



SUBMISSION

2 February 2024

Ms Joanne Chong
Commissioner Productivity Commission
GPO Box 1428
Canberra City
ACT 2601

Via Email: water.reform.2024@pc.gov.au

Dear Ms Chong

RE: Productivity Commission's Inquiry – National Water Reform 2024

The Queensland Water Directorate (**qldwater**) is the central advisory and advocacy body, working with our members to provide safe, secure and sustainable urban water to Queensland communities.

In providing these essential services, the urban water sector owns and operates sewer lines, water and wastewater treatment plants, pumping stations, reservoirs, and a range of other critical water technologies/infrastructure. There are currently 370 water supply schemes and 265 sewage schemes across Queensland.

The Queensland sector is [comprised](#) of 75 service providers directly employing nearly 7,000 people. Of the 75 publicly owned water service providers, 66 are local councils outside of SEQ.

Our members currently service 1,916,519 sewerage connections and 2,117,663 drinking water connections (data from **qldwater's** Statewide Water Information System). These numbers are set to substantially increase with the current and projected population growth.

qldwater members include all council water service providers, the council owned statutory authorities in south-east Queensland and the two state-government owned statutory authorities.

qldwater is generally supportive of the findings and recommendations from the 2020 inquiry, as articulated in a brief submission to the commission on 24 March 2021.

Consultation approach

This submission is collated from a number of past consultation activities including industry events, webinars and personal interviews, as well as feedback from the **qldwater** Strategic Priorities Group and other reference groups.

Consensus among such a diverse and geographically diverse membership can be challenging. However, the short timeframe for response over a difficult period (holidays and climatic events) has been difficult. As such, the opinions expressed herein are **qldwater's** alone and we provide this submission without prejudice to any submissions from our members or other urban water providers.

In this submission, (as outlined in the *Call for Submissions*), we have focused on those areas that we are aware of changes that may warrant consideration by the commission for inclusion in a renewed National Water Initiative (NWI). We have identified four key areas which are addressed in turn below.

Areas of recommended change

Skills are the key to Ensuring Access to a Basic Level of Service (Urban Water Services Advice 12.4)

The Renewed NWI is largely silent on skilling – an issue that has been identified in previous submissions made by **qldwater** to the Productivity Commission. We understand that this aspect may be felt to be outside of the remit of the NWI, however, it is our view that the urban water sector, which underpins essential water and sewerage services, is under supported and capturing it within the NWI will help to raise the profile as an essential service in need of support.

To enable “basic levels of service” there must be confidence in the competence of all staff managing the water assets and systems, but particularly operational staff. **There is currently no minimum mandatory standard for drinking water treatment operators in Australia.** This includes sewerage treatment operators by extension.

This is a surprising fact for a role that facilitates a basic human right¹ and is covered by United Nations Sustainable Development Goal 6².

Mandating minimum mandatory standards for operators has the potential to improve the skills (accessibility and employee retention) through improvements in:

- The value of urban water as an essential service industry
- Increasing the predictability of training needs within the sector
- Improving the sustainability of Registered Training Organisation’s (RTO’s) servicing the sector
- Enhancing the perceived value of water services as a career option
- Improving remuneration for water services workers e.g. through a dedicated award
- Improving the visibility of the sector in the jobs market

There is currently an industry-led project underway which is seeking to inform the development of an operator benchmarking framework for urban water operators. The work, which is being undertaken by [Water Research Australia](#) (Project 1139) is due to be delivered in 2024. The report seeks to identify the issues and make recommendations that can guide the sector toward an agreed minimum standard for operators.

The water and sewerage sector skilling federally is now managed through the Jobs and Skills Councils, funded through the Department of Employment and Workplace Relations. In this forum the urban water sector has been consolidated into BuildSkills Australia, the other represented sectors of being construction, plumbing and services, property services and civil infrastructure. The national water industry in this context is a minor sector, and it is difficult to see how adequate representation

¹ United Nations General Assembly Resolution 64/292

² <https://sdgs.un.org/topics/water-and-sanitation>

for this **essential service** can be achieved. The sector is struggling to compete with larger industries, in its visibility, competition for workers, skills support and subsidies.

An area of concern in this context is the interaction between the federal government funding, and the delivery of subsidised training through state government programs i.e. ensuring that the National Water Package delivers the necessary training underpinned by the appropriate levels of support that water service providers rely on.

The Directorate undertakes a biennial survey of water and sewerage service providers, the outcomes of which are [published](#).

Key observations from the 2022 survey (33 respondents, 3,706 employees) are:

- High vacancy rates, especially for water treatment plant operator positions.
- An aging workforce across many critical career families
- Vacancies are protracted with 45% of water operator positions being vacant for greater than 13 months.
- 79% of water operators and supervisors have at least a Certificate III in water operations.

These statistics may look acceptable on the surface, but they do not reflect the training gaps across the state, nor the relevancy of the training that has been received by operators. This largely comes as a result of the packaging rules that surround training subsidy, governing the training modules that can be undertaken. Nor does it take into account that water operators bear huge responsibility for the provision of safe drinking water to community.

The situation in indigenous communities is especially concerning. Recent data obtained from a survey of Indigenous Councils' skilling requirements³ has highlighted the deficits in skilling within the state's 17 Indigenous Councils, which operate 31 drinking water supplies.

In summary, of all water operators in indigenous councils in Queensland:

- 82% require training in sampling and testing of drinking water
- 81% require training in the application of drinking water guidelines
- 79% require training in coliform testing
- 75% require training in hypochlorite disinfection of drinking water
- 75% require training in the identification and response to water quality problems

These statistics highlight a fundamental need for basic skills that support the provision of safe drinking water in indigenous communities. The Queensland Government is actively pursuing this objective.

Previous submissions made by **qldwater** to the Productivity Commission have also identified a fundamental training supply market failure either existing or imminent. In Queensland this has come to fruition after the departure of TAFE Queensland as one of only three RTOs eligible for state subsidies (Skills Assured Suppliers) for the delivery of the National Water Package in 2022. Training subsidies are a cornerstone of delivery of training to operators in Queensland due to the remoteness

³ Queensland Health Indigenous water operators training gap analysis project 2023

of service providers, and the resultant high costs of training delivery and the high cost (transport and accommodation) to attend training at regional hubs.

Since that time, active engagement by **qldwater** with Queensland Government and RTOs in Queensland has led to the return of the RTOs eligible for state subsidies to three, which it is anticipated will somewhat improve access to appropriate training for Queensland's remote and regional urban water workforce.

The inclusion of skills and training within the NWI will assist with the delivery of the objective 12.4 Ensuring Access to a Basic Level of Service. Infrastructure is not a solution in isolation – in fact infrastructure assets will not operate to full design life without ongoing and professional operations.

Improve planning as one of the NWI modernised objectives (Water Entitlements and Planning Advice 3.3)

Since the release of the Renewed NWI Report, a major piece of work has been delivered by the Queensland Government on the Queensland Bradfield Scheme, via the Bradfield Regional Assessment and Development Panel, established in September 2020 to undertake an independent assessment of the financial, economic, environmental, social and technical viability of a Bradfield Scheme or Bradfield-like concepts⁴.

The report makes some relevant commentary in the planning context⁵:

Regional development requires authoritative analysis of options to expand economic activities that use water infrastructure and not just of the infrastructure investments themselves. For central and northern Queensland in the period ahead, understanding the new opportunities in the zero-emissions economy is especially important. That understanding has to be brought into the centre of water planning within a wider regional development planning framework.

A place-based approach to regional water development planning, which incorporates the integrated needs of development, industry (primary, secondary and tertiary), communities and the environment for access to water resources is required. Infrastructure projects under investigation need to consider water reliability, water availability, water quality and future demand of all stakeholders. The urban water sector is at the risk of cross subsidising lower priority water users (e.g. irrigators, green technologies) and transparency in the planning major infrastructure projects is required to ensure that the needs of the urban water sector are incorporated. Moreover, opportunities to incorporate alternative water sources (recycled water, stormwater) into regional planning should be encouraged.

In Queensland, urban development is experiencing a period of challenge impacted by:

⁴ <https://www.rdmw.qld.gov.au/water/consultations-initiatives/bradfield-regional-assessment-development-panel>

⁵ Page 81.



- Stronger than anticipated return of net overseas migration following the reopening of Australian borders in early 2022, where inflation and displaced persons affected by disasters are putting greater pressure on rental demands.
- Strong growth in internal migration to Queensland, especially amongst retirees moving to coastal communities (Figure 1).

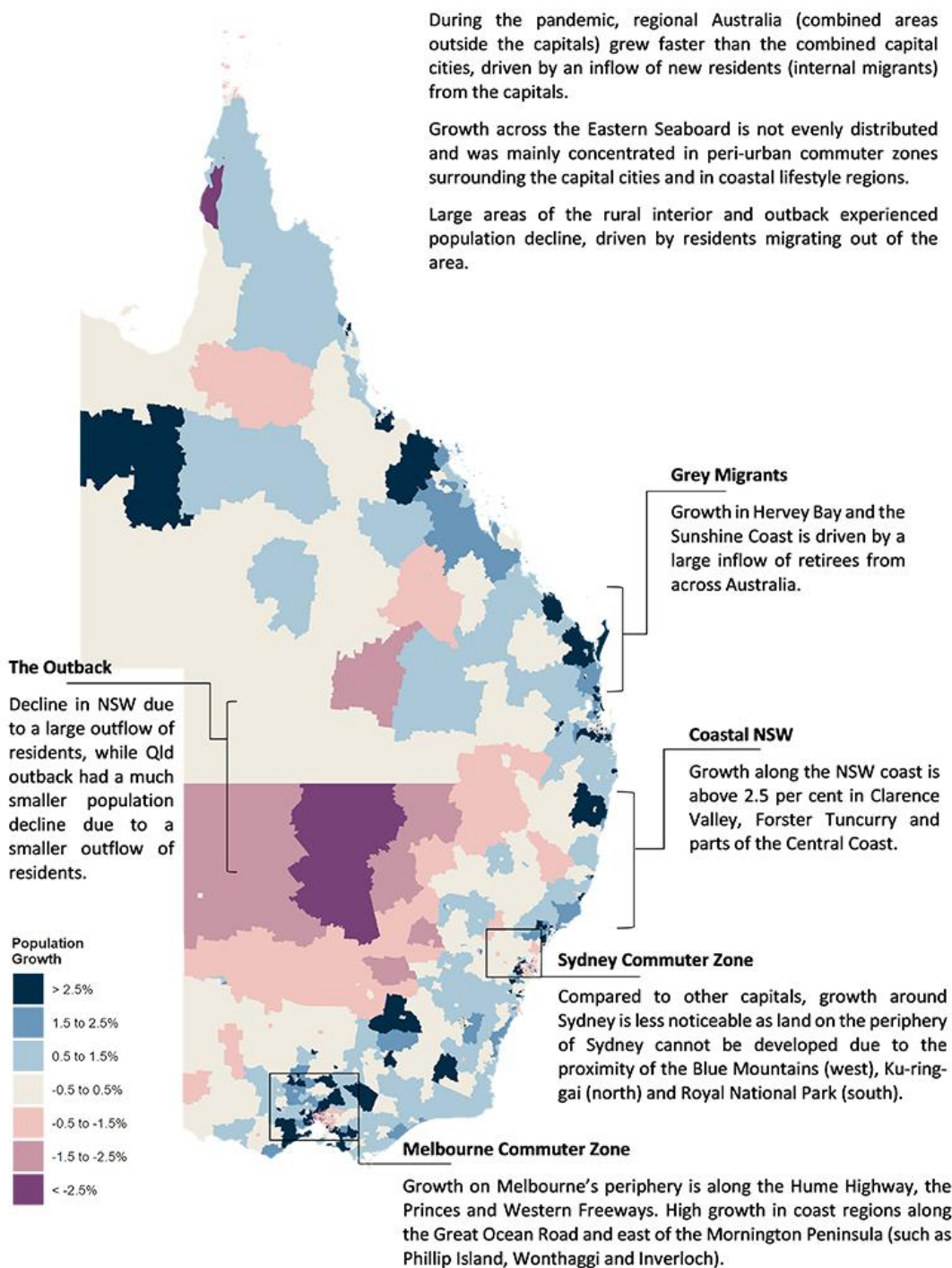


Figure 1. Population growth on the Eastern Seaboard by Statistical Area Level 2, average annual growth from 2018-19 to 2021-22⁶

⁶ <https://population.gov.au/data-and-forecasts/key-data-releases/regional-population-2021-22>

- Development cost pressures with the national construction price index peaking at 11.9% over 12 months to December 2022 due to factors including inflation, materials supply constraints and skilled labour shortages.
- Increased borrowing cost with the sharpest cash rate increases observed from March 2020.
- A downturn in national property listings, which is fuelled by the uncertainty about further interest rate hikes, consequently, causing vendors to keep dwelling and lot inventories at below-average levels to gain some negotiating leverage.

The Queensland Government has tools to respond to these pressures and influence how Infrastructure Charges are collected to recover the costs of growth through investments in trunk (shared community) infrastructure. These tools are used to encourage growth and include the imposition of a “Maximum Adopted Charge” (MAC) that caps the amount of infrastructure charges that can be collected by utilities and local governments and the declaration of “Priority Development Areas” (PDAs) in which the State collects infrastructure charges and allocates them to new assets needed to support growth.

The Maximum Adopted Charge essentially runs counter to the NWI principles of full cost recovery for urban water services by capping investment by developers into trunk infrastructure. These costs are shifted onto future water users\ratepayers and the developer removes profit from the system which, if the NWI principles were to be followed would have been invested in the trunk infrastructure capacity of the water services collection, distribution, and treatment assets.

Councils and utilities as water and sewerage trunk infrastructure providers, play a key role in supporting growth and essential services in Queensland. Their objective is to continue to plan for efficient and prudent expenditure that supports this growth in a sustainable manner and allowing for appropriate cost recovery. However, the States tools introduce market failures that prevent full cost recovery.

Since its inception, the MAC has not increased in line with inflation and thus a widening gap between funding and the costs of investment has evolved for Councils and Utilities. This is an example of State Government policy priorities inhibiting cost recovery for water and sewerage infrastructure. Another example occurs when PDAs are declared by the Queensland Government. In this case, the State collects infrastructure charges and does not allow funding of existing trunk infrastructure within the precinct. This means that council and utility service providers do not recover budgeted charges for already-installed lead trunk infrastructure and further reduces cost recovery. The legislation governing PDA’s is in direct conflict with the NWI principles.

Both of these mechanisms amount to cost shifting to benefit the State or Developers to encourage growth at the expense of water and sewerage customers but are largely unnoticed as water services costs gradually increase over time. Any shortfall in growth driven investment funding (growth investment expenditure less funding received through the MAC) can only be recovered from existing and future community customers through higher utility charges resulting in a cross-subsidy of development costs. With the ongoing cost of living crisis and increasing interstate and overseas migration, there are complex factors to consider in any method to increase funding for development, however the NPI principle of *full cost recovery* should be adhered to, and the cross-subsidies at least made transparent. The water sectors pricing principles should support cost reflectivity, equity and

sustainability, and transparency concerning the cross-subsidies surrounding Queensland infrastructure charge would help to ensure that costs are correctly apportioned and better reflect the costs of delivering growth infrastructure.

Implementing principles for best-practice independent economic regulation (Provision of water services Advice 11.2)

Since the release of the Renewed NWI report and findings, the situation for smaller (regional and remote) urban water service providers has deteriorated. Providers of water and sewerage services experience challenges posed by the remote and dispersed nature of their communities, the small scale of most of their water and sewerage schemes, limited rates base and limited borrowing capacity. This is coupled with higher service delivery and materials costs, low per-capita incomes and an inability for utilities to charge the full cost of providing urban water services. At the same time utilities are faced with increasing expectations about service quality and an increasingly rigorous regulatory regime and water quality and environmental standards.

A recent report by the Queensland Audit Office has highlighted that 48 of Queensland's 77 councils are financially unsustainable, dominated by regional and remote councils⁷. The report comments:

Dependency on grants is unavoidable for the sector. This is because some councils, due to their remoteness and low population, cannot generate enough income to cover their costs

Chronic underinvestment in asset renewals amongst this cohort has been exacerbated by competitive grants schemes focussed on new infrastructure which necessitate councils having a pipeline of "shovel ready" projects in order to take advantage of short delivery timelines. Councils without the capacity (technical or financial) to undertake integrated planning activities for their assets are trapped in a cycle of reactive asset maintenance and repair, which increases budgetary pressures and reduces the capacity of council to undertake proactive infrastructure renewal.

A recent study by the South West Queensland Sewer and Water Alliance (the local government areas of include Balonne, Bulloo, Maranoa, Murweh, Paroo and Quilpie) conducted detailed asset assessments for these councils across all urban water asset categories (drinking water sources, drinking water reservoirs (towers), WWTPs, sewers and sewage pumping stations). These councils are all considered to be small or very small, regional and remote LGAs. Combined, the LGAs cover 18.5% of Queensland by land area, but their combined population of approximately 24,000 representing less than 0.5% of the state's total.

The communities within these LGAs are almost exclusively reliant for drinking water on the Great Artesian Basin (GAB) from bores with an average depth 800 metres. GAB bores have an expected asset life of 75 years. The study has the following preliminary findings:

⁷ <https://www.qao.qld.gov.au/reports-resources/reports-parliament/local-government-2023>

- 11% of drinking water supply bores in the region are more than 100 years old and at critical risk of failure.
- 20% of drinking water supply bores in the region are more than 80 years old and are at serious risk of failure.
- A number of these critical risk towns are single bore supply placing these towns at risk of water security failures.
- CCTV surveys of sewer network assets show that 12% of sewer assets by length of assets are at a point of critical failure.

The report has recommended the allocation of \$3 million to a bore re-sleeving program to ensure water security for these communities, which represent around 40% of the total number of communities that are reliant on the GAB for drinking water supply.

A further \$8 million will be required for a regional sewer relining program to restore the integrity of region's 265 km of sewer mains. The state has 36,000 km of sewerage mains⁸, so even a liberal estimate of renewal costs would be in the hundreds of millions of dollars.

At the same time, there is an increasing pressure from Regulators to improve performance across the urban water sector. These higher standards have a flow-on effect to costs for water service provision and exacerbate some of the concerns for regional and remote service providers as outlined above.

As a specific example, in September 2022 the Australian Drinking Water Guidelines were revised to include advice on the adoption of Health Based Targets (HBT) for drinking water suppliers. The guidance acknowledged that full implementation of small water suppliers would take time and require a significant substantial investment:

- Most water treatment plants in Queensland are old, especially in smaller communities where capacity expansions (and thus modernisation) have not been required due to declining populations.
- Older water treatment plants typically have a single microbial treatment barrier for protozoa.
- Most surface water drinking catchments in Queensland would be in the highest risk category (uncontrolled), due to proximity to grazing pasture.
- Implementation of HBT requires a LRV of 5 for such catchments.
- Most water treatment plants, even best practice provide a LRV 4.

There are similar emerging issues with increasingly stringent regulation of emerging contaminants (PFAS, microplastics) and nutrients.

In larger local government areas (LGAs) with larger populations centres and rates bases there is significant cross-subsidisation of water business' operational, capital and development costs within council budgets. This can (and is) manifest in several ways, for example:

- LGAs with larger population centres but which have small, remote and rural communities (many of which were annexed during LGA amalgamations) are investing large amounts

⁸ <https://explorer.water.qld.gov.au/>

(anecdotally well in excess of \$10,000 per connection), to provide the same level of drinking water service that urbanised centres expect.

- Some LGAs with large populations and profitable water businesses are using water rates to subsidise other council run services. This is exacerbated by the decline in support from state and federal government for LGA services⁹.

The desired ring-fencing of water businesses from LGA finances will assist with both an understanding of the true cost of urban water services, and transparency of cross subsidisation within councils. However, incentives may be required to gain the required political acceptance for such moves.

Governance of Regional and Remote Services (Urban Water Services Advice 12.5)

Previous submissions by **qldwater** to the Productivity Commission have highlighted the role that the Queensland Water Regional Alliance Program (QWRAP) can play in enhancing collaboration between small water and sewerage service providers in Queensland.

QWRAP is an industry-led initiative to investigate regional collaboration on water and sewerage services in regional Queensland. The program is a collaboration between the Local Government Association Queensland (LGAQ), **qldwater** and the Queensland Government (through the Department of Regional Development Manufacturing and Water). Since the last submission the program has grown from five to nine regions, with discussion underway for the inclusion of the tenth region. With the onboarding of the tenth region, all 67 local government owned water and sewerage service providers in Queensland outside of the SE Queensland will be active participants in the program.

The program secured permanent funding from the state in 2022, and has four Strategic Priorities:

- Enable regionals scale delivery of sustainable services
- Build capacity and capability
- Drive regional partnership services and initiatives
- Promote QWRAP.

This model of governance is an interim option for those jurisdictions where urban water services are managed entirely by local government (as is the case in Queensland and New South Wales).

In its initial stages and for those regions that are new to collaboration on urban water, the QWRAP program focussed on the low-risk, high-reward activities such as joint procurement for services.

These activities have included:

- Sewer relining
- Reservoir cleaning
- Water mains air scouring and cleaning
- Wastewater lagoon desludging

⁹ <https://www.lgaq.asn.au/downloads/file/571/lgaq-cost-shifting-report>

- Regional smart water metering trials
- Cyber security audit risk assessments
- Alignment of statutory Drinking Water Management Quality Plan audits
- Cooperation and collaboration during disasters and extreme events.

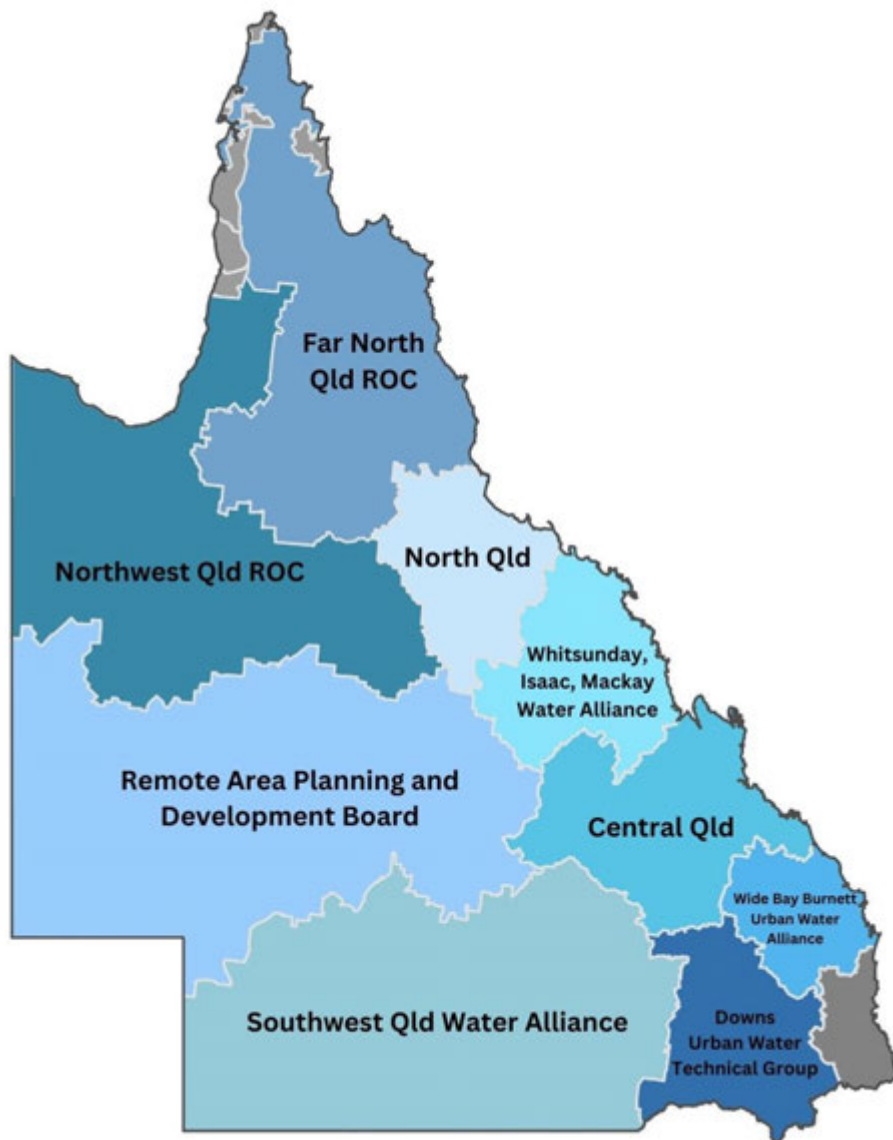


Figure 2. The Queensland Water Regional Alliance Program coverage map showing the nine regions as at the beginning of 2024.

These sorts of activities have multiple benefits, which range from the obvious cost savings associated with reduction in contractor mobilisation costs, to more subtle improvements such as:

- Management of a single contractor for the whole region results in higher quality of service delivery.



- A greater choice of contractors is open to the councils through higher value tenders.
- Contractual streamlining and strengthening for individual councils (e.g. specifications).

Success in low-risk projects results in increased collaborative maturity, which has led to more complex collaborative projects being initiated with a stronger strategic focus. Examples include:

Regional Sewerage Treatment Plant Upgrade Options Assessment – An earlier phase of this project identified improvements required to ensure consistent regulatory compliance at wastewater treatment plants (WWTP) across the region. The second phase is to examine the options for individual WWTP and facilitate works.

Workforce Planning and Resource Sharing Arrangements – Some regions are conducting similar projects targeting examining regional workforce planning in various disciplines. This can support facilitated joint training, worker relief and access to technical assistance.

Regional SCADA Collaboration and Alignment – A regional approach to SCADA is being examined by two regions, with the potential future benefits such as alignment of equipment and software, technical expertise, and the possibility of ultimately a regional SCADA control centre.

Feasibility Investigation Regional Water Hub Services Model – A regional water hub services model is our aspiration for all QWRAP regions. One region is taking steps in this direction, with initial interest and engagement at a local government political level.

Infrastructure and Asset Management Strategy – A region has undertaken a comprehensive assessment of the infrastructure needs and risks for individual communities to develop a regional water and sewerage infrastructure strategy.

While the delivery of urban water services remain the responsibility of local government in Queensland, this program can provide a pathway towards more sustainable delivery of urban water services in remote and regional Queensland.

Thank you again for the opportunity to provide initial comment on the Productivity Commission's Inquiry – National Water Reform 2024. **qldwater** looks forward to more fully engaging with our members during the public consultation process when the interim paper is released in April 2024.

Please do not hesitate to contact Dr Louise Reeves at lreeves@qldwater.co.au if you have any questions.

Yours sincerely

Dr Georgina Davis
Chief Executive Officer