



2015 regional events kick off in Rockhampton

If our first regional event in Rockhampton is anything to go by, we're in for a treat this year. The Central Queensland conference, kindly hosted by Rockhampton Regional Council, offered a good mix of interesting presentations, a technical tour, training workshop as well as the first semi-final of the Ixom Best of the Best Queensland Water Taste Test at the Rockhampton Regional Library on Thursday, 16 April 2015.

The Inflow and Infiltration Workshop included a case study from the North Rockhampton Flood Mitigation Project, an overview of monitoring to modelling and how this impacts infrastructure costing, problem solving and a workshop session to look at ideas for future collaboration.

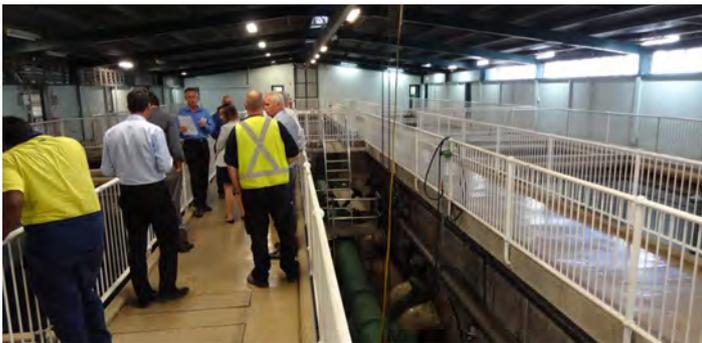
Some participants chose to take the option of a technical tour to the Glenmore WTP (images below) and see recent upgrades to the South Rockhampton STP.

But the highlight of the event was Livingstone Shire Council taking out the Central Queensland title of the 2015 Ixom Best of the Best Queensland Water Taste Test.

Less than two months after Tropical Cyclone Marcia wreaked havoc in Yeppoon, water from Livingstone's Woodbury WTP was selected top drop when conference attendees honed their taste buds through a blind taste test of six water samples from Rockhampton Regional Council's Mount Morgan and Glenmore WTPs, Livingstone Shire Council's Marlborough and Woodbury WTPs, Banana Shire Council's Moura WTP and Woorabinda Aboriginal Shire Council's Dawson River Scheme.

Below: TRG Chair John Betts presents the first taste test trophy of the year to Michael Dalton from Livingstone Shire Council.

Bottom left: Ideas flowed at the Inflow and Infiltration Workshop.



Update from A/CEO

Welcome to Issue 12 of Queensland Water, our first edition for 2015. We have had an election and several cyclones since last writing and hopefully we won't have more of either for some time.

The weather events have done a good job of occupying the new government's time since taking office and a number of *qldwater* members continue to recover, particularly from Cyclone Marcia. Fortunately the damage to water and sewerage infrastructure in Central Queensland was not significant and with power and most access restored, things are slowly returning to normal. Rockhampton residents were significantly impacted by manganese problems following Marcia and our first regional conference in Rocky allowed us to share plenty of stories.

Marcia also had an impact on a small tour Anthony Lipsys from Banana Shire organised for us on 12 March with the touring party ultimately made up of me, Anthony and Steve Tansley along with a couple of blokes from Fitzroy River Water who got lost and only made the last part. A few photos are included; apart from the new STP at Theodore we got to have a look at a new valve maintenance trailer, reservoir being poured and reservoir cleaning work.

Thanks again to Anthony for all his efforts.



The Steve Hrudehy workshop on 21 February was a resounding success for our delegates despite the weather bringing an early halt to proceedings. Our participant feedback was very positive with many experienced water professionals taking significant learnings away from the case studies. See the story on page 6 for more on this.

If there was an overarching message for me it is about complacency and how even the best performing water businesses need to be vigilant about identifying and monitoring risks, and probably just how

many other "near misses" there must be out there that never make a formal case study.

This work and workshop will influence a lot of our activities but if there is a single mission to come from it for me it's a renewed determination to make something tangible happen around operator certification. Many will be aware how slowly things have progressed over the last four or five years despite strong industry and government support at officer level.

There are many possible quotes to share but I'm going to limit it to one from Steve and Elizabeth's 2004 book:

"If the conclusions of every formal investigation of an aircraft disaster were that pilots and other operators in the system were inadequately trained to deal with the challenges of their jobs, there would surely be an outcry from the traveling public to correct this problem. How is it then, that we can find so many failures that indicate inadequate training of operators, designers, managers, regulators and/or health professionals regarding such a fundamentally important service as drinking water and yet have only a muted response towards improving the training and status of drinking water personnel?"

Thanks again to the Department of Health for its generous support towards the workshop, and David Sheehan from Coliban Water for giving *qldwater* the opportunity to host such an esteemed guest speaker.

Dave Cameron



Election Summary

At the time of writing, the new government was going through a merit process to appoint Directors General and new policy relating to water and sewerage service provision was not well articulated. We are unsure of the future of WaterQ although there is strong support from industry and the relevant departments to retain parts of the strategy.

There have been few changes to departments although with a smaller number of Ministers, it will be challenging for them to stay on top of their portfolios. Of most relevance to water and sewerage:



Hon. Mark Bailey

Minister for Main Roads, Road Safety and Ports, and Minister for Energy and Water Supply.



Hon. Yvette D'Ath

Attorney-General and Minister for Justice, and Minister for Training and Skills.



Hon. Cameron Dick

Minister for Health and Minister for Ambulance Services.



Hon. Dr. Anthony Lynham

Minister for State Development and Minister for Natural Resources and Mines.



Hon. Dr. Steven Miles

Minister for Environment and Heritage and Minister for National Parks and the Great Barrier Reef.



Hon. Jackie Trad

Deputy Premier, Minister for Transport, Minister for Infrastructure, Local Government and Planning and Minister for Trade.

qldwater has made a range of submissions and representations on behalf of members to new Ministers, both individually and through parent bodies including LGAQ.



Water Operator Awards

– still time to nominate your stand outs!

Nominations for the annual *qldwater* sponsored water industry operators' awards are now open.

Established in 2010 by *qldwater* in conjunction with the Water Industry Operators Association of Australia (WIOA), these awards will again recognise the achievements of operational staff employed in the Queensland water industry. The award winners will be announced at the WIOA Annual Queensland Water Industry Operations Workshop Conference Dinner in Toowoomba on 18 June 2015. Applications close on 1 May.

The two categories available for nomination this year are for:

- Queensland Young Operator of the Year
- Operator of the Year (Civil / "All Rounder")

The Queensland Young Operator of the Year winner will receive an all-expenses paid trip to join the WIOA delegation on a tour of water and wastewater facilities in New Zealand as well as attending the Water Industry Operations Group New Zealand conference in May 2016, a perpetual plaque which their employer keeps for 12 months plus an individual trophy which is kept by the winner.

The Operator of the Year (Civil / "All Rounder") winner will receive up to \$1500 towards professional development opportunities such as attendance at other WIOA conferences, *qldwater* training or for funding expenses for exchange opportunities at neighbouring councils. The winner also receives a perpetual plaque which their employer keeps for 12 months plus an individual trophy which is kept by the winner.

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.

It's easy to nominate - please visit <http://www.qldwater.com.au/qldwaterAwards> for more information, application form and to see previous winners.

Regionalisation of Water and Sewerage Services: A closer look at international models

Queensland urban water and sewerage services (WSS) are provided predominantly by 68 local government Water Service Providers while in other Australian jurisdictions regionalisation and corporatisation are more common and State/Territory Governments are primarily responsible for WSS. But what is happening overseas?

A review of all OECD and G20 countries undertaken for a QWRAP report revealed local government ownership (and often management) as the norm for, but with increasing regionalisation, commercialisation and private sector contracting in many cases.

The diversity of institutional models can be classified using a spectrum ranging from purely public to fully private ownership and management. England and Wales are one of the few jurisdictions where there has been long-term success from full privatisation of WSS. In contrast, The Netherlands firmly rejected privatisation in the mid-1990s and has developed regionalised local government-owned water corporations. However, even in the Netherlands and indeed all other jurisdictions, 'outsourcing' of some activities is universal but ranges from simple service contracts to delegation of all management and operations.

Analysis of case studies of institutional change identified a number of recurring themes common to successful models for WSS. These included trends for local government ownership, commonly through regional and commercialised WSS, along with increased private sector outsourcing and reform of economic regulation. These trends are often associated with sustainable models but success is subject to a range of additional, uncontrollable environmental pressures.

Private Sector Participation

Full privatisation (divestiture of assets to private interests) remains limited in the WSS sector despite trials in numerous jurisdictions internationally but private sector participation is universal regardless of the ownership model. Globally the majority of WSS providers outsource specific 'non-core activities' (e.g. capital design and construction) allowing them to focus on specific strategic needs. In Australia capital works are typically outsourced and large Australian utilities outsource between one and two thirds of operations expenditure.

Delegation of management by local governments to private partner (often jointly

with neighbouring councils) was pioneered and still commonly practiced in France and is increasingly common in Spain, the Czech Republic and some Nordic countries. In France where such delegation has been common for over a century, concession contracts last an average of 11 years but can be decades long. A similar approach has been adopted in Adelaide and Perth. In Nordic countries, three-year contracts for operations are the norm to reduce the possibility of the monopolistic practices that can be identified with in long-term concessions.

Commercialisation

Said to increase efficiency by placing WSS on a commercial footing, commercialisation, particularly through corporatisation, has become increasingly common internationally. In Australia, corporatisation (often via statutory authorities) is universal except in regional Queensland and country NSW.

The need for local and democratic oversight paired with expertise-based governance may explain why corporatisation and local government ownership are commonly combined. In Denmark corporatisation became mandatory in 2009 coupled with regional aggregation. In Italy, corporatisation (with mixed public and private ownership) was mandated in 1994, but community dissatisfaction led to a referendum in 2011 with the result that corporatised entities must be publically owned and 'not-for-profit'. Corporatised local government utilities are also common in Belgium, Estonia, Japan, Lithuania, the Netherlands, Poland and Spain.

Regionalisation

Regionalisation, or horizontal aggregation of WSS, has increased in Australia and internationally over the past three decades. Regionalisation has been achieved through three primary mechanisms:

- creation of single utilities to undertake some or all of the services (as in England and Wales, Ireland, Northern Ireland and Scotland);
- joint contracting or lease/concession arrangements that allow large private utilities to service several local governments (as in France, Nordic countries, Spain, Mexico and parts of the USA); or
- through councils combining their activities with varying degrees of formality and corporatisation (as with The Netherlands, Flanders and Denmark, and parts of the USA and New Zealand).

In Europe, the first step in the reforms introduced to the municipal model is often to organise joint boards of neighbouring municipalities to facilitate a fair distribution of the investment burdens. This is quite frequent in Germany, The Netherlands, Belgium, Italy, Switzerland and, in particular France. Similarly, regionalisation has been favoured for parts of the fragmented water sector in the US through alliancing and joint outsourcing, particularly in cities.

The optimal scale for regionalisation is not well understood. In England, Northern Ireland and Scotland mandatory regional approaches were later scrapped in favour of a single WSS entity for each jurisdiction to further maximise economies of scale. In Australia, several reviews have shown that diseconomies of scale occur beyond a particular size of provider. The optimal configuration is influenced by population size but also a number of other uncontrollable factors such as population density, geography and climate.

Integrated Regulatory Frameworks

The final 'success factor' identified from other jurisdictions was rationalising economic

regulation of the WSS sector. Such regulation has been shown to have a large impact on the efficiency of WSS in Australia and overseas. The purpose is, first, to ensure a sufficient level of production, second, to prevent monopolies from exploiting consumers by overpricing, and third, to ensure efficient production. Such frameworks were present in most of the countries surveyed and Australian jurisdictions outside Queensland.

Five key features of beneficial regulation are generally described, namely (1) ensuring consistent services in spite of variability in size and structure of service providers, (2) balancing independence and industry knowledge, (3) balancing competing regulatory and customer externalities (4) providing an appropriate environment for effective private sector participation and (5) effective and efficient performance monitoring for benchmarking.

What does it mean for Queensland?

Many of the 'success factors' identified from international trends have already impacted south east Queensland (SEQ) during the

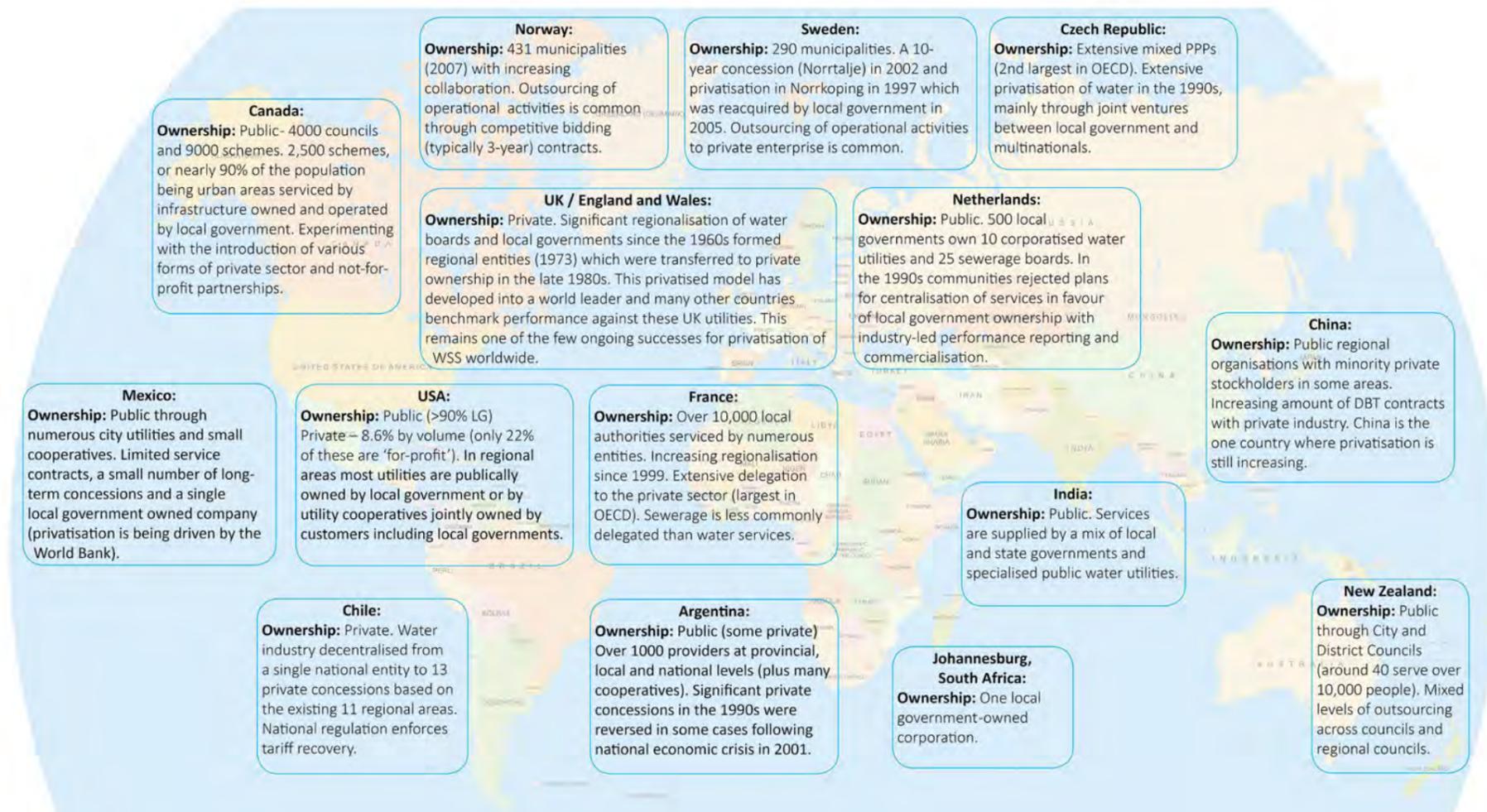
turbulent and lurching restructures of the past seven years. As the region is still recovering from this period, further time is required before the real impacts of these changes can be assessed.

In regional Queensland aggregation of many services occurred as a result of the 2008 council amalgamations and is now being further explored through the QWRAP which has created three new regional alliances. However, commercialisation and corporatisation have decreased since 2008 and outsourcing and private sector participation is growing, but starting from a lower base than many other jurisdictions. A new performance reporting framework introduced in Queensland in 2015 is untested as yet but has the potential to provide a foundation for regulatory reform across the state.

Sustainability of WSS is increasingly being threatened by the stock of post-war infrastructure that is approaching the end of its useful life. In 2009 the century-

long partnership between state and local government for co-investment in WSS assets ended abruptly. This has left local governments to bear these costs alone, or to compete for ad hoc, reduced financial support through programs like Royalties for Regions. This places small communities in a difficult position, as their only other alternatives are unsustainable borrowing or cross-subsidisation within their local government areas and functions.

While shifts towards regionalisation, commercialisation and stronger regulatory frameworks could provide benefits, they must be managed carefully to avoid cost-shifting, increased transaction costs and alienation of both rural and urban customers. This is complicated in Queensland by the large distances between communities and their relatively small size: two thirds of potable schemes service towns with fewer than 1,000 residents and 50% service fewer than 500.



Case studies highlight importance of safe drinking water

Even though the remnants of tropical cyclone Marcia caused an early evacuation of the Ensuring Safe Drinking Water Workshop at Queensland Health's facilities near the Royal Brisbane Hospital on 20 February 2015, the event was still a big success, providing a practical learning opportunity for all professionals engaged in the provision of safe drinking water.

Delivered by Canadian author and academic Steve Hrudley and based on his book: "Ensuring Safe Drinking Water – Learning from Frontline Experience with Contamination" published in June 2014, the workshop discussed case studies of drinking water disease outbreaks and chemical contamination episodes from authentic events that occurred in Australia, Canada, England,

Finland, Scotland, Sweden, Switzerland and the U.S.A.

As a current employee of Unitywater with past working experience in Linkwater, Asset Renewals Officer Glen Stock said he found the workshop to be an eye opening event which allowed him to take away his knowledge of the grid and encompass the responsibilities he holds in his position towards a new way of thinking how we carry out maintenance and renewals work in the water industry.

"After listening to the facts and cases put forward by Steve, I found myself as a witness to the infinite opportunities for how water quality can be compromised by the Utilities in ways that have never been considered in any meetings I have witnessed."

Glen has been a part of the inheritance and documentation of old assets from previous councils on two occasions whilst working for two separate Government Statutories, both in bulk water and reticulation supply.

"I can safely say there is no comparison to where the neglect of assets can be easily passed over and forgotten until an incident finally occurs, putting large pressure on the organisation to then concentrate on this seemingly black magic subject known as Water Quality."

"I found Steve Hrudley's investigations both thorough and alarming and can only say that I am better off in my industry after attending his workshop knowing that working in with our Water Quality department will hugely benefit the way we do business to no end."

"This was the best and most intense workshop I have ever attended."

Kelly Hopewell and Beth Wheeler from City of Gold Coast said they learnt a lot from the workshop and the case studies were a great way to bring serious real-world risks and consequences to the forefront.

"I was especially interested in the Freuchie, Fife, Scotland (2005) incident where contaminated water was pulled into the potable distribution system through a customer's property (with no back prevention device fitted)," Kelly said.

"Despite the water utility's rapid response to the incident (after it was discovered), it was too late to prevent illness in over 80% of people in the two supply zones nearest

the contamination site. It highlighted the importance of a coordinated response to water quality results and customer complaints to identify a problem."

As Coordinator Compliance for Gold Coast Water, Beth attended the workshop with limited background knowledge of drinking water quality processes or the knock-on effects when things go wrong.

"I was surprised at how just a small amount of contamination could cause so much damage and that, even with the best, most modern and all-singing, all-dancing treatments systems, things could still go wrong," she said, particularly noting the Northampton, England case.

"The key seems to be in ensuring that those responsible for operating and managing the water treatment systems are fully trained and qualified to do so, so that in the case of something going wrong, the correct steps are quickly taken to minimise potential damage. In the very first case we looked at (Walkerton), it was clear that the people in charge simply didn't recognise the consequences of reduced chlorine residuals."

Kelly and Beth said the workshop was an eye-opener to the potential life-threatening problems that could occur in the developed world and how seriously water businesses need take their obligations to their customers.

Skills Update

Queensland Water Skills Partnership Activities and Updates

The Water Skills Partnership Industry Leaders' Group will meet in late May to review current activities, future funding applications and other projects.

Due to the recent change of Government, the *qldwater* Industry Partnerships Strategy application is on hold until further information on the future of the program is known. Other funding available for water operations qualifications, such as User Choice and Higher Level Skills currently remains unchanged.

The future of the national Industry Skills Councils is still being finalised with the government moving towards a new contestable funding model to commence in July 2015. A discussion paper has been released and it seems likely that the ISCs will be phased out, including Government Skills Australia which is responsible for the National Water Package. *qldwater* participates in the national Water Industry Skills Taskforce which is aiming to ensure a suitable ongoing owner/ manager of the training package is found.

STP Operator Certification Framework - Draft Released

In April 2014, the Queensland Water Skills Partnership Industry Leaders Group (ILG) identified the investigation of options for a Sewage Treatment Plant (STP) Operator certification framework as a priority activity. This builds on the work to date in contributing to the development and testing of a draft national framework for drinking water operations published in 2012. Put simply, the STP Operator certification framework seeks to set minimum standards for training, education and professional development for various industry roles with a view to improving consistency, portability of skills, and access to professional development and career paths for these critical staff. It will help employers manage risks around their environmental duty with greater confidence.

Initial feedback from industry, training providers and regulators on the discussion paper was sought by Friday 13 March 2015. *qldwater* will present the final draft for review and approval by the Water Skills

Partnership's Industry Leaders Group in May 2015, with the document to be formally published shortly thereafter. Part of the reason for this projected final publication date is the review of the National Water Training Package – a new version with significant changes is being drafted, its content is important to be referenced in this document, however it is unlikely to be finalised before mid-2015.

There are no current plans to develop a national approach however there is interest from other States. Once completed, the final framework will be presented as an industry-developed standard, with recognition sought from the Queensland Department of Environment and Heritage Protection. It has been developed to be as simple as possible - with the clear expectation that it will be adopted on a voluntary basis and should under no circumstances be referenced in a regulatory context.

Water Industry Worker Session at WIOA Exhibition and Conference

The Queensland WIOA Exhibition and Conference will be held in Toowoomba on 17 - 18 June. *qldwater*, in collaboration with a number of SEQ water service providers, has arranged a short session focussed on the networks employees which will feature a Water Industry Worker Program panel session and technical networks presentation.

The Water Industry Worker (WIW) competency training program began in Southeast Queensland in 2009 with a pilot program including 22 staff members from the field maintenance and construction teams of Ipswich City Council, Logan City Council, Redland City Council, Brisbane City Council, Gold Coast City Council and Scenic Rim, Lockyer and Somerset Councils. This pilot program was seen as the first step of a major undertaking, effectively designing a custom industry-accepted qualification, organising industry demand, and supporting the training supply market to develop an efficient model that could be replicated across other skill streams.

The results of an evaluation of the program undertaken last year will be presented at the conference in June. The full WIW Program evaluation can be viewed on the *qldwater* website - http://www.qldwater.com.au/Skills_water_operator_programs.

SWIM Update

SWIM Training

A number of SWIM training days have now been confirmed - please see the events calendar on the back page for more information.

We currently have 87 people from 37 councils booked in to attend at 11 venues around the State.

Training is free and will go for half to three quarters of a day depending on the councils attending and what they each need to report on. Lunch will be provided by the host Council at each venue.

If you haven't booked yet and would like to attend one of these days, please contact David Scheltinga on 0415 881 195 or email dscheltinga@qldwater.com.au.

Training will, amongst other things, cover:

- Set-up, install and discussion of new SWIMAnnual software
- New/changed indicators from last year, particularly the new KPIs
- Metadata refresher training
- Quality Control tools in SWIM

There will also be an opportunity to discuss other aspects of the new KPIs (such as the requirements on you to freely provide your KPI data), SWIMLocal, or anything else that is related to your water and sewerage reporting.

SWIMAnnual

This year *qldwater* will be transitioning away from the Excel spreadsheets to a new database method of uploading your annual water and sewerage data (called SWIMAnnual).

The new software is currently undergoing internal testing and will be available for user testing/trials in early May. It will be used for reporting Service Provider's water and sewerage data via SWIM this year.

SWIMAnnual offers several improvements over the old Excel templates, such as improved QA/QC, ability to see previous year's data, performance of more complicated calculations, reduced indicators

(for most) due to its ability to link required indicators to individual organisations, etc.

All the new Queensland Government KPIs will be added to SWIM for reporting this year, making it easier for our members to transition to this new model.

SWIMLocal tablet data entry tool

Development of the SWIMLocal tablet data entry tool has been delayed due to the complexity involved in developing the new SWIMAnnual tool. It is hoped that it will be available just after the middle of the year.

Release of Queensland's Urban Potable Water and Sewerage Benchmarking Report – 2013/14

Queensland's fourth water and sewerage benchmarking report has been completed using 2013/14 data and is available from the *qldwater* website at <http://www.qldwater.com.au/reporting>.

The report uses data from 57 Service Providers across the State with 50 of them participating in the public release of the report (up from 41 last year). It is good to see more transparency from the industry with 88% of participants willing to have their names published in the report up from 40% when we first started.

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.

Report	Total Data Points Used	Number WSPs supplying data	Number WSPs participating in report
2010/11	752	43 (72 %)	17 (40 %)
2011/12	688	46 (64 %)	28 (61 %)
2012/13	1013	56 (84 %)	41 (73 %)
2013/14	1003	57 (80%)	50 (88%)

Events Calendar

The 2015 events calendar is filled to the brim with networking and training opportunities across the State. We look forward to seeing you at an event near you!

May

- 4 - 8 **Water Connections Tour – Cairns and surrounding councils**
- 8 **Cairns Conference and FNQ Taste Test**
- 12 **Ozwater, Adelaide**
- 14-15 **IPWEAQ SW Branch Conference, Kingaroy**

June

- 5 **TRG Meeting, Brisbane**
- 15 **SWIM Training, Barcaldine**
- 17-18 **WIOA Conference and Water of Origin**
- 22 **SWIM Training, Cloncurry**
- 23 **SWIM Training, Brisbane**
- 23 **Water Quality Awareness and Distribution System Management Workshop, Ingham.**
- 23 **Operator training opportunity and NO Water Taste Test, Ingham**
- 29 **SWIM Training, Mackay**
- 30 **SWIM Training Townsville**

July

- 1 **SWIM Training, Cairns**
- 6 **SWIM Training, Rockhampton**
- 7 **SWIM Training, Biloela**
- 8 **SWIM Training, Maryborough**
- 13 **SWIM Training, Roma**
- 14 **SWIM Training, Goondiwindi**
- 14 **Water Quality Awareness and Distribution System Management Workshop, Livingstone.**
- 23-24 **AWA North Queensland Conference, Cairns**
- 31 **LGAQ Bush Council Forum & SWQ taste test St George**

August

- 19 **WSAA Regional Forum**
- 20 **Gold Coast Conference, technical tour and SEQ taste test**
- 21 **TRG Meeting**

October

- 12-15 **IPWEAQ State Conference, Mackay**
- 19-21 **LGAQ State Conference**

November

- 5 **Innovation forum and taste test grand final, Maroochy RSL. Hosted by Unitywater**
- 6 **TRG Meeting, Brisbane**
- 12-13 **AWA Q'Water Conference, Brisbane**



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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.”