the new one, titled Innovate, builds on the initiatives of the last two years.

"We're proud to launch our second RAP at Unitywater to formalise our ongoing commitment to meaningful change and improving the lives of Aboriginal and Torres Strait Islander people, particularly in our service region," he said.

"Over the next two years we are committed to providing further opportunities for our people to learn about Indigenous culture, provide employment opportunities, look at ways to support Aboriginal and Torres Strait Islander businesses and celebrate and acknowledge national Indigenous events across our organisation.

Unitywater's RAP Working Group with an Acknowledgement of Country plaque at its Northern Service Centre.

"We will also continue to provide engineering and technical support to the remote community of Mornington Island for improved water and sewerage services."

Unitywater had also installed Acknowledgement of Country plaques at its four main sites to acknowledge the Traditional Owners and custodians of the land and waters of the region.

www.unitywater.com/reconciliation-action-plan

Stuff
Operators Encounter

One of our Members, Jamie Rossato from North East Water sent us this interesting photo of a water meter that he had to replace which was totally encased in concrete.

This prompted us to ask all our Members to share photos and/or a short story about those unusual things that you see or find as part of doing your job.

Forklift Refresher

Operating a forklift is an important job, and forklift operators take on a lot of responsibility when they get their forklift licence. Forklift trucks are certainly useful, but they also pose certain risks within the workplace. If they are used recklessly, or without following the correct procedures, it can lead to damage of property, and worse, injury or even death. That means, safety always must come first when getting behind the controls.

To give you a refresher, we will go through 5 things that all operators need to remember to operate a forklift safely.

1 Never operate unlicensed

Having a forklift licence is essential before operating a forklift. During the process of obtaining a license, operators go through training that covers all the important safety information. These courses aren't just like taking a driving lesson – they teach you much more than how to manoeuvre the machine. You will also learn the relevant regulations that must be adhered to in any workplace where forklifts are used.

2 Wear your safety gear

Forklift operators are typically required to wear a hard hat, safety shoes, and high vis clothing at a minimum. You should never operate a forklift without putting these on first. Usually, employers will provide their employees with safety gear, but even if they don't, it is your responsibility to follow up and make sure these things are available to you. Make sure your safety gear fits well. Loose clothing items can get stuck in machinery, and loose hard hats aren't protecting anyone.

3 Check the forklift every day

When you start your shift for the day, it is important to thoroughly check the machine before starting operation. You need to make sure the forklift is working properly and is capable of achieving its max reach. Make sure you check covers for the brakes and steering, and that all components are functioning smoothly. It may seem like a burden to do this for every shift, but consider how much worse it will be if you have a malfunction mid-operation. If you notice anything, for example stiff controls, you need to have the machine booked in for repairs and service.

4 Follow speed restrictions

One of the most common causes of injury and damage while operating a forklift is speed. Every workplace has regulations around the maximum speeds a forklift can travel, and these should always be adhered to. Going over the speed limit not only endangers you, but those around you, and your employer's property. Stick to the limits and don't rush, even if you are behind schedule, forklift safety is absolutely paramount.

5 Don't get complacent

Sometimes when operators have been driving a forklift for a long time, they get complacent and start to cut corners. It is always important to be vigilant when it comes to safety procedures. Keep a keen eye out for any obstacles in your path, avoid bumps and slip hazards, and always sound your horn when approaching an entrance or a blind spot. You also need to keep a safe stopping distance from all other forklifts.

Forklifts are not a toy. If you are getting behind the controls, just as when operating any vehicle or machine, you are taking your own and other's safety into your hands.

MLA Holdings can provide you with expert advice on forklift safety, as well as providing safety devices and fleet management systems to enhance your forklift safety.

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To flush or not to flush?

New standard aims to give an answer

Stories of fatbergs and blocked sewers continue to pop up across the country, affecting both inner city systems and regional areas. Much of the commentary on this plumbing challenge is directing blame towards wet-wipes or similar products that are unable to break down when flushed.

- In recent years, what constitutes a flushable product has been a source of contention across Australia.
- Shortages in toilet paper during COVID-19 restrictions saw an increase in blockages and fatbergs as individuals searched for alternatives to toilet paper.
- DR AS/NZS 5328 which is currently in development will aim to outline methods for determining products suitable to be flushed down a domestic toilet and establish appropriate consumer disposal labelling requirements.

"Debates around what is appropriate to flush were only heightened by COVID-19 and the toilet paper shortages that came with it. In April of this year, Sydney Water reported a 22 percent increase in blockages as people utilised alternatives to toilet paper such as wet wipes," said Daniel Chidgey, Head of Stakeholder Engagement at Standards Australia.

To help provide clarity around this issue, Standards Australia has been working alongside a committee of experts representing the water and waste services industry to develop an Australian Standard.

"What is flushed down the toilet should not adversely affect wastewater collection and treatment systems. This new standard has potential to be an important addition to the sector and will aim to make it more clear what material can be put down the toilet," continued Mr. Chidgey.

"We are hopeful the new standard will bring clarity to this issue for Australian industry and consumers. In the meantime, we advise individuals to only flush the 3Ps - Pee, Poo and Paper," said Adam Lovell, Executive Director at Water Services Association of Australia.

"Standards Australia looks forward to finalising work on this standard and bringing it to the Australian public as soon as possible," concluded Mr. Chidgey.

Editors Note

Darren Sharman from Goulburn Valley Water in Victoria represents WIOA on the Standards Australia Committee that is working on this issue.

OPINION PIECE **CORPORATE MEMBER**

Wastewater screens may fail

Sometimes the first indication that wastewater plant screens need maintenance is when they are subjected to sudden heavy load. This is both the time that they are most needed, and the time when the worst failures can occur if screens have not been properly maintained.

Grit build-up over time in WWTPs may not show up until sudden wet weather and floods. For industrial plants, the problem is often a result of excess solids or hydraulic loads, or it could just be a simple mechanical failure. Screens are the first line of defence, they get the dirtiest job of screening out all the lumps, chunks, strands, and unwanted foreign objects that can foul the processes that follow downstream.

The inlet screens can look pretty good, so the temptation may always be there to check and forget, if there is no obvious problem. This approach can become a costly lesson for several reasons:

Screens Deteriorate. They may have a design life of many years in normal service, but routine maintenance is needed to keep them in peak operating condition.

Screen Technology Evolves. A fine mesh screen 10 or 15 years ago, may no longer protect processes downstream. It could be a matter of upgrading the screen to a finer mesh type or using new technology.

Asset Management. Inlet pre-treatment, including screens, is a robust but finite asset, the value of this asset should be maintained by regular servicing.

Risk Management. Screens are your front-line defence, they prevent or limit damage in processes downstream.

CST Rotary Drum Screen (L) & Grit Removal Technology (R).

Most companies these days are risk aware. They know production stoppages are costly, and environmental spills can affect their licence to operate. But we still do see poorly maintained plants causing issues for the operator. These should be a thing of the past, when small investment in yearly maintenance and check-ups can return good value in the long term.

*Contact **CST Wastewater Solutions.***

02 9417 3611

info@cstwastewater.com

www.cstwastewater.com

Fiberglass media traps

Known as media traps, safety traps or resin traps, these devices are used in a variety of applications to monitor and prevent the loss of expensive media in the event of a filter malfunction.

Until now, they could only be made using 2 materials, stainless steel which can be manufactured in any size and PVC with its inherent size restrictions. Now there's a third option offering large, customised media safety traps without the high cost of stainless steel fabrication.

Italian filter and nozzle manufacturer, ILMAP has just released a range of fiberglass media traps that can be manufactured to any size. But the biggest advantage of all is their price - fitting between the cost of comparably sized stainless steel and PVC media traps.

ILMAP media safety traps.

Whatever the application, media safety traps are used to control the loss of expensive resins, carbon or other media. They are also used in ion exchange columns, pharmaceutical resin treatments, food manufacturing and water treatment.

A media safety trap allows operators to monitor for any media leakage and diagnose the problem without shutting down production and avoiding the expensive process of removing the media to check for leaks.

The ILMAP media traps can be installed in new sites or retrofitted into existing filters, all customised to size and in your choice of stainless steel, PVC and now fibreglass. They also have the option of including pressure sensors which provide an automated warning about media leakage.

For more information about the ILMAP media safety traps, speak to the engineering specialists at Tecpro Australia. Using their extensive product knowledge and design expertise, they'll be able to guide you on the most appropriate media safety trap for your application.

*Contact **Tecpro.***

02 9634 3370

www.tecpro.com.au

pHix® Compact, v.3

MJK has released their next generation pHix® Compact, v.3 for the measurement of pH, temperature and redox.

It features Modbus RS 485 output as well as analog 4-20 mA signal. Slope and linearity are both improved, and firmware upgrades are now possible due to the RS 485 Modbus communication protocol. The new design in fortron PPS makes it almost 100% corrosion resistant.

In addition to measurements in wastewater applications, due to the new rough materials and long-term stability of the sensor and electrode, the pHix® Compact v.3 is suitable for pH measurement in waste & drinking water applications, process applications and a range of other applications. The pHix® Compact v.3 ensures that your work is done fast, easy and with high accuracy.

The compact design offers a union in one end, and male thread in the other. This makes it easy to mount in pipelines or immersed in open tanks. The double-junction electrode is developed especially for pHix® Compact v.3 and will provide significantly higher impedance, increased electrolyte volume, increased junction area and a longer lifetime compared to most traditional electrodes.

New pHix Link application tool for setup, calibration, electrode diagnosis and troubleshooting is connected using a Windows laptop over the build-in serial communication.

Features

- Compact design; electrode, fitting & transmitter in one
- Built-in temperature transmitter
- 4-20 mA output & RS 485 Modbus output
- Unique and simple buffer adjustment
- Constructed in reinforced PPS and/or stainless steel
- Automatic buffer sequence
- Very resistant to clogging
- Suitable for acid/alkalic fluids

Applications

- Wastewater applications
- Drinking water applications
- Process applications
- Raw water pipes

*More information from **MJK.***

www.mjk.com/media/2805/en-410-phix-compact-v3-datasheet-2006.pdf

New Members

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

New Individual Members

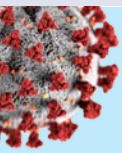
Deborah Silva, Shane Beeton, Adam Bone, Dean Lambert, Luke Tener, Gregg Edwards, Robert Scott, Cameron Ansell, Luke Jaworski, Christina Bassani, Elvis Saric, Louise Edwards, Jordin Payne, Leo De Sousa, Michael Webber, Douglas Tovey, Jacob Stoll, Casey Hardy, Gregory Smith, James Gott, Allan Wells, Mohamed Imraan Yousuf, Lauren McLean, Nina Allen

New Corporate Members

Khatibeng Engineering Procurement, Earth Science Laboratories International, Watercore and Aqua Analytics

New Utility Corporate Members

Charters Towers Regional Council



We are monitoring the COVID-19 situation across Australia and are hoping to be able to conduct face-to-face Conferences in 2021

2021 Conference Schedule

24 & 25 March 2021
- NSW Conference & Exhibition - Tamworth

2 & 3 June 2021
- Queensland Conference & Exhibition - Toowoomba

4 & 5 August 2021
- South Australia Conference & Exhibition - Murray Bridge

1 & 2 September 2021
- Victoria Conference & Exhibition - Bendigo

NOT SO BRIGHT SIDE

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0429 701 237

Vice President
Mark Samblebe
0400 126 141

Secretary
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0407 846 001

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