Productivity Commission Review of the National Agreement for Skills and Workforce Development

Queensland Water Directorate Submission December 2019

The Queensland Water Directorate (***qldwater***) is the central advisory and advocacy body within Queensland's urban water industry.

qldwater holds a position on the Water Industry Reference Committee convened by Australian Industry Standards, and is contracted by the Queensland Department of Employment, Small Business and Training as a VET Industry Advisory Organisation. We have close engagement with our members, which include the majority of Councils, other local and state government-owned water and sewerage service providers, and affiliates. We facilitate the Queensland Water Skills Partnership, the only industry-led skills program for the Queensland industry with approximately 50 subscribers and broad representation across the State. Our biennial Workforce Composition Snapshot Reports track trends in skills and training issues as well as report qualifications data from a representative sample of Queensland urban water service providers and a range of other sources. Thus, we are well placed to represent the diverse and unique needs of the Queensland water industry. **Nonetheless, the timing of the consultation for this review, and specifically the limited time available since the release of the issues paper severely limits our capacity to effectively engage with our stakeholders around specific topics and so the views represented herein are *qldwater's* alone.**

qldwater's submission in response to the issues paper is focused on the need to improve accessibility and affordability of skills, encourage responsiveness in training arrangements and strengthen the capacity for training delivery. Critical in this process is ongoing industry engagement with the VET sector to ensure training outcomes are of a high standard and meet employer needs.

Any queries in relation to this submission should be directed to the CEO, Dave Cameron.

Background

The Queensland water industry is responsible for providing provide safe, secure and sustainable urban water services to 4.9 million constituents. The industry comprises over 70 water service providers directly providing water and sewerage services to Queensland's communities, has an asset base worth almost $40 billion and employs almost 6,000 workers. Providers include large distribution retail entities, bulk water supply statutory authorities, councils (including 17 indigenous councils), and water boards along with a range of supporting service providers.

The sector's workforce faces complex challenges including ageing, issues attracting and retaining staff, competition from other industries (particularly resource industries) and general skills and labour shortages. It is highly dispersed and very diverse with different key drivers in each region.

Trends towards increasing technology, community expectations, outsourcing contracts, ageing infrastructure and legislative reform emphasise the need for water industry personnel to be appropriately skilled and there is an increasing requirement for upskilling and retraining of existing workers to ensure the industry can take advantage of efficiency gains from adoption of new technologies.

The National Water Training Package (NWP) is the main vocational training package used for the sector, with relevance to operations and para-professional qualifications. The package covers water and wastewater treatment, construction and maintenance, bulk water supplies, hydrography, metering and other streams within the industry. The most recent National Water Training package was endorsed in December 2015, and at the time of writing, Australian Industry Standards had commenced a review of the Certificate IV water industry qualifications and is awaiting final endorsement of a completed review of the Certificate II and Certificate III water industry qualifications. A revised Diploma Water Operations qualification was published earlier in 2019.

The small size of the training market and highly specialized nature of water industry qualifications presents a number of challenges for RTOs in ensuring they have appropriately qualified trainers to meet industry demand. Limited availability of RTOs and trainers is a growing problem with a recent withdrawal of a provider from the market and increasing costs for complying with Australian Skills Quality Authority (ASQA) requirements.

A robust VET sector with well-coordinated funding support and availability of training opportunities throughout Queensland is critical for the water industry to meet its future skilling requirements and support the achievement of the National Agreement for Skills and Workforce Development targets for increasing the take-up of Certificate III and higher-level qualifications.

Industry Skilling Objectives

Water and sewerage services are essential to communities and a failure by providers to supply safe and reliable services can have major public health and environmental impacts. The high risk and highly technical nature of water and sewerage services means that those operating within the sector need to be highly trained and experienced to provide quality drinking water and manage sewerage systems to protect public and environmental health. There is no regulated requirement for skilling of the water industry workforce but Queensland water service providers have shown they are broadly committed to ensuring staff are suitably skilled. There are however a number of challenges in meeting the skilling needs of the industry.

qldwater collects workforce data through the publication of biennial Workforce Composition Snapshot Reports. These reports track trends in skills and training issues as well as report qualifications data from a representative sample of Queensland urban water service providers and a range of other sources. Recent reports have pointed to a growing shortage of qualified Water and Wastewater Operators, particularly in regional areas and an ageing workforce with declining participation from those under the age of 30. Retention of existing staff is also an issue, particularly in regional areas where there is competition for talent with the resources sector.

The Queensland Water Directorate's 2018 Workforce Composition Snapshot Report (Queensland Water Directorate, 2018) showed that 95% of water treatment plant operators held a recent NWP qualification with the Certificate III in Water Operations the most commonly held qualification for water treatment

plant operators. The results are slightly less for wastewater treatment plant operators, with 76% holding a Certificate III in Water Operations (noting that these qualifications are not mandated).

The completion rate for water industry qualifications is generally quite high, with ***qldwater's*** own coordinated training programs typically achieving a completion rate of 90% or higher. The effective requirement for employment (to be able to demonstrate competency) can be a barrier to entry to the NWP qualification, but it does assist significantly with completion. One of the key success factors for completion is adequate onsite support through the workplace to undertake the requirements of the qualification. While larger utilities are well placed to provide internal mentoring support for trainees, some smaller water service providers report a lack of internal support structures and training and mentoring skills. The collegiate approach involving multiple utilities is important and ***qldwater*** works to support a coordinated approach where possible.

It is important for the VET sector to be responsive to industry but it can't be expected to address fundamental industry challenges around governance and markets. Regional Queensland for example is characterized by a large geographic spread, thin training market, and many small employers with limited revenue bases.

For the state's indigenous councils, there has historically been a lack of coordination among agencies responsible for infrastructure funding, regulation and capability development, leading to large capital investments without a commensurate capability strategies. Whilst these issues are broader than the VET sector, a holistic approach to building capability is required. As a crucial service industry, we face constant questions around what a minimum level of service should be and whether the costs of that service should be paid solely by the communities including industry directly served vs other government support. Skilling is of course crucial in meeting levels of service.

Larger utilities may have larger current revenue bases, but that revenue is typically tied to demand of a resource which is increasing and pricing is highly politicized. Aside from the massive investment required to improve water security, the sector faces a significant infrastructure backlog or "cliff," particularly as the majority of underground assets approach the end of their useful lives.

Our advantages include limited competition and a strong collaborative culture, as evidenced by the activities of the Water Skills Partnership, and a relatively focused set of core VET qualifications supporting key operational public health and environmental protection roles, which are recognised as essential.

For the past nine years, a number of utilities in South East Queensland have delivered the Water Industry Worker (WIW) competency training program, a custom industry designed and accepted qualification, focusing on the skills and training of employees within the civil construction and maintenance field in the water industry. Participants undertake either a Certificate II or III in Water Operations – Civil and move through the program to a Certificate IV Water Operations and/or Diploma of Water Operations qualifications for supervisory staff. The program is supported by supervisors devoted to supporting each training intake, ultimately leading to stronger productivity results and an improved workforce culture. Following the success of the WIW program in South East Queensland, the program is being piloted in regional Queensland and considered in other locations with support from ***qldwater***.

The '*Water Industry Operator Certification Framework: Drinking Water, Wastewater, Recycled Water 2018'* (Queensland Water Directorate, 2018) is a national industry response to the perceived need for broader qualification coverage and ongoing professional development. Certification seeks to improve

water quality and safety through appropriate skilling and recognition of operators and matches qualifications and experience of operators to the types of plant they operate, and whilst Certification is not mandatory, many utilities have sought to participate in the program on a voluntary basis with operators from twelve employers undertaking additional training from the NWP to be recognized as competent in the processes they operate. The Water Industry Operators Association of Australia (WIOA) is currently the national independent certifying body in Australia, and ***qldwater*** facilitates the Certification Framework nationally.

Key Challenges for the VET Sector

Technology in the water industry is advancing at a rate that the National Water Training package (NWP) and VET system will be challenged to keep up with. Workers are increasingly required to interact with new technological devices for the remote operation of treatment plants via tablets and smart phones. This greater reliance on technology presents a challenge for an ageing workforce comprised of a large proportion of workers who have had limited exposure to technology.

The requirements to be competent in a range of technologies are increasing and employers generally use additional non-accredited training to train water industry operators in new technologies as these are not currently covered in the training package. Typically, a new proprietary technology will be implemented with vendor training. This is particularly common with infrastructure monitoring tools. Over time, processes are copied and the market broadens, and eventually it becomes a generic requirement of many utilities. However, by the time it's clear that that has happened there will then be a two to three-year delay in having a new unit of competency developed and incorporated into a training package. There are arguably other weaknesses in NWP which will hopefully be addressed in reviews currently underway.

The quality of training provided by RTOs in delivering the NWP is consistently identified as an issue by industry, but the introduction of a number of industry programs including Certification has seen direct improvements in training delivery methods, costs to deliver, however, industry perceives that training quality varies greatly depending on individual trainers and preferred methods of delivery are not always available, and each organisation has different expectations and preferences.

There is no one-size fits all, and in general, trainees have access to a range of training options including recognition of prior learning, e-learning, traditional classroom teaching and on-site training and assessment including increased use of subject matter experts with currency.

Recent developments in the market suggest there is growing issue for RTOs in meeting industry demand for Water Operations training and employers have indicated they are likely to have increased requirements for training in 2020 and beyond, signaling a looming problem for the industry.

In Queensland there have typically been three or four providers delivering the NWP and employers have had individual preferences for RTOs with a relatively even spread of usage across all providers. In recent times, one provider has announced it will no longer offer water industry training with another reducing its activity in the Queensland market. Of the two providers available, employers are reporting issues with the quality of training and administration, leaving one RTO as the clear preference for many organisations. It is highly unlikely that one RTO would be positioned to meet the increasing demands for training right across the state.

We are aware of similar and even more acute issues in NSW where a number of trainers have decided not to continue delivering water industry training in response to increasingly costly ASQA requirements.

RTOs have indicated that it is an ongoing challenge to find trainers with the right range of skills to deliver water industry training and in some cases, they may have the desired technical skill set but lack actual training experience or skills. The salaries offered to trainers have also been reported as significantly lower than operational pay rates, so attempts to encourage industry specialists or those nearing retirement into training roles have had limited success.

Content development and training contextualization, in the face of rapid change, are ongoing challenges for RTOs. Several years ago, the National Water Commission sponsored the development of a range of standard resources which were then sold to RTOs by Government Skills Australia. These resources still exist, but are in serious need of review (and additional unit development) and resourcing to allow this to happen should be a national priority.

Arguably, defined qualifications are becoming less relevant and individual competencies more so to align job roles with accredited training. It is not uncommon for a contemporary certified treatment plant operator to require up to 18 units of competency to cover off the requisite plant processes. For the package reviews (***qldwater*** represents Queensland stakeholders on the Water Industry Reference Committee), this has introduced discussions around minimum and maximum unit requirements for a qualification (e.g. currently 11 for a Certificate III). In response, industry is working towards developing Skill Sets for inclusion in the NWP, however, there are significant restrictions in the packaging rules for applying Skill Sets which need to be addressed. Similar issues exist for water industry workers.

Industry is supportive of the introduction of micro-credentials as a training pathway with a recent survey of members suggesting that 70% would welcome the introduction of micro-credentials to support existing accredited training options and a clear preference for a blended learning approach and the provision of funding subsidies.

The VET system is critical, but faces enormous challenges in trying to maintain a balance between quality and responsiveness.

Funding and Pricing of VET

Water industry qualifications currently receive generous subsidies under User Choice funding arrangements in Queensland with traineeships the most predominant pathway used by industry employers to train and skill young workers and upskill current workers. This funding support is particularly important for regional water service providers which are challenged by limited training budgets and without support may not be able to fund the required training to ensure that high risk job roles (such as water treatment operations) are appropriately trained and skilled to undertake their roles. The qualification is intensive, and practical onsite training is often required and the prices charged by RTOs generally reflect this. The User Choice funding subsidies cover a significant portion of the full cost of a NWP qualification when minimum numbers can be guaranteed (generally at least 6 participants).

The Department of Employment, Small Business and Training has been responsive to industry issues raised and has sought to work within the available subsidy arrangements in order to provide more flexible subsidy options for emerging skills needs. This has included the provision of subsidies for 'second chance training' for operators to undertake gap training to achieve formal certification.

Following successful gap training initiatives, industry has been working towards developing Skill Sets for inclusion in the NWP, with the aim of creating a more permanent support funding solution through the Queensland Government's Higher-Level Skills initiative. ***qldwater's*** investigation into Skill Sets has shown that the packaging rules are too rigid to be of use by the water industry. This is because there has to be a defined set of units, and the gaps for operators vary greatly across the industry due to the units covered in their original qualification and the variation in plant processes used across providers.

Addressing the packaging rules for Skill Sets is essential for supporting the evolving needs of operators in the water industry, either by adding a separate flexible qualification with a smaller number of units; or by allowing complete flexibility in unit selection across the NWP; or the capacity to have single unit skill sets (assuming these would be eligible for funding).

Federal and State Governments need to jointly consider this fundamental change to the concept of a qualification, and how funding systems respond, as we understand that it impacts many industry sectors.

Funding support from government is likely to continue to drive enrolments in accredited water industry qualifications and in emerging skilling opportunities, such as micro-credentials or skill sets, particularly in more remote and regional Councils.

RTO quotes for training delivery in major regional centres are typically in line with generous User Choice subsidies and location allowances, but travel and accommodation charges for face to face delivery are on top of those costs and often with an added administrative overhead applied (between 10-45%). In cases where the water sector is able to organize its demand to have a training cohort of around 6 staff from a range of councils, a viable solution can sometimes be offered within traineeship rates but this has only proven feasible in limited instances, as a small council may only have one or two operators separated by major distances, and someone is still required to operate the infrastructure while training occurs. These are broader issues that a training funding system cannot be expected to fix.

There are opportunities to investigate more innovative ways to support regional utilities/employers to access quality onsite training, and support/mentoring beyond that training. Government support for a more coordinated whole of region/industry approach to training collaboration would likely be beneficial. For its part, industry is slowly improving its capacity for coordination among utilities, e.g. through the Queensland Water Regional Alliance Program (QWRAP) which includes some financial support from the Queensland Department of Natural Resources, Mines and Energy. Most recently, 5 regional councils have initiated a collaboration to see water operations qualifications delivered for networks staff in the interests of improved productivity, IR and career paths. Most of these workers are skilled, but without the benefit of formal recognition of those skills (and a consistent approach to delivery and commitment to ongoing professional development).

Additionally, some operators work across water and wastewater treatment plants but due to restrictions in the User Choice funding rules, can only attain one traineeship/User Choice funded qualification from the National Water Training package when they may need to undertake both a Certificate III Water Treatment – Wastewater; and Certificate III Water Treatment – Drinking Water. There are no offsets available to support the second Certificate III Water Treatment qualification as it is deemed the same as the previous. The same limitations apply to accessing User Choice funding for a second Certificate III Water Operations qualification which may be necessary to meet requirements for Operator Certification or the role. The training, relative to other non-operations qualifications, is invariably expensive.

qldwater has received enquiries from individuals wanting to undertake higher level qualifications such as Certificate IV Water Operations or Diploma Water Operations but who are excluded from accessing Higher Level Skills funding due to older qualifications they already hold (e.g. a Bachelor Degree undertaken 20 years prior, Certificate IV Workplace Health and Safety). In these cases, the older qualification is only somewhat relevant (e.g. a Bachelor of Engineering) and further water industry operations specific skills at a supervisory and practical level are required. As the cost of the Certificate IV and Diploma Water Operations qualification is often in the vicinity of $7500, the inability to access offset funding is a significant deterrent. It is expected that many other industry employees who would benefit from these higher-level water operations qualifications (e.g. networks supervisors) are deterred from undertaking the training due to other essential workplace qualifications such as Certificate IV Workplace Health and Safety restricting their ability to access funding. Industry believes the trend of staff requiring multiple qualifications, especially in regional Queensland, will grow for a number of reasons, including the efficacy of retraining existing experienced staff in an employment market where it might be difficult to attract new staff into supervisory roles.

Supervisory and management skills are repeatedly raised by water industry employers as key skills gaps. Whilst there are currently some leadership programs for industry, these tend not to target the technical operations supervisory level positions that are most in demand and very few receive funding support.

Qualifications in project management (e.g. Diploma of Project Management), construction supervision and asset management (e.g. Graduate Certificate in Asset Management) are not eligible to receive any Government subsidies. These qualifications have proven to be very valuable for building career paths within the water industry in particular training operations staff in order for them to move into supervisory roles. ***qldwater*** appreciates that project management qualifications in particular are very general in nature and therefore funding subsidies would be difficult to manage if based on qualification alone. A mechanism in the VET Investment plan for applying for funding for these qualifications on an as needs basis as an industry group with supporting documentation to be provided would be highly beneficial to the water industry.

The water industry generally states a preference for face to face onsite training, although this is no longer universal. Online training has some benefits, including its self-paced nature, and simulation could form a part of that training. Employers have historically reported something of a stigma associated with online training - there was a perception that many past offerings have not ultimately delivered employees with work-ready skills, which makes sense in a highly practical, hands-on environment. Operating within a thin market poses challenges for Registered Training Organisations (RTOs) in developing suitable training materials for a primary training package with coverage of a large range of competencies.

Flexibility in the VET strategy will be a key to supporting future training for the water industry and requires continued close engagement with industry about emerging skills requirements. State and Federal Government VET investment strategies will need to be flexible in order to respond to emerging industries and skills requirements as the needs arise.

Future Opportunities for the VET Sector

The ageing employee profile of the water industry is identified by employers as a critical workforce issue. ***qldwater's*** 2018 Workforce Composition Snapshot Report (Queensland Water Directorate, 2018) showed

that approximately one third of water employees were over the age of 51 with a decreasing proportion of staff aged 30 years and under.

VET qualifications provide young people or people changing careers with the workplace skills necessary to gain employment. For the water industry, there are a number of limitations which mean many specialized qualifications have to be attained through a traineeship or by being already employed. ***qldwater*** (and other national industry bodies, as well as many service providers) will field calls from job seekers looking to undertake training in water operations but unable to access training because they are not currently employed in the industry. Key water industry operations roles are practical and 'hands on' in nature, however, there are currently no training facilities in Queensland that provide a simulated environment for learners to undertake training, so this training is typically limited to employees.

A number of water industry employers use traineeships to train and skill young workers but cannot always provide long-term employment for the trainee once they finish their traineeship. For Councils, the main water service providers in Queensland, adding additional permanent employees is often a difficult exercise. Anecdotal feedback from water service providers suggests that the water businesses have had to let many good trainees go once they have finished their traineeship.

Further effort to develop a strong pathway from school to permanent employment for trainees in the water industry is required, along with a need to address restrictions in the training package for practical hands-on training. Improved opportunities for industry and the education sector to work together to encourage take-up of water industry VET qualifications in schools and beyond would be of benefit to students and communities and would assist employers in their workforce planning by providing a skilled future workforce.

This would be further assisted by streamlining of the various State and Federal Government incentives available to employers for the recruitment and retention of trainees. At a recent ***qldwater*** forum, members reported that they were unaware of the incentives available to them and found navigating the system to determine their entitlements confusing. Simplification of the incentives offered and mechanisms for accessing those would be of benefit.

For regional and remote areas where skills shortages are at their most critical, incentives for young people to stay in their hometowns and undertake water industry traineeships may also be of assistance. With the lack of competition among water service providers, there are benefits of regional and industry collaboration in this space which would benefit smaller employers to be able to look at different workforce planning and recruitment options including targeting untapped segments of the workforce, including long-term unemployed and mature age workers looking to retrain. ***qldwater*** is currently exploring a number of options for new pathways with willing utilities, particularly targeted at younger workers, and re-skilling those with existing trade qualifications, however eligibility requirements for current funding pathways can limit the latter.

Training packages and investment plans need to have sufficient flexibility to respond to emerging industries and skills requirements as the needs arise. The changing nature of work for many industries means that the exact training needs and courses may not yet be identified. Streamlining the process for making changes to the training package system would help ensure that future training will keep pace with the rate of technological change and advancements. For example, significant delays in making changes to the Diploma of Water Operations (to correct the problem of units which were in use being deleted) have meant there has been almost no enrolments for the past two years. Australian Industry Standards held a

number of skills fora around the country during 2018 and the topic of speed/responsiveness of training packages to change was raised many times and appears to be a common concern across many industries.

For state training authorities, consideration will need to be given to the way qualifications are funded, including User Choice to address changes to Cert II and III, and Higher-Level Skills to support skill sets as a mechanism for those with existing qualifications to undertake Certification to achieve currency. We have nothing but praise for the efforts of our state training authority, and while they are clearly consulted by ISCs in package changes, there is a sense that there is limited coordination and consultation in broader policy direction including packaging rules.

Regular formal and informal engagement with employers is critical to ensure the skilling needs of the water industry are met by the VET sector now and into the future. The Queensland water industry has benefited from ***qldwater's*** role on the Water Industry Reference Committee and as a VET Industry Advisory Organisation to the Queensland Government. ***qldwater*** is committed to ensuring the needs of water industry employers are at the forefront of future skilling strategies and looks forward to continuing to work closely with all levels of government to deliver a highly skilled workforce for the water industry into the future.

References

Queensland Water Directorate. (2018). *The 2018 Queensland Urban Water Industry Workforce Composition Snapshot Report.* Brisbane: Queensland Water Directorate.

Queensland Water Directorate. (2018). *Water Industry Operator Certification Framework: Drinking Water, Wastewater, Recycled Water 2018.* Brisbane: Queensland Water Directorate.