QueenslandWater

/ Issue 27 / May 2020

COVID019: The silver lining

No doubt the Corona virus has caused major upheaval across the globe (hence the April edition of our newsletter dropping in May!), and while our sector is not immune, we have shown to be a resilient bunch.

Somehow, through the dark clouds, we can see a silver lining. Suddenly the things that seemed impossible could become the New Normal, and issues that have needed attention for years have moved into the spotlight.

Over the past month or two we have experienced an agile sector that moved quickly to protect the workforce, and in this edition, we'd like to share some of the good news stories.

Don't reinvent the wheel...

South Burnett Regional Council was so impressed by Unitywater's message to reduce the risk of infection of its staff that it copied the initiative on their social media channels too.

Adam Branch from South Burnett Regional Council explains:

"On the 26th of March Unitywater posted this very important message to ensure the safety of its staff when in public.

We thought this was a great idea and wanted to put out a similar message to our local rural communities. So, on the 1st of April, our media team posted a similar social media message.

At the time, our team was changing work procedures, with additional precautions in the workplace causing a fair bit of uncertainty and anxiety in the team.

We used this as a much-needed morale building exercise by copying the photo as best we could. The lads got a bit of a laugh doing it and Tom the 'new boy' got to play the hero, although he forgot his hat and cape. Brad (top) and Blake (bottom) are still a bit filthy they didn't get a start..."

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It's a sign!

When David Fillmore, Infrastructure Standards Manager at Unitywater, investigated but rejected the $500 per week cost to put up a billboard, he found out about a free alternative called LOWD Billboards. He registered with the website and put forward his suggestion:

MAKE THE LEGACY KINDNESS –

RESPECT FACTS AND SCIENCE.

LOWD may have changed the message slightly to "Make the legacy kindness, respect, facts and science, but David wasn't complaining because it didn't cost him anything. The message was up for a day on approximately 50 billboards across SEQ – this image was taken from a screenshot on one of the live feed cameras.

If you have your own message that you need to get out there, you can submit ideas to LOWD https://www.lowd.com.au/home.

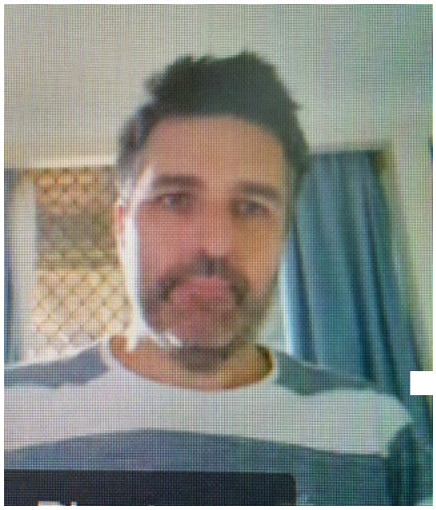
Utilities workers ask public to keep their distance

QUU Treatment Plant Operator Jamie Wood at the Gatton Sewage Treatment Plant.

Many Utilities posted photos of their staff keeping the wheels in motion to protect local communities, including this one (left) from Urban Utilities which was published in the Gatton Star.

Meanwhile, work at home arrangements for ***qldwater*** staff left Dr Rob lost and dishevelled (bottom left to middle).

TRG Chair Troy Pettiford livened up online meetings using backgrounds and dress ups to entertain staff (bottom right).



Send us your photos! We have prizes for **most creative social distancing in the field** and **most innovative videoconference background** for those of us still confined to the barracks.

CEO Report

Hello all – hopefully you're starting to think about a return to normality after an odd few months. Looking forward to having some positive distractions from the pandemic soon.

We have been corresponding a lot through e-flashes and various other channels and I remain amazed at our industry's capacity to respond to these crises and get on and get the job done. Early on we were assigned a role with by the Queensland Government to help facilitate research into supply chain and other issues impacting business continuity as well as look at critical staffing to help members manage through localised outbreaks if they occurred. Hopefully, none of these things will be needed as we move towards recovery, and we have collected a lot of useful things and been able to look at positive changes to the way we do business. I thought I'd spend a little bit of time in this edition describing some of these positives.

Information and resource sharing among members – this was both rapid and spectacular and we have a great knowledge base to draw on to help members address unexpected events in future. For now those resources are stored in our forums which are accessible through the COVID-19 page on our web site, in future we will incorporate into our resource library. We put a lot of effort into making the COVID-19 forum a respected first port of call for information, focussed on credible sources.

New ways of communicating with members – at the time of writing, we had completed 6 essentials webinars with a great response rate to each. They haven't just been working with the live events, each video recording has been getting a heap of views with several members reporting using them for toolbox talks and other development opportunities with staff.

One of the reasons we were able to rapidly deploy these is that we've been considering it for some time, running remote presentations for the last few regional events for presenters who've been unable to attend in person. They will continue for the foreseeable future, and there will likely be some sort of regular webinar offering on an ongoing basis, as well as other online training initiatives – see the skills update later.

Personal contact with members – we are normally pretty careful about bothering people unless asked, but have spoken to or at least attempted to speak to representatives from all members in the last month or so which has led to a couple of dozen issues being raised (mostly unrelated to COVID-19) that we were able to help with. I also like to think we've successfully done a bit of coordination which might mean you are getting a few fewer unnecessary calls from well-meaning but time consuming others…

New ways of working – Our staff have been flat out for the duration but adapted to working from home quickly and well, and simple things like an enforced weekly meeting have been fantastic. Our people have been distributed for a while, and I reckon everyone's got a stronger appreciation of what everybody else does, with lots of constructive suggestions and planning.

I won't dwell on negatives but most people who know me appreciate that cricket is the only exercise I can stand and for the sake of the scales they'd better sort it all out soon. I recently read some suggestions from a former legend of the game to speed the process by coming up with contact minimisation strategies including acceptable artificial substitutes for sweat and saliva to shine the ball… we need to desperately get these people off computers and back on television where I can mute them.

Enjoy the read…

Dave Cameron

Queensland communities welcome new Councillors

New Mayors and Councillors have been sworn in across Queensland, and there is no better time to promote the portfolios of water and waste. While underground infrastructure may be out of sight, keeping it out of mind can be costly – and deadly - in the long run.

We put together our Top 5 Tips for elected representatives relating to water and sewerage services, which we'll be sharing on our social media sites. Please share them around and get the conversations going in your local community!

Councils are responsible for providing a food-quality product to customers' taps come rain hail or shine, and this is a complex process for Queensland's varied water sources.

The most recent major incident was not too far from home in Havelock North, NZ, where hundreds of people fell ill and three died when a council bore water supply became contaminated with bacteria. An inquiry is determining how the council should have prevented the incident.

What you can do

- **Stay aware of any risks or changes to your water supplies**, as most incidents occur after system changes or events like heavy rainfall.
- Work with industry bodies to **advocate for more cohesive rules and funding** to ensure quality supplies across all Queensland's diverse communities.
- Ensure your council is familiar with the **rules and regulations**. Check out the ***qldwater*** website or get in touch with us for useful sources.

Getting on top of assets and optimising infrastructure planning has the greatest financial leverage for financial sustainability for water and sewerage services.

This is because of the high cost and long-life of capital meaning that even small changes at decision time magnify benefits (or costs!) for communities over time.

What you can do

- Support investment in only **fit-for-purpose** and fit-for-place infrastructure.
- Research **full cost recovery** recommended under the National Competition Policy with respect to your services.
- Advocate for the **rationalisation of funding support** for sustainable water and sewerage services.

Queensland has more people living in outer regional areas than any other state in Australia including over 370 urban communities, more than half of which service fewer than 500 people. Small communities share the same risks as large ones but often have fewer resources to address increasing expectations of the community and regulators. The water industry continues to experience numerous challenges, from natural disasters to changes in water regulation. Our members have experienced devastating floods, fires and the challenges and restrictions brought on by the Corona Virus all in the last year!

What you can do

- **Strong relationships and knowledge sharing** are needed among all levels of government, service providers and customers to solve issues as they arise.
- **Participate in QWRAP** a joint program of DNRME, LGAQ, ***qldwater*** and numerous participating councils in search for regional efficiencies.
- Advocate for a **strategic and equitable approach to funding essential services** which ensures best bang for your buck.

Ensuring you have secure supplies now and into the future to meet the growing needs of communities is difficult in a State with variable supplies and unpredictable weather. Partnerships between service providers and water intensive industries like tourism, agriculture and mining need to be developed and all users need to pay their fair share. Best practice community engagement is needed to help communities make informed decisions and understand the value of existing services.

What you can do

- Focus efforts on **local initiatives to ensure water security and efficiency**, and take the community along on the journey.
- **Learn more about the industry** and how things operate in your region.
- **Advocate for resources** to build sustainable and resilient communities across Queensland.

The quality, cost, resilience and reliability of your water and sewerage services are only as good as your people. Building the skills and careers of workers in the water sector is a long-standing issue. These workers are employed to develop, maintain and operate the infrastructure that protects the livelihoods of all Queenslanders, yet despite this significant responsibility and skill levels required for this work they are often overlooked, and it can be hard to maintain adequate employment and training for some significant roles.

What you can do

- Recognise and retain key teams and staff members and **encourage a culture of upskilling** to deal with emerging issues.
- **Learn more** through the eFlashes and events of the Queensland Water Skills Partnership.
- Advocate for o**ngoing professional and technical development** of critical staff, including programs like water industry worker and operator certification with recognition and regulatory support from State and Federal agencies where appropriate.

WAGNERS

Composite Fibre Technologies (CFT)

WATER INDUSTRY

WAGNERS COMPOSITE STRUCTURAL COLUMNS
INSTALLED AT MYPONGA AND KINGSCOTE RESERVOIRS FOR SA WATER

NOW AVAILABLE TO THE WATER INDUSTRY

Wagners Composite Fibre Technologies (CFT) has pioneered the use of composite materials around the world, and is credited with the design, manufacture and installation of the world's first composite road bridge on a public road network. Since this, Wagners composites have also been used in transportation, marine and electrical and now the water industry.

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EVENTS

Along with the rest of the world, we've moved our events online!

The Queensland Essentials Webinar Series was first tested on our Technical Reference Group (TRG) and we captured the following nuggets:

"Situational awareness and disaster preparedness mean maintaining a constant low level of paranoia. We were fortunate to have a fit for purpose Pandemic Management Plan that was perfect for the situation. The secret is to act fast, act professional and have no regrets. The timing was right for teams to act eager to respond. A Council-wide Incident Management Team helped to secure resources like additional team members and working space. Skills from pool staff (basic chemistry) and road crew (confined space entry) allowed us to upskill support teams to back up water and sewerage staff and being able to get them to complete the Aqua Card helped tremendously in this process."

- Cameron Ansell, Fraser Coast Regional Council

"Innovation is driven by disasters. Where we used to have pushback to technology advances, our teams now understand that we provide an essential service and that we need technology to monitor our infrastructure and services. This has been a great health check of business continuity and to check procedures and processes."

- Troy Pettiford, Whitsunday Regional Council

"We have seen some big positives with field crews adding 1.5 hours of productivity through work scheduling. Our laboratory teams work split shifts and feedback shows better handovers and getting through more tests. During online meetings we get through more stuff. All in all, we have seen big business improvements."

- Nicole Davis, Bundaberg Regional Council

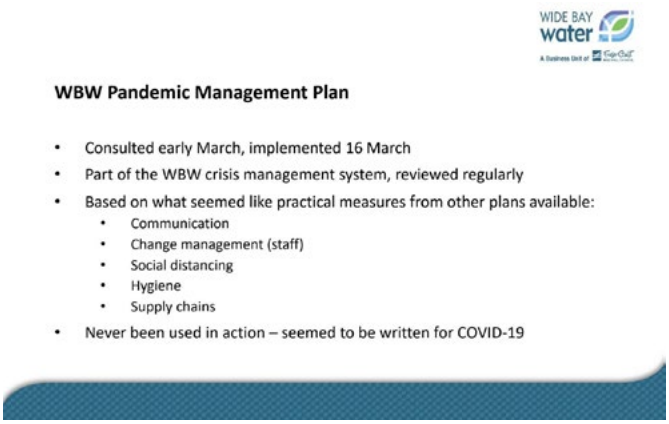
Essential Webinar Series

Based on feedback to date, we expect our Essentials Webinar series to become a more permanent fixture on our event calendar, especially for regional and remote service providers who would usually have to travel a long way to attend events in person. Terry Fagg from Western Downs Regional Council was so desperate to be part of the New Normal, he dialled in from the nearest 4G tower he could find (see right). While we are very much looking forward to meeting again in person, the webinars have been a great way to share some of the presentations we had scheduled and stay abreast of industry initiatives.

Here's a brief overview of the presentations we've heard so far. Recordings and presentations will be available on our new website which is due to go live in the next week.

Essentials Webinar #1

COVID-19 response: a brief reflection, by Cameron Ansell (Fraser Coast Regional Council)



When it became apparent in early March 2020 that the COVID-19 pandemic was a real concern, Fraser Coast Regional Council was in the enviable position of having in place a Pandemic Management Plan that had been recently updated. Implementation of the plan lead to some surprising positives, that could in part be attributed to enacting the plan at the most appropriate moment: not so early that it was seen to be an overreaction, but not so late that there was panic amongst staff. Some important lessons from the experience included the need to keep disaster management plans and critical spares lists up to date, and to meet the need of staff for current information, particularly in light of the deliberate distancing of teams. Cameron shared their successes, lessons and challenges from the COVID-19 response in his presentation.

Leveraging COVID for positive gains, by Troy Pettiford (Whitsunday Regional Council and qldwater TRG chair) and Nicole Davis (Mackay Regional Council)

The implementation of business continuity plans as a result of COVID-19 had had some surprising benefits, ranging from increased support for issuing tablets to field staff with resulting improvements in efficiency, to an increase in productivity resulting from field staff travelling directly from home to the job site rather than via the operations base. The introduction of split shifts in the laboratory at Mackay has resulted in significant productivity improvements. Some of these changes are likely to be permanently adopted. Troy and Nicole described some of the positives that have been leveraged from the crisis.

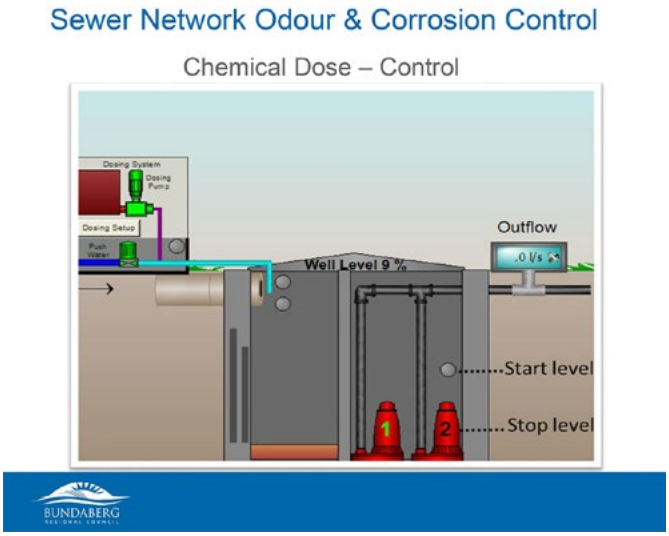
Essentials Webinar #2

An Aviator's Approach to Managing Water Services in a Crisis by Terry Fagg (Western Downs Regional Council)

There are some surprising parallels between pilots and water supply managers in the event of a crisis. In aviation, an in-air emergency demands that the pilot keeps the plane in the air, and in the water industry, it is imperative that the supply of water/wastewater is safe, and all other considerations are secondary. Failure can result in death. Most business continuity plans seek to maintain business as usual and focus on prevention but fail to consider what would actually be required to maintain a safe water supply in the event of a widespread disruption to society. Terry challenges us to consider what steps could be taken to keep the "plane in the air" in the event that 'business as usual' becomes impossible.

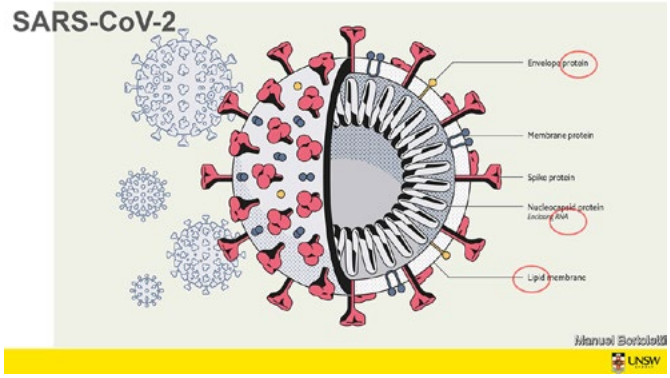
Sewer Network Odour & Corrosion Control by Jeff Rohdmann (Bundaberg Regional Council)

The control of corrosion in sewers is an important factor in improving the useful life of inground sewer assets, which are by their nature expensive to replace and which for many WSPs are reaching the end of their expected useful life. Essentially, the cycle of corrosion results from the reduction of sulfate in the wastewater to sulfide in the presence of biofilms that then oxidise to hydrogen sulfide (the odour) which is in turn biotransformed to sulfuric acid (the corrosive agent). High sulfate wastewater concentrations, high biological oxygen demand, high temperatures and long residence times in sewers all exacerbate the problem. Jeff described in detail the research and measures that BRC is taking to reduce corrosion in its network, and in doing so reduce the odour impacts and prolong the life of its assets.



Essentials Webinar #3

COVID Facts and the Water Sector by Stuart Khan (Water Research Centre, University of NSW)



There has been a lot of concern within the urban water industry on the risks that are presented by the COVID-19 virus (known as SARS CoV-2) specific to water and wastewater treatment. The SARS CoV-2 virus is one of a class of lipid enveloped viruses, which consist of a fatty (lipid) surface layer that makes it susceptible to the action of soaps. Lipid enveloped viruses are known to survive for less time in water and wastewater than un-enveloped viruses, which include many of the viruses that are routinely managed in wastewater such as hepatitis, polio, rotavirus and norovirus. Studies have confirmed that SARS CoV-2 is more susceptible than E. coli to chorine disinfection. Stuart provided the scientific background and outlined the current state of knowledge about this virus, with reassuring information about how current practices provide protection from transmission through water.

Developing an Organic Waste Roadmap for Cairns by Lynne Powell (Cairns Regional Council)

Cairns Regional Council is part way through a project that will provide a comprehensive management strategy for all organic waste streams collected by the council. The streams include green waste, biosolids from wastewater treatment and organics from kerbside collection. Analysis shows that around 80% of biosolids are reused and around 50% of other waste streams are recovered, with residuals currently being sent to landfill. The council has engaged a consultant to examine technologies that might be suitable for CRC, with a view to increasing the diversion of organic waste from landfill. Lynne outlined the project to date and the next steps for the council.

Essentials Webinar #4

Creating a Universal Point of Entry Drinking Water System for Rural Areas Using IoT by Martina De Silva (Water Source Australia)

Water Source Australia is developing a low-cost, small-scale point of supply water treatment solution for the delivery of drinking water to remote communities. The technology is designed to be operated remotely via the internet of things (IoT) using a 4G data connection, and to require no day-to-day chemical use and minimal maintenance. Using analytics on data collected, machine learning algorithms are being trained to optimise the operation and maintenance of the units. At the present time WSA is undertaking worldwide trials to challenge their systems with poor source water quality and provide opportunities to expand the capability of the machine learning algorithms, which includes a forthcoming trial on high temperature GAB source water in Charleville, QLD. Martine described the technology and its applications in her presentation.

Update on Townsville contaminants research by Anna Whelan (Townsville City Council)

Townsville City Council in conjunction with James Cook University is engaged in two PhD research programs centred on the Cleveland Bay Purification Plant (CBPP) and its environment. Laura Kuskopf is examining the contaminants that are released by the CBPP. Laura analysed 259 CECs, of which a handful have been found in the discharge in concentrations that exceeded the predicted no effect concentration values (a relatively conservative measure of ecotoxicity). Next steps are to develop a target list of those CECs most likely to cause an effect in the receiving environment.

Kezia Drane is examining the ecological impact of antibiotic resistance sourced from the CBPP. Antibiotic resistance in bacteria is a result of the presence of antibiotic resultant genes in a cell, but these genes can be inherited, or transmitted directly from other bacteria

(including different species) via the transfer of plasmids. Plasmids are gene fragments that can be small enough to pass through UF membranes to the environment. The research will examine the distribution of antibiotic resistance in sea turtles and their food sources.

Essentials Webinar #5

Floating Treatment Wetlands: A Nature-based Solution for a Small Rural Community at Kenilworth by Ramraj Kulkarni (Unitywater)

Unitywater recently completed a trial of Floating Treatment Wetlands at the Kenilworth STP which serves a community of 350 EP, but with a large recreational population that can increase flow up to 8 times on weekends and at holiday times. Under high flow conditions the STP discharges to a tributary of the Mary River. The lagoons are subject to seasonal algal blooms that required active management. For trial four, pontoons planted with different species of grasses were installed in the lagoon, with the intention of encouraging biofilm development on the roots to reduce nutrient levels in the water. Results show that some water quality parameters (suspended solids, nutrients) showed improvement almost immediately, with stable operation of the lagoons achieved over the last several months. Ramraj shares his experiences and some lessons learned from the trial.

Stephen Martin (Townsville City Council)

Steve set the context for the next speaker with a brief introduction that highlights the importance of asbestos cement (AC) pipe management. For TCC, AC pipe represents only 30% of mains pipes, but is responsible for 38% of main breaks requiring repair and is increasing. The breaks are strongly associated with wet season ground conditions and can be linked to the quality and care with which the original pipes were laid. Increasing maintenance/replacement of AC pipes attests to the need for the work that WSAA is doing in this space.

WSAA Asbestos Water Pipes Best Practice Guidelines by James Goode (Water Services Association of Australia)

WSAA is assisting the Asbestos Safety and Eradication Agency (ASEA) with the development of Good Practice Guidelines for the management of AC pipe, which are currently in review. It is WSAA's view that there is sufficient research to suggest that it is acceptable for intact disused AC pipe to remain in the ground as it is non-friable and buried, acknowledging that the decision to leave it in the ground is primarily cost driven. The future risk associated with the pipes is retained by the utility, which can cause issues particularly in densely populated areas. There remain some risks with the approach around communication, stakeholders, and in some jurisdictions the definition of AC as asbestos containing waste. It is noted that cracking AC pipe does create asbestos waste, which has created a legacy issue for some utilities. James provided the background for the development of the draft guidelines, which will be released for public consultation in June or July this year. The current project scope does not include sewerage assets.

Program Updates

Drought reporting now done via SWIM

With 42 Service Providers currently using the full licensed version of swimlocal (and still growing), the program continues to evolve in line with customer needs.

This was the first year that service providers were able to report the DNRME's fortnightly drought report and four-monthly water security survey via the system. Reporting this information via SWIM has a number of benefits. Apart from being more practical and useful, the SWIM system only requires users to report ten indicators for the water security survey instead of the 27 that are sent back to the Department. Of these ten, three of the indicators are already pre-populated so it is no wonder that 85% of service providers have already jumped at the opportunity to report this way.

We are now preparing for the next round of Annual SWIM water and sewerage reporting which is due at 1 October.

While face to face training has been suspended for a while, David is now hosting training via GoToMeeting, so please get in touch if you need training or assistance with anything SWIM related and particular in regard to your swimlocal setup. swimlocal is a powerful data management tool that should be used to its full potential.

QWRAP continues, albeit at a reduced pace

QWRAP regions have continued with joint projects despite COVID-19 disruption, albeit at a reduced pace in some instances where physical isolation made it difficult to procure certain services. The QWRAP model was also beneficial in pandemic planning with a number of regions working together to share information, documentation back-up chemicals and offering support in the face of potential impacts from coronavirus.

The WBBROC, FNQROC and WIM regions have been awarded new project funding despite COVID-disruption for well-planned projects that were flexible enough to temporarily work around physical isolation and other barriers. These projects are working on joint training for Water Industry Workers, joint sewer relining in far north Queensland and continuation of the joint supervisor project shared between Mackay and Whitsunday councils.

The new communications processes for QWRAP have been slightly delayed but are close to being realised. First cab off the rank will be new web pages which have been developed along with the general overhaul of the qldwater website. There will also be broader information products including regular social media updates in the new financial year. Until then if you have any queries about QWRAP or the projects being undertaken, please contact Rob, Ryan or Louise.

2020 Water Skills Forum encourages collaboration, not competition

Almost 80 delegates gathered in Brisbane on Thursday 5 March to participate in the third annual Water Skills Forum. There was a great amount of enthusiasm and discussion in response to presentations throughout the day and feedback has been very positive. Delegates said the forum was “very informative with a great cross section of speakers and topics”, “very thought provoking with great ideas from across the state” and “lots of knowledge and lessons learned being shared”.

Thank you to all presenters who gave up their time and shared their experiences and ideas so openly. Copies of all presentations are available at: https://ipweaq.eventsair.com/qwd-water-skills-partnership/agenda.

A number of presenters pointed to examples of collaboration within the water industry and encouraged more of this to address workforce and skilling issues in future. One delegate noted that the common theme of the event of sharing/collaboration/networking was “especially beneficial for the smaller service providers”.

In considering all of the content delivered at the forum, delegates were invited to identify their top priorities for action by the Water Skills Partnership. Those that were rated as most important were:

- More Water Industry Traineeships
- Expansion of the Water Industry Worker Program
- Leadership and Organisational Culture Development
- Involving Subject Matter Experts in delivery of the National Water Training Package

Whilst there are a number of urgent workforce priorities to be addressed in response to COVID-19, the Water Skills Partnership met in April to consider the priorities identified at the forum and discuss future collaborative actions to address them.

Delegates were keen to see an increase in the number of traineeships taken up across the sector. A number of options are being considered including industry-wide promotion of all available traineeships across Queensland as part of a broader campaign to highlight the job roles and career opportunities available in the water industry. The Water Skills Partnership has set up a working group to review ***qldwater***’s existing career resources and develop material to support this campaign.

Following successful operation of the Water Industry Worker program in South East Queensland for many years and a current regional pilot in North Queensland there has been strong interest in adopting the program in other regions. Kellie Lister’s update on the current pilot highlighted the importance of recognising the skills of civil construction and maintenance staff and the value gained by training with workers from

2020 Water Skills Forum (continued...)

surrounding councils. With a well-established program now in place and lessons learned from SEQ and NQ, a number of other regional areas are considering adopting the program and ***qldwater*** will continue to provide support through QWRAP groups to support regions to implement a suitable program. It is intended to interview current and past program participants to assist in promoting the value of the program to new regions.

The forum included a strong theme around leadership in response to feedback from Water Skills Partners that developing future leaders is a key focus for their organisations and members are looking for support in encouraging operators to look beyond their roles to seek supervisory responsibilities. Delegates found the presentation by ***qldwater*** TRG Chair, Troy Pettiford, especially relevant as he spoke of his career journey starting out as a Plumber then Leading Hand and now to his role as COO for Whitsunday Regional Council. The Water Skills Partnership believes his tips for moving from 'tools to team' would motivate others to look for opportunities for progression and Troy will be delivering his presentation again at the ***qldwater*** Essentials Webinar on Thursday, 21 May.

Following concerns raised about the declining number of RTOs with the National Water Training Package on scope, Water Skills Partners are considering how best to utilise the considerable industry expertise to support training delivery and this was the focus of a workshop session at the forum.

Delegates discussed how to increase the involvement of Subject Matter Experts (SMEs) in training delivery with a couple of key suggestions currently being considered including greater regional collaboration for training delivery/co-provision of training across councils. The first practical step for increasing SME involvement is for the Water Skills Partnership to produce a number of short practical videos of SMEs demonstrating the most common and basic tasks involved in water and wastewater treatment and network operations. These would be made available to ***qldwater*** members and Water Skill Partners and to RTOs to support their training delivery. In the meantime we are launching a series of webinars for operators with an industry expert providing a short training session on a common operational (treatment or networks) task. The sessions will be recorded and made available in the ***qldwater*** resource library. The first webinar will be held at 10am on Wednesday 17 June with a presentation by Terry Fagg from Western Downs Regional Council on backwashing filters. More details will be circulated soon.

With the ongoing support of subscribers and through its collaborative approach, the Water Skills Partnership will progress these initiatives over the coming year. Participation in these discussions is welcome from all Partners and you are encouraged to contact Carlie Sargent to provide your input.

Aqua Card

COVID-19 has caused a surge in people completing the Aqua Card as Councils turned to the course to upskill staff from other areas within Council to gain a better understanding of their roles and responsibilities when working on or near water infrastructure.

A presentation is available to provide an overview of the course for employees or contractors, and arrangements can also be made to provide the course as a slide show to use in toolbox meetings – contact Carlie Sargent for more information.

Consortium for Contaminants of Emerging Concern

As reported in the last edition of the Queensland Water Newsletter (SWEAPing in a new direction), our Sewerage and Water Environmental Advisory Panel asked us to develop a Consortium of Queensland water utilities to allow greater Queensland participation in national policy, research and innovation about contaminants of emerging concern.

A partnership has been formed, initially called the **Queensland Consortium for Research and Advocacy on Contaminants**, to share information and build ties at state, national and international levels to better understand and influence contaminants of emerging concern for the benefit of Service Providers.

Concern about contaminants is high and likely to grow as community and regulatory expectations continue to increase in parallel with the ability to detect trace amounts of multiple chemicals. The costs to Queensland water and sewerage service providers of dealing with contaminant issues will inevitably increase but can be mitigated through joint action and collaboration.

To date, eight councils have decided to join the consortium including Cairns Regional Council, City of Gold Coast, Logan City Council, Mareeba Shire Council, Redland City Council, Tablelands Regional Council, Toowoomba Regional Council and Townsville City Council.

An immediate opportunity for the Consortium was created by the rebid process for a new incarnation of the CRC for Contaminant Assessment and Rehabilitation of the Environment (CRC CARE), which has been a successful national hub for contaminant management since 2005 with a strong legacy in research and policy influence.

The CRC is currently in discussions with the Australian Government concerning funding beyond its current term, which will cease on 30 June 2020. The status of the rebid is unknown at present, but the group is also writing a new CRC bid, with the start date for successful bids to be around July 2021. The CRC is just one opportunity for the Consortium for potential partnership, and there are several national groups in Australia that will be considered by the participating councils ahead of any approach.

The first meeting of the Consortium Steering Committee took place on 5 May, and a work plan and priorities for the first year were scoped for a formal kick-off on 1 July 2020. However, Louise Reeves has been seeking and collating information and developing the necessary documentation to support the consortium for the past few months and we are working to identify suitable research partners for the research areas of most value to the Queensland sector.

The COVID-19 crisis has slowed things only marginally. If anything, it has reinforced the need for our sector to share information and collaborate on common actions in response to common issues with public health concern.

We'd like to acknowledge the leadership demonstrated by councils that are supporting this collective approach and reiterate the open invitation for others to join the Consortium.

If you would like more information, please contact Louise Reeves or Rob Fearon.

Reef Councils Major Integrated Project Wastewater Stewardship Initiative

New requirements for reef communities commenced with the new Reef Regulations which came into effect from 1 December 2019 but some aspects of which have now been deferred until 1 June 2021 by DES in recognition of COVID stresses. Previously, all new, expanded or intensified "regulated industrial land use activities" such as sewage and water treatment plants would have needed to meet new discharge standards from 1 December 2020.

For STPs this is a temporary reprieve. In future, new or expanded STPs must not increase nutrient or sediment pollutant loads flowing from each reef catchment. For sewerage managers, this approach of "no-net-decline" means that public sewerage services must be managed so that they do not contribute nutrients in addition to those currently allowed in their Environmental Authorities (EA).

In response to the new Regulations and with a desire to improve environmental stewardship (as well as demonstrate the enormous investment councils already make), LGAQ secured funding through the Office of the Great Barrier Reef (OGBR). This supported the Stage 1 Strategic Assessment (WWSSA) component of the Wastewater Stewardship Initiative in the Reef Councils Major Integrated Project (MIP). ***qldwater*** is partnering with the LGAQ to manage the project which has been running since early 2019.

Council-owned STPs contribute less than 5% of the total land-sourced nutrients flowing to the GBR but can have significant local impacts on local waterways. Reef Councils are investing in continuous improvement in local assets and activities to reduce total discharges to the Reef, improve water quality and respond to increasing community expectations and regulations. However, investment in high-tech treatment plants is expensive with diminishing returns for small towns.

Councils are increasingly seeking innovative options to improve management of sewerage systems aligned with local and GBR-scale catchment stewardship. The WWSSA will benefit all councils through cataloguing alternative solutions and supporting participating councils and key stakeholders to prepare to trial alternative stewardship projects involving wastewater.

The WWSSA includes a number of outputs which will assist councils in mitigating the impact of the new regulations on their operations whilst improving their local catchments. One of these outputs is an options analysis of alternative approaches to treatment of wastewater. This options matrix is designed to provide a high-level catalogue of treatment approaches allowing councils, consultants and local communities to work together in exploring fit-for-purpose solutions ensuring sustainable investment.

To demonstrate applicability of fit-for-purpose solutions the WWSSA also included a limited Life Cycle Analysis (LCA) of an agreed list of alternative approach treatment approaches. The trials tested within the LCA were identified through two workshops with Reef councils and applications from individual councils. The LCA is an important tool as it provides a common framework to assess social, environmental and economic costs across the life of a potential option. Assets within the wastewater industry are long-lived so having an understanding of their total cost over time, even at a high level informs better decision making.

Across the Reef Catchment, 18 councils have participated in the WWSSA project and 11 trials were submitted to the steering group for review. The submissions were of high caliber and represented the continued drive by Local Governments to improve their local catchments and the reef while providing safe, secure and sustainable services to their customers.

The five trials selected for the LCA provided a broad representation of treatment approaches ranging from water quality offsets to macroalgae treatment systems to modular membrane technologies.

The next stage of the project is to develop an investment strategy to support five trials as well as other approaches proposed by councils and to seek further funding to reach an implementation and testing phase. Implementation will create exemplars for other councils seeking affordable improvements in sewage management.

With COVID-19 economic disruption, funding for these projects may be thin on the ground for a while, but the need to constantly improve stewardship of reef catchments and protect the GBR remains a priority. The WWSA investment strategy is being designed with council input to be a legacy tool for participating councils and state agencies to better plan future sewage management in reef catchments.

Upcoming Events

While there are still some question marks over some of the proposed events, our Essentials Webinars series will continue for the foreseeable future - join us every Thursday at 10am.

May

21 ***qldwater*** Essentials Webinar #7- Intelligent Water Networks, How to Prepare Future Leaders for the Transition from Tools to Team and WSAA COVID-19 Response

28 ***qldwater*** Essentials Webinar #8 - Old School Asset Condition Assessement and Department of Environment and Science Update

June

4 ***qldwater*** Essentials Webinar #9 - Cool Wastewater Treatment Projects at Helidon and ColoSSus- COVID-19 Sewage Monitoring

11 ***qldwater*** Essentials Webinar #10- TBC

17 ***qldwater*** Essentials Webinar #11 - Operator Training

23 TRG Meeting

September

9-10 Annual Forum, hosted by Redland City Council

11 TRG Meeting, Brisbane

October

7-8 FNQ Regional Conference, Atherton

November

17 Potential ***qldwater*** Mini-Conference, Twin Waters

18-19 AWA QWater / NQWater Conference

December

4 TRG Meeting, Brisbane

Memberships

We welcome our new Affiliate Members- Bligh Tanner, Simmonds & Bristow and Wagners.

They join our growing group of Affiliate Members including Community Solutions, Detection Services, Research Laboratory Services, Trility Pty Ltd, Viridis Consultants, Veolia, Solomon Water and the Queensland Government Departments of Health and of Natural Resources, Mines and Energy.

Affiliate Membership funds are directed towards enhancing ***qldwater*** communication products.

BLIGH TANNER

Simmonds & Bristow
The Regional and Remote Water Specialist

WAGNERS

Advertising

Our communications survey indicated that members welcome advertising in our newsletter and we are keen to help promote any businesses working in the Queensland Water and Sewerage industry.

Current Affiliate Members are invited to take advantage of a special deal. Please contact Desiré Gralton for more information.

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"The Queensland Water Directorate (*qldwater*) is the central advisory and advocacy body within Queensland's urban water industry and represents members from Local Government and other water service providers across Queensland."