



Queensland  
**Water Regional Alliance Program**

**QWRAP UPDATE  
2016-17 FUNDING, YEAR 2**





## BACKGROUND

The Queensland Water Regional Alliances Program (QWRAP) was developed in 2011 as an industry-led response to the calls in three national reports for reform of water and sewerage services (WSS) in regional Queensland. The program was primarily designed to investigate alternative institutional and governance models while fostering voluntary collaborative opportunities. Most regions involved in the QWRAP program have opted to form regional alliances and continue to investigate further other options for their WSS.

The program receives seed funding from the Queensland Government through the Department of Energy and Water Supply along with investment from the Local Government Association of Queensland, Queensland Water Directorate (*qldwater*) and participating councils.



## QWRAP GROUPS



Outback Regional Water Alliance



Far North Queensland Water Alliance



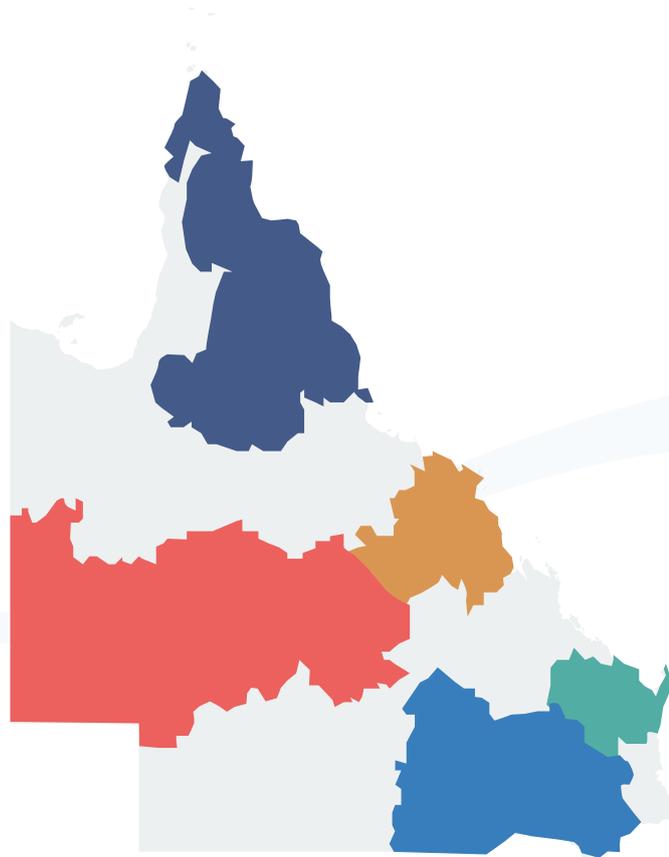
Whitsunday-Isaac-Mackay Water Alliance



Wide Bay Burnett Water Alliance



Downs and Surat Basin Water Group



## QWRAP OUTCOMES

QWRAP has progressed significantly during the 2016/17 period. The projects below demonstrate the extent and effectiveness, as well as some of the benefits of the program. The Queensland Government's financial investment has been leveraged well; with \$100,000 of the DEWS grant matched more than dollar for dollar through "bid pool" initiatives. A further \$135,000 has been invested in employing five regional coordinators. The most significant investment has been the in-kind contributions by councils, as well as LGAQ and qldwater.

The program has also saved in the order of \$3,000,000 for Queensland's communities in the last financial year. These savings have included learnings, which will see this value continue to grow for as long as the grant is supported. There are further, significant intangible benefits emerging including building a positive profile within communities and deferring/ avoiding capital costs.

In addition, the issue of institutional change remains front-of-mind for each of the regions. This has been particularly valuable in responding to continuing criticism of the Queensland urban water industry. QWRAP continues to drive industry efficiencies and innovation through relatively low costs, through a tried and tested framework of collaboration.

Annual research projects have focused on key issues identified by the industry and the DEWS. Research is currently being undertaken into the condition of regional water infrastructure, the potential cost of replacement and required rate of replacement.

The tables beneath each region provide detail on the projects - a total of 45 projects were either completed in the period or in progress at June 2017.



# QWRAP OUTCOMES

## 45 PROJECTS

Completed or  
initiated

## EIGHT PEOPLE EMPLOYED

With additional  
regional work  
generated.



## CLOSE TO \$3,000,000 SAVINGS

To state and local  
government

## >\$235,000 INVESTED

In councils' water and  
sewerage services.



# Outback Regional Water Alliance

The Outback Regional Water Alliance was the first of the QWRAP groups with the councils confirming their participation in the program in 2011. The RAPAD group (Remote Area Planning and Development) agreed to form the Outback Regional Water Alliance (ORWA) in 2013 (with the exception of Winton and Blackall-Tambo councils) accepting recommendations made in the QWRAP business

model investigation. In 2016, both Winton and Blackall-Tambo elected to join the ORWA. The inclusion of the remaining RAPAD participants means the ORWA region covers an area roughly half the size of New South Wales, with a population of 12,500 people.

## COMPLETED PROJECTS

PROJECT NAME	PROJECT DESCRIPTION	PROJECT BENEFITS
Water Main Air Scouring Joint Procurement	Project to clean over 200km of water mains.	<ul style="list-style-type: none"><li>• Saved \$65,000 in total cost</li><li>• Reduced volumes of water required for cleaning</li><li>• Improved water quality</li><li>• Positive community feedback on improved water quality</li></ul>
Certificate III for water operators	Training for all uncertified water treatment operators in the region.	<ul style="list-style-type: none"><li>• Provided \$121,000 worth of training at a cost of \$6,500 to the region.</li><li>• Upskilled 11 local operators across 4 councils</li><li>• Improved confidence in technical ability of operators and water quality</li></ul>



## COMPLETED PROJECTS

PROJECT NAME	PROJECT DESCRIPTION	PROJECT BENEFITS
Alignment of audit dates	A proposal to the Queensland Water Supply Regulator to have the same audit date for all councils in the region.	<ul style="list-style-type: none"><li>• Greater awareness of regional approach by the regulator and better ongoing communication</li><li>• Established an opportunity for joint procurement of audit services</li><li>• Improved consistency of audit activities</li></ul>
DWQMP Review Update	Study to assess council water quality management plans to assess and provide suggestions for improvement.	<ul style="list-style-type: none"><li>• Provided a regional understanding of current management practices</li><li>• Implementation plan to improve management practices</li><li>• Steps towards “operationalising” the plans, addressing a common criticism of early plans which were often developed by consultants with little SP input.</li></ul>
GAB Water Resource Plan submission	Regional response to state government review of the Great Artesian Basin water resource plan.	<ul style="list-style-type: none"><li>• Provided a unified view of the local government perspective in this region in regards to the Great Artesian Basin</li><li>• A single point of engagement between the councils in the region and the state government</li></ul>



## COMPLETED PROJECTS

PROJECT NAME	PROJECT DESCRIPTION	PROJECT BENEFITS
Strategic Plan / Work Plan	Region has engaged a facilitator in the creation of their regional strategic plan	<ul style="list-style-type: none"><li>• Provides strategic direction for the region with identified priorities of the group</li><li>• Improved alignment around regional political and technical priorities</li></ul>



## PROJECTS CURRENTLY UNDERWAY

PROJECT NAME	PROJECT DESCRIPTION
DWQMP Verification Monitoring Project (Peter Mosse)	Project to assess current water quality sampling program, and to suggest improvements.
Regional Investigation of Water Disinfection (Aeramix)	Study to assess current disinfection operations within the councils and to suggest more consistent approaches to improve operations, community safety and reduce costs.



## PROJECTS CURRENTLY UNDERWAY

PROJECT NAME	PROJECT DESCRIPTION
SWIMLocal Data Display Trial	Barcoo shire council is implementing a fit for purpose software package to better utilise data from water and sewerage operations; visualising plant data and monitoring trends.
Sewer Treatment Plant Replacement Feasibility study	Study to assess current condition and functionality of sewerage plants within the councils in the region.
Joint procurement of auditor for DWQMP	Engagement of auditing service to fulfil regulatory requirements



# Far North Queensland Regional Organisation of Councils

The QWRAP program in the far north commenced in 2012 with the participation of six councils (Cairns, Cassowary, Cook, Croydon, Etheridge and Tablelands). In 2014, de-amalgamations occurred in the region and created two new members (Douglas and Mareeba). The group has recently welcomed two aboriginal councils (Wujal Wujal and Yarrabah) into discussions. The de-amalgamations of councils

and constant state of flux in the region has led to challenges but the group continues to collaborate on many projects. The FNQ region is roughly the same size as Victoria and has a population of 250,000, servicing 50 communities.

## COMPLETED PROJECTS

PROJECT NAME	PROJECT DESCRIPTION	PROJECT BENEFITS
Biosolids disposal joint procurement	Review of market providers for disposal/beneficial reuse of biosolids generated by waste water treatment activities, responding to a sole or limited supply market.	<ul style="list-style-type: none"><li>• Collaboration leading to a more attractive supply proposition</li><li>• Additional service providers identified, increased competition</li><li>• Simplified pricing that resulted in a reduced price per tonne for seven councils</li><li>• Councils are now well placed to take advantage of any opportunities in this area.</li></ul>



## COMPLETED PROJECTS

PROJECT NAME	PROJECT DESCRIPTION	PROJECT BENEFITS
DEHP meetings	Facilitated engagement between councils and the restructured department of Environment and Heritage Protection.	<ul style="list-style-type: none"><li>• Provided a single point of collaboration for DEHP and councils.</li><li>• Established a precedent for other regional groups (see WBBROC)</li><li>• Improved communications about restructuring and future direction of the department.</li><li>• Resolution of administrative barriers to meeting regulatory requirements, improved options to avoid costs.</li><li>• Evidence of QWRAP benefits to multiple state departments.</li></ul>
Environmental compliance officer network	Establishment of a forum for council compliance officers to collaborate on environmental regulatory obligations.	<ul style="list-style-type: none"><li>• Created a network that supported and educated council officers on environmental regulation.</li><li>• Network was convened three times</li><li>• Shared learnings of potential efficiencies for licensing conditions.</li></ul>



## COMPLETED PROJECTS

PROJECT NAME	PROJECT DESCRIPTION	PROJECT BENEFITS
Joint Procurement of auditor for DWQMP	Engagement of auditing service to fulfil regulatory requirements	<ul style="list-style-type: none"><li>• Saved \$34,500 in total costs or 30% of costs to individual councils.</li><li>• Improved consistency of audit activities</li><li>• Efficient completion of auditing due to regional approach.</li><li>• Positive feedback from councils on the process</li></ul>



## PROJECTS CURRENTLY UNDERWAY

PROJECT NAME	PROJECT DESCRIPTION
Facilitation of Work plan	Region has engaged a facilitator to assist in the creation of their regional strategic plan.
Asset valuation presentation, unit rates presentation	TBC – during meetings before or after Oct. Consistency in asset management including valuation methodologies will lead to benchmarking opportunities as well as further opportunities to reduce costs.



## PROJECTS CURRENTLY UNDERWAY

PROJECT NAME	PROJECT DESCRIPTION
Skills matrix	To develop a regional skills matrix for water and waste water services, allowing a co-ordinated approach to gap training and other skills development.
Common campaigns regarding water restrictions.	To develop a consistent approach to water restrictions and water information, and allow a range of councils to take advantage of work already undertaken, reducing costs.



# Whitsunday, Issac and Mackay Water Alliance

The Whitsundays, Issac and Mackay region began investigations into QWRAP in 2013 and formed an alliance in 2014. Although the WIM alliance has the smallest number of council members and is the second smallest in regional size, the region is a leader in council collaboration and strategic planning. The region provides water services to 22

communities. QWRAP has helped provide a support network for system issues, most notably following Cyclone Debbie earlier in the year with Mackay and Whitsunday Regional Councils working together to manage the damage to water and wastewater infrastructure.

## COMPLETED PROJECTS

PROJECT NAME	PROJECT DESCRIPTION	PROJECT BENEFITS
Nutrient Offsets workshop	Group workshop with state to review alternative models to manage nutrient runoff and make recommendations	<ul style="list-style-type: none"><li>• Agreed to investigate regional approach to nutrient management</li><li>• Regional response to community concerns about environmental issues</li><li>• Provides an additional tool to assist in the sustainability of the great barrier reef</li></ul>
Operator Forum - 3 November 2016 in Proserpine	Undertook a regional forum to open communication channels between councils' water treatment operators	<ul style="list-style-type: none"><li>• Networking opportunity for regional operators</li><li>• Technical support for operators</li><li>• Only operators forum within QWRAP, and has established a precedent within the program</li><li>• Likely future collaboration on operator certified training.</li></ul>





## CURRENT PROJECTS

PROJECT NAME	PROJECT DESCRIPTION	PROJECT BENEFITS
ISO55000 Asset Management Readiness Assessment	Comparison of ISO 55000 readiness assessments and development of a roadmap for a collaborative approach.	<ul style="list-style-type: none"><li>• Identified 22 opportunities for regional collaboration.</li><li>• Developed a regional asset management improvement plan with 17 recommended initiatives</li><li>• Foundation for best practice asset management</li></ul>
SCADA focus group	Establish a SCADA focus group to provide insights into regional requirements	<i>Currently Underway</i>
<i>Work with Whitsunday Regional Council to connect Taggle devices to MiWater</i>		



# Wide Bay Burnett Water Alliance

The Wide Bay Burnett Water Alliance is the smallest alliance by geographical size and includes five councils (North Burnett, Bundaberg, Gympie, South Burnett and Fraser Coast). The region began investigations in to the QWRAP program in 2013 and officially formed a regional alliance in 2015. The WBBROC Alliance services 40 schemes and has the

largest population of all QWRAP groups with 300,000 people. It is however characterised by a number of small councils with communities separated by large distances, creating challenges in achieving economies of scale and broader institutional reform.

## COMPLETED PROJECTS

PROJECT NAME	PROJECT DESCRIPTION	PROJECT BENEFITS
Alignment of regulatory audit/review dates	Proposal to combine RWMP audits	<ul style="list-style-type: none"><li>• Greater awareness of regional approach by the regulator</li><li>• Established an opportunity for joint procurement of audit services</li><li>• Improved consistency of audit activities</li></ul>
Chemical Procurement initiative	Assessment of the viability of a joint procurement of chemicals used for treatment	<ul style="list-style-type: none"><li>• Improved understanding of region's chemical procurement requirements to aid future planning</li><li>• Regions annual chemical spend is between \$2-3m,</li><li>• Estimated cost savings of 10% (\$200,000 to \$300,000)</li><li>• Progression through Local Buy</li></ul>



## COMPLETED PROJECTS

PROJECT NAME	PROJECT DESCRIPTION	PROJECT BENEFITS
Sewer Relining Tender	Joint procurement of new technology to improve quality of sewerage infrastructure. Assisted Cherbourg in undertaking sewer relining instead of sewer replacement.	<ul style="list-style-type: none"><li>• Saved \$2,600,000 in total cost</li><li>• Further understanding of alliance structure</li><li>• Updated Terms of Reference for alliance</li><li>• Foundations for future research in creation of alternative regional structures</li></ul>
Alliance Structure and Terms of Reference	Study into further improvements to WBBROC alliance and investigation into entity structure.	<ul style="list-style-type: none"><li>• Further understanding of alliance structure</li><li>• Updated Terms of Reference for alliance</li><li>• Foundations for future research in creation of alternative regional structures</li></ul>
Regional Water Coordinator Work Plan	Region has developed a work plan for 2017/18.	<ul style="list-style-type: none"><li>• Agreed to by WBBROC</li><li>• Defined future initiatives, KPIs, deadlines and priorities</li><li>• Identified potential for intern participation in WBBROC research studies</li></ul>



## COMPLETED PROJECTS

PROJECT NAME	PROJECT DESCRIPTION	PROJECT BENEFITS
Regional Environmental Excellence Forum	A regional environmental excellence forum was held on the 14th Feb 2017	<ul style="list-style-type: none"> <li>• Positive discussion in environmental regional impacts including offsets, opportunities to avoid capital costs</li> <li>• Allowed stakeholders to network between the regions and external parties</li> </ul>



## PROJECTS CURRENTLY UNDERWAY

PROJECT NAME	PROJECT DESCRIPTION	PROJECT BENEFITS
D&C Technical Codes Alignment	Scoping to create a regional code of drawings and specifications for infrastructure based on the SEQ D&C Code.	<i>Currently Underway</i>
Local Water Supply Security Assessment (LWSSA) for the 33 smaller water supply schemes	Assessment of small water schemes supply security not covered under the major level assessments	<i>Currently Underway</i>



## PROJECTS CURRENTLY UNDERWAY

PROJECT NAME	PROJECT DESCRIPTION	PROJECT BENEFITS
Regional Energy Review	Review of energy use for water and sewerage services throughout region and identify potential efficiencies	<i>Currently Underway (awaiting further info)</i>
Regional Water Strategy	Regional strategic water plan	<i>Currently Underway</i>
Capital Asset Reference Group	Creation of a reference group for decision making and value optimisation of significant CAPEX projects	<i>Currently Underway</i>
Clear SCADA training	Improved regional capacity and capabilities with SCADA	<ul style="list-style-type: none"> <li>• Identified regional SCADA requirements</li> <li>• Undertook a common needs assessment of the region</li> <li>• On hold currently, as short term common needs only identified across two councils</li> </ul>





## PROJECTS CURRENTLY UNDERWAY

PROJECT NAME	PROJECT DESCRIPTION	PROJECT BENEFITS
Skills/Professional Development Program	Development of regional capabilities for DWQMP and RWMP audits, joint operator training	<ul style="list-style-type: none"><li>• Identified potential training gaps</li><li>• Framework to increase regional capabilities</li><li>• Several courses conducted, reviewed annually</li></ul>
Trade Waste Energy Costs	Discussion Paper to provide potential cost savings for region.	<ul style="list-style-type: none"><li>• Not being progressed at this stage</li><li>• Provided basis for future cost savings</li><li>• Identified cost savings for smaller councils</li><li>• Explored collective buying</li></ul>
WSAA Regional Membership	Investigation into WSAA combined membership and access to WSAA technical libraries	<ul style="list-style-type: none"><li>• First investigation into a regional membership</li><li>• Positive interest from councils</li><li>• Framework for further regional memberships</li><li>• Not progressed due to insufficient discount</li></ul>



# Downs and Surat Basin Region

The Downs and Surat Basin region commenced discussions with the QWRAP program in late 2015. with the councils confirming their participation in the program in mid-2016. The region is the youngest of all the QWRAP groups. The region has appointed a regional coordinator to provide

support to and manage projects. The region has the highest concentration of water services and sewerage services out of all of the QWRAP groups with the region servicing 75 Water schemes and 36 sewerage schemes.

## COMPLETED PROJECTS

PROJECT NAME	PROJECT DESCRIPTION	PROJECT BENEFITS
Regional alignment with Regulator	A proposal to the Queensland Water Supply Regulator to have the same audit date for all councils in the region.	<ul style="list-style-type: none"><li>• Greater awareness of regional approach by the regulator</li><li>• Established an opportunity for joint procurement of audit services</li><li>• Improved consistency of audit activities</li></ul>





## PROJECTS CURRENTLY UNDERWAY

PROJECT NAME	PROJECT DESCRIPTION	PROJECT BENEFITS
Joint DWQMP audit tender	Tender developed and awarded for a single auditor to service the region.	<i>Audits currently underway</i>
Reservoir cleaning	Joint procurement of reservoir cleaning services	<i>Scoping currently underway</i>
SCADA Review and sub-committee	Review of SCADA systems and a regional SCADA sub-committee	<i>Scoping currently underway</i>
Governance/ institutional arrangements review	Consultant being investigated	<i>Currently underway</i>
Asset Management Unit rates	Common approach to unit rates for the region	<i>Currently being scoped</i>

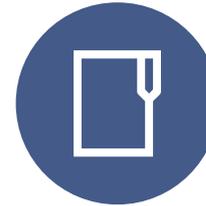


# Common QWRAP Activities



## CHAIRS AND COORDINATORS FORUM

The QWRAP group has held its second chairs and coordinators forum in April 2017. The forum provides a platform for the regional coordinators and chairs to discuss challenges to their regions, share ideas and hear about state initiatives and priorities. A third forum is likely later in 2017.



## QWRAP RESEARCH

The objective of the research is to inform council deliberation about regional approaches to managing their services, as well as to inform the state and other key stakeholders about mechanisms to help drive this continuous improvement. QWRAP research has occurred into areas such as Modelling Water Demand, Cost Drivers and KPIs and a Review of Sustainability Models. Further research is occurring on current issues being faced by the regions. The current major research being undertaken is an investigation into the impact of aging buried water infrastructure on asset management and financial sustainability.



## COMMUNICATIONS AND PUBLIC PRESENCE

The qldwaterontap website has been rejuvenated to provide resources to support councils in public communications, initially around the topic of water efficiency. The work does not duplicate existing resources – instead focussing on providing a “one stop shop” to link to them as well as provide better mechanisms to support social media campaigns.



## NEW STAFF

New Brisbane support personnel:  
Further supporting QWRAPs continued growth the Brisbane team has progressed with employing an additional technical officer on a part time basis. The technical officer will assist with program coordinator and undertake research into various topical issues. The new technical officer will assist in the research into Queensland’s potential infrastructure cliff.



## Future directions for QWRAP

QWRAP has demonstrated benefits of cooperation in all trial regions. Through the program, more than 30 councils have built trust and close working relationships as part of five regional groups. The program has also demonstrated that efficiencies are possible, even where communities are too small and isolated to be physically interconnected.

The future focus of QWRAP is to bring additional regions into the program while facilitating the further development of existing regions. The program will continue to encourage councils to consider alternative approaches to providing urban water services. In particular, supporting efforts to optimise capital investment to generate the greatest long-term returns. True reform of the water industry in Queensland remains possibly only through collaboration among local and state governments, and recognising of the needs of the communities they serve.





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