2024 Urban Water Industry Workforce Composition Snapshot Report

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CEO FOREWORD

Welcome to the eighth Queensland Water Directorate (***qldwater***) Workforce Composition Snapshot Report. These reports have been produced every two years since 2010 from member surveys and are designed to analyse workforce and workforce development trends. While the urban water sector is comprised of many and varying operational, technical, specialist and administration functions, the focus of the survey is on mission-critical roles. Those roles who are primarily tasked with, and responsible for, the safety of our communities through the direct delivery of clean, safe drinking water and sanitation services.

Dr Georgina Davis
CEO ***qldwater***

This valuable initiative was devised by and continues to be supported by ***qldwater***'s Water Skills Partnership. Their leadership and foresight now delivers the most detailed workforce analysis of the urban water sector anywhere in Australia.

This, the eighth report, collectively makes for challenging and uncomfortable reading. What can be seen from one iteration to the next is that workforce attraction and retention is an ongoing battle, career pathways within our sector remain opaque (particularly to younger generations), we have an ageing workforce and gender participation is declining. The inaugural comparison of regional Queensland from SEQ, demonstrates the diversity of workforce strategies required.

Recent reports have also documented the ongoing challenge of high vacancy rates which we know lead to poor wellbeing and WHS issues for personnel and negative impacts to infrastructure maintenance.

The National Water Package (NWP) Certificate III continues to be the qualification of choice for operators but it has increasing competition from other training packages which offer a trade and better renumerated and articulated career pathways.

Unsurprisingly, access to the right training in the right place at the right time for an affordable price continues to be challenging, as does the requirement to be employed in order to undertake training in the NWP.

The time for a significant intervention to address these matters is upon us. The operating environment has become more complex and there are more concurrent and cascading emergencies that regularly impact our services and people. Our people need more. More support, more opportunities and more recognition. No longer can we tinker around the edge or make small (yet important) incremental changes. We need significant transformation to address the workforce planning and development issues that have cascaded from one year to the next, mostly unchecked.

qldwater has commenced action to these issues including challenging the restrictions around licencing which is impeding our requirements for a ready to deploy workforce. The unwavering fact remains that the current 11-unit NWP qualification no longer meets the diverse and evolving needs of the water sector and the number of units must be increased to address the full scope of training required by WSPs. Current training strategies must be adapted to meet the shifting needs of the market, and to address this, ***qldwater*** supports a three-pronged approach to address training package issues including but not limited to advocacy for an apprenticeship pathway and amendments to the plumbing training package.

qldwater acknowledges that implementing change takes time, but the improved capability, flexibility, and workforce sustainability outweigh the transitional effort. The Queensland and Australian Governments need to get on board now and urgently provide funding for the sector, and acknowledge the contribution that safe water services provide to our communities and the economy.

We need our sector behind us and behind its people. I personally invite all of you to reach out to us with ideas, comments, suggestions, to make a positive difference to our services and the wellbeing of our people. And for those who are not yet members of the Water Skills Partnership, please get on board and contribute to making a difference.

1. EXECUTIVE SUMMARY

The 2024 Workforce Composition Snapshot Report provides a detailed overview of the Queensland urban water sector workforce, highlighting emerging trends, persistent challenges, and opportunities for urgent and strategic workforce development. Drawing on data received from 42 Water Service Providers (WSP) covering over 70% of the sector workforce, this year's report focuses on workforce age profiles, training pathways, gender representation, and job role flexibility.

- **Gender Representation:** Women remain underrepresented in operational and leadership roles, comprising just 10% of the operational workforce and 2% of supervisors. However, growth in women in scientific paraprofessional roles signals an encouraging shift in gender diversity.
- **Workforce Renewal:** South East Queensland (SEQ) utilities demonstrate clear progress in engaging early-career professionals and succession planning, while regional areas remain more static, indicating an opportunity for targeted workforce renewal strategies.
- **Qualifications and Training Gaps:** There is increasing reliance on workers with plumbing or other trade qualifications, reflecting sectoral concerns about the suitability and flexibility of the current National Water Training Package (NWP).
- **Training Uptake and System Challenges:** There is limited uptake of supervisory qualifications, and many councils lack systems to reliably track employee qualifications. Micro-credentials have gained traction, but formal qualification pathways remain fragmented.
- **Job Role Specialisation:** SEQ utilities typically operate with specialised teams, whereas regional operators tend to be multi-disciplined out of necessity—offering greater flexibility but demanding broader skills and tailored training support.

EMERGING PRIORITIES

- Address critical vacancy rates and reduce workforce burnout, especially in regional councils.
- Strengthen succession planning and early-career engagement strategies, with a focus on improving attraction and retention especially outside SEQ.
- Reposition Certificate III in Water Industry Operations as a trade-level apprenticeship to reflect growing complexity and improve training legitimacy (while still maintaining a traineeship pathway).
- Acknowledge the movement by the sector to move to other training packages which provide clearer entry and career pathways to staff, and provide flexibility within these training packages for the water sector.
- Support greater gender diversity and inclusion through mentoring, visible leadership pathways, and flexible working arrangements.

These priorities underscore the urgent need for collaborative, strategic investment in workforce planning and training reform to ensure the sustainability and resilience of Queensland's water sector.

2. WORKFORCE AT A GLANCE

(2.1) SECTOR SIZE & SCOPE

Queensland's Urban Water Sector includes 370 water supply schemes and 265 sewage schemes. Member organisations currently service 1,943,244 sewerage and 2,118,050 drinking water connections. These numbers are set to substantially increase with current and projected population growth and will require expansion and optimisation of existing water treatment infrastructure and the construction of new assets.

As of November 2024, there were 75 publicly owned water service providers delivering water and sewerage services to Queensland communities. This figure excludes private providers.

There are 66 local councils located outside SEQ, including 15 Aboriginal councils and two Torres Strait Island councils.

Water distribution, sewage collection, and retail services for eight additional SEQ local government areas are managed by two statutory authorities owned by the respective councils. The remaining three SEQ councils manage their own water distribution, sewage collection, and retail services.

Two large state-owned entities oversee bulk water supply and transport (as well as treatment in SEQ and select other areas). Two state-owned commercialised statutory authorities (Water Boards) operate in Mount Isa and Gladstone.

Table 1 reflects the workforce across Queensland's urban water sector. The employee numbers for local council service providers in Table 1 are those reported via the 'Total full-time equivalent water+sewerage employees' WF1, through the Statewide Water Information Management system (SWIM) (Queensland Water Directorate, 2024).

Table 1: Number of employees working in the Queensland Urban Water Industry

Organisation	Size of the Workforce (FTE)
Total SEQ local government-owned employers (includes 3 council service providers, Queensland Urban Utilities, Unitywater)	**2,873 employees**
Local Government service providers outside SEQ	**2,379 employees**
Bulk water providers	**825 employees**
Private and other organisations	**200* employees**
Gladstone and Mt Isa state-owned water boards	**139 employees**
	TOTAL = 6,416

*This estimate includes contract operations employees only, not capital project employees or consultants.

The workforce spans a range of roles, including water operators (civil, treatment, dams, and some irrigation), engineers, tradespeople, trade waste professionals, scientists/technicians, managers, and business support personnel.

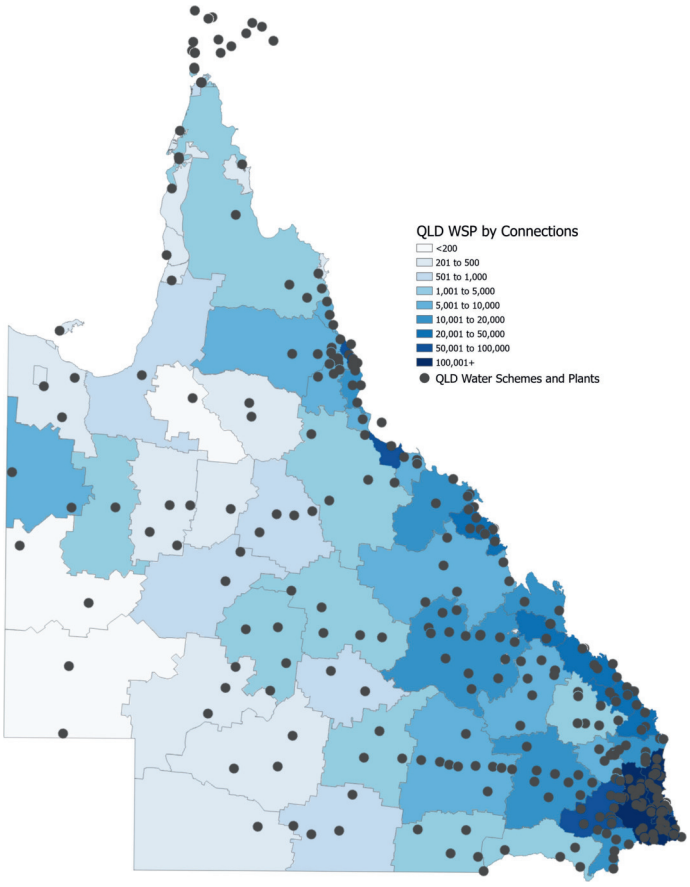

Figure 1: Queensland Potable Water Schemes and Property Connections by Local Government Area

Figure 1 illustrates property connections by local government area in Queensland alongside water supply scheme locations.

This demonstrates the significant diversity in density of Queensland communities and large geographic separation which contribute to the challenge of providing services.

As a result, financial sustainability is an issue for many service providers, as is sourcing skilled staff and delivering face to face training for technical and operations roles.

There is a persistent shortage of qualified water and wastewater treatment plant operators across many areas of Queensland, with the problem particularly acute in regional locations. Larger utilities are also beginning to feel the impact of these workforce shortages.

In regional Queensland, there is an increasing demand for multiskilled water operators who can work across networks, drinking water and wastewater operations. This demand is expected to grow as the sector faces a wave of retirements alongside increasing service expectations.

The expanding use of advanced technologies and the complexity of meeting ongoing legislative compliance are further driving the need for versatile, well-trained operators capable of working across multiple functions.

With increasing technological integration, heightened community expectations, the prevalence of outsourcing, and ongoing legislative reforms, the sector faces significant workforce development pressures. Operators of permitted urban water facilities must be both competent and well-supported to manage operations effectively— ensuring the protection of public health and the environment.

(2.2) WORKFORCE CHALLENGES

The 2024 survey received the highest number of responses since the inaugural survey in 2016. This strong level of engagement reflects the sector's desire to have its collective voice heard and to ensure that workforce data is used to support its evolving needs.

Figure 2 highlights the breadth of participation in 2024 and also illustrates the vast geographic areas many councils are responsible for servicing—underscoring the operational challenges faced by Queensland utilities.

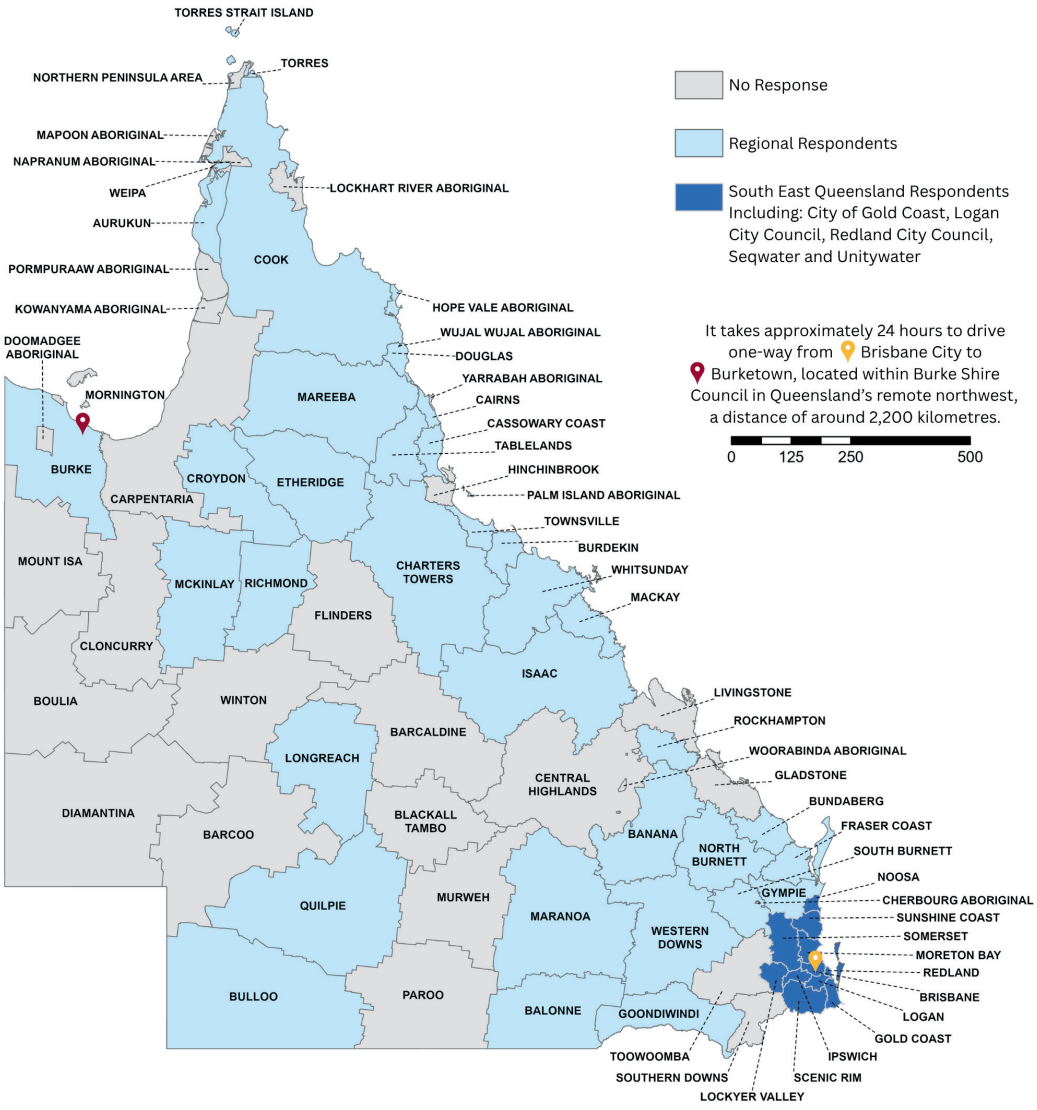

Figure 2: 2024 respondents to the Skills Snapshot Survey

Furthermore, Queensland's geography limits access to consistent face-to-face vocational training, especially in regional and remote communities. In response, many councils are capitalising on relationships developed through participation in the Queensland Water Regional Alliance Program (QWRAP) to coordinate training and share resources.

Out of necessity, some councils choose qualifications based on training provider availability (e.g. for plumbing qualifications) rather than operational needs, affecting long-term workforce capability. Inconsistent access also places mentoring pressure on experienced operators and risks loss of critical knowledge.

(2.3) WORKFORCE PROFILE COMPARISON

This year's report takes a revised approach by separating the analysis of South East Queensland (SEQ) utilities from that of broader regional utilities. This change responds to frequent requests for clearer comparisons between what is occurring in regional areas versus the more densely populated SEQ corridor. By presenting the data in this way, ***qldwater*** aims to provide more targeted insights that reflect the differing operational, workforce, and demographic contexts of each region.

A comparison of the age profile of these two regions, as shown in **Figure 3**, highlights the 2024 workforce age distribution differences between South East Queensland (SEQ) and regional utilities. SEQ utilities show a stronger presence of early and mid-career employees, particularly in the 21–40 age range, and gradual shift away from older cohorts. In contrast, regional utilities have fewer younger workers and a higher concentration in the 51–60 bracket, indicating slower workforce renewal.

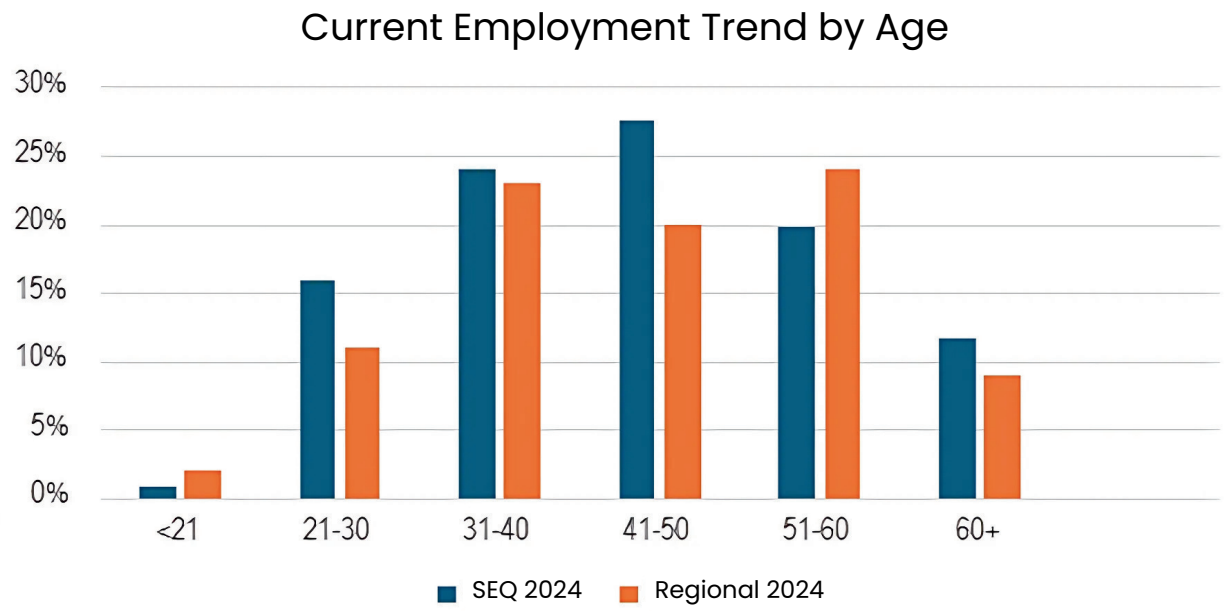

Figure 3: Current employment trends

This analysis reinforces that workforce age structure remains one of the most significant and persistent challenges facing the sector. The ability to attract and retain younger workers is increasingly critical to ensuring long-term operational sustainability, particularly in regional areas where demographic renewal has not kept pace with SEQ trends.

A more detailed analysis of this cohort over a period of 2016 to 2024 is provided in:

- Case Study A: Regional Queensland
- Case Study B: South East Queensland

3. PRIORITY ISSUES

(3.1) VACANCY RATES & LABOUR GAPS

The 2024 data presented in **Figure 4** reveals growing structural and workforce pressures across the water sector. While most roles are still dominated by directly employed staff, there are emerging shifts—particularly in the Trades and Civil Construction and Maintenance areas, where contract/labour hire reliance sits at 12.71% and 1.96% respectively. This, combined with vacancy rates as high as 13.99%, points to ongoing recruitment challenges in operational fields.

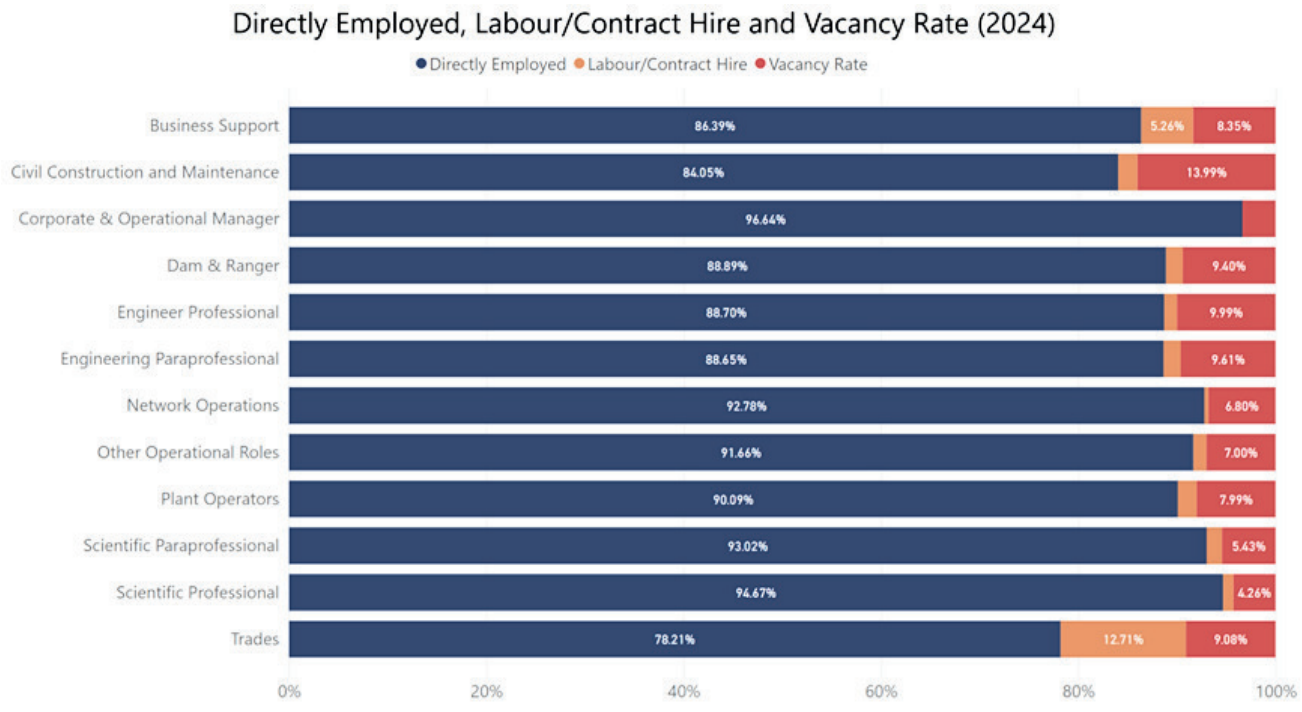

Figure 4: Employment arrangements in 2024

Data presented in **Figure 5** showing the duration of vacancy data further evidences this tough employment market trend. Many roles—especially Trades and Plant Operators—remain unfilled for extended periods. For instance:

- Trades: While 13 positions were filled within 3 months, 28 roles remained vacant longer than 4 months, including 8 vacancies open for 13–24 months and 4 vacancies exceeding 2 years.
- Plant Operators: A similar pattern emerged, with 14 roles filled quickly, but 24 roles unfilled beyond 4 months, including 4 roles open for over 2 years.
- Engineering Professionals: Despite a moderate vacancy rate (9.99%), some positions remained open for over 12 months, signalling a gap in qualified applicants.

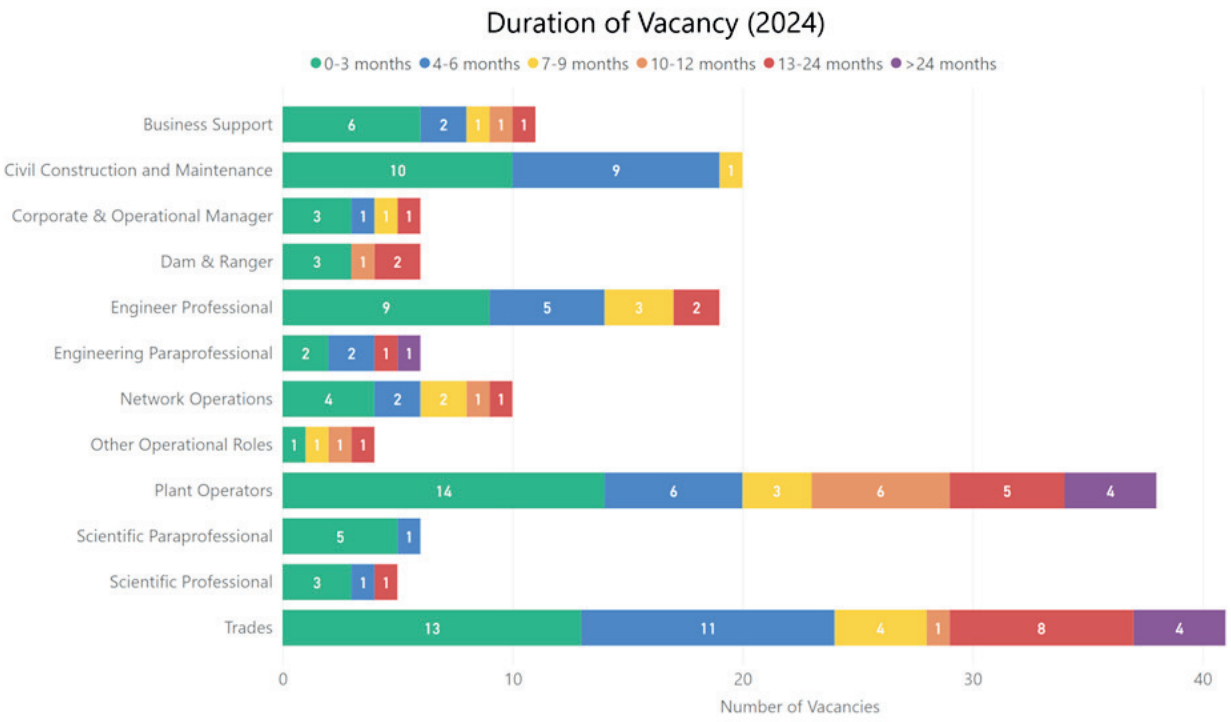

Figure 5: Vacancy durations in 2024

This sustained unfilled demand highlights a growing concern: while the water sector workforce remains largely stable in structure, the pipeline of skilled talent—especially for operational roles—is under increasing strain. The length of time to fill roles not only impacts service delivery but also places pressure on existing staff and affects long-term workforce sustainability.

Vacancy rates for water operators remain critically high, with some councils reporting short falls of up to 12% and prolonged vacancy durations as seen in **Figure 6**. This chronic understaffing is placing unsustainable pressure on existing teams, contributing to rising levels of fatigue, burnout, and reduced operational resilience.

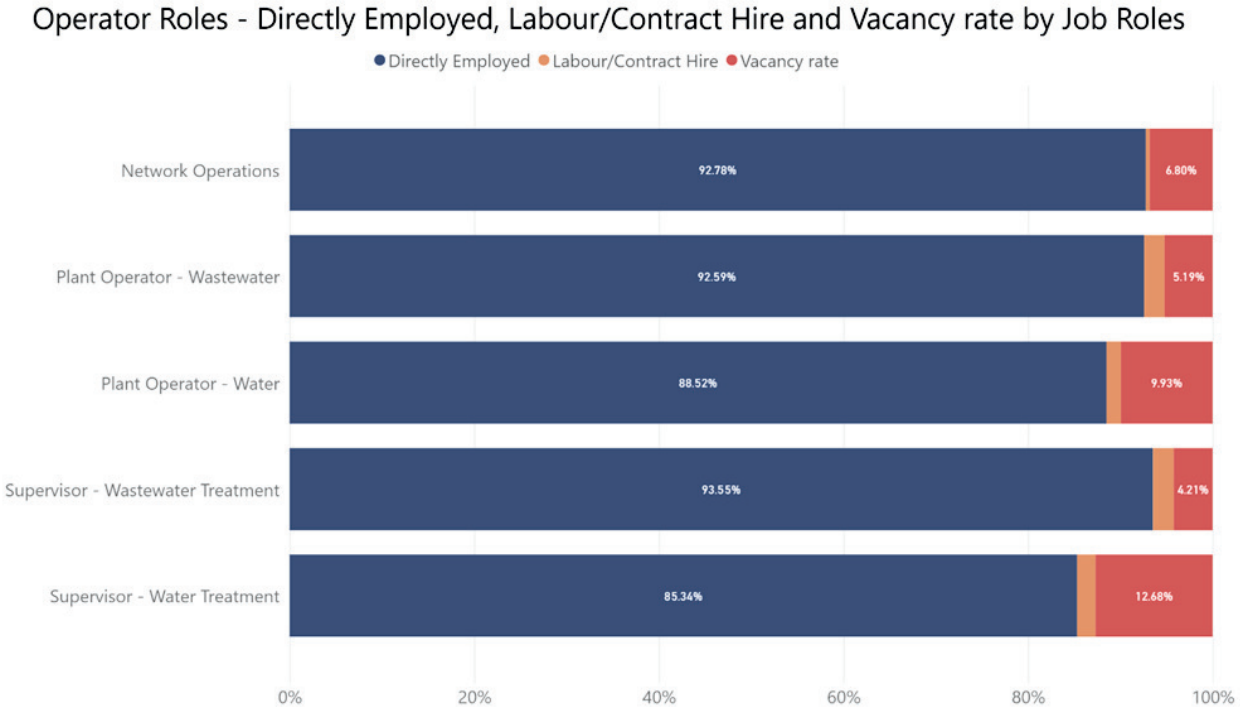

Figure 6: Operator employment arrangements in 2024

In many cases, supervisors and senior staff are stepping into frontline roles, often taking on-call duties to ensure service continuity—leaving them unable to take leave or work reasonable hours. These working conditions, raised consistently during ***qldwater***'s Water Connections Tour and reflected in **Figure 7** below, shows that the Water Sector is under strain and unable to sustainably meet workforce demands for a critical resource.

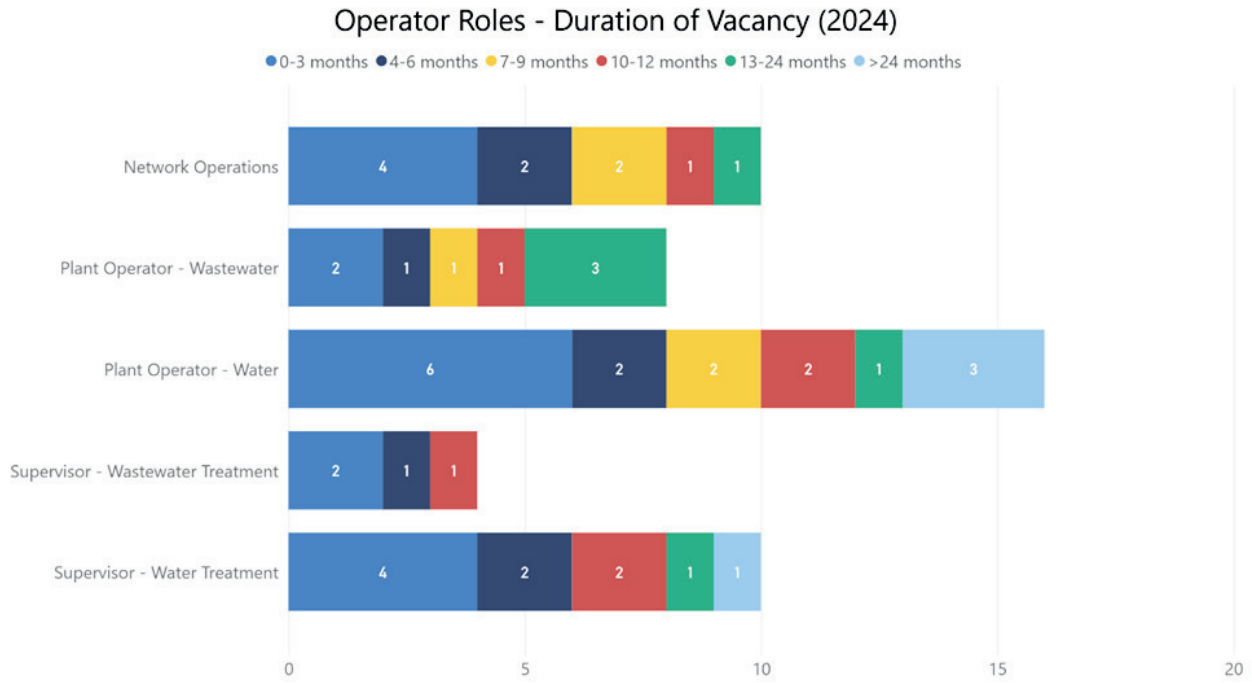

Figure 7: Vacancy in operation roles in 2024

These pressures have legal implications. The *Work Health and Safety (Psychosocial Risks) Amendment Regulation 2022*, requires employers to manage risks from excessive workloads, fatigue, and insufficient recovery time. Councils should as a matter of priority, adapt workforce models and reduce psychological harm.

(3.2) GENDER & INCLUSION

Figure 8 provides the most significant finding of this 2024 snapshot being the large increase in female participation in the scientific paraprofessional field.

A paraprofessional role typically involves supportive functions such as lab assistants and environmental officers that require some specialised knowledge and skills but do not require a professional degree. The importance of recording an increase in this field cannot be understated as diversified teams lead to more creative problem-solving and innovations in solutions. Also, having *visible and relatable role models*, who resonate and showcase career pathways, can increase female employment interest, thus providing councils with a larger employment pool.

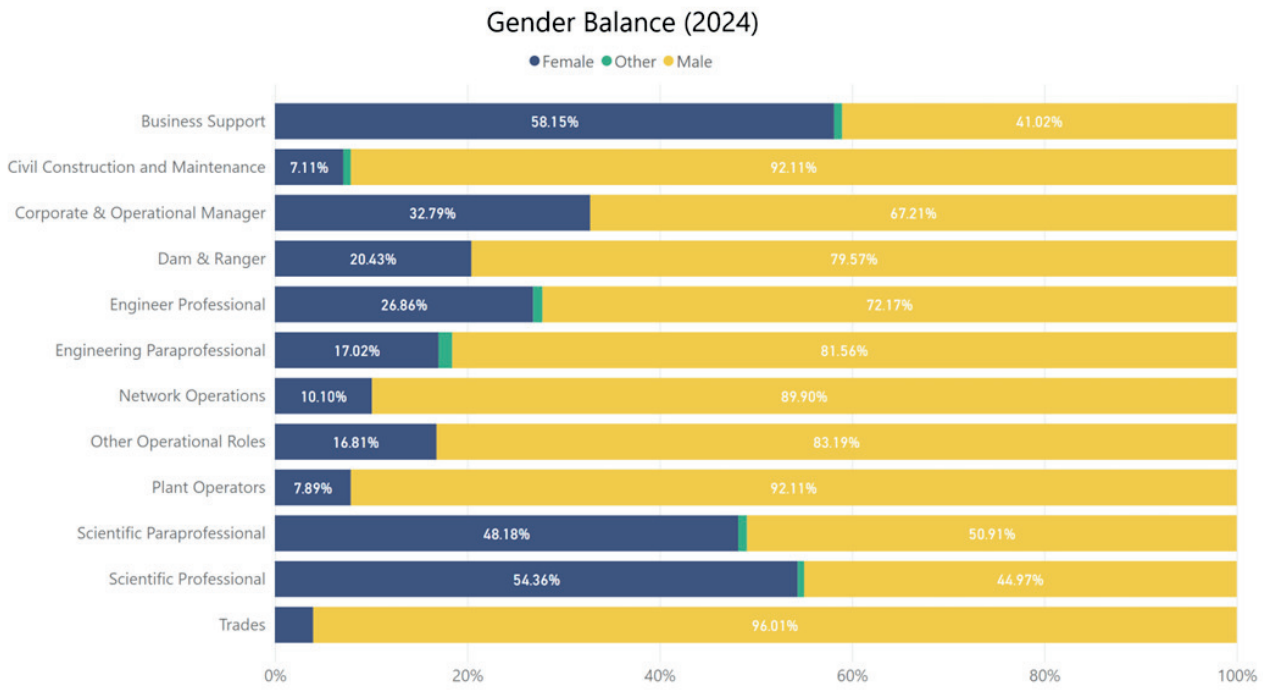

Figure 8: Gender balance per sector role

Notably, this year's reporting includes the gender category ***Other*** for the first time, reflecting broader shifts in the Australian employment landscape and growing national emphasis on diversity, equity, and inclusion. While this shift is not yet strongly reflected within operational roles in the water sector, it represents an important step forward. As the sector continues to navigate workforce shortages and succession challenges, embracing diversity will be essential to building a more sustainable and representative workforce.

Women currently make up approximately 10% of operational roles but only 2% of supervisory roles within the water sector. This persistent gap as evidenced in **Figure 9**, underscores the importance of targeted strategies to support the career progression of women and ensure more equitable leadership pathways within the sector.

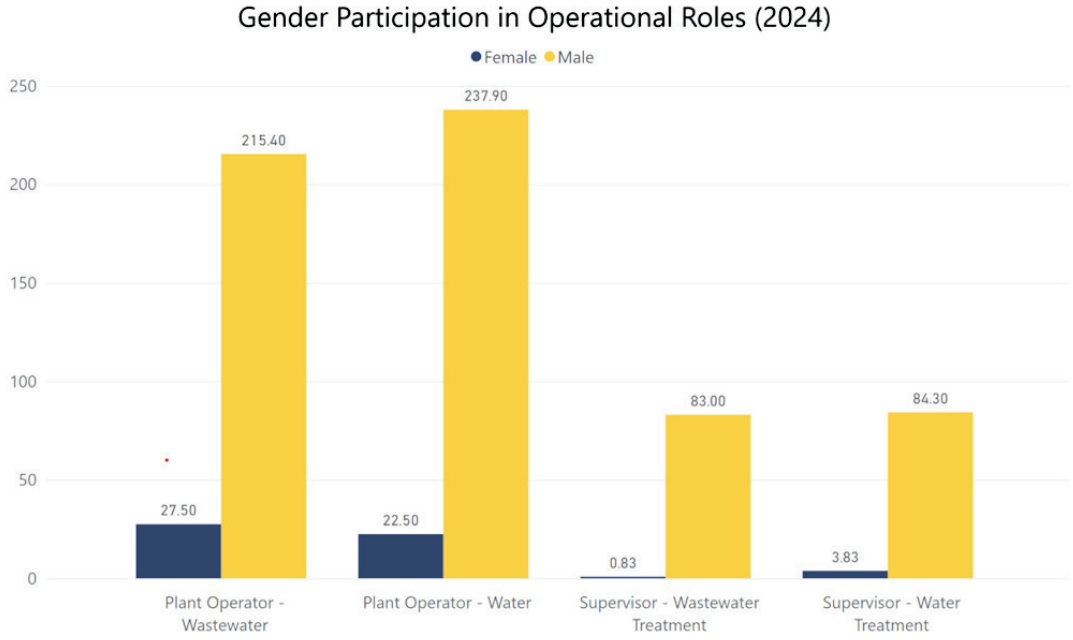

Figure 9: Gender participation in operation roles in 2024

Despite consistent employment rates of women in operational roles across both regional areas and SEQ, female representation in supervisory positions remains critically low. This ongoing trend highlighted again in the 2024 data (Figure 9), reinforces the need for the sector to re-evaluate and boost its approach to gender equity.

(3.3) QUALIFICATIONS AND TRAINING

qldwater has been appointed to the BuildSkills Advisory Committee and will continue to advocate strongly for the specific needs of Queensland's water sector. While this is a positive step forward, the broader transition to the new Jobs and Skills Council structure has been marked by delays, contributing to ongoing uncertainty across both the sector and government. The full scope of vocational education and training (VET) reform remains unclear, and how federal and state training systems will ultimately integrate and interact is yet to be articulated.

Accurate qualifications data across all water sector job roles has historically been difficult to capture. This is largely due to inconsistent reporting systems used by organisations and the lack of a national database for recording non-accredited qualifications. As such, this report focuses on qualifications held by key roles in the sector, particularly Water and Wastewater Treatment Plant Operators and Supervisors.

The National Water Training Package (NWP) currently comprises four qualifications made up of 169 units of competency:

- Certificate II in Water Industry Operations
- Certificate III in Water Industry Operations
- Certificate IV in Water Industry Operations
- Diploma of Water Industry Operations

NWP National Water Training Package

The Certificate III in Water Industry Operations is currently the most widely used qualification across the sector and is increasingly recognised as the benchmark for operators of conventional water and wastewater treatment systems. There is growing support for this qualification to become the standard entry-level requirement for operational roles, providing consistency in capability, career progression, and sector recognition.

Figure 10 compares the 2024 data with that collected in 2022, revealing a continued trend of councils employing tradespeople—such as licensed plumbers and drainers—to perform work within network and treatment operations. These roles are predominantly captured under "other qualifications" in the survey results. Notably, there has been a 4% increase in this category, suggesting a growing reliance on alternative qualifications outside the National Water Package

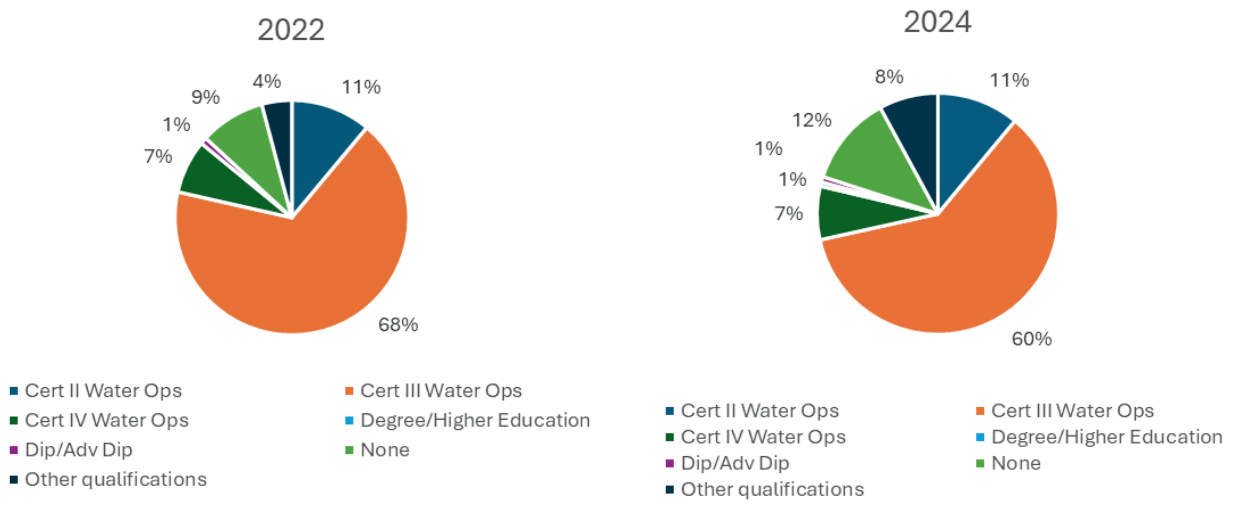

Figure 10: Comparable data of the 2022 and 2024 qualification within the water sector

The hiring and training of tradespeople in other qualifications may reflect ongoing gaps in the National Water Training Package, particularly where it does not adequately support the specific technical and compliance requirements of the business operations. ***qldwater*** will maintain a strong focus on this issue and continue working with stakeholders to ensure training pathways better align with on-the-ground workforce needs across Queensland's water sector.

Recent discussions, including those at the ***qldwater*** Skills Forum and through ongoing consultation with local government, industry RTOs, and employer groups, have identified a need to reposition the Certificate III qualification in Water Operations as a trade-level apprenticeship. Whilst the existing traineeship model has served its purpose, it is increasingly seen as insufficient to meet the safety, competency, and workforce planning needs of the sector. Transitioning to a trade-based apprenticeship would better reflect the increasing complexity of the operational role, improve funding opportunities, and elevate the professional status of the role by aligning the qualification with existing recognised trade roles.

Further analysis of the data in **Figure 11** shows that a considerable number of supervisors in both the waste and water operations hold only a Certificate III in Water Operations. This trend is reflected in both the regional utilities and South East Queensland regions.

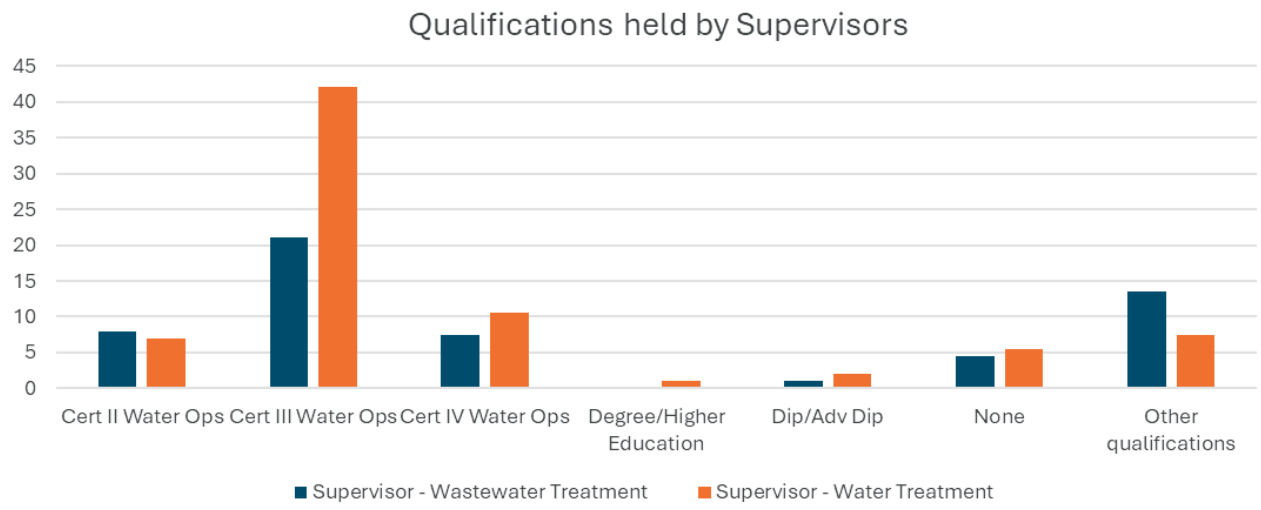

Figure 11: Qualification held by supervisors

There are several implications that can be drawn from this data. Numerous water service providers reported that operator roles were not linked to an Enterprise Bargaining Agreement or equivalent award structure. Therefore, utilities are using renumeration classification systems that are not tied to qualifications. Whilst this does allow a more flexible approach to wage decisions, it has the long term effect of undermining the NWP qualification structure and its role in sector workforce development. It also discourages a culture of continual learning and innovation in a sector facing increasing pressure for compliance and service delivery.

Perhaps this speaks to the dramatic shift since 2022 towards targeted training initiatives, particularly in the form of micro-credentials and online short courses. Delivered through ***qldwater*** and its partners, these non-accredited courses have seen overwhelming uptake with over 3500 enrolments across the sector—especially in areas such as Work Health and Safety (e.g. Grey and Teal Cards) and highly technical courses such as SCADA systems. This trend highlights a drive for practical, sector-specific skills development, rather than a formal qualification. It has also emphasized the need to update the National Water Package to better reflect the with real-world operational needs as reflected by ***qldwater*** training successes.

(3.4) JOB ROLE UPTAKE & CHANGE

Snapshot data reveals significant variation in how operator roles are structured across the sector. As shown in **Figure 12**, of the 41 respondents, 34 regional councils reported that their operators work across multiple functions—including water treatment, wastewater, network maintenance, and plumbing—highlighting the need for adaptable, multiskilled staff in smaller or resource-constrained environments.

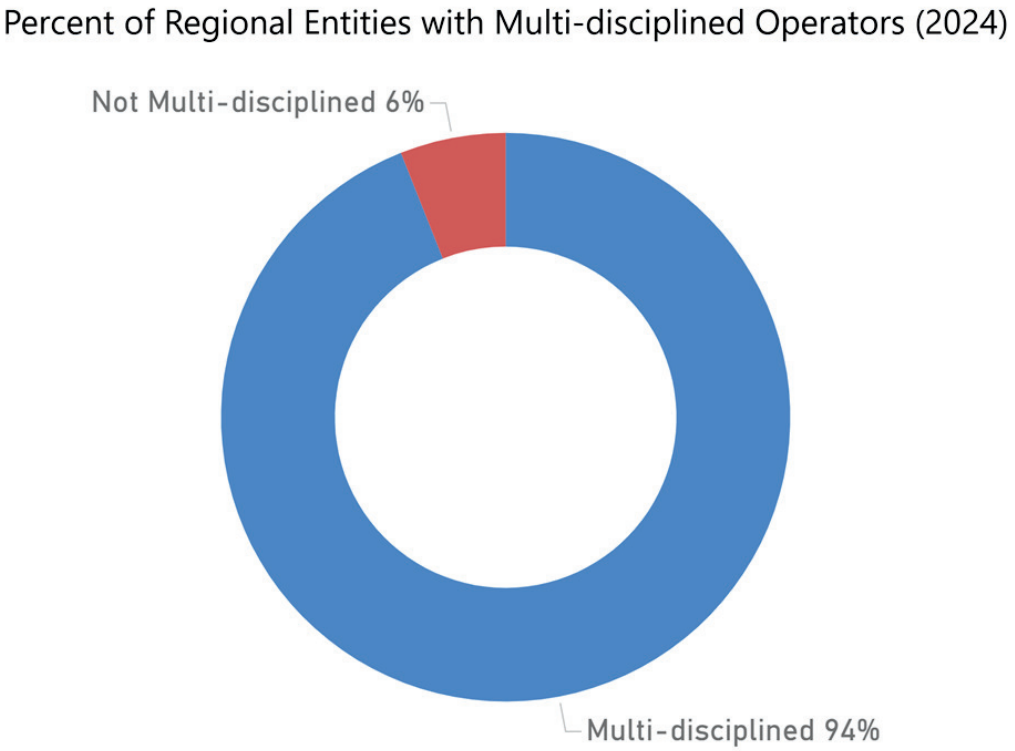

Figure 12: Percent of Regional entities with Multi-Disciplined Operators in 2024

In contrast, utilities operating infrastructure on a similar scale to SEQ indicated a preference for more specialised roles, with teams structured around single disciplines such as wastewater, drinking water, or networks. This model facilitates deep technical expertise and operational efficiency.

These differing workforce structures have implications for training design, classification systems, and workforce planning. Multiskilled teams require broader, more flexible training pathways, while specialist roles benefit from advanced domain-specific development. Both models are essential to sector resilience and must be supported through formal qualifications, micro-credentials, and mentoring strategies that reflect real-world job requirements.

Figure 13 illustrates the diverse range of responsibilities undertaken by multi-disciplinary operators in regional areas in 2024. Unlike their metropolitan counterparts, these operators are required to work across multiple operational areas due to workforce constraints and service delivery needs. The data shows that time is divided across water (35%), wastewater (25%), networks (18%), plumbing (16%), and dam operations (6%). This highlights the breadth of skills required in regional utilities, where operators must be flexible and capable of performing tasks across several disciplines.

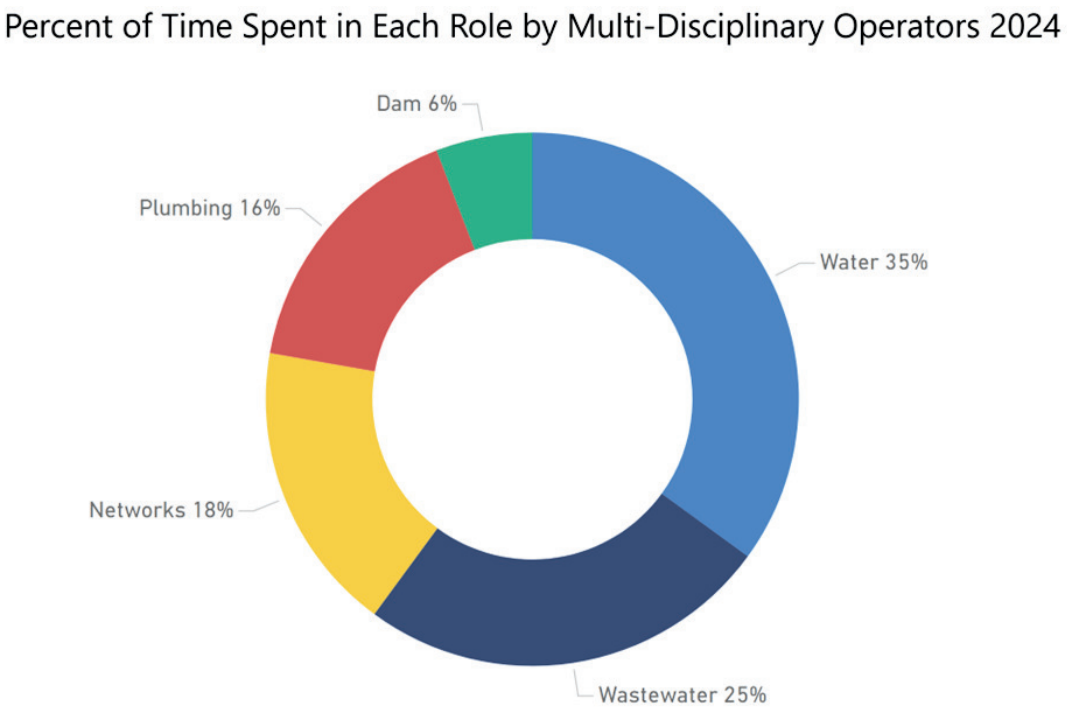

Figure 13: Role demands of operators in Regional Utilities

The data collected underscores the benefits these versatile operators bring, such as improved adaptability and coverage, prompting consideration for strategic training initiatives to further harness these advantages. There is also strong need to ensure that training aligns with the diverse skill requirements of regional operators, given the breadth of roles they perform. What has also become increasingly clear is that this versatility not only benefits their own communities but extends support to other regions during times of need, such as natural disasters or other emergency response efforts.

(4.1) WORKFORCE AGE PROFILE

An analysis of the Water Operator workforce shows Case Study A to be a more stable but less dynamic age profile. **Figure 14** indicates youth engagement (<21) remains low across all periods, and the 21–30 bracket has declined from 18% in 2016 to 11% by 2024. While the 31–40 cohort recovered to 23% by 2024, the broader sector has not demonstrated the same growth trajectory seen in SEQ utilities. The 51–60 group has remained steady at around 24%, suggesting that workforce renewal may be occurring more slowly or inconsistently across the sector.

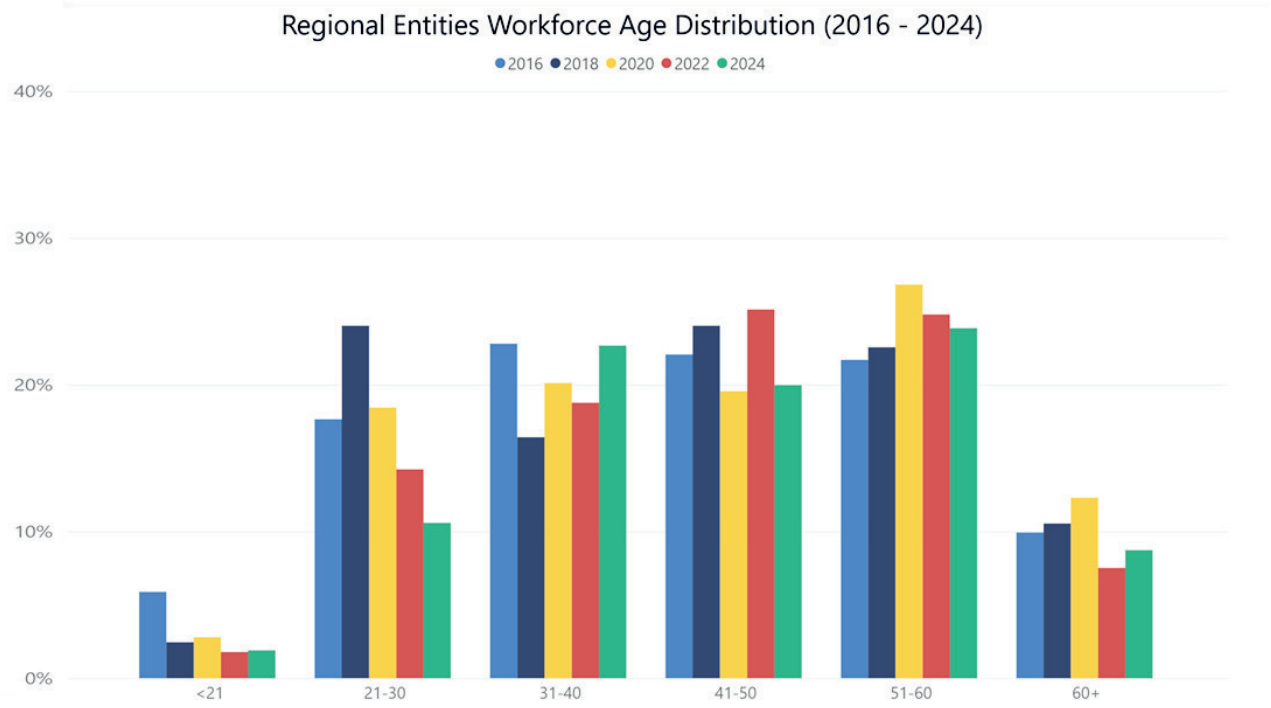

Figure 14: Workforce Age Distribution

The relative stable age distribution for the 2021-2024 period over the 31-60 age category, could suggest a workforce with limited job progression or internal movement. This could be attributed to a number of factors including low turnover or defined career advancement pathways. Overall, the comparative analysis highlights that Regional Queensland must look to their workforce renewal strategies for operator roles.

The data presented in **Figure 15** signals that utilities in the SEQ region typically operate with single-discipline teams, rather than adopting a multi-disciplined team approach. These teams are structured around specific areas of expertise, such as wastewater operations, drinking water operations, or network maintenance. This differs from the more generalist team structures often found in regional organisations, where operators require broader skillsets to meet service demands.

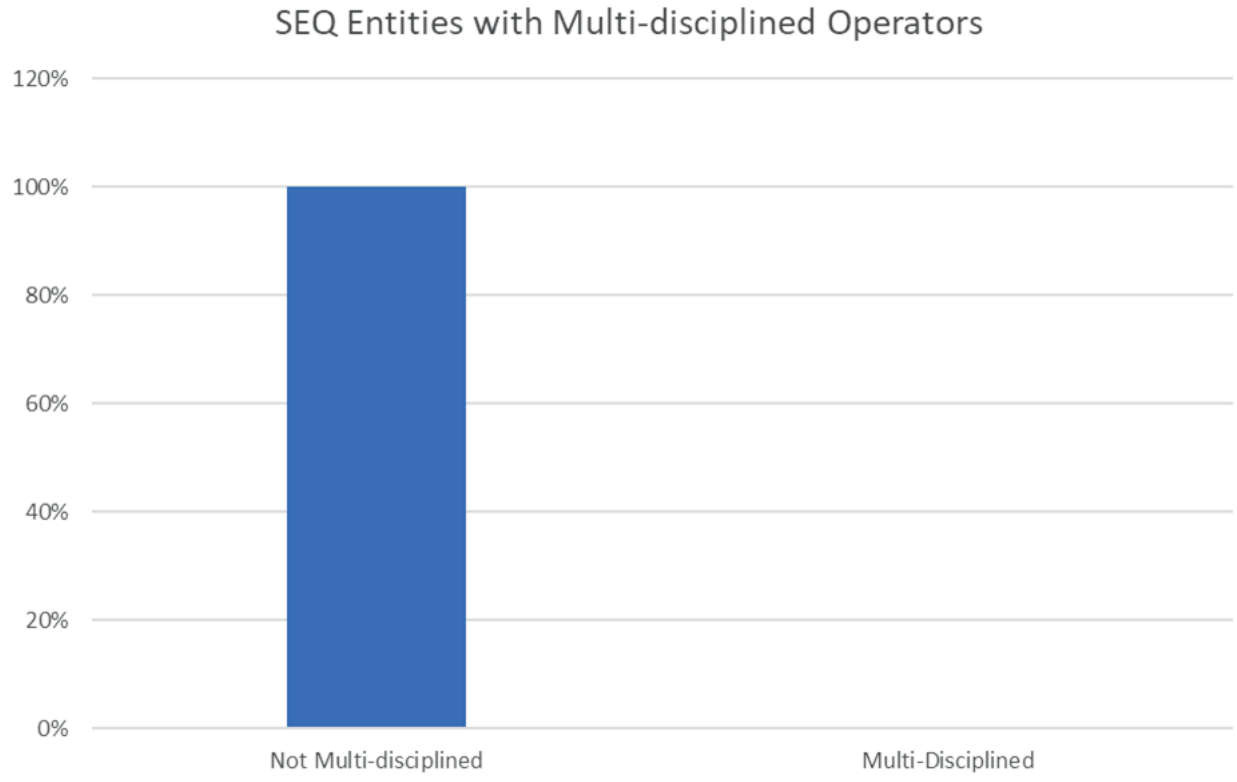

Figure 15: SEQ Operational roles

Interestingly, this specialised team model has enabled SEQ operators to develop deep technical expertise within their specific fields. As a result, these operators have been well-positioned to support regional communities during times of natural disaster, where specialised knowledge and skills are critically needed to restore essential services quickly and safely.

(5.1) WORKFORCE PROFILE

Table 2 indicates that participation of female supervisors in the SEQ region is surprisingly low, and notably, there is no significant difference between the SEQ region and the Queensland average. This is unexpected, given the broader opportunities and access to larger talent pools in SEQ, which should support greater diversity in leadership roles.

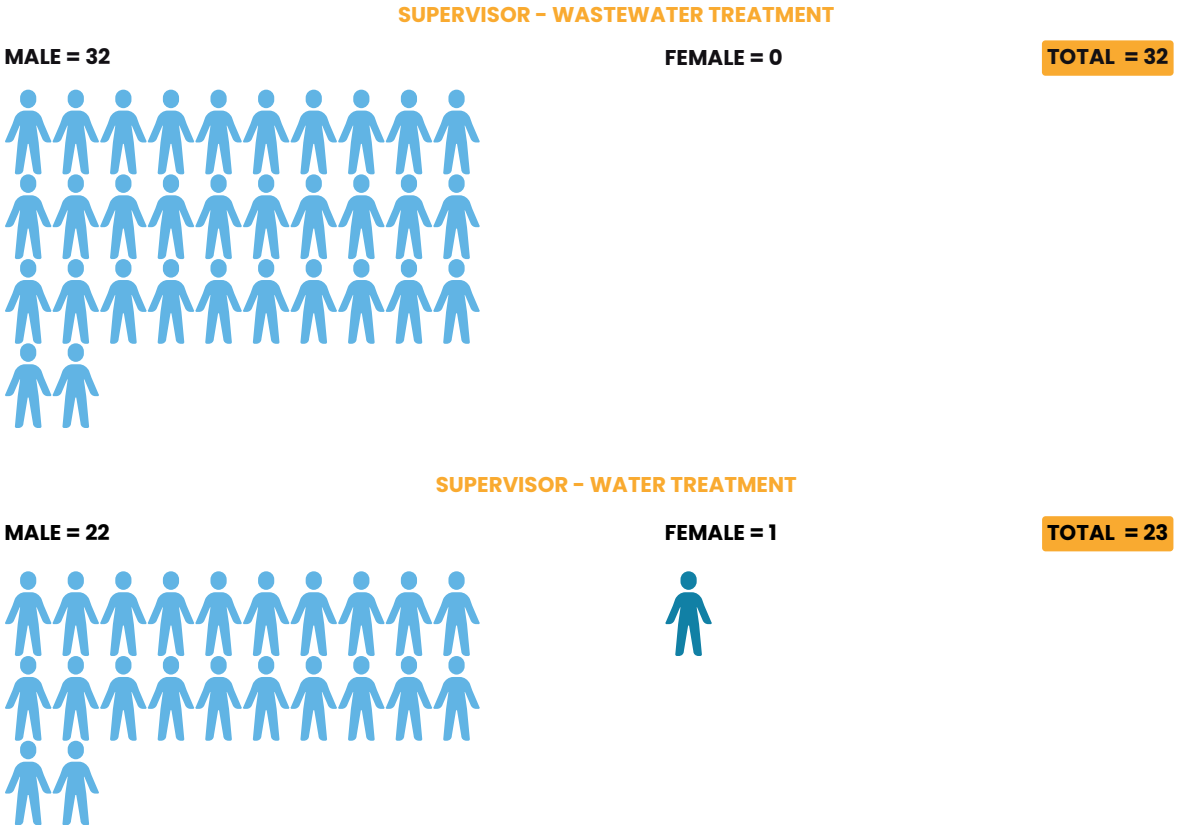

Table 2: Gender distribution in Supervisory Roles in SEQ Region

Although this gender trend may come as a surprising or concerning finding, a positive takeaway for the SEQ workforce profile lies in its age distribution, which shows encouraging signs.

An analysis of Water Operator workforce data shows SEQ utilities to be leading the way in workforce renewal, successfully engaging younger age brackets and gradually reducing reliance on older workers. This may reflect greater investment in workforce planning, structured development pathways, or resourcing capacity compared to regional employers.

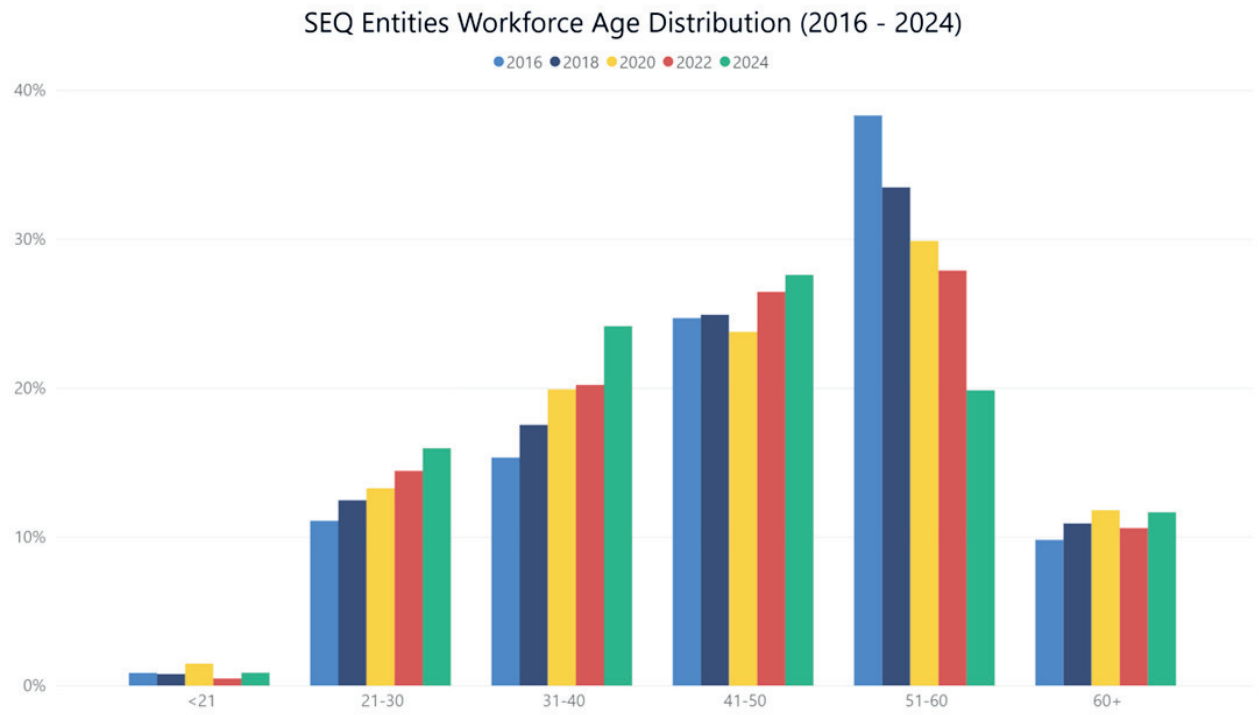

Figure 16: SEQ Workforce age Distribution

As presented in **Figure 16**, over the 2016 to 2024 periods, Case Study B suggests a more proactive shift toward workforce renewal. The proportion of employees aged 21–30 increased from 11% to 16% and those aged 31–40 rose from 15% to 24%, indicating successful engagement and retention of early- and mid-career professionals. Concurrently, the share of workers aged 51–60 declined from 38% to 20%, suggesting a generational transition is well underway, likely driven by structured workforce planning and resourcing capacity within SEQ utilities.

It could be argued that this data indicates SEQ utilities have a more defined workforce pathways strategy leading to the deliberate downward shift in ageing operational workforce participants. Such strategic transitioning may include internal promotions and transition to supporting roles outside of operations.

6. RECOMMENDATIONS

The findings of the 2024 Workforce Snapshot Survey have highlighted several key areas requiring action. In consultation with our stakeholders, we have developed a set of targeted recommendations to guide sector priorities over the next 2–3 years. These recommendations have been structured to clearly identify where responsibility lies—whether with government, utilities, unions, or the broader sector—ensuring a coordinated and accountable approach to workforce development.

Greater participation from broader stakeholder groups such as unions and commercial providers must also be prioritised. Their continued engagement is essential to building momentum for meaningful reform and applying pressure to WSPs and Government to address long-standing gaps in training, recognition, and workforce sustainability and to increase the workplace health and safety and wellbeing of our people.

(6.1) RECOGNITION AND LEGITIMACY

Recommendation	Government	Utilities	Unions	Broader Sector (RTOs, Industry Bodies)
Define competence through legislation and set minimum training standards for water, wastewater, and network operators. *This is the keystone upon which all other workforce reform depends.*	✅ Lead responsibility to legislate and regulate	✅ Support through consultation and data	✅ Advocate for recognition and safety.	✅ Provide policy advice, training frameworks, and workforce data
Advocate for transitioning Certificate III in Water Operations into a formal three-year apprenticeship.	✅ Enablement through funding and recognition	✅ Identify workforce needs and commit to uptake	✅ Support industrial recognition and parity	✅ Drive advocacy, design curriculum, and align with RTOs
Align operator roles with infrastructure trades (e.g. plumbing, civil), addressing inconsistencies in awards and recognition.	✅ Address award structures and licensing overlaps	✅ Review internal roles and support integration	✅ Negotiate awards and ensure fair employment terms	✅ Provide benchmarking and advise on competency crosswalks
Promote the trade identity of operators to improve sector reputation, recruitment, and retention.	✅ Support through public sector campaigns	✅ Drive local promotion and career marketing	✅ Highlight trade pathways and conditions	✅ Lead sector-wide campaigns, messaging, and branding
Acknowledge operator training and competency in licensing frameworks (e.g. allow installation of water meters and clearing blockages).	✅ Update licensing standards and criteria	✅ Provide workforce evidence and support application	✅ Support recognition of scope and training	✅ Provide advocacy and technical case studies
Research the growing use of alternative qualifications (e.g. plumbing, civil) and assess alignment with operational competencies.	✅ Fund or commission research to guide policy	✅ Share data on qualification trends and skills needs	✅ Provide member insight and case studies	✅ Lead research, analysis, and training package alignment

(6.2) IMPROVED TRAINING OUTCOMES

To address critical skills gaps and improve training outcomes across the sector, targeted actions are needed to ensure more flexible and accessible training delivery, qualification structures, and assessment practices. The following recommendations identify the shared responsibilities of government, utilities, unions, and the broader sector to build a more responsive, competency-based training system that reflects the real-world needs of Water Operators.

Recommendation	Government	Utilities	Unions	Broader Sector (RTOs, Industry Bodies)
Secure ongoing funding for the Water Industry Worker (WIW) Program *Supports regionally accessible, high-quality training.*	✅ Fund and support program continuity	✅ Commit to ongoing participation and local delivery	✅ Advocate for fair training access in regional areas	✅ Deliver high-quality, region-specific training
Provide additional funding for water sector specific, non-accredited micro-credentials *Addresses urgent and emerging skills gaps.*	✅ Establish targeted funding streams	✅ Identify and prioritise local training needs		✅ Develop and deliver sector-relevant micro-credentials
Fund a sector-wide **Training Needs Analysis** program	✅ Facilitate policy and funding alignment	✅ Define workforce needs and training gaps		✅ Lead collaboration and curriculum design
Support adoption of a 21-unit apprenticeship model *Including map reading, confined space, WHS, etc.*	✅ Approve and fund apprenticeship model	✅ Commit to trainee uptake and supervision	✅ Support as trade-equivalent pathway	✅ Support packaging and delivery alignment
Enable structured, on-the-job learning and mentoring frameworks		✅ Lead workplace implementation		
Remove the requirement to be employed to access NWP training	✅ Modify funding rules and access pathways			✅ Advocate for flexible training models and support alternative delivery pathways

(6.3) GENDER AND INCLUSION

Improving gender diversity in operational roles remains a key priority for the water sector. Targeted initiatives that support leadership development, regional outreach, and the visibility of female role models are essential to attracting, retaining, and advancing women across the industry.

Recommendation	Government	Utilities (SEQ)	Unions	Broader Sector (RTOs, Industry Bodies)
Develop region-specific gender inclusion strategies for **SEQ Region** *Respond to low participation data and model sector leadership.*		✅ Lead strategy development and implementation		
Develop and fund leadership programs for women in operational roles. *Incorporates mentoring, flexible delivery, and pathways to supervisory roles.*	✅ Provide funding support for targeted programs	✅ Identify participants and support internal pathways		✅ Co-design and deliver programs in partnership with councils and utilities
Prioritise regional outreach strategies to attract and retain women. *Emphasise visibility of female role models and clear entry points.*		✅ Promote local female leaders and pathways		✅ Lead sector-wide outreach and awareness initiatives

(6.4) WORKFORCE AGE PROFILE

The ageing workforce remains one of the most urgent challenges facing the water sector, with many regions heavily reliant on late-career staff. To ensure long-term workforce sustainability, utilities must invest in structured entry-level pathways and succession planning that support early-career engagement and internal mobility.

Recommendation	Government	Utilities	Unions	Broader Sector (RTOs, Industry Bodies)
Support early-career engagement *Embed structured cadetship, apprenticeship, and graduate pathways into workforce plans, particularly for regional utilities.*		✅ Articulate and integrate structured pathways into workforce strategies		✅ Partner in program delivery and pathway development
Incentivise succession planning initiatives *Facilitate internal career mobility and reduce over-reliance on ageing workforce segments.*		✅ Lead internal planning and mentoring programs	✅ Support fair advancement and skills recognition	
Develop regional employment strategies with a community focus *Support local workforce development and retention in regional areas.*	✅ Enable regional policy and support frameworks	✅ Lead community-based workforce planning and recruitment		✅ Partner on local initiatives and training delivery models

(6.5) WORKPLACE HEALTH AND SAFETY

A strong and consistent approach to workplace health and safety and wellbeing is essential for protecting water sector workers and ensuring compliance across diverse operational environments. The following recommendations outline sector-wide actions needed to embed safe work practices, address emerging risks, and support both physical and psychological wellbeing in the workforce.

Recommendation	Government	Utilities	Unions	Broader Sector (RTOs, Industry Bodies)
Adopt the ***qldwater*** **Industry Safety induction Cards** as an industry-wide standard *Ensure consistent WHS expectations across all contractors and regions.*		✅ Require safety card completion for contractors and staff	✅ Promote safety culture and standards	✅ Deliver, maintain and update safety induction training
Address ongoing workforce safety issues through targeted training *Ensure access to asbestos management and other WHS-specific programs for operational staff.*	✅ Fund and mandate inclusion in WHS policies	✅ Identify risk areas and ensure staff participation	✅ Advocate for safety rights and protections	✅ Develop and deliver relevant non-accredited safety training
Implement psychosocial safety policies and supports *Protect worker wellbeing through mental health, fatigue, and stress management programs.*		✅ Embed wellbeing strategies into operational practice	✅ Advocate for supportive and safe work environments	✅ Provide training, tools, and resources for wellbeing initiatives
Embed regular and timely safety training across the workforce *Support continuous safety learning and WHS compliance sector-wide.*		✅ Schedule and deliver training at all levels	✅ Promote worker rights to timely safety education	✅ Update, contextualise, and support ongoing safety programs

Everyone has a role to play in addressing the challenges identified throughout this report. While the recommendations outlined here are substantial, they are not exhaustive. True progress will depend on coordinated action and a sustained commitment from all stakeholders. By implementing these reforms, the water sector can continue delivering safe, reliable services to our communities and protecting the environment for generations to come.

7. APPENDICES

Data gathered for this report used a slightly modified version of previous 2022 Snapshot Report. The mainstay of the survey remained unchanged, but an additional question was included to better understand if roles are effectively linked to an Enterprise Bargaining Agreement or another award/remuneration agreement and provided respondents a space to list other qualifications.

The template was distributed via Excel format to Water Skills Partners to collect information on job roles, number of employees, age, gender and qualifications held. The 2024 Snapshot Report survey saw the largest level of responses ever received. A total of 42 responses were received from water services providers, and whilst there have been some changes to the participating organisations for each report, the sample for 2024 is more representative of the diversity of the sector in relation to organisation sizes and locations, given that increased level of response.

The responses received represented 4569 employees, which is 71% of the total Queensland water sector workforce (Statewide Water Information Management System, 2024).

(7.1) RECOGNITION AND LEGITIMACY

The following organisations provided survey submissions:

Aurukun Aboriginal Shire Council
Balonne Shire Council
Banana Shire Council
Bulloo Shire Council
Bundaberg Regional Council
Burdekin Shire Council
Burke Shire Council
Cairns Regional Council
Cassowary Coast Regional Council
Charters Towers Regional Council
Cook Shire Council
Croydon Shire Council
Douglas Shire Council
Etheridge Shire Council
Fraser Coast Regional Council
Gold Coast City Council
Goondiwindi Regional Council
Gympie Regional Council
Hopevale Aboriginal Shire Council
Isaac Regional Council
Logan City Council
Longreach Regional Council
Mackay Regional Council
Maranoa Regional Council
Mareeba Shire Council
McKinlay Shire Council
North Burnett Regional Council
Palm Island Aboriginal Shire Council
Quilpie Shire Council
Redland City Council
Richmond Shire Council
Rockhampton Regional Council
Seqwater
South Burnett Regional Council
Tablelands Regional Council
Torres Shire Council
Torres Strait Island Regional Council
Townsville City Council
Unitywater
Western Downs Regional Council
Whitsunday Regional Council
Wujal Wujal Aboriginal Shire Council

This report has been created by the Queensland Water Directorate (***qldwater***) based on feedback provided in our Skills Snapshot Survey sent January 2025. This report is being provided as a convenience and for informational purposes only; this report does not constitute an endorsement or approval by ***qldwater*** of any of the information contained in this report. ***qldwater*** bears no responsibility for the accuracy of the information provided by survey respondents.

qldwater would like to acknowledge and thank the respondents for their submissions which have served to make production of this report possible. Whilst there are potential inconsistencies in data reporting due to differences in participating organisations and some classification issues, the data does indicate changes to workforce composition.

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