

Embracing Digital Disruption

The 2017 events calendar started with a sell-out event where we tackled the pros and cons of Automated Metering and how Queensland service providers can ease their transition to digital utilities.

Held on 16 February at The Pavilion in Albion, the event speculated that the future for utilities includes automated meters and other data capture services, but the potential costs and benefits vary markedly depending on scale, density, existing systems and technology selected.

With a range of service providers talking about their trials and experiences, the focus was on business drivers and building business cases, which has proven challenging for even the largest utilities. The multiple benefits of automated metering depend on how the data collected is managed and used and this in turn depends on the needs of customers and the business which vary from place to place and are not always well understood.

qldwater members have access to **all presentations** as well as an **output document** which includes a table of benefits, costs and risks to help inform the decision to transition to these technologies.

Our next TRG workshop will be held at the same venue on 25 May, this time focusing on System Leakage. Six **qldwater** members will present on historical and current approaches to non-revenue water management. The workshop will also include a number of discussion sessions.

Registrations are open to all and priced at \$100 per person to cover the venue and catering. The draft program and details of how to register are available on our **event website**.



Message from CEO

Timing is a difficult thing to master and I'm writing this preamble at a time when I know many of our members on the coast are being peppered by Cyclone Debbie. Having been involved on the periphery of a number of past natural disasters, at this point we are just hoping that everyone is safe and locals are left to do what they need to restore essential services through established local disaster management arrangements.

Our industry has an exceptional history of helping each other out during and following these major events, but we often marvel at how difficult it can be to initiate some of the amazing resource and information sharing activities we see outside of emergencies. It took me a long time to realise that councils can be pretty keen to promote stories of helping neighbours out (which is a great thing), but the same sort of help offered at other times can lead to difficult questions around why you might have spare capacity. Often it's about people going above and beyond - a challenging balancing act.

Everyone would be aware of QWRAP regional collaborative initiatives by now and other efforts **qldwater** makes to reduce the burden on members by sharing costs and information. The network and contacts are very difficult to value. There are a couple of other things we are planning on trialling at the moment which perhaps try to tackle this from different angles.

Soon you will see an Expression of Interest issued for a Future Leadership Program under development. The idea is to create an opportunity for mid-career professionals in our industry to explore ways of building both their personal stock and networks in the sector, as well as help inform some key strategic projects for broader industry benefit.

In addition, we intend to develop a charitable venture to support small and remote service providers. The hope initially is to focus on professional development and be able to source enough funding for a few full scholarships to spend a week in Brisbane around our September Innovation Forum.

As well as the Forum activities, there will be opportunities to spend time with industry colleagues, experts and mentors from other Queensland utilities as well as State agencies. The aim is to provide for knowledge exchange and networking for participants as well as generating greater understanding of the challenges facing these small and remote communities.

Hope to see you around the traps soon.

Dave Cameron

Resource library continues to grow

The **qldwater** resource library continues to grow with new documents added on a weekly basis.

A useful links page provides access to a number of websites identified as containing resources of potential interest to our members. There are tabs under each water cycle topic for qldwater resources (documents we have developed over time), other resources (collected from other organisations and listed with permission), member sample documents (provided by members to share with other members) and contracts and specifications (collected from QTenders and the LG Tender Box).

From the number of water and wastewater related tender opportunities being collected, it seems like Queensland water service providers have been

busy! The documents available here provide our members with a wide range of plans, procedures and other examples that can be used to guide your own tender requirements.

The latest addition to our range of fact sheets is on the impact of public sewage treatment plants on the Great Barrier Reef. With nitrogen released from STPs contributing less than 4% of total catchment loads, the fact sheet questions whether the high cost of further improvement to STPs could be better spent focusing on priority sources in the 96% of non-urban load. [Download the fact sheet here](#). Several other resources are currently in the process of being reviewed.

Members are invited to submit any sample documents that would help us fill some gaps, particularly relating to operational, risk

management, recycled water and trade waste plans and policies. The issues service providers have to deal with are often common and cyclical – your problem today could well have been someone else's a few years ago and most are open to sharing.

All documents are made available to members and affiliate members through the members-only section of our web site. Where an executed contract or agreement is included, the document is redacted.

Please send any sample documents to Desiré Gralton. If you have any additional conditions of use, please let us know.

Future Proofing Kingaroy

South Burnett Regional Council had known for many years that Kingaroy's old trickling filter sewage treatment plant was long overdue for replacement and upgrade and that the local environment was crying out for a break from the constant abuse of receiving poor quality effluent.

What they didn't know was the journey that they would take would result in the delivery of Australia's first NEREDA® Granular activated sludge wastewater treatment plant. What started out as a straight forward D&C project to deliver a simple, robust and cost effective plant ended up being a major milestone for the Council, the community and the industry, delivering great outcomes on many fronts including:

- Australian first – Nereda® Technology saving Capital and O&M costs
- Effluent standards being surpassed with reduced energy consumption,
- Recycled water being made safe and significant expansion to include sporting fields
- Legacy project for future generations and the Industry

Right: Aerial view of the old plant and the new plant.



Community benefits

One of the great benefits of this project is the Class A Recycled Water facility that was also installed. The plant has been commissioned since November last year and has been supplying the local golf course as well as sporting fields. Normally during this time of the year the sporting fields would be a brown, dusty eyesore, whereas they are now lush and green with local committee members now planning to run large carnivals throughout the year. This creates many flow on benefits to the community.

The other obvious winner from this project is the receiving environment with the Stuart River now receiving much better quality effluent. This will start to benefit the community again as improvements should be seen in the quality of water in Gordonbrook Dam, downstream of the plant.

The project received IPWEAQ's 2016 Excellence Award for water projects over \$10 Million in recognition of its innovative approach to improving water quality for discharge and reuse. Aside from the significant immediate and future community benefits detailed, the project supported many local contractors and saved council an anticipated \$1M in capital on alternative solutions, as well as a further \$0.9M per annum in operating costs.

For a more detailed technical article on the project, refer to the **March 2017 IPWEAQ journal P47**.

Regional Water Conferences Connecting Communities

South West Queensland Conference - Dalby

The South West Queensland conference held at the Dalby Leagues Club in Dalby on Wednesday 1 March was followed by a technical tour of a truckwash wastewater treatment plant, Dalby Saleyards and Reverse Osmosis Plant.

Our hosts in Western Downs provided great support for the event, with a highlight being Terry Fagg's presentations which included details of the research trials he runs at home in buckets (much to his wife's chagrin).



Central Queensland Conference - Yeppoon

The Central Queensland conference was held at the Yeppoon Town Hall on 22 March. To coincide with International Water Day on 22 March, the skies duly opened and torrential downpours descended upon the Capricorn Coast.

Unfortunately the tour was cancelled as the road to the treatment plant was unpassable. The program for the day was slightly extended with everyone allowed a bit more time for their talks and the inclusion of Rob Fearon as an additional presenter. Rob was prepared to trial his "Brief History of Urine" presentation prior to the IPWEAQ conference but instead played it safe focussing on QWRAP and policy issues with some audience participation.

We sincerely thank Michael Dalton and the rest of the crew at Livingstone Shire Council for their huge effort in hosting this well organised, professional event. The Yeppoon Town Hall was a showcase venue providing a beautiful room for the day.

WaSP Wars II was another highlight of both events, showing that the SWQ and CQ crowds can be as competitive and sneaky as the rest of the state when it comes to WaSP Wars strategy.

As always we are grateful to our sponsors for helping make these events possible: Aqseptence Group, Royce Water Technologies, Lonza Water Technologies, Suez Australia and NZ; as well as major sponsors Ixom and Dial Before You Dig.



Skills Update

Industry feedback invited

The water industry is invited to provide feedback on a draft national Certification Framework for Operators within Wastewater and Recycled Water Treatment Systems.

Development of the Framework began late 2016 when the Australian Water Recycling Centre of Excellence engaged **qldwater** to coordinate development of a Certification Framework for Recycled Water Operators, including managing industry consultation. Following discussions with national recycled water regulators it was determined that it would be difficult to maintain a separate recycled water framework and the document therefore reflects a combined recycled water and wastewater approach. The resulting draft Framework represents a collaborative effort among **qldwater**, the Water Industry Operators Association (George Wall) and David Sheehan (Coliban Water).

The Certification Framework is underpinned by the need to ensure that the environment and public health are protected, and that wastewater and recycled water that is provided to end users is safe and fit for purpose. Certification provides an assurance to regulators, communities and the users of recycled water that Operators are competent to manage wastewater and recycled water quality, as well as being capable of identifying and responding to wastewater and recycled water quality risks and incidents.

A summary of the basic Framework principles is provided below:

- Based on the Certification Framework for Operators of Drinking Water Systems 2016 and the Queensland Sewage Treatment Plant Operator Certification Framework (which will be superseded by the national Framework).
- Operators apply to be formally Certified by a national Certifying Body.
- Includes the following Certified Operator categories;
 - Certified Wastewater Operator – low complexity

- Certified Wastewater Operator – high complexity
- Certified Recycled Water Operator
- Operators must;
 - a) attain the stipulated mandatory and fit for purpose units from the National Water Training package (as relevant to the determined system complexity rating)
 - b) satisfy the workplace experience requirements; and,
 - c) be signed-off by their employer in order to be certified (demonstrate capability).
- Certified Operators must participate in ongoing professional development (or undergo a skills audit) in order to be re-certified (after five year validation period).

It is the intention that this national Framework will replace the existing Queensland Sewage Treatment Plant (STP) Operator Certification Framework V2 developed through the Queensland Water Skills Partnership and released in 2015. The overarching principles and standard requirements have been aligned in the new Framework to allow for a simple transition in the first instance. Operators that are Certified under the Queensland Framework will automatically be transferred to the national certification program once the final Framework has been approved and a certifying body appointed.

Long term national ownership of the Framework is yet to be determined, however it is the intention that the Water Industry Skills Taskforce (WIST) will take on the role of interim owner as it has done for the Certification Framework for Operators within Drinking Water Systems.

The full draft Framework along with a consultation/feedback form is available on the **qldwater** website at www.qldwater.com.au/Skills_water_operator_certification. Please email any comments or feedback to skills@qldwater.com.au by 14th April.

Nominate your outstanding operators for the 2017 Queensland Operator Awards

Nominations for the **qldwater**-sponsored water industry operators awards will open shortly, so get ready to nominate your high performing operators. Established in 2010 by **qldwater** in conjunction with the Water Industry Operators Association of Australia (WIOA), these awards recognise the achievements of operational staff employed in the Queensland water industry.

The two categories available for nomination are for the Queensland Young Operator of the Year and the Operator of the Year (Civil / All Rounder). Note that AWA also have an award for Operator of the Year, which is presented at the same conference.

The awards aim to encourage outstanding operational performance of Queensland water industry employees and will be presented to operators who showed excellent performance, initiative and all round attention to detail. All employers are encouraged to nominate their operators for these awards. As well as being recognised by your peers, the winners each receive an award and great prize.

Nomination is easy- **download the application form here**. Nominations close on 5 May.

The award winners will be announced at the WIOA Queensland Water Industry Operations Conference and Exhibition being held in Logan on 7- 8 June 2017.

Queensland Water Regional Alliances Program Update

QWRAP work is progressing in all five regions (see summaries below) as well as further development of some central activities:

- Progress of QWRAP has been reviewed by the QWRAP steering group (LGAQ, DEWS and qldwater) and updates have been provided at regional conferences at Dalby and Yeppoon.
- A new research proposal is currently under development focussed on reviewing asset investment across the industry and determining whether an 'infrastructure deficit' really exists.
- An initial meeting has been held in North Queensland including representatives from Hinchinbrook, Charters Towers, Townsville, Palm Island and Burdekin councils to discuss potential joint projects around the region.
- A joint response to the new Productivity Commission Inquiry that includes urban water services has been discussed and the Outback Regional Alliance has agreed to make a joint submission.
- A second forum for the Chairs and Coordinators from each QWRAP region has been planned for the 7th of April.

FNQROC

- Have selected a tender and currently have one consultant undertaking all DWQMP audits with significant savings to each council from the coordinated approach.
- Developing bid-pool funding requests for new projects including a regional information water portal, a workforce skills gap analysis and potential for joint savings on water security publicity campaigns).
- An active environment sub-group continues to negotiate with the regulator on behalf of the councils.

Outback Regional Water Alliance

- After completion of the highly successful joint reservoir cleaning and air scouring projects which generated significant savings for the regional councils, the Alliance has moved on to other projects including a feasibility investigation on collaboration on water disinfection.
- A hub-based training program has been developed for operators within the region who wish to upgrade their qualifications to Certificate III.
- A regional strategic planning workshop was held in March with the Mayors and CEOs of the region and attended by Mr Stewart McCleod who has been instrumental in driving the NSW Lower Macquarie Alliance – the longest standing Local Government Water Alliance in Australia.
- A trial project to provide live monitoring data of water quality parameters through a web-based portal has commenced in partnership with SWIM and New Zealand company h2ope.

Wide Bay-Burnett Water Alliance

- Development of program for regional alignment of design and construction codes.
- Have appointed a contractor for sewer relining based on the joint tender process developed by the group. This approach is being trialed by a subset of the Alliance councils each of which has acknowledged the benefits of the joint process.
- The group is developing a regional water strategy that considers urban and agricultural water needs to provide for economic growth across the region.

Whitsunday Isaac Mackay Water Alliance

- Have completed an asset management readiness review which identified areas that need further joint attention. The next step is to convene an asset focus group to discuss collaborative approaches to improve on these issues around the region.
- A regional workshop has been planned to discuss the barriers and enablers for adopting nutrient offset programs for sewage treatment plants in regional Queensland.
- A SCADA focus group has also been formed to discuss the potential for alignment of SCADA systems and possible savings over time.

Downs and Surat Basin Group

- Have a tender out currently to seek an auditor to undertake all the DWQMPs for the region.
- Scoping a project to examine SCADA standards and investigate options for a regional SCADA strategy
- Currently scoping a review to examine current and alternative institutional arrangements for regional collaboration and management of water and sewerage services.

SWIM Update

The SWIM project is using the reporting period quiet time to finetune the new version of the *SWIMLocal* software which will be released prior to the start of the 2016/17 reporting period. This will be an optional upgrade for most SWIM users.

It appears that there will be very minimal changes to the annual water and sewerage indicators reported last year. As such, the *SWIMLocal* (licenced version) and SWIM annual data training workshops planned for May and June respectively will be limited in number.

Events Calendar

May

8-12 Water Connections Tour including Bundaberg, North Burnett, Banana, Central Highlands, Woorabinda, Gladstone, Rockhampton & Livingstone. Hosted by Wide Bay Burnett

25 System Leakage Workshop, Albion

26 TRG Meeting, Brisbane

June

7 WIOA Conference and Queensland Live Mains Tapping Competition, Logan Metro Sports Complex

July

19 NQ Conference, hosted by Mackay Regional Council, Mackay

September

6 2017 Innovation Forum Day 1: Technical Tour and vendor presentations

7 2017 Innovation Forum Day 2: Presentations

8 TRG Meeting

October

24-26 IPWEAQ State Conference, Townsville. Sustainability through inspired leadership and community engagement

Back by popular demand

The highly entertaining South-East Queensland Live Mains Tapping competition held at last year's **qldwater** Innovation Forum is now open to all of Queensland with the inaugural Queensland Tapping competition taking place at the 2017 Water Industry Operators Association of Australia conference at Logan on 7 June.

Coached by a current Australian champion, the 2016 winners set the bar high, and competitors will need to complete the task in less than 1 minute and 49 seconds to beat the current record set by the City of Gold Coast team.

In 2017 the competition is being opened up, but is strictly limited to 8 teams. The winning team gets an impressive trophy and the opportunity to nominate a local charity to receive a \$1,000 donation, sponsored by Ixom.

For more information, check out [our webpage](#).



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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.”