

## Charting a course for the urban water industry

Every year we rack our brains trying to come up with some fun gift ideas and interactions at our events, and this year we selected a nautical theme to help us chart a course for the Queensland urban water industry.

Attendees at **qldwater** events this year will receive a poster outlining our ten key strategic priorities and will be given the opportunity to contribute in the development of a strategic blueprint for the industry in a typical fun **qldwater** fashion.

The poster features three maps that will be of interest to water industry workers:

- Queensland water schemes overlayed on rivers and waterways;
- Queensland sewage treatment plants overlayed with service provider population data; and
- A Bureau of Meteorology rainfall map (pictured bottom left) providing a snapshot of Queensland extremes in

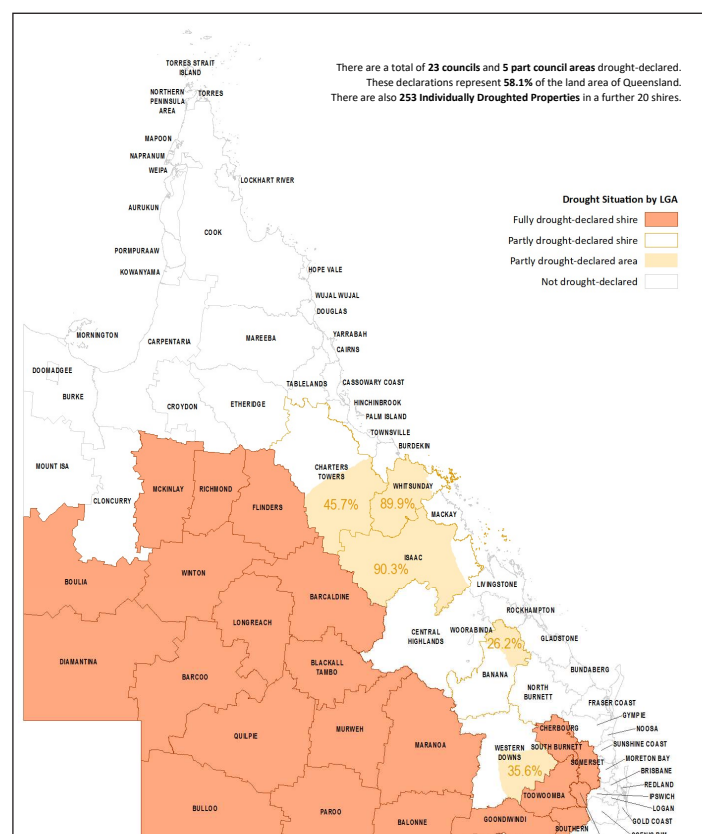
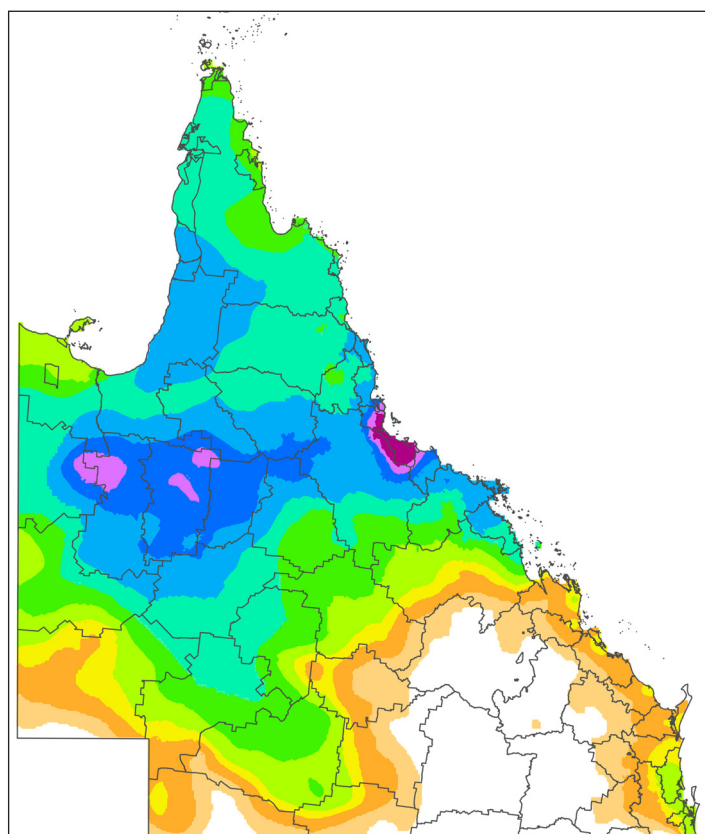
one week ending 4 February 2019, contrasting areas with ongoing severe drought in the south west while the north battled flooding rains.

The rainfall map is further illustrated on pages 14-15 of this edition, with some great photographs provided by Stephen Martin showing the extent of flooding in the Townsville region.

At the other end of the scale, the **Queensland Government's Long Paddock website** shows the number of Queensland shires drought declared as at March 2019 (see image bottom right).

It is this diversity coupled with the sheer scale of this state we call home that makes our work so challenging, and yet so rewarding.

We invite you on board to be part of the crew that will help shape our industry as we set course towards safe, secure and sustainable water and sewerage services.



## CEO Report

We are well into regional travel season for the Directorate and it has been great catching up with members around the state at our events, DNRME fora, and other meetings.

Events like the Water Skills Forum and Biloela conference have given us the opportunity to try some new things, including gathering of intelligence to inform our industry “Roadmap.” While the ideas of polling and interviews with water industry personnel isn’t new, they have been embraced with enthusiasm and are providing valuable feedback and insights from members.

There are a few themes which will be explored in each place we visit including the potential for regional collaboration and the operator shortage. We saw strong support for regulatory intervention around drinking water operator certification/ minimum qualifications at the skills forum, and clear evidence of an acute operator shortage in central Queensland, for example.

There is strong support for more regional alliances, and some frustration in regions which are currently unable to access the benefits of QWRAP support. Challenges in communication – within regulators, between regulators and utilities, and within utilities themselves – are also frequently raised.

I’d like to acknowledge a couple of industry departures and cover a little of what is coming up in the next few months.

Firstly, **Gary Mitchell** is winding up his time with the New South Wales Water Directorate, with whom we’ve had a great collaboration since the inception of **qldwater**. The model for **qldwater** was directly “borrowed” from NSW and it’s important to acknowledge that heritage and Gary’s efforts in building a successful organisation – essentially providing “proof of concept” and making selling the idea in Queensland much easier. We had an opportunity to meet with the Directorate’s executive committee in March about further opportunities and will keenly engage with Brendan Guiney who is taking over the reigns. There was a fair bit of interest in SWIM, which is going from strength to strength.

Secondly, **Trevor Harvey** is finishing up with North Burnett Regional Council soon and his next TRG meeting with us in June will be his last. He has the honour of attending more TRG meetings than anyone else, starting in 2005, including a stint as Chair for a couple of years. His contribution to **qldwater**, his council, and to the water industry more broadly has been exceptional. You needn’t worry about Trev getting stale in retirement



TRG Chair and long time **qldwater** supporter, Trevor Harvey (second from left) whose retirement will be felt by the broader Queensland water industry.

## CEO Report (...continued)

– he already has several other Masters squash tournaments in the pipeline.

Coming up we have our emerging contaminants workshop and Strategic Water Environmental Advisory Panel (SWEAP) meeting on 1 and 2 May, and a TRG asset management workshop and meeting on 13 and 14 June. Open to all, these activities provide a great opportunity to share experiences across utilities and others, as well as contribute to sector planning, explore potential collaborative projects, and positively influence policy.

A small contingent of **qldwater** staff will be at OzWater in Melbourne for what looks like a fantastic program, and to cheer QWRAP on as a nominee for a national award. The following week we visit Murweh, Paroo, Bulloo and Quilpie for our annual **Water Connections Week** tour.

Our next two regional conferences are in Townsville on 4-5 July and Hervey Bay/ Maryborough on 25-26 July. Both events include a range of networking activities, great speakers, as well as some exciting site tours.

We have confirmed the Logan Metro Sports & Events Centre for our **2019 Annual Forum** and will commence development of the program soon. There is a Water Industry Operators Association of Australia conference in Bundaberg and several other events we support in the gaps as well.

Finally, I'd like to acknowledge our hard-working staff for pulling all of these activities together while still delivering the programs they manage. I am proud of what we do with limited resources and it's due to people who don't just look at it as a job but are genuinely motivated by wanting to make a difference in our industry. The Reef Stewardship project mentioned below will hopefully afford the opportunity to hire a new person to the team soon... wish us luck in finding another person similarly afflicted.

Till next time,

Dave Cameron

## Last call for award nominations

Time is running out to submit nominations for **qldwater's** Young Operator of the Year and Operator of the Year (Civil/All-Rounder) Awards, due by **Friday 3 May 2019** to **csargent@qldwater.com.au**.

Offered in conjunction with the Water Industry Operators Association of Australia (WIOA), the awards recognise the outstanding operational performance of employees of either **qldwater** full members or Water Skills Partnership member organisations.

Full details about the nomination process along with nomination forms are available on our website.

## Apply now for scholarships

The Queensland Water Regional Communities Innovations Program (QWRCIP) will provide up to four scholarships to employees of **qldwater** full member organisations with 10,000 or fewer connections to attend **qldwater's** Annual Forum and to participate in other activities during the week of 9 – 13 September.

Participants will spend time with a technical specialist at an SEQ utility and participate in the **qldwater** Technical Reference Group meeting.

This year, the Department of Natural Resources, Mines and Energy (DNRME) has agreed to provide support for an additional two scholarships, funded through QWRAP. These scholarships will include time with technical experts at a regional council and participation either in a **qldwater** regional event, QWRAP meeting or a range of training activities. More information about the scholarships and application conditions are available **on our website**.

Nominations are due by **31 May 2019** to **csargent@qldwater.com.au**.

## Redlands Radios

From time to time we receive offers for the broader industry from members of spares or other redundant equipment. Recently Redland City Council replaced its ER radios with the old gear readily snapped up by Townsville City Council and Burdekin Shire Council.

Thanks to Redlands for having the foresight to make the offer – it's a timely reminder of how strong the collaborative spirit in our industry is.



## Women in water

### *Think equal, build smart, innovate for change*

On 8 March we celebrated International Women's Day with a theme fit for the water industry: to focus on innovative ways in which we can advance gender equality and the empowerment of women, particularly in the areas of social protection systems, access to public services and sustainable infrastructure.

In Australia, and more particularly here in Queensland, the water industry is facing complex workforce challenges including an ageing employee profile, issues attracting and retaining staff, and general skills and labour shortages.

The Queensland Water Skills Partnership, as the most significant industry-led skills program for the water industry in the state, has set its sight firmly on initiatives to tackle these challenges with a key focus on attracting more females into the industry.

The ball seems to be in motion with data collected for the **qldwater 2019 Workforce Composition Snapshot Report** due to be released later this year showing a steady increase in females joining the industry. The biennial report shows female representation creeping up from 24.75 in 2014 to 28.2% in 2016 and 36.9% in 2018.

To get a better idea of the people we are attracting, we talked to **Narelle D'Amico, Branch Manager - Water Services** at **Bundaberg Regional Council** (pictured below at the East Water Tower), to hear her story.



Narelle started at Bundaberg Regional Council in May 2018. Her role provides strategic direction and both internal and external stakeholder management, working with team members in different branches and sections of business as well as externally to raise the profile of water services in the local community.

"I like to think I am a 'leader led' leader, which means I like to be visible and go out on site and into the community where appropriate. We cover both the hinterland and the coastal area, so we have a good mix of sites and I enjoy getting to know our people, assets and gain an understanding of the key issues staff deal with on a day to day basis," Narelle said.

Narelle started her career 21 years ago after completing a degree in Environmental Engineering at Deakin University.

"I spent a lot of my formative years working on designing and installing water and wastewater treatment plans, running environmental programs like restoring creek systems, rehabilitating and reinstating wetlands etc. Byron Shire and Hunter Water did a lot of work in transforming their localities whilst I was there, trying to reduce the impacts of urbanisation which causes more runoff and prevents natural infiltration. This is a big problem for our communities and something I really enjoyed working on."

She then spent 7.5 years with the WA Water Corporation in Western Australia, where she gained significant exposure to a variety of people, assets and communities, working in the Pilbara and Kimberley region. Here she worked as Major Works Project Manager for 2 years, Asset Manager for 3 years and finally as Service Delivery Manager for the Northern Region.

"The Water Corporation is a statewide business, so from an asset services perspective networking really occurred within the business. I had six peers with similar roles across the state, which was great for support in terms of resource and knowledge sharing."

"With my current role in Bundaberg it's a lot more fragmented with peers spread out across different localities- this is why the work done by **qldwater** and programs like QWRAP are so important to provide these key linkages and networking opportunities. (Bundaberg Regional Council forms part of the Wide Bay Burnett Region of Councils.)"

Narelle and her partner took an 18 month break in between jobs to travel around Australia with their then young family, providing a great opportunity for their



kids to bond with both parents and which she believes was an invaluable experience.

To get a better understanding of the driving force that led Narelle to the water industry, she credits the Environmental Engineering Degree that she completed at Deakin University which was heavily tailored towards water and wastewater and had a good technical blend.

"I was attracted to it because I wanted more field-based employment rather than being an office bound engineer. I liked the complexity of the service provided mixed with my love for science and environment, so it seemed like a good fit."

We asked Narelle what the worst thing was about being a female in a male dominated workforce, and the answer was quite simply the lack of availability of female toilets!

"Seriously though, I have found far more benefits than negatives working in this industry, and I have always received great support from my male counterparts."

The best thing about being a female in a male dominated workforce was being able to bring a different

perspective to the table.

"It's not that all males think 2D, but I do think females tend to look at the bigger picture with a more holistic view. Our place of work is heavily centered on people and as a female I think differently about people- how to motivate and inspire people. I'd like to think that it provides a point of difference," she explains.

"When I started at Bundaberg my manager apologised for the fact that there were only four technical females on the team and that the rest of the females were all in administration. But times are changing, and we now have a female graduate engineer, a female technical officer and a female apprentice metal mechanical fitter. There is absolutely no reason why females can't do the job at hand, and as the use of technology gets more prevalent we'll be able to smarten up our way of working more and more."

Narelle's message to young females considering a career in the water industry is not to be afraid, and don't be scared to ask questions either.

"I suggest you be inquisitive and ask for help when you need it. The

water industry provides multiple platforms for growth and a wide range of skill sets in business. Just because you start in one role there is no reason why you should still be there in ten years' time."

Narelle was a guest speaker at the Skills Forum in February, where her presentation focused on what future water employees would look like.

In short: Narelle believes future water employees will know their community through their connection with the community and will value their contribution.

"Future employees will be continually developing and growing because of all the opportunities out there. Water employees are largely Asset Managers- as technology becomes more prevalent it will further drive that need for each employee to be an asset manager in their own rights.

At Bundaberg Regional Council we are currently working on a Continuous Improvement Plan that will see us restructuring an alignment of skills sets. We are focusing our efforts on an electronic works system- it's all about working smarter and empowering the operators.

We are changing the way we do things, and it's great to be a part of it."

## WIOA Women in Water

Staying on the theme of Women in Water, WIOA will be hosting a 'Women in Water' webinar on Friday 17 May from 2-3pm. The webinar will have a people and culture focus with speakers sharing their thoughts and experiences about working in water and the programs and initiatives that have encouraged women to choose and stay in the industry. WIOA members can **register online**.



## Biloela training days and regional conference

**gldwater** staff spent a number of days in Biloela, offering two training days delivered by Murray Thompson followed by a mini conference on 28 March.

The training days held on 26 and 27 March attempted to address some of the significant risks to operations staff from the equipment used to perform their roles and in the areas that they work.

As one Manager quoted at the event, *'I see operators as the most critical employees in our organisation and we need to make sure Councils understand that and recognise them appropriately'*.

The training days were split up with day 1 offering jet rodding and safety training for water workers and field personnel, and day 2 providing safety training for supervisors and managers responsible for considering organisational risk including safely accessing reservoirs, safety for the lone/remote worker, working with high pressure water jetting equipment and systems, water hygiene for water mains repairs, construction and renewal activities and working with chemicals and hazardous substances.

The two sessions that appeared to contain the most new material for participants were the high-pressure water jetting and working around antennas (radiation risks in particular).

### High Pressure Water Jetting

Typical jetting equipment is four times as powerful as a backyard Gerni. Murray described a jetting wound as similar to damage from a gunshot wound with often limited visible damage, and severe injuries need to be treated in the same way as an amputation!

As such, the recommended protective equipment is significant, and operators need to understand the need to use the full kit including full face shield rather than just safety glasses, as well as Kevlar clothing and anti-puncture gloves.



Operators should also carry a medical advice card when using jetting equipment that details how injuries should be dealt with, as the activity which caused the injury might not always be obvious to attending medical staff. The added potential infection risks from working around sewage with open wounds are obvious (once someone points them out....)

Jetting can also damage infrastructure if not conducted by appropriately trained people. Two of the main learnings coming through in course feedback was the importance of gas monitoring, as well as having the right gear including a starter bar to stop the head from flipping back in the pipe and coming out of the original point of entry.

### Electromagnetic Energy (EME)

Training included procedures for accessing the Radio Frequency National Site Archive (RFNSA) to understand risk areas on infrastructure including reservoirs as well as a range of case studies. Learnings included that a lot of the available documentation is based on modelling rather than real site testing, there are many factors which can influence the behavior of EME, and it's important to consider personal radiation monitoring devices (e.g. Radman), effective training, and a regular testing and calibration regime for the devices if your staff need to access sites with this equipment installed.



## Regional conference

The Biloela visit concluded with a conference on Thursday, 28 March. The safety theme continued with presentations on remote worker risks and remote worker procedures, high pressure water jetting and a new approach to water sampling.

Other highlights included an overview of a CQU water quality study in partnership with Livingstone Shire Council, water challenges in the Central Highlands and the Yaamba Road water trunk main relocation project in Rockhampton.

We again thank our hosts, **Banana Shire Council**, as well as our sponsors:

**Gold Event Sponsors:** Aquatec Maxcon, Lonza Water Treatment and Royce Water Technologies;

**Silver Event Sponsor:** taggle;

**Dinner Sponsor:** 360 Engineering;

And our overall **Water Connections Tour Sponsor**, DBYD.



## Water Connections Tour

The 2019 Water Connections Tour focuses on Southern Queensland from 13 to 17 May, visiting the shires of Paroo, Bulloo, Quilpie and Murweh. The tour will conclude with a regional mini-conference in Charleville on Friday, 17 May.

**glwater** staff will be joined by an impressive list of delegates including key representatives from LGAQ, Department of Environment and Science, Department of Natural Resources, Mines and Energy, Department of Local Government, Racing and Multicultural Affairs and Technical Reference Group Chair Trevor Dean.

The tour will include a number of site visits including:

- Cunnamulla STP, relining project and recently upgraded sewage pump stations;
- Thargomindah STP and cooling ponds;
- Quilpie STP, bores and water main upgrade;
- Eromanga Reverse Osmosis Plant;
- Augathella and Charleville treatment plants.

The Charleville Cosmos Centre is also on the itinerary.

## Taste test goes global

Congratulations to 2018 Best Tasting Tap Water in Australia winner, with independent experts naming Wannon Water as having the second-best tap water in the world!

Samples from Wannon Water's Hamilton Water Treatment Plant won silver at the International Water Tasting Competition in Berkeley Springs, USA. The winner was from Clearbrook in British Columbia, Canada, which also won the prize last year and is the biggest medal winner in the event's history.





## QWRAP Update

The 2019 year has started strongly for QWRAP regions with activity hardly slowing down over the festive season. All five funded regions have joint projects and activities powering on thanks to their regional coordinators, Chairs and working groups.

The **RAPAD Water Alliance** in western Queensland dominates not only in terms of area covered (23% of Queensland and 1.7 times the area of Victoria) but also in volume of joint projects. The group currently has joint projects in the areas of water quality improvement, water security, SCADA planning and sewage treatment.

The **Wide Bay Burnett ROC Water Alliance** located immediately north of SEQ also has a diverse portfolio of projects that range from a strategic review of Drinking Water Quality Plans and a regional Design and Construct Code to Stage II of their multi-award-winning sewer relining collaboration.

In the Far North, **FNQROC** recently convened a drinking water quality forum that drew participants from across the state and nationally to bolster strategic leadership in water quality management across the region.

The **Whitsunday Isaac Mackay Water Alliance** has arguably the most ambitious raft of projects with a focus on coordinating investment in STP design, construction and maintenance as well as a program to build water industry worker skills that extends to other councils outside their region.

The most recent QWRAP region to be funded, the five **Downs and Surat Basin** (DASB) councils immediately west of SEQ are currently considering recommendations from their institutional review at council level, and in the mean-time are working on a range of cooperative projects and joint procurement.

There has been ongoing interest from regions that are not currently funded through QWRAP, particularly in north and central Queensland and through the remote North West RoC. These groups are participating in technical meetings to discuss collaboration as well as undertaking initial joint activities where they are clearly beneficial for their communities.

In addition to the activities being driven independently in each region, the Chairs and Coordinators from each group meet regularly to compare experiences and

learnings and provide feedback and updates to the DNRME who fund the program through LGAQ.

In mid-May, all participants will learn how QWRAP fares among the strong competition for the national AWA 'Program Innovation Award' after being selected from a very strong field of Queensland finalists last year. This honour is fitting recognition for the Program and the Queensland Government which has shown bilateral support for QWRAP for nearly eight years enabling the emergence of regional champions and programs across the state.



### Interflow Trenchless Technology seminar

**qldwater's** Rob Fearon and Ryan Cosgrove presented the well-publicised Infrastructure Cliff research as the keynote for Interflow's Trenchless Technology Seminar in Brisbane in March.

The topic was well received by the audience of over 70 of Queensland's leading engineering companies and provided the beginnings of a seminar discussing ageing assets and asset management for water and sewerage networks.

A key theme of the day was not whether there is an 'infrastructure cliff' but how appropriate renewals and relining using emerging technologies can mitigate asset decline.

Key questions were around how to better educate communities and stakeholders involved in water asset management to develop fit-for-purpose investment profiles.

**qldwater** is holding an asset management workshop during June which will provide further opportunities to open up this topic.



# Great Barrier Reef – Wastewater Stewardship Major Integrated Project

The LGAQ secured funding from the Office of the Great Barrier Reef for the Stage 1 Strategic Assessment (WWSSA) component of Initiative 1 Wastewater Stewardship in the Reef Councils Major Integrated Project (MIP) proposal.

**qldwater** is partnering with the LGAQ to deliver the WWSSA project. Project meetings and workshops will be added to the calendar with invites for input to this work.

The Wastewater Stewardship Initiative was developed by councils owning Sewerage Treatment Plants (STPs) in the Reef catchment as part of the development of the Reef Councils MIP in 2018.

Council-owned STPs have been calculated to contribute less than 5% of the total land-sourced nutrients flowing the GBR but can still have significant local impacts if they discharge to waterways.

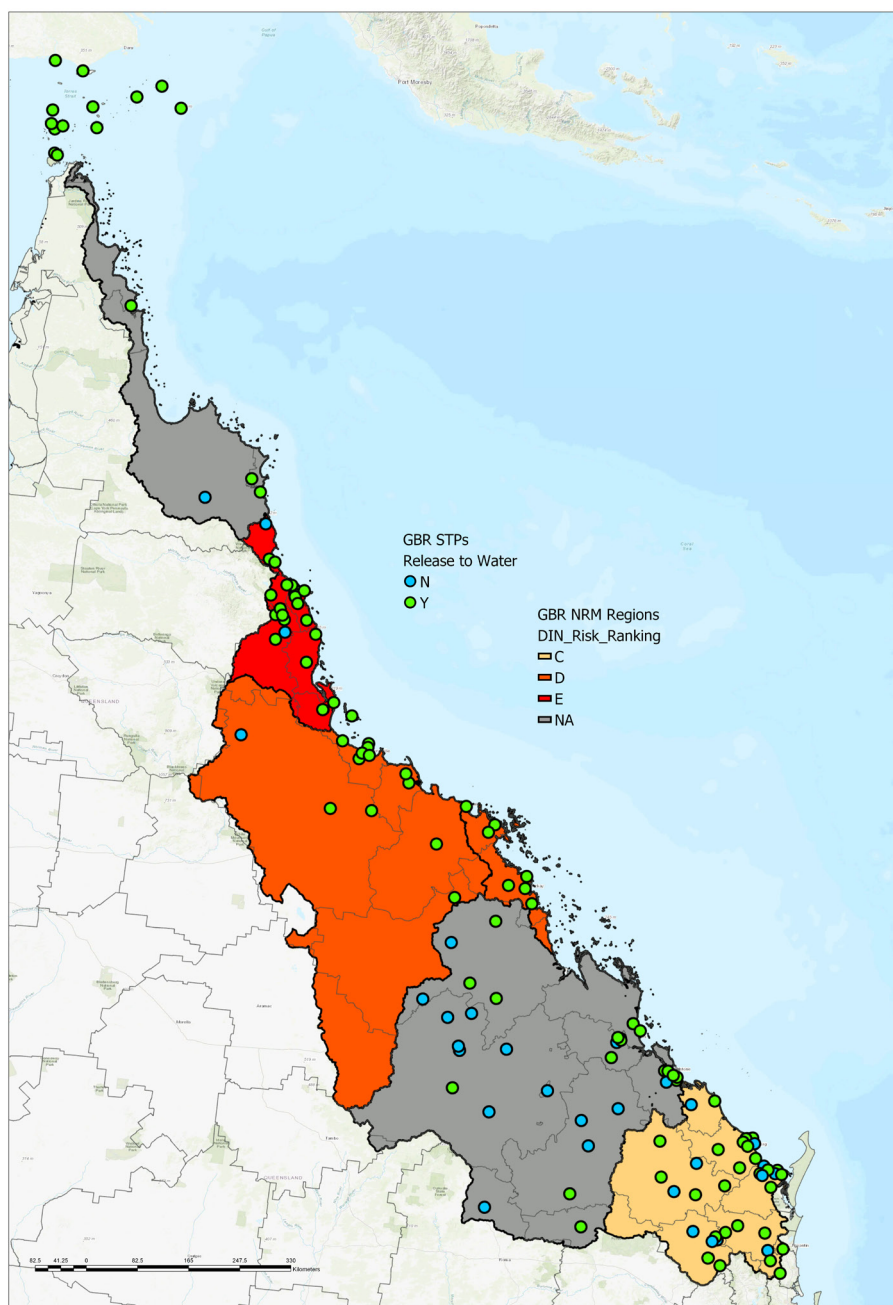
Reef Councils are investing in continuous improvement in local assets and activities to reduce total discharges to the Reef, improve water quality and respond to increasing community expectations and regulations. However, investment in high-tech treatment plants is expensive with diminishing returns for small towns and councils are increasingly seeking innovative options to improve management of sewerage systems aligned with local and GBR-scale catchment stewardship.

The Wastewater Stewardship initiative aims to work with an interested group of Reef councils to consider sewerage management from a local and whole-of-catchment perspective and prioritise catchment stewardship using innovative, and more cost-effective nutrient mitigation approaches. The WWSSA project will identify priority STPs, suitable alternative options and low risk sites to trial their effectiveness in a range of catchment environments and climatic regions.

To register to participate, or for more information please contact Rob Fearon at [rfearon@qldwater.com.au](mailto:rfearon@qldwater.com.au).

*Left: Great Barrier Reef catchments coloured by DIN (Dissolved Inorganic Nitrogen) risk ranking.*

*Council owned STP locations are coloured according to whether they release to waterways.*



# Statewide Water Information Management (SWIM)

## swimlocal upgrade

With 33 Service Providers currently using the full licenced version of **swimlocal** and an additional three at least signing up for 2019/20, the program continues to evolve in line with customer needs.

The ability to automate the process of pulling out (and annualising) **swimlocal** 'daily' data from the Operations Tool and pushing it into the Annual Data Tool is now complete and ready for this year's reporting.

A major update of the **swimlocal** software was released in March, and we urge everyone to upgrade to this latest version as soon as possible.

Some of the changes include:

- Indicator alerting: the 'Greater than/Less than previous' alert functions have been modified and now have two different alerts, 'Greater than previous' and 'Greater than or equal to previous' (same occurs for Less than)
- Indicator names can now start with a number, e.g. "2,4-Di-t-butylphenol" (pesticides)
- There have been some improvements to the look and functionality of several windows (e.g. indicator creation) offering longer 'boxes' to enter words and to provide more information
- Security: the software now uses 'https:' security/ encryption of data transfer across the internet (as does the web data entry portal)
- We have fixed a bug in the reports tool so that it again displays the yellow highlighting of invalid cells (as seen in the Operations Tool)
- Task metadata can now be extracted via the Reports Tool: run 'new report', select '[metadata] Tasks'
- All missed task alerts are now email only by default. SMS alerts for specific tasks/people can be set up via the Task Priority function
- There have been several improvements to data importing functions in the background providing more QA/QC of data before it is uploaded

Conversations and work towards automating lab data upload into swimlocal and STP data exporting from swimlocal to the WaTERS database are also continuing and progressing.

## Reporting updates

A new 'data entry web-portal' for SWIM annual water and sewerage data will allow Council staff from other departments (e.g. finance) to enter data directly into SWIM without having to install the swimlocal software onto their computers. The portal is a duplication of the Annual Data Tool functionality. This modification has been a large and expensive undertaking but is seen as essential, not just to ensure the SWIM tools keep pace with technology changes, but to improve accessibility as we see more users with more diverse needs.

There will be no changes to the annual water and sewerage indicators reported last year. As such there will be minimal 'official' training this year with currently only one SWIM annual data and swimlocal workshop planned in Townsville on 3 July. Dave Scheltinga will be providing support and advice to councils at a range of other events including the DNRME Mt Isa workshop in April, Yeppoon in May and Water Connections Week Tour in May.

DNRME are currently reviewing their Key Performance Indicators (KPIs) and we expect to see significant changes to some of the Queensland Government's KPIs to be reported against in 2019/20. We advise all our members to start collecting the correct data/information from 1 July this year as more information becomes available.

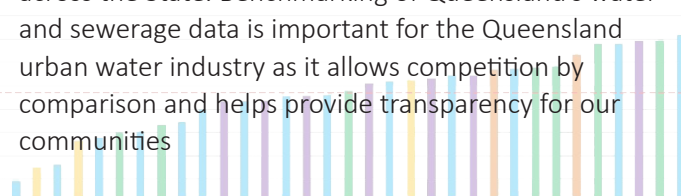
The National Performance Report (NPR) is also currently reviewing their indicators and overall programs.

**qldwater** is actively involved in this process and hope to help with rationalisation and definitional improvements to help reduce our members' reporting burden.

## Benchmarking report released

Queensland's eighth water and sewerage benchmarking report has been released using 2017/18 data and is available from the **qldwater** website at **www.qldwater.com.au/reporting**.

The report provides data from 71 Service Providers across the State. Benchmarking of Queensland's water and sewerage data is important for the Queensland urban water industry as it allows competition by comparison and helps provide transparency for our communities





# Skills & Training

## Aqua Card

After many months of development, we are pleased that the professional version of the Aqua Card online course is now available! This version allows non-**qldwater** member organisations and contractors to access the course for \$50 including GST.

Our new site **www.watertraining.com.au** hosts the course and provides a certificate of completion and records attempts and completions so that **qldwater** can track and report on usage. Employees of **qldwater** member and Water Skills Partnership organisations can access this version at no charge. Please email **skills@qldwater.com.au** for the complimentary access code.

Detailed instructions on accessing and completing the course are available at: **www.qldwater.com.au/aqua-card-instructions**. We're happy to explore options for implementation within your organisation, so please contact Carlie Sargent on 3632 6853 to discuss your needs.



## Water Skills Forum 2019

More than 80 delegates from 36 organisations participated in the second annual Water Skills Forum in Brisbane on Thursday, 7 March 2019. Thank you to the presenters who shared their skilling challenges and innovative strategies to build the water workforce of the future and special thanks to our sponsor, TAFE Queensland SkillsTech, for supporting the event.

We were pleased to recognise three newly certified operators who recently completed the requirements to become Certified Operators under the 'Water Industry Operator Certification Framework: Drinking Water, Wastewater, Recycled Water 2018'.

Congratulations to Jim Flier, Toowoomba Regional Council, Matthew Alderwick, Seqwater and Tony Schultz, Seqwater.

It was clear from the presentations that water service providers from across Queensland face similar workforce challenges and a poll of delegates taken







during the forum highlighted the following skilling issues as posing the greatest risks to organisations:

- Capability
- Age
- Attraction
- Training
- Operator Shortage
- Workforce Planning

These challenges were consistent with those identified at the previous Water Skills Forum and provided the focus for the sessions at the 2019 event. Presentations from the event are available for employees of Water Skills Partnership members and **qldwater** members on our website.

A number of presenters referred to the shortage of water and wastewater treatment operators and delegates were asked what they believed would have the greatest impact on addressing the shortage. Higher salaries for operators were identified as likely to have the most impact, followed by training and career pathways, community water literacy, governance and certification. Portability of qualifications/skills was raised as important, with the Water Industry Worker program an example of where this is working well in addition to Operator Certification.

The forum closed with a presentation by Lutra of their new SIM-PLANT SCADA simulation software and three teams of Managers, Supervisors and Operators participated in a challenge to solve wastewater simulation scenarios, with the team led by Jeff Rohdmann from Bundaberg Regional Council solving the challenges ahead of the other teams. Thanks to all those who put their SCADA skills to the test.



Networking drinks finished off the formal part of the program and were followed by dinner with a special presentation by Neil Brennan, CEO Seqwater. Neil spoke about Seqwater's diversity and inclusion strategies and referred to progress made in these areas during his time in the Victorian water industry. He spoke about the drive for innovation, with a focus on intelligent water networks and current achievements.

The Water Skills Partnership will discuss the outcomes from the forum at their next meeting to consider possible future initiatives to address the most critical workforce challenges.

## Operator Certification

**qldwater** sees Certification as an important vehicle to help address the shortage of operators. The Department of Employment, Small Business and Training (DESBT) has supported our efforts to encourage the uptake of Certification with more than \$150,000 in subsidies provided for more than 80 operators to undertake gap training to achieve Certification over the past two years.

With the final round of subsidised gap training now complete, **qldwater** has been exploring adding more Skill Sets to the training package to provide a pathway for operators to undertake additional training to achieve Certification.

**qldwater** developed draft Skill Sets for water and wastewater treatment however the packaging rules are too rigid and when they were checked against the cohort of operators who participated in gap training during 2018, there wasn't a single operator who could have taken advantage of a Skill Set. **qldwater** is now working with the Water Industry Reference Committee to advocate for changes to the packaging rules to allow

for more flexibility in the development of Skill Sets.

The Water Skills Forum included a presentation from Water Research Australia with findings from their research about the value of operator competency. The research highlighted the importance of Certification for ensuring operators are appropriately qualified to deliver service obligations to communities.

As part of this session, a number of questions were put to delegates to ascertain their views regarding minimum qualifications and certification of operators.

When asked whether Queensland should introduce a minimum standard for drinking water operator qualifications, **78% responded that it should be mandated across Queensland** for all service providers, 6% said qualifications should be mandated in deemed high risk locations and 15% agreed qualifications should be more strongly incentivised for all other service providers. 2% said it should be focused on service providers with reduced capacity to pay and no one believed that we should continue with the current voluntary approach to qualifications.

When asked about Certification of drinking water operators, **81% agreed that certification should be mandated across Queensland** for all service providers, 8% agreed it should be mandated in deemed high risk locations and 11% agreed that certification should be more strongly incentivised for all other service providers.

**qldwater** will continue to work with members and government to develop options to address these concerns.

## Review of Water Industry Qualifications

The revised Diploma of Water Industry Operations was released earlier this year and RTOs are working to get the new Diploma added to their scope.

Kim Moore, Unitywater and Brad Milfull, Logan City Council along with **qldwater** are represented on the Technical Advisory Review Committee reviewing the Certificate II in Water Industry Operations, the Certificate III Water Industry Treatment and Certificate III Water Industry Operations which commenced late in 2018.

The TAC has so far agreed not to stream the Certificate II, merge the three Certificate III qualifications (Water Industry Operations, Water Industry Treatment and

Water Industry Irrigation), increase the units of competency in the Cert III to 12 (from 11) and has been reviewing the units of competency.

Draft qualifications have been released for public comment but with a very tight timeframe over the Easter and Anzac Day long weekends and still with a number of issues to be discussed by the TAC.

At this stage no new units have been added but some units are being proposed for deletion. **qldwater** will keep members informed as the review continues and is keen to hear any feedback about proposed changes or any issues that need to be addressed with the qualifications.

## Regional Water Industry Worker Pilot Program

A presentation at the Water Skills Forum about the Water Industry Worker program once again confirmed that providing a strong career pathway for networks staff helps to attract, retain and develop new starters right through to supervisors and managers.

The program is already well established in SEQ and a Project Officer has recently been appointed to implement a pilot of the program in Mackay, Townsville, Cairns, Whitsunday and Burdekin councils.

## Advocacy

**qldwater** has been offered an additional contract to provide industry advice to DESBT for a further six months through to September 2019.

Thank you to those members who provided input to **qldwater's** submission to the Federal Government's review of the VET Sector. The Hon Steven Joyce has concluded his review and delivered a final report to the Government. The recent budget included some funding allocations in response to the review and the final report includes a number of recommendations and a pathway for reform of the VET sector.

**qldwater** also provided a response to Jobs Queensland's recent discussion paper 'The Future of Work in Queensland to 2030 – Evolution or revolution' which sought input about the skills that will be required by the workforce of the future. Copies of our submissions are available to employees of **qldwater** members and Water Skills Partners on our website.

## Townsville's one in 500-year flood event in pictures

The Townsville floods in February 2019 impacted more than 3,300 homes and killed hundreds of thousands of cattle when a very active monsoon trough hovered over the region, dumping two metres of rain in just five days.

Stephen Martin, Team Manager Water and Wastewater at Townsville City Council, provided an update on the event and recovery progress at the March Technical Reference Group meeting outlining some of the challenges faced by his team.

The list of challenges was long, including sewers overflowing for six days and STPs bypassed for up to 11 days, water over switchboards for 11 pump stations and a major water main failures due to saturated soil and poor construction.

The normal flow of 20ML/day increased to over 100ML/day in Cleveland Bay with every scour and overflow open. The high flows caused a major breakdown in a 750mm main at the plant due to pipe condition (degraded by H<sub>2</sub>S and held together by clay).

Stephen said the flood event exposed lots of odd construction practices including manholes in shopping centres and in Bunnings. No thrust blocks in new developments has since led to new inspection processes.

For the team, the work is far from over. Major treated water losses due to breaks is likely to see future construction of a second trunk main from the dam to the WTP. Major erosion issues at the dam (which got close to the maximum 270 percent it can hold for flood protection before release), caused more than a \$1million of emergency repairs and the potential for many more millions to be spent to prevent similar problems in the future.

The closing of the dam gates caused a huge fish kill at the bottom of the spillway. Staff who had to clean up the area had to put up with maggots, flies and stench. Many staff were impacted, with fatigue management a big issue.

The team is looking at further improvement to help with future wet weather events like fitting bags to overflows to try to capture solids, and overflow relief caps installed in properties that are susceptible to flooding.

Work on the Houghton pipeline was also suspended, and some work sites were flooded.

We thank Stephen for providing the progress report and photos and wish them the very best in the recovery process.









## 2019 Events Calendar

Aside from a range of excellent presentations, workshops and networking opportunities, 2019 sees a focus on industry opportunities and gathering feedback developing policy recommendations to help members reduce costs and improve services offered to their customers.

### May

- 2 **Emerging Contaminants Workshop**, Brisbane  
Initiated by the **qldwater** Sewage and Water Environment Advisory Panel (SWEAP) and TRG as a way for water and sewerage service providers to compare the ways they are dealing with emerging contaminants.
- 7-9 **OzWater '19** Melbourne
- 13-17 **Water Connections Week** visiting Murweh, Paroo, Bulloo and Quilpie Shires, finishing in Charleville
- 17 Water Connections Week Forum, Charleville- hosted by Murweh Shire Council
- 22-24 IPWEAQ CQ Branch Conference, Rockhampton

### June

- 5-6 WIOA Queensland Conference, Bundaberg
- 13 **Asset Management Workshop**, Brisbane  
Initiated by the TRG to share experiences around strategic asset management and to consider options for collaboration and advocacy, particularly to Queensland Government regulatory agencies.

### July

- 3 SWIM/**swimlocal** training and workshop, Townsville

### July (continued)

- 4 QWRAP meeting and site tour of Haughton pipeline, Townsville
- 5 Regional mini-conference, Townsville- hosted by Townsville City Council  
Consider accommodation options early and perhaps stay on for the supercars starting on 5 July.
- 25 QWRAP meeting and tour of a range of sites in Maryborough and Hervey Bay
- 26 Regional mini-conference, Hervey Bay- hosted by Fraser Coast Regional Council.  
It's whale watching season, so you might want to consider a weekend stay.

### September

- 11-12 **qldwater** Annual Forum, Logan Metro Sports and Events Centre  
Hosted by Logan City Council, the program will again include a range of lighter activities on 11th including a tour showcasing some of the activities of the Logan Water Infrastructure Alliance and dinner, and presentations on the 12th.

### October

- 22-24 IPWEAQ Annual Conference, Brisbane

There are plenty of opportunities for sponsors to support these cost-effective events for the benefit of Queensland's water and sewerage service providers. Please contact [dkislitsyna@qldwater.com.au](mailto:dkislitsyna@qldwater.com.au) if you are interested.

### 2019 SPONSORS



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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."