



# QueenslandWater

The Water Industry's Resource for News, Events and Information

Issue 17 - December 2016

## 2016 Water Project Awards

As we approach the end of yet another year, it's a good opportunity to look back at the successes and achievements in the Queensland water industry. In particular, we congratulate the winners of all water project awards announced at the IPWEA Queensland Excellence Awards Gala Dinner held in Brisbane on Wednesday 9 November 2016.

### Water projects over \$10m:

#### Kingaroy Wastewater Treatment Plant Upgrade

As Australia's first Nereda® Treatment Plant, the Kingaroy WWTP upgrade is being keenly observed by the broader industry.

Kingaroy's existing sewage treatment plant had been a long-standing concern for council and regulators, and the solution provided more than environmental benefits – it 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.

Reducing capital, operations and maintenance costs, including reduced energy consumption, the Nereda Technology resulted in improved water quality – an important factor as the discharge from the plant is upstream from the town's water storage dam.

Nereda "trains" bacteria to clump into granular structures that simultaneously perform a full bioreactor function, developing anaerobic, anoxic and aerobic compartments within each granule, to facilitate simultaneous nitrification, denitrification and biological phosphorous removal.

### Water projects \$5m - \$10m:

#### Alfred Street Pump Station Upgrade

As one of Logan City's largest pump stations, the Alfred Street pump station transports waste from approximately 200,000 people in Logan's northern suburbs to the Loganholme Wastewater Treatment Plant.

Delivered by a public / private sector enterprise – the Logan Water Infrastructure Alliance – the upgrade brought together a team of highly experienced planners, engineers, constructors and other professionals to turn the inefficient, unsafe and uneconomical pump station into a modern piece of infrastructure.

Through innovative modelling and planning solutions, the pump station now has an optimal electrical switchboard and power supply configuration with modern control options, more reliable and safer low-voltage submersible pumps with standby arrangements and improved pump access for maintenance.

The project, which achieved around \$1M in savings by reusing existing components, will allow council to successfully respond to major population and economic growth.



## Update from CEO

December has clicked over so it's time for Christmas and New Year salutations.

To reflect on a few highlights for the year:

- The second capture of mandatory annual performance indicators is complete with members providing positive feedback on a significantly streamlined process. Dave Scheltinga has done a fantastic job in supporting lodgement for SWIM users and liaising with DEWS and other regulators to ensure continuous improvement.
- QWRAP moves from strength to strength with the formation of a fifth region and several voluntary alliances. We are now enjoying the benefits of a number of regional collaborative projects facilitated by Regional Coordinators with support from Rob Fearon and LGAQ.
- The Water Skills Partnership, under the leadership of Michelle Hill, has welcomed a number of new members, significantly progressed both water and sewage treatment certification frameworks and continued working with DET and other agencies to ensure funding support to members.
- While changes through our advocacy efforts with state agencies are slow, we maintain positive relationships with

all key agencies with a number of significant works in progress. DEWS will focus on state water sector strategy development in early 2017.

- We expect to publish a number of new support materials in the first quarter of 2017. The most recently commissioned work is a collaboration with the NSW Water Directorate to provide guidance on telecommunications installations on water reservoirs.

Our event planning for 2017 is underway with our regional events program commencing in Dalby in March and Central Queensland tour program nearing finalisation. The TRG Innovation Forum in September will see a few key changes to improve the outcomes for members, sponsors and key stakeholders including regulators. Keep an eye out for WaSP Wars V2 which should be ready to go in time for the first regional conference.

Thanks to our excellent staff, TRG members and other friends of the Directorate for a productive year, and best wishes to all members and stakeholders for a safe festive break.

Regards

Dave Cameron

## Awards (continued)

### Water Innovation:

#### Gordonbrook Water Treatment Plant Upgrade

The Gordonbrook Water Treatment Plant (Kingaroy) upgrade is an excellent example of options analysis leading to long term capital efficiencies and improved levels of service.

Struggling with poor raw water quality, high THM production leading to a number of water quality incidents and a space-constrained site, the Gordonbrook site was in dire need of innovative solutions. After evaluating available options, council elected to support a solution which includes Lamella plate clarifiers, DAF and an innovative underdrain system.



Apart from improved water quality for its community, the project also delivered substantial savings through reduced chemical costs.

The plant allows council to use a more cost effective raw water source and through improved pumping and telemetry, provide a more secure water supply to customers.

The upgrade also provides capacity to meet the future needs of the township of Nanango, providing the option of saving further costs by decommissioning another plant.

## A big year of change

We extend best wishes to our outgoing TRG Chair, Steve Gray who has taken up a role with an engineering firm in Townsville. Steve has been a great contributor to **qldwater** and we hope to see him back in future. Dick Went from City of Gold Coast has taken over as Chair, with Steve Porter from Cairns Regional Council Deputy Chair.

To date we have not formally acknowledged one other significant departure. Greg Hoffman moved on from LGAQ in November and has been part of **qldwater's** Management Committee for many years. Hoffy's leadership of the advocacy team including Simone and Arron, and willingness to partner with and act as a champion for **qldwater** has been outstanding and he will be sorely missed.

At a personal level (while I might not always show it) I have learnt an enormous amount from him, and wish him the very best in a well-earned retirement.

Dave Cameron

*Below: New TRG Chair, Dick Went and Deputy Chair, Steve Porter.  
Right: Hoffy supporting QWRAP at the LGAQ State Conference*

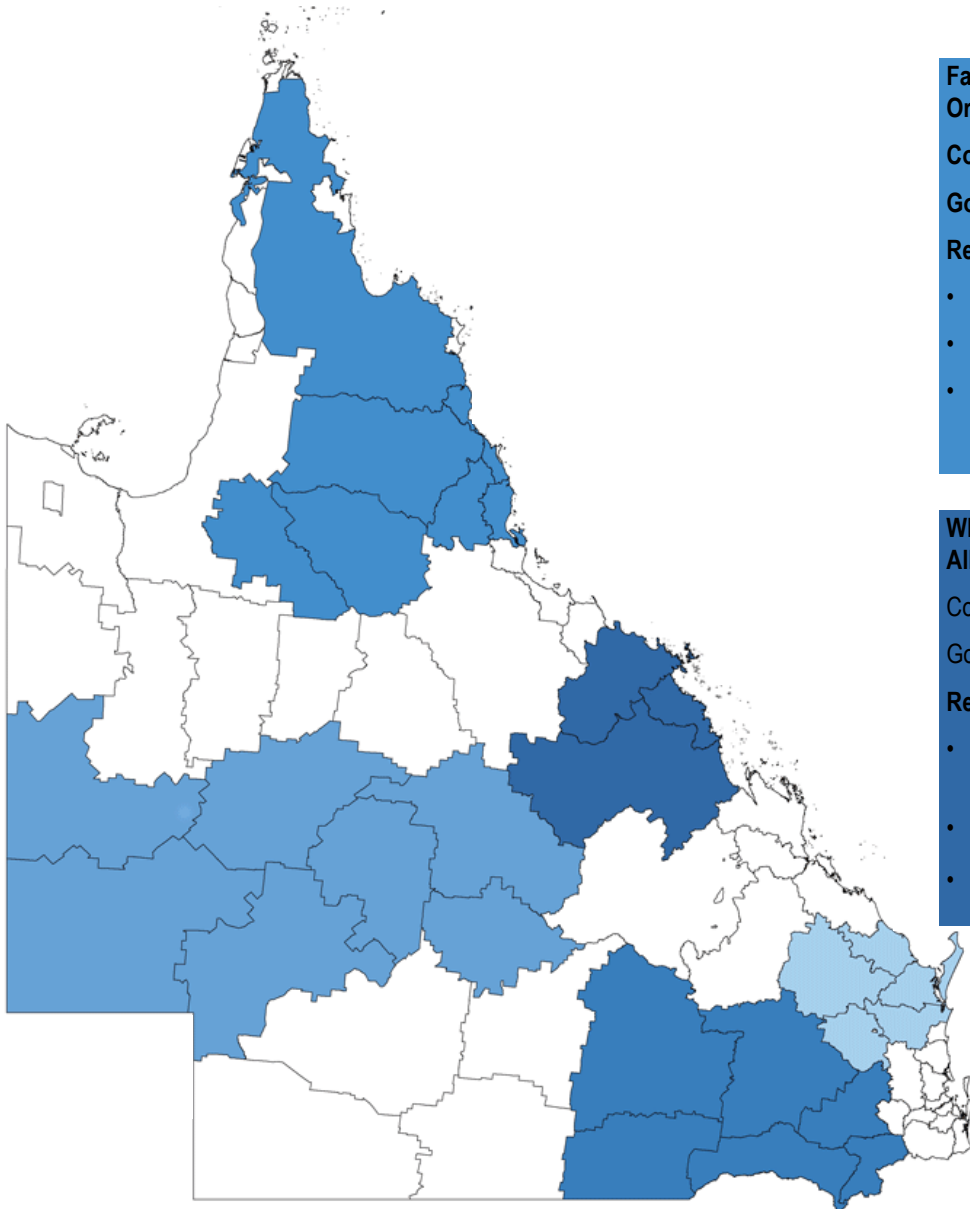


## Emerald August 2016



# QWRAP Update

Each of the QWRAP groups has been progressing individual priorities but in October the Chairs and Coordinators from each of the regions gathered for a day-long workshop to discuss common issues and directions.



**Far North Queensland Regional Organisation of Councils (ROC)**  
**Coordinator:** Steve Cosatto  
**Governance:** ROC  
**Recent activities:**

- DWQMP and audit alignment
- Regional Biosolids Reuse Strategy
- Environmental Compliance and Reporting

**Whitsunday, Isaac, Mackay Water Alliance**  
**Coordinator:** Heather Norris  
**Governance:** Formal Water Alliance  
**Recent activities:**

- Regional Risk Assessment Framework
- Regional Operator Forum
- Joint Training and Certification

**Outback Regional Water Alliance**  
**Coordinator:** Neil Stiles  
**Governance:** Formal Alliance  
**Recent activities:**

- Strategic Plan
- Regional Air Scouring
- Joint Reservoir cleaning

**Downs and Surat Basin Area**  
**Coordinator:** John Betts  
**Governance:** Early QWRAP Investigations  
**Recent activities:**

- Regional SCADA and Data Management Investigation
- Joint Sewer Relining Investigation
- Review of Alternative Regional Governance Models

**Wide Bay-Burnett Regional Org. of Councils Water Alliance**  
**Coordinator:** Steve Brown  
**Governance:** Formal Water Alliance  
**Recent activities:**

- Regional technical code
- Regional Water Strategy
- Joint Sewer Relining Procurement

## Common Issues

Despite the different stages of development of each region and the varied approaches each has taken, there were many similarities. Some of the common challenges included:

- Heavy workloads for staff as well as differing politics and personalities slowing progress.
- 'One size fits all' can be a problem even within regions.
- Balancing benefits among small and large members.
- Joint procurement requires certainty for councils and contractors and this can be difficult without a formal alliance.
- Building relationships and trust takes time particularly where there is turnover of staff.

*Right: QWRAP Regional Coordinators Forum, Brisbane, October 2016.*

*Below: Central Queensland regional conference, Emerald, August 2016*

## Top-three issues

Asked to list the top-three issues currently facing their regions, those listed in more than one region included:

- Succession planning, capacity and capability.
- Ageing infrastructure.
- Water security.
- Keeping urban water in spotlight (e.g. with mayors and CEOs)
- Drinking water quality management.
- Tyranny of distance.
- Varying levels of maturity in different areas of the businesses.

## Enhancing QWRAP

The group also discussed mechanisms to enhance QWRAP overall, including:

- building on shared case studies and experience so groups can learn from each other;
- cloud-based storage area to house shared documents;
- promoting LGAQ training program for councillors in each region;
- advocacy for more risk-based approach with water and environmental regulators; and
- reiterating benefits of QWRAP and need for ongoing funding to support regional collaboration.



## Skills Update

### SEQ STP Operator Certification Pilot

Queensland Urban Utilities, Unitywater, City of Gold Coast, Logan City Council and Redland City Council have commenced a collaborative trial of the Sewage Treatment Plant Operator Certification Framework developed by **qldwater** and its member utilities in 2015.

The STP Operator Certification Framework has been substantially modelled on the national Drinking Water equivalent – Certification Framework for Operators of Drinking Water Systems 2016. The full STP Operator Certification Framework is available on the **qldwater** website here.

Certification adds an important layer of Quality Assurance to skills development. It is fundamentally linked to the National Water Training Package. Operators are required to hold the units of competency that relate directly to the processes at the treatment plant/s that they operate. The evidence of existing competency and mapping to processes is validated by an independent certifying body (the Water Industry Operators' Association of Australia). The operator then undertakes required professional development to achieve re-certification over a five year period.

The broad certification objectives of this pilot include:

- Improve consistency in skills development.
- Improve (over time) the RTO supply market, career paths and mobility
- Clarify demand for funding support (e.g. Queensland Government traineeship offsets).
- Develop broad mentoring and support networks.
- Demonstrate a commitment to continuous improvement to the environmental regulator.
- Be part of a process of making new careers in sewerage operations more attractive.

The pilot is designed to:

- Test the Framework so that any necessary modifications identified during implementation can be made.
- Test the training supply market and organise demand. It can be very difficult for a single utility, even in SEQ, to negotiate pricing and achieve desired training delivery methods.
- Provide a demonstration activity to inform broader adoption.

The project is overseen by the SEQ Joint Operations Committee (JOC) along with a technical steering committee with members from each participating utility. **qldwater** will facilitate the project and the Water Industry Operators Association (WIOA) will act as the certifying body.

There are currently 16 participants in the SEQ pilot activities. All participants have completed a review of current training competencies against the specific treatment processes at the STPs that they operate. An RTO has been appointed to deliver the gap training to ensure that the operators have the required competencies. Enrolments are underway and training is set to commence before the end of the year.

A ceremony for the first operators to be Certified under the Framework is planned for the WIOA Queensland Conference in June 2017.

It is unlikely that all operators will complete in this timeframe, so there will be additional certification ceremonies. There will be a continuous evaluation process – if the Pilot proceeds well it is expected there will be opportunities for further cohorts to commence in 2017.

For further information, contact Michelle Hill ([mhill@qldwater.com.au](mailto:mhill@qldwater.com.au)) or Dave Cameron ([dcameron@qldwater.com.au](mailto:dcameron@qldwater.com.au)).

### Funding to support gap training for Operator Certification

**qldwater** recently secured funding to support a small cohort of operators to attain the competencies required to apply for Certification (either under the National Certification Framework for Operators of Drinking Water Systems 2016 or the STP Operator Certification Framework). The intention of the funding is to address the current restrictions on accessing funding for operators who hold existing Certificate III Water Operations qualifications.

A call for EOIs went out via a **qldwater** skills eFlash and we received a significant response. **qldwater** is in the process of finalising the training places for this funding and which are expected to support the STP Operator Certification Pilot in SEQ, Drinking Water Operator Certification in North Queensland and other certification training.

## Queensland Urban Water Industry Workforce Snapshot Report for 2016 Released

The fourth Queensland Urban Water Industry Workforce Composition Snapshot is now available to view online on the **qldwater** website here. A published hardcopy version of the report will be available early in the new year and will be sent to all Queensland Water Skills Partnership Subscribers.

For the 2016 report **qldwater** received responses from eleven organisations of varying sizes covering a total of 3,323 employees (which we estimate reflects approximately 56.5% of the Queensland urban water industry workforce). **qldwater** would like to thank all the organisations that contributed data.

Since the first report was published in 2010, a number of trends have begun to emerge in the 2016 report. In particular, changes in many job families are evident, possibly as a result of outsourcing trends for operations staff. A gradual trend towards a more ageing workforce is also observed. Full details and

commentary on potential trends are provided in the report.

While this series of snapshot reports can only provide a glimpse into ongoing change in the sector, they remain an important initiative to support both sector-wide attempts to focus efforts on skills needs, and individual organisations in developing their analyses of external environments to support workforce planning. The **qldwater** Technical Reference Group and Water Skills Partnership Industry Leaders' Group are currently considering options for improving data collection and analysis to enhance future reports.

To receive a hardcopy of the published Snapshot report, contact Michelle Hill on [mhill@qldwater.com.au](mailto:mhill@qldwater.com.au).

## Apprenticeship and Traineeship Discussion Paper

The discussion paper 'Positive Futures: Apprenticeships and Traineeships in Queensland' was launched on Tuesday 15 November by Minister for Training and Skills Yvette D'Ath. Responses to the discussion paper will inform a report to be developed by Jobs Queensland and delivered to the Government next year.

Jobs Queensland is inviting stakeholders to make initial submissions by the deadline of 20 December 2016, and will maintain a program of engagement into 2017. A number of workshops are also available in various regional locations (schedule available on the Jobs Queensland website).

User Choice funding to support both existing and new trainees is currently used extensively by the water industry in Queensland. **qldwater** will submit a response to the discussion paper on behalf of industry and encourages members to do so.

Submissions can be made via the Jobs Queensland website at [www.jobsqueensland.qld.gov.au](http://www.jobsqueensland.qld.gov.au).



## SWIM Update

The continual evolution of data entry over the past two years has seen many QA/QC processes built in to the SWIMLocal Annual Data Tool prevent many of the common errors previously experienced and greatly streamlining the management of indicators and data submission.

The fully licensed version now allows for mobile data entry directly via a tablet/phone (iOS/Android/Windows), and indicator alerting functionality is complete and currently undergoing final testing. This allows a SMS and/or emails to be automatically sent when an indicator rule (e.g. E. coli sample must equal zero (0) cfu/100mL) is broken.

Our ongoing discussions with DEWS, ABS, BoM and NPR regarding indicator rationalisation and definition improvement for 2015/16 have been very successful with beneficial changes occurring which will help reduce our members' reporting burden.

82% of Qld Service Providers used SWIM this year (96% of non-indigenous, 35% of indigenous SPs) with the remainder providing data directly to DEWS. All **qldwater** members have free access to the SWIM system for mandatory reporting requirements.

## Events Calendar

Our 2017 events calendar is still being finalised, but here's a taste of things to come:

### February

- 9 ERA63 Expert Group Meeting
- 16 Automated metering, data interpretation and analysis workshop hosted by the TRG, Brisbane
- 17 TRG Meeting

### March

- 1 SWQ Conference, hosted by Western Downs Regional Council, Dalby
- 22 CQ Conference, hosted by Livingstone Shire Council, Yeppoon

### May

- 8-12 Water Connections Tour – Bundaberg, North Burnett, Banana, Central Highlands, Woorabinda, Gladstone, Rockhampton & Livingstone
- 26 TRG Meeting

### July

- 19 NQ Conference, hosted by Mackay Regional Council, Mackay

### September

- 6-7 Innovation Forum, Brisbane / GC (TBC)
- 8 TRG Meeting

## Our Sponsors

Our events are small and intimate affairs, making them very attractive for prospective sponsors.

All **Principal and Gold Sponsorships** for the 2017 Regional Conferences have been sold. A big thanks to:



\*Silver sponsorships still available.

Thanks also to **Dial Before You Dig** and **Ixom** who have again taken out the Principal Sponsorships for the Water Connections Tour and Best of the Best Queensland Water Taste Test of Regional Events respectively.



*The Essential First Step.*



We wish you a Merry Christmas  
and a happy new year!  
From Dave, Rob, David  
Heather, Michelle and Desiré



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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.”