

QueenslandWater

/ Issue 29 / December 2020



in the rearview mirror...

waterskills PARTNERSHIP

46 Subscribers to WSP
Aqua Card Completions: 596
Brown Card Completions: 106
Paid Completions: 267
Foundation Skills Micro-credentials launched



Queensland Water Regional Alliance Program

5 existing regions
2 emerging regions
2 Awards Won
4 new projects commenced

swim DATA REPORTING

100% of members
use SWIM for reporting purposes
Continued growth in swimlocal
nearing 50 customers
Power BI dashboard

swimlocal DATA MANAGEMENT



72 Full Members (100%)

2 of 2 Distribution Retail Entities (SEQ)
52 of 52 Mainstream Councils
17 of 17 Indigenous Councils
+ GAWB

12 Affiliate Members

Website

Full migration of website
285 documents added to
Resource Library
New Reef Councils portal
New QCRAC knowledge portal



Advocacy

Submissions (direct & joint):
13 since July
Committees Representing
members: 47 (almost doubled since
March lockdown)
MOU with NSW Water Directorate

Events

Water Skills Forum
Essentials Webinars: 16
Fundamentals Webinars: 5
BOTB Qld Water Taste Test
Atherton Conference
SPG Meetings: 5



CEO Report

What a year. The last article from me and it's a largely COVID-free zone.

I had the opportunity to receive a personal honour a couple of weeks ago as the recipient of the AWA Queensland Distinguished Service Award. Writing about such things is no easier than accepting congratulations in person, but here goes.

- Thank you to AWA for the acknowledgement and kind words.
- Thanks to everyone who made contact in person and the couple of hundred thumbs up etc on various LinkedIn articles. I have significantly underestimated how much people use the thing and may have to reconsider what I do with it, which to date has largely been accepting or ignoring connection requests without really understanding why.
- Thanks to the **qldwater** staff. Acknowledging your team is cliché, but in this case essential – we have 8 awesome staff who are really committed to our industry and members.
- Thanks to all the other **qldwater** volunteers and people who contribute to the Directorate and our sector but often escape notice and recognition.

The 2020 honour roll for our membership should be a very long list.

There is a big risk when you start naming names that you're going to forget someone important but we'll run the gauntlet – credit to all the chairs and deputies of our major reference groups for the big efforts made in

stimulating collaboration– Trevor Dean, Troy Pettiford, Narelle D'Amico, Mark Vis, Cameron Jackson and Angela Robinson.

Finally I'd just like to single out a few significant others who've been fundamental in driving new activities or industry submissions on our behalf – particularly Carmel Serratore, Terry Fagg and David Fillmore.

At the time of writing the post-election changes had started to settle with the announcements of Ministers and Directors General (see details next page). Some key departments are reporting business as usual while others wait for some other executive appointments to be announced. Significantly there is a portfolio with water in the title again and we are gearing our advocacy around the industry roadmap for early 2021.

Our Strategic Priorities Group met for the final time on 4 December and agreed on approaching six of these agencies in writing with meetings proposed for some. We are working through the content but topics are targeted, based on a range of member consultation over the last couple of years.

Best wishes to all our members and stakeholders for a safe festive break. While the **qldwater** offices will be closed for 2 weeks from 21 December and most staff will be taking a bit of leave either side of that, Rob Fearon and I will be available by phone if you require any urgent assistance.

Until next time,

Dave Cameron



Wishing all our members and supporters a happy festive season and all the best for 2021.

From Dave, Rob, David, Ryan, Carlie, Louise, Naomi & Desiré

Portfolio	Agency/ies	Minister	DG/Other Title and other significant role/s
Premier and Minister for Trade	Department of the Premier and the Cabinet	The Hon. Anastacia Palaszczuk MP	Dave Stewart
	Public Service Commission		
Deputy Premier and Minister for State Development, Infrastructure, Local Government and Planning	Department of State Development, Infrastructure, Local Government and Planning	The Hon. Steven Miles MP	Damian Walker
	Queensland Reconstruction Authority		Toni Power (Coordinator-General)
Treasurer and Minister for Investment	Queensland Treasury	The Hon. Cameron Dick MP	Rachel Hunter (Under Treasurer)
Minister for Education, Minister for Industrial Relations and Minister for Racing	Department of Education	The Hon. Grace Grace MP	Tony Cook
Minister for Health and Ambulance Services	Queensland Health	The Hon. Yvette D'ath MP	Dr John Wakefield
	Queensland Ambulance Service		
Minister for Transport and Main Roads	Department of Transport and Main Roads	The Hon. Mark Bailey MP	Neil Scales
Minister for Energy, Renewables and Hydrogen and Minister for Public Works and Procurement	Department of Energy and Public Works	The Hon. Mick De Brenni MP	James Purtill
Attorney-General and Minister for Justice, Minister for Justice, Minister for Women and Minister for the Prevention of Domestic and Family Violence	Department of Justice and Attorney-General	The Hon. Shannon Fentiman MP	David Mackie
	Public Trust Office		
Minister for Police and Corrective Services and Minister for Fire and Emergency Services	Queensland Police Service	The Hon. Mark Ryan MP	Katarina Carroll (Commissioner)
	Public Safety Business Agency		
	Queensland Corrective Services		Peter Martin (Commissioner)
	Queensland Fire and Emergency Services		Greg Leach (Commissioner)
Minister for Tourism Industry Development and Innovation and Minister for Sport	Department of Tourism, Innovation and Sport	The Hon. Stirling Hinchliffe MP	John Lee (Acting)
Minister for Agricultural Industry Development and Fisheries and Minister for Rural Communities	Department of Agriculture and Fisheries	The Hon. Mark Furner MP.	Beth Woods (retiring in early 2021) Bob Gee (from early 2021)
Minister for Communities and Housing, Minister for Digital Economy and Minister for the Arts	Department of Communities, Housing and Digital Economy	The Hon. Leanne Enoch MP	Clare O'Connor
Minister for Regional Development and Manufacturing and Minister for Water	Department of Regional Development, Manufacturing and Water	The Hon. Glenn Butcher MP	Frankie Carroll

Portfolio	Agency/ies	Minister	DG/Other Title and other significant role/s
Minister for Employment and Small Business and Minister for Training and Skills Development	Department of Employment, Small Business and Training	The Hon. Di Farmer MP	Warwick Agnew
Minister for Seniors and Disability Services and Minister for Aboriginal and Torres Strait Islander Partnerships	Department of Seniors, Disability Services and Aboriginal and Torres Strait Islander Partnerships	The Hon. Craig Crawford MP	Dr Chirs Sarra Mary-Anne Coutts (Associate Director-General, Seniors and Disability Services)
Minister for Resources	Department of Resources	The Hon. Scott Stewart MP	Mike Kaiser (Acting from January 2021)
	Resources Safety and Health Queensland		
Minister for the Environment and the Great Barrier Reef and Minister of Science and Youth Affairs	Department of Environment and Science	The Hon. Meaghan Scanlon MP	Jamie Merrick
Minister for Children and Youth Justice and Minister for Multicultural Affairs	Department of Children, Youth Justice and Multicultural Affairs	The Hon. Leanne Linard MP	Deidre Mulkerin



Christmas & New Year Annual Leave rosters - Who Should I Call?

*Relief Water & Wastewater Operators
Anywhere-Anytime-Any Duration*

- 💧 Water industry skilled & experienced
- 💧 Certificate III Qualified
- 💧 Water, Wastewater & Networks
- 💧 Relief and Permanent assignments
- 💧 S&B Backup support by our Process Engineering & Scientific knowledge



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Sustainable Water and Sewerage Services for Regional Communities

Our first event for 2021 will be our previously deferred joint event with the New South Wales Water Directorate on “Sustainable water and sewerage services for regional and remote communities” to be held in Goondiwindi on 17-18 February 2021.

It will be “hybrid” event, and while we hope to see as many members and stakeholders as possible in person, there will no doubt be many who won’t have the time or resources to travel who will be able to join online instead.

The program is being finalised but will include a mix of speakers on strategic and technical solutions, as well as panel sessions and workshops to explore five themes relevant to small and remote communities:

1. Funding water and sewerage services responsibly and sustainably
2. Choosing fit-for-purpose technology
3. Negotiating levels of service
4. Appropriate approaches to compliance and regulation
5. Readiness for alternative supplies

All sessions will be available online with interactive sessions to keep all participants involved in the discussion and canvass ideas and opinions.

A sample of presentation topics include:

- Resilience in Small Towns.
- Panel session on shared strategic challenges including panellists from NSW, NT, Qld and WSAA
- Exploring governance and regulation for small communities
- Session on navigating technology traps
- Workshop on key messages for decision-makers and funders in other levels of government

The new program represents a slight shift in focus – while we were originally keen to include a showcase of fit-for-purpose technologies, the original intent will be difficult to deliver in a hybrid format, and many of the presentations have now been picked up through our Essentials Webinars.

This is not a standard conference – it is a specifically themed event with a strategic aim of informing our industry roadmap – developing practical recommendations for service providers and government. It is also an exciting collaboration opportunity with NSW.

We thank our amazing sponsors for this event:



Sigura Taste Test & Trivia

The first hybrid taste test went off without a hitch with Livingstone Regional Council reclaiming the top spot once again, kicking reigning champions Mackay Regional Council one step down the pedestal.

Water from a pristine dunal water system at Waterpark Creek and treated at Livingstone Shire Council's Woodbury Water Treatment Plant was once again selected Queensland's top drop at the 2020 Sigura Best of the Best Queensland Water Taste Test held on Thursday 10 September 2020.

Usually hosted in conjunction with our Annual Forum, the 2020 COVID19-version of the taste test included a fun and interactive online trivia session with members dialling in from all across the state as a panel of judges made their way through the samples, interrogating the ten entries received from around Queensland by colour, odour and taste.

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.

Portfolio holder for Water, Waste Management and the Environment, Councillor Andrea Friend, said this was a fantastic outcome for the Shire and a testament to the dedication, passion, and hard work of the water treatment plant team at Livingstone Shire Council.

"Council is thrilled to be named Queensland winner a second time since the awards were established and is extremely proud and committed to providing the Livingstone Shire community with clean, potable, high quality water," Cr Friend said.

"I would like to commend the dedicated and professional Council team which operates the

Woodbury Treatment Plant. The team is constantly striving to maintain the highest quality water for our residents and best practice treatment techniques and continue to achieve fantastic outcomes for our community."

Coming in at a close second place, Mackay Regional Council had to be satisfied with its string of past wins including the Queensland Water Taste Test in 2018 and 2019, the 5th national Ixom Best Tasting Tap Water and then winning silver at the 2020 International Water Tasting Competition in Berkeley Springs, USA.

Unfortunately Livingstone didn't make it in the National competition for 2020, leaving Michael Dalton with no option but to keep trying in his mission to get this fantastic sample to the US – with the current state of affairs in the US, it's possibly a blessing in disguise!



Atherton Wrap

On 8 October we held our first attempted “hybrid” event in Atherton, hosted by Tablelands Regional Council. While maintaining COVID distancing requirements was a little challenging, our hands have never been cleaner with the number of disinfecting wipes used. The feedback from the representatives able to attend in person was excellent and the presentation program was high-class.

Nineteen people joined us virtually for the occasion and we greatly appreciated their patience while we learned about the challenges of testing hardware and software at a new site. There were a few audio issues in particular, apologies to Adrian Wellington from **Dial Before You Dig** whose video presentation was able to be heard on site, but not online. It is available [here](#) and we encourage you to catch up and consider taking advantage of the pre-excitation management course being offered by DBYD free of charge. Other session videos are available [here](#).

The demonstrations/ virtual tour worked well and participants seemed to enjoy the trivia competition at the end of the day, cut a little short thanks to the webinar software deciding to have an early mark. Fortunately, it happened at the end of the day.

We will take our learnings and new audio hardware to the small communities forum in Goondiwindi in February 2021, so please ensure you register to experience what will hopefully be a seamless event.

Thanks to sponsors **Dial Before You Dig**, **Royce Water Technologies** and **Aquatec Maxcon**, whose support helped us to offer a free event to members at a time when professional development and travel budgets have been significantly squeezed, if not wiped altogether.

Thanks again to our exceptional hosts in Tablelands, and to all of the presenters for taking the time to prepare some great content.



Essentials Webinars

Since the last issue of the newsletter, our Essentials Webinars have settled into a new monthly routine with the following presentations hosted since August:

Essentials webinars #14

The Logan gasification demonstration plant by Johanna Johnston (Logan City Council)

Logan City Council operates the Loganholme WWTP, which serves 300,000 people and produces approximately 34,000 tonnes of biosolids each year, constituting approximately 30% of the operating costs. LCC has constructed a pilot gasification plant at the site. The plant's aim is to recover a syngas from the biosolids that can be used to run biosolid driers and deliver a biochar product from which 94% of the persistent organic pollutants (including PFAS and microplastics) have been removed. Johanna provides a summary of the project findings to date.

SHOW ME THE MONEY!!... Options for demonstrating sustainability in a water business by Chris Adam (Strategic Asset Management)

The cost structure of a typical water business can be divided into four categories: Operating Costs, Depreciation, Dividends, and Interest and Redemption of loans. However, cost for a water business, are typically 70-80% driven by assets, and these assets are very long-lived, meaning capital expenditure has a large and enduring impact on costs. Chris provides a summary of seven key indicators that can be used to provide a broad view of the financial sustainability of a water business to simplify and complement financial modelling.

Long Term Recycled Water Release Program – constructing marine crossings on the GC by Mark Herrman (City of Gold Coast)

City of Gold Coast releases surplus recycled water into the Gold Coast seaway on an outgoing tide through a system constructed in the 1980s. To meet forecast population growth, the city has undertaken a program to construct two new marine crossing pipelines, and two pump station upgrades (on live pump stations) to expand capacity. The project spans eight separate construction sites, some of which are in highly visible locations. Mark provides an overview of the works that are nearing completion, and shares lessons from the project.

Essentials webinars #15

Megashut! By Noel Ralph & Nadine Story (Urban Utilities)

The S1 catchment is the largest sewage catchment in Brisbane, serving a population of 800,000 that feeds into the main pumping station serving Luggage Point STP. The pump station is fed by three 1575mm diameter critical sewers that have not been inspected for more than 8 years. The presentation provides a fascinating insight into the high degree of coordination across multiple teams that was required to safely shut down the sewers to conduct a CCTV condition assessment on the sewer, and bring the system back on line without impacts to the network, the infrastructure, the environment or the Luggage Point STP.

Biosolids to Bioproducts by Luisa Marghales (Unitywater) & Glenn Dale (Verterra)

Unitywater produces 84,000 wet tonnes of biosolids that must be transported and managed each year. In 2013, Unitywater entered into a joint collaboration with Verterra and Suez to investigate reducing the cost of biosolids disposal each year through alternative management means. Luisa and Glenn describe the results of a Controlled Aeration Static Pile Composting (CASP) trial that seeks to unlock the value of biosolids compost, both in avoided disposal costs and as the beneficated product, which is a complete agricultural fertiliser.

CRC-p the WSAA Perspective by James Gardner (WSAA)

James is the WSAA Program Lead for the Smart Linings CRC, which is a collaborative program to improve the understanding of the performance of lining systems and how utilities can get the best out of them and their existing assets. The program is a broad industry-wide collaboration with utilities providing the test sites for manufacturers and applicators to install the products, which are then tested through the university collaborators. The information feeds into the development of WSAA Industry Codes and Standards. James provides an update on the progress of the project which is nearing completion.

Essentials webinars #16

Security of Critical Infrastructure Act changes and Trusted Information Sharing Network (TISN) Mutual Aid Guidelines by Luke Sawtell (Urban Utilities, Water Services Sector Group)

In August this year the federal government released the Protecting Critical Infrastructure and Systems of National Significance consultation paper, which outlines proposed changes to the Security of Critical Infrastructure Act. WSAA and WSSG (for which Luke is the UU representative) provided a joint submission on the changes that might have a substantial impact on the water sector, particularly for service providers that fall into the 50K-100K population category. Luke discusses the implications of the proposed changes and provides an update on the draft Trusted Information Sharing Network (TISN) Mutual Aid Guidelines.

TigerNix Asset Failure Predictive Analytics by Sen Vigneswaran (Townsville City Council) –

Sen presented on the development of an asset failure model that has been put in place for TCC's water assets. The council has implemented the TigerNix system which is accessed by a customised dashboard that tracks assets, failures and planned replacements. After two years of using the system, the model has provided 80% accuracy in its failure predictions and is being used to inform replacement decisions for the council. Sen describes the implementation of the system for the councils and provides a showcase of its application for Townsville.

Lagoon pH licence amendments by Jeanette Harold (Fraser Coast Regional Council)

Fraser Coast Regional Council's Aubinville STP has a lagoon system that supplies recycled water to a nearby tree plantation. The STP has been subject to seasonal licence breaches due to naturally occurring high pH in the lagoon system despite the plant pH remaining within compliance limits. All non-compliance incidences were reported, investigated and dismissed by the regulator shortly after reporting. Jeanette outlines the basis for their approach to the regulator and successful bid to amend their STP conditions.

IPWEAQ Great Debate

The theory that **Engineers are introverts and disconnected from the world around them** was disproved at the IPWEAQ Great Debate in November with team negative (Seren McKenzie, Trevor Dean and Maddy Stahlhut) making a strong case that Engineers can actually be extroverted and connected as well.

The positive team may have been more extroverted themselves, making their win less convincing and hopefully providing some relief to team positive, consisting of the more introverted Josh Flanders, Moira Zeilinga and Rob Fearon.

The debate is intended to be entertaining and lighthearted but it also offers an opportunity to address key, niggling or divisive issues. Political correctness was observed at all times.

Delegates voted for the winner using the conference app.



AWA Queensland Conference Wrap

Winning the 2020 State of Origin series AND the AWA Distinguished Service Award for his service to the water industry in one night put a rare smile on Dave Cameron's dial, but that was only one of the highlights of the AWA Queensland Conference.

A big congratulations also to Mackay, Whitsunday, Townsville, Cairns and Burdekin Councils for taking out the Organisational Excellence Award for the Regional Water Industry Worker Pilot Program (read more under the Skills Update)

The Logan Water Infrastructure Alliance Partners took out the Project Innovation Award for the Cedar Grove Environmental Centre after picking up another award at the IPWEAQ state conference in the previous week!

Other award winners included Zhiguo Yuan as Water Professional of the Year, Lachlan Guthrie as Young Water

Professional of the Year, Zhiyao Wang for the Student Water Prize and a number of university and industry partners including Urban Utilities and City of Gold Coast for R&D Excellence (Zero-Energy Sewage Treatment: Harnessing the Power of Biogas) and Port Stewart Water Supply for Infrastructure Project Innovation Award Regional (Arup and Centre for Appropriate Technology).

qldwater was well represented at the event with Ryan Cosgrove presenting on the Reef Councils Major Integrated Project: Wastewater Stewardship Program. It was a great opportunity to catch up with many of our members and hear about the interesting projects from across Queensland, including the Asset Criticality project which features in this newsletter.

We thank the AWA for sharing the lovely photos of the event.



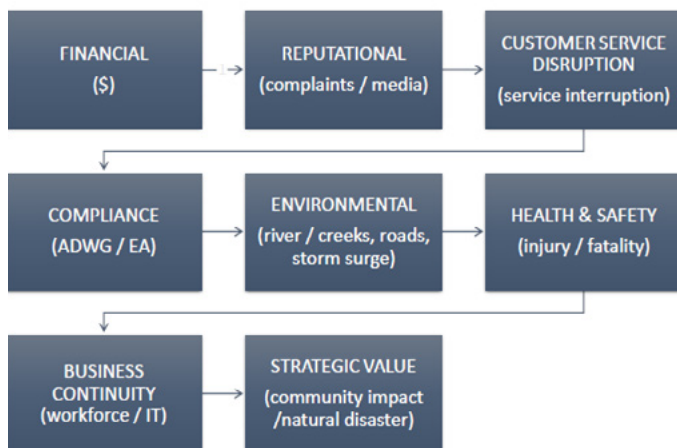
Regional collaboration shines a light on critical assets

In early 2020, **qldwater** and Mackay, Whitsunday and Fraser Coast Regional Councils signed off on a joint research collaboration aimed at developing clear guidance for water service providers to assist in identifying critical assets, determining criticality ratings, and ultimately improve the risk management of critical assets. Leveraging off industry expertise, the three Councils agreed that they needed a consistent framework that was not overly complicated and could be aligned to each organisation's risk appetite and their relative size.

The result is a Statewide Network Asset Criticality Guideline which allows the participating Councils, as well as other Queensland Water Service Providers, to take a risk-based approach in managing their assets. The joint approach helped to alleviate resource constraints often experienced by small and remote Councils.

What is Asset Criticality?

Asset criticality is a measure of the consequence of failure on a business. It is driven by the following factors:



The project started out with a focus on network assets, with phase 2 expanding the asset base to include facility assets such as pump stations and water and sewage treatment plants. The development of the facilities (treatment plants etc) tool and guideline is progressing well with the reference group continuing to meet fortnightly.

The three Councils tested 100 assets against the network assessment tool (Excel spreadsheet) after which it was distributed to volunteer councils along with draft guidelines in mid-November for further feedback. A training/ step-through session for these councils will be held in mid-December.

Each of the individual investing councils will receive a criticality assessment framework and customised tools to apply to their respective assets. Once assessed and aligned to a corporate risk framework, it helps target maintenance and renewal programs to better manage risk.

The project is being delivered by Moira Zeilinga from Clear Idea. Moira presented at the AWA Queensland conference in November, with John Mann from Fraser Coast assisting with the subsequent panel discussion. There appeared to be very strong interest from the broader sector, with some validation that similar tools really don't exist. There were also suggestions for a national approach or standard which we will investigate.

This project has been a great example of a co-investment model with shared benefits and we are looking forward to being able to share the results with our broader member base.

If you'd like to be included in this consultation, please contact Dave Cameron at dcameron@qldwater.com.au.



PROGRAM UPDATES

Skills & Training

qldwater embraced the challenges and opportunities brought about by COVID-19, developing a range of virtual skilling and training opportunities in our efforts to support water service providers in developing and retaining their operational workforce.

Water Skills Forum 2021

Next year's Queensland Water Skills Forum will be held on Thursday 4 March as a hybrid event, with delegates invited to attend in person at our new event space in Eagle Farm or participate virtually.

The 2021 Forum will focus on key themes identified throughout the year and at our previous forum in March:

- Succession Planning – workforce planning, transitioning to retirement, engaging trainees and barriers to recruitment;
- Leadership – what more is needed to meet this skills gap, case studies of recent leadership programs and improving coaching and mentoring skills across the industry; and
- Future Training Needs – what is the future demand for water industry training, how has COVID changed water industry training, engaging subject matter experts to meet increasing demand for training and what soft skills training does the industry need.

A program will be released soon and registrations will open in January.

Please contact Carlie Sargent on 07 3632 6853 or csargent@qldwater.com.au for assistance with any water industry skilling or training needs.

Fundamentals Webinar Series

Following the success of the first Fundamentals Webinars, **qldwater** secured funding from the Department of Natural Resources, Mines and Energy (DNRME, now DRDMW)) to develop up to 18 practical video resources on common water and wastewater treatment and network operations tasks. This funding has allowed **qldwater** to initially engage Murray Thompson, a highly regarded engineer and trainer from Port Macquarie, to deliver a number of topics with further sessions scheduled for 2021.

The monthly Fundamentals Webinars support both initial training and ongoing skills development of operators and field staff. Six sessions have already been delivered with recordings available for viewing by **qldwater** members and Water Skills Partners via the **qldwater website**.

An additional six sessions have been scheduled for the first half of 2021 with further sessions to be scheduled based on feedback from Water Skills Partners. Dates and registration information for all Fundamentals Webinars are available on the **qldwater Events Page**.

Terry Fagg will also continue to offer sessions throughout 2021 assisted by a trial of smart hard hats with built in tablets/cameras for capturing and storing knowledge utilizing software kindly sponsored by **Hindsite Industries**.

Online Training Courses

The Brown Card was released on 30 September, with 106 people already completing the course. It seems to have prompted an increase in Aqua Card enrolments as well which has clocked 598 completions to date.

A number of organisations have also mandated the course for contractors and are now considering the same for the Brown Card.

There has been growing interest from NSW councils in completing the Aqua Card course and **qldwater** has established an MOU with the NSW Water Directorate to develop a NSW version of both the Aqua Card and Brown Card courses. The updates will be made by one of their local trainers and then hosted by **qldwater** on the watertraining site with a fee sharing model in place to help cover our ongoing hosting and maintenance fees. This reflects increasing collaboration with the NSW Water Directorate in relation to skilling initiatives with a number of other potential joint initiatives being considered.

The new year may see the development of a couple of further course offerings looking at safety and environmental regulatory requirements.

Skills & Training (continued)

Regional Training Collaboration

With support from QWRAP, the FNQ region has commenced collaborative training in the Certificate III in Water Industry Operations with nine operators from four councils participating. Training is being conducted by Simmonds and Bristow with five training blocks scheduled to be rotated between the councils involved to give operators exposure to other plants and processes.

There has been increasing interest from DNRME through QWRAP in supporting the establishment of additional regional training hubs and **qldwater** is continuing to support those with presentations to a number of regional groups, including RAPAD and an emerging QWRAP group in North Queensland which are looking to establish similar cohorts.

Operator Certification

Following the release of the updated Certificate II and III in Water Industry Operations, WIOA has been updating its skills gap matrices to reflect the new units of competency in the qualifications and there will need to be updates made to the Certification Framework to reflect these changes.

WIOA has also been working on an online assessment portal that will capture treatment plant information and automate the process for assessing competency gaps for those working towards Certification. **qldwater** is arranging a demonstration of the new portal with WIOA, possibly at the 2021 Water Skills Forum.

Operator of the Year Awards

We already covered the Awards in the August edition of the newsletter but received these lovely shots from Mackay Regional Council who arranged a presentation for **qldwater** Operator of the Year winner Brett Donald.

Pictured with Brett on the bottom left is Mark Vairy, who won the AWA Operator of the Year Award- a great outcome for Mackay Regional Council. Bottom right is Brett with Kimberley Kerby.



SWIM Update

SWIM continues to be the reporting tool of choice for Queensland water and sewerage service providers, with 100% of **qldwater** members using SWIM or **swimlocal** this year to enter and provide their Annual Water and Sewerage data to DNRME, BoM, ABS and NPR as well as their monthly drought and 4-monthly Water Security reporting. All **qldwater** members have free access to the SWIM system for their mandatory reporting requirements.

swimlocal

The **swimlocal** customer base continues to grow with 47 Service Providers currently using the fully licenced version of swimlocal.

Continued support of the software has resulted in further investment in improvements to ensure our members get the most out of the system. This includes the development of a new Reporting Module which will include a web-based dashboard component. The new module will be ready by end June 2021.

Work towards automating STP data transfer from **swimlocal** to the DES WaTERS database is progressing well and should be complete (ready for testing) in February 2021. BoM has engaged consultants to review the NPR indicators and **qldwater** is actively involved in these processes to help with rationalisation and definitional improvements to reduce our members' reporting burden. Participation in this process by **qldwater** members will be sought and highly encouraged.

During 2021 David Scheltinga will be offering more swimlocal training which will be promoted in our weekly eFlashes.



QWRAP Update

QWRAP features in industry awards

Four QWRAP-funded projects have been recognised in the current awards season, with two QWRAP regions carrying off awards.

The **RAPAD Water & Sewerage Alliance** was jointly awarded winner of the IPWEAQ 2020 Excellence Awards in the category of Environment & Sustainability for its **Sewerage Treatment Plant Regulatory Investigation Project**.

The Project was a collaboration between six of the seven RAPADWSA member Councils (the seventh not having any STPs). The STP Regulatory Investigation was a priority project for the region to achieve two primary objectives for member councils: to assess suitability of the existing EA conditions for the STPs and to determine if the STPs were achieving water treatment standards in accordance with the EA conditions.

A second QWRAP project undertaken by the RAPAD Water & Sewerage Alliance was nominated for an IPWEAQ 2020 Excellence Award in the category Innovation & Sustainability in Water.

The **Telemetry and SCADA project** was a collaboration between six of the seven RAPADWSA member Councils (the seventh not needing upgrades but participated in the meetings).

The region's Telemetry and SCADA systems were

identified as a significant operational risk through a joint-strategic planning initiative involving all seven councils' technical personnel and councillors. The region's Telemetry and SCADA systems have been in a state of decline due to years of minimal technical support for councils.

Another QWRAP-funded project: **Shared Superintendency - Mirani Water Recycling Facility/ Bowen Sewage Treatment Plant** was also nominated in the IPWEAQ 2020 Excellence Award in the category of Innovation & Sustainability in Water. The Whitsunday, Isaac, Mackay Alliance engaged a joint superintendent to oversee the Bowen Sewage Treatment Plant and Mirani Waste Recycling Facility upgrades in a three year forward works program.

And as previously mentioned, the QWRAP-funded **Regional Water Industry Worker Pilot Program** was awarded the Organisational Excellence Award at the Australian Water Association's Queensland Water Awards. It was also nominated for an IPWEAQ 2020 Excellence Award in the Innovation category, and was recognised as a finalist in the 2020 Premier's Industry Collaboration Awards.

Congratulations to all the project teams nominated, and to the winners. QWRAP is proud to be involved in facilitating the success of such diverse projects.



Left: Linda Dobe from DNRME presents the award to RAPADWSA Strategic Group Chair and Blackall Tambo Mayor Andrew Martin. Right: Kellie Lister from Mackay Regional Council receiving the Water Industry Worker award..

Four new QWRAP projects commenced

Four new QWRAP projects were funded and commenced since the release of the last QWRAP newsletter. The projects cover a diverse range of activities but have commonalities to address key issues facing QWRAP regions and the water sector as a whole.

Sometimes clichés are true – the most important assets in the water sector are people, and two of the recent projects deal with supporting staff to build knowledge and forge networks with other experts within the industry.

The first is an **FNQROC** implementation of the well-proven ‘hub-training model’ for water industry workers. The **“Joint Training for Certificate III in Water Industry Operations”** project extends beyond simple procurement savings for the four participating councils by providing opportunities for staff from different organisations to learn from each other, build networks and understand infrastructure, systems and processes of neighbouring councils.

At the request of the QWRAP Project Steering Committee, the project also includes a communications component to share the benefits, processes and learnings from running the hub training model with other regions.

The **WIM Alliance “SEQ Study Collaboration Tour”** is also focused on building knowledge, skills and network for water sector staff. The project will see two managers from each of the WIM Alliance councils hosted in round table meetings with four SEQ utilities to discuss a range of topics on best-practice management of water and sewerage services.

The round-table meetings promote collegial learning across the sector and are an opportunity to build networks for utility staff but also share information

among progressive water businesses. The project timing is being determined in part by COVID restrictions and availability of all parties and will proceed towards the middle of 2021.

If staff are the highest priority for water and sewerage services, then the systems they use to monitor and control water and sewerage services are high on the second rung of importance. All utilities use SCADA systems to control and monitor utility assets, often remotely using telemetry.

The **RAPADSWA “Telemetry and SCADA Concept of Operation”** project is part of an ongoing award-nominated program (see above) to allow the councils to progress towards a standardized SCADA and telemetry system across the region. This would be a first of its kind approach in regional Queensland where SCADA systems are typically a mix of many different old and new platforms and approaches.

The fourth recently funded project deals with the critical issue of water security and sustainability for small towns. The **DASB** group are undertaking the **“Water Supply Security Statement Template Trial”** to test a new template for assessing and reporting water security in small towns with Killarney within Southern Downs Regional Council chosen for the initial pilot. The project will undertake an assessment of water security using the DNRME template but will also assess the template’s suitability and utility for similar towns.

The benefits of this work could thus extend to councils within and beyond the DASB region regardless of whether they are participating in QWRAP and assist in consistent assessment of small (and often remote) water supplies across Queensland.



Reef Council Rescue Plan: Cleaner Wastewater

The Reefs Councils Major Integrated Project (MIP): Wastewater Stewardship (rebranded to **Reef Councils Rescue Plan: Cleaner Wastewater**) has reached the conclusion of stage 1 of the works. The MIP has been funded by the Office of the Great Barrier Reef through LGAQ and has been running since April 2019.

The project has culminated in a high level assessment of wastewater stewardship options proposed by volunteer councils.

Stage 2 of the project is currently underway and is being run directly by OGBR, with further funding provided to volunteer councils (Townsville, Mackay and Fraser Coast) in detailed analysis of their proposed solutions.

The project history and resources developed during stage 1 of the MIP program can be found on the [qldwater website](#) and is accessible by Local Governments.



qldwater Consortium for Contaminants of Emerging Concern (qCRAC)

In this update on qCRAC, we revisit the strategic objectives of the Consortium, which all fit together to make up the mnemonic **SAFETI** for emerging contaminants.

S

is for **Source Control**.

Delineate source vs treatment issues in sewage

Recognise need for controls on emerging contaminants from residences as well as industry

National policy to reduce contaminant inputs (e.g. why remove PFAS at the STP)

WWTPs are the end of the line for a lot of contaminants that are disposed or flushed from industry, trade waste and domestic sewage. Domestic sources are the most significant input of some classes of contaminants such as the pharmaceuticals and personal care products which include medications and their metabolites, fragrances and anti-microbial agents to name a few. Domestic wastewater is also a prominent source of microfibres from clothing and PFAS from food packaging, clothing and consumer goods. None of these compounds should be discharged to the environment but are both technically difficult and expensive to remove by treatment processes. However, Australian legislation as yet does not recognise the role of manufacturers and importers of these products in contributing to pollution of our wastewater.

A

is for **Assessment**.

Developing methodology and limits for new contaminants (e.g. PFAS in biosolids)

Tracking, surveys and online sensors

Assessing contaminant levels in the environment

At the moment, there is not much information available for many emerging contaminants within the Queensland context. Using PFAS as an example, there are numerous international studies that have examined environmental PFAS contamination in the USA and Europe, but Australia is different, because PFAS has never been manufactured here. Determining the extent and level of COEC presence in the Queensland environment must be a priority to encourage appropriate regulation. The first step is to have standardised reliable and reproducible analytical methods for measurement of COEC in matrices from wastewater to fresh and marine waters, biosolids and soils. For some contaminants like microplastics analysis is a real challenge because of the diversity of materials, particle sizes and shapes which mean that no single analytical technique can provide the answer.

F

is for **Fate & Risks**.

Understanding fate and risks of emerging contaminants compared with other substances

Better mechanisms for understanding pathways and accumulation

The risk posed by many individual COEC to ecosystems is not completely understood. Media attention (and consequently, regulation) is directed to high-profile COEC, but without consideration of the actual risk to the environment and human health. Risk is conventionally categorised using tools such as the PBT paradigm which use the Persistence, Bioaccumulation and Toxicity of a pollutant (sometimes with the addition of Mobility) in combination to determine the relative risk of a pollutant to the ecosystem. To that we would add Distribution. A pollutant that is found everywhere because it is present in many consumer products may potentially pose a greater risk than a more toxic but rarely used compound.

E

is for **Education & Communications**.

Review, collate and circulate information on new contaminants

Share consistent information across the sector

Tools for communication with customers and communities

Having access to accurate information about emerging contaminants, their distribution and the level of risk that they pose to human and ecosystem health is very important for organisations such as water service providers. Shared information helps to provide a consistent message across the industry and can be used to manage the concerns of all industry stakeholders, from customers and workers to NGOs and regulators.

T

is for **Treatment**.

Novel mechanisms for removing contaminants

Understanding efficacy of various existing treatment technologies

Advancements in treatment technologies promise opportunities for improving the potential to remove contaminants from treated water before it enters the environment. However, technologies are not always able to remove all contaminants, despite being almost universally energy and resource expensive. The development of novel treatments or technologies that can augment existing treatment processes has the potential to reduce the costs and therefore accessibility of contaminant removal to WSPs leading to improved environmental outcomes.

I

is for **Influence**.

National and International influence on policy and decision-making

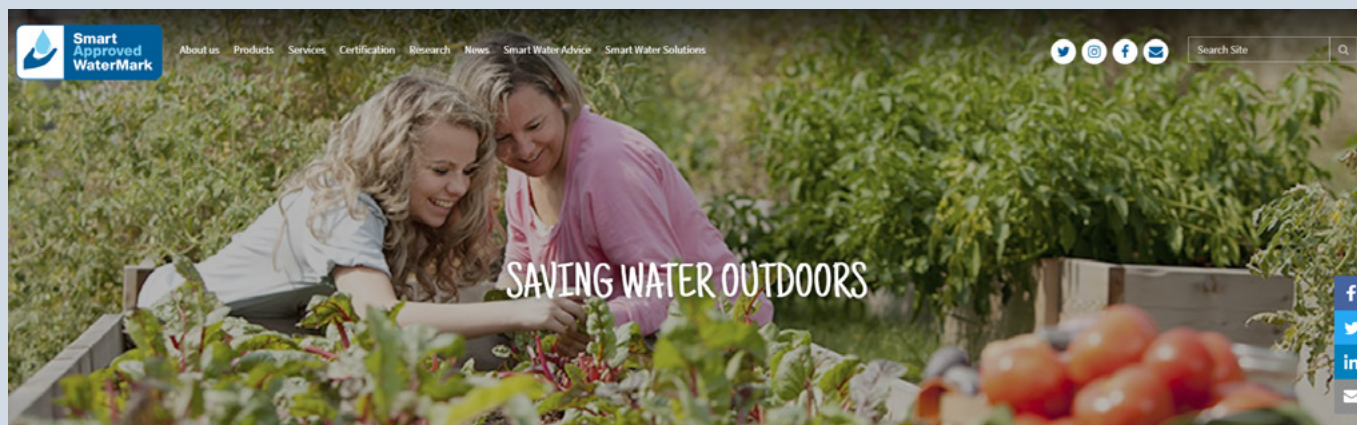
Taking lead on environmental stewardship rather than a reactive approach

Building networks with state and national agencies to share information/experience

The water sector needs to take a strong position to influence policy at the national and state level to ensure that policy is appropriate, proportionate and practicable. We can do this by forging linkages with government and industry stakeholders and research institutions that are already influential in COEC policy. Through the work of the Consortium we hope to inspire the industry to be leaders in environmental stewardship.

To learn more about the Consortium, or to be involved please contact lreeves@qldwater.com.au.

Water Efficiency Resources for Councils and Water Utilities



With much of the Queensland facing restrictions and drought precautions, it pays to remind our communities of what it is to be water efficient.

Smaller councils often don't have the time, budget or staff to devote to creating such detailed and interactive resources. The Smart Water Advice program can help get you up and running with professional content and materials in just a couple of days.

The Smart Water Advice Program includes:

- 35 pages of regionalised water saving content for homes, gardens and workplaces. [Check them out here.](#)
- Interactive resources eg: [plant finder](#), [water calculator](#) and our unique [Blue House](#) which can be embedded and rebranded for subscriber websites.
- The Blue House- an interactive home that invites viewers to join its residents to a number of events around the house where they can view water efficiency tips and advice, play games and view water efficient products and services at a pace that suits them.

- How to Water efficiency videos and professionally produced television commercials available to rebrand as your own and embed in your site.
- Consumer factsheets, posters, bill inserts and shower timers.
- Materials for Hospitality including table cards, Choose Tap glass bottles and shower hangers.
- Online water management plans, benchmarking information and water efficiency audits.
- Young water savers can find out more about water and its journey with colouring sheets and water story books.
- Water efficiency schools performances can be arranged too.

The online resource is available for subscribers to embed within their own site or link directly to via provided banners and/or hyperlinks. Resources can be customised, regionalised and branded.

Contact [Chris Philpot](#) for more information

Manhole Fails



Thanks to Trevor Dean from Fraser Coast Regional Council for sharing more asset fail photos with us – this time one from the “stupid places manholes end up” file. This one is going to be hard to access!

We love seeing pictures of these oddities and are thinking a photo competition for 2021 is on the cards if you can demonstrate your interest by sending some through...

Send your Fail Photos with a short explanation to **Desiré Gralton** to be included.

Upcoming Events

2021 is shaping up to be a great year for the Queensland urban water and sewerage industry, and we look forward to many in-person and online catch-ups with our members and supporters. Here's some dates for your diary:

January

- 19 **qldwater** Fundamentals Webinar #6, Backflow/Cross Connection Awareness by Murray Thompson
- 28 **qldwater** Essentials Webinar #17

February

- 17-18 Sustainable Water and Sewerage Services for Regional and Remote Communities, Goondiwindi
- 23 **qldwater** Fundamentals Webinar #7 Working with Chemicals & Hazardous Substances by Murray Thompson

March

- 4 Water Skills Forum
- 5 SPG Meeting
- 18 **qldwater** Essentials Webinar #18
- 23 **qldwater** Fundamentals Webinar #8

April

- 22 **qldwater** Essentials Webinar #19
- 27 **qldwater** Fundamentals Webinar #9

May

- TBC Regional Conference, Barcaldine
- 4 AWA OzWater21
- 20 **qldwater** Essentials Webinar #20
- 25 **qldwater** Fundamentals Webinar #10

June

- 2 WIOA Conference, Toowoomba
- 4 SPG Meeting
- 17 **qldwater** Essentials Webinar #21
- 22 **qldwater** Fundamentals Webinar #11

July

- 15 **qldwater** Essentials Webinar #22

August

- 19 **qldwater** Essentials Webinar #23

September

- 7-9 **qldwater** Annual Forum 2021
- 10 SPG Meeting
- 16 **qldwater** Essentials Webinar #24

October

- 12 IPWEAQ Annual Conference 2021, Cairns
- 21 **qldwater** Essentials Webinar #25

November

- 18 **qldwater** Essentials Webinar #26

December

- 3 SPG Meeting
- 16 **qldwater** Essentials Webinar #27

BRING ON 2021!



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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."