The 2014 Queensland Urban Water Industry

Workforce Composition Snapshot

Contents

is a business unit of the Institute of Public Works Engineering Australasia Qld Division (IPWEAQ) and an initiative of Institute of Public Works Engineering Australasia QLD Division Inc , Local Government Association of QLD, Local Government Managers Australia and the Australian Water Association.

This document can be referenced as the ***'Queensland Urban Water Industry Workforce Snapshot 2014'***

1 Introduction

Some of the key project successes of the Queensland Water Skills Partnership include the ongoing management of significant funding grants for training places, including the Strategic Investment Fund and National Workforce Development Fund.

1.1 Snapshot Report Background

The first Queensland Urban Water Industry Workforce Composition Snapshot was published in 2010. The document allowed validation of much of the anecdotal evidence on workforce and skilling challenges previously provided by industry and quickly became a regularly cited reference for industry and government. A second Snapshot Report was published in early 2013 (based on 2012 data) with the addition of some key information and alignment of job roles to national classifications. There have only been minor changes to this approach in this 2014 report with good data and reasonable consistency in participation, meaning that some trends since 2010 are now evident. Through investment in the Queensland Water Skills Partnership, Snapshot reports will continue to be published every two years and will provide an opportunity for further analysis and monitoring of trends.

qldwater is aware that there are a number of other surveys/reports coordinated by national bodies, and conscious of the workload this creates for Service Providers. Whilst attempts have been made to make arrangements to consolidate data collection processes with other bodies, this has not always proven possible. This Report represents the only workforce data collection exercise specific to the Queensland water industry and while it is clearly beneficial to a number of stakeholders (including informing the implementation of WaterQ, the state's 30 year water sector strategy), its primary purpose is to support coordinated industry skills planning.

qldwater has also been contracted to provide industry intelligence to the Ministerial Industry Commission for 2014. Under the Agreement ***qldwater*** is required to provide an Industry Report to the Commission with respect to the following key areas:

- Industry skills and occupational priorities;
- Gaps in labour and skill supply; and
- Analysis of training delivery against industry requirements.

The Industry Report will inform the Commission's Annual Skills Priority Report (published in February of each year). The Annual Skills Priority Report influences the government's funding allocations for priority industry areas. Should the contract to provide the intelligence continue, future data collection for the Snapshot report will be aligned to the intelligence gathering process.

1.2 The Queensland Water Skills Partnership

Created in 2011, the Queensland Water Skills Partnership is the only coordinated, industry-led skills program supporting the water industry in Queensland. The Partnership performs a number of functions in this role including securing skills and training funding for industry, producing reports and workforce planning documentation, coordinating industry wide skills/workforce development projects, piloting training initiatives, information sharing and collaboration opportunities and representation for Queensland on numerous national industry skills committees.

The Partnership continues to grow. The 2010 snapshot report was published as part of the Water Skills Formation Strategy (SFS), a Queensland Government Program which commenced in late 2009 and concluded in late 2011. The Partnership replaced the SFS and was supported by 21 member organisations along with ***qldwater*** at the time the 2012 report was published. There are 36 members in 2014.

The members of the Partnership range from small local Councils to very large Council-owned distribution/ retail entities and three state-owned bulk entities. An Industry Leaders Group made up of senior representatives from water and sewerage service providers across the state sets the strategic direction for the Water Skills Partnership. The group includes 12 senior representatives from member organisations from across the State.

Members at December 2014 are detailed at the back of this publication along with details for Industry Leaders Group members.

Some of the key project successes during the past year of the Queensland Water Skills Partnership (2013/2014) include the ongoing management of significant funding grants for training places, including the Strategic Investment Fund and National Workforce Development Fund.

Other programs and activities included:

- Management and ongoing coordination of Department of Education Training and Employment (DETE) Workforce Development Funding to support a workforce development and mentoring project for regional water treatment operators.
- Formal evaluation report on the Water Industry Worker program.
- Queensland Pilot for Drinking Water Operator Certification involving four Partnership members including the development of a business case to the Queensland Government to promote mandatory certification in Queensland.

Other ongoing activities of the partnership include:

- Queensland representation on strategic industry programs and networks, ensuring state-specific needs are reflected on the national agenda.
- Regional collaboration and coordination of short courses including operator technical training.
- Regular updates and maintenance of skills and workforce development pages on the ***qldwater*** website which include details of RTOs offering Water Operations training, short course training providers, fact sheets and other workforce planning resources.
- Development and ongoing updates of online industry-relevant courses. A Basics of Water Industry Risk Management Course will be published in 2014 and available to ***qldwater*** and Skills Partnership members. Other courses include an Introduction/ Induction to the Urban Water Industry, Schools Induction Program and Introduction to Water Industry Legislation Course which are all freely available on the ***qldwater*** website.
- Regular industry relevant skills and training updates through Skills E-flashes.

1.3 Key Differences between the 2014, 2012 and 2010 Snapshot Documents

Key differences among the 2014, 2012 and 2010 Snapshots of note are:

- Not all of the organisations surveyed for workforce demographic data in 2012 were able to participate in the 2014 study, and some new organisations were added (these are noted under section 1.4). The general industry representation (total number of employees and diversity of organisations) for the 2014 data was similar to both the 2012 and 2010 data, allowing for some analysis of trends.
- Amendments to the Skills, Education and Experience Terms (SEET) in section 3.5 were made to align to national reporting trends.
- Outsourcing data, included in the 2012 report, was not analysed in this iteration of the report due to inconsistencies in the data received. Outsourcing remains an important trend to monitor as many businesses look to achieve efficiencies from private/ public partnerships. Other ways to capture this information will be investigated for future reports.

1.4 Methodology

The data gathering stage for the current Report used the 2012 Snapshot Report data collection instrument and methods. The demographic survey/ data collection instrument was distributed in August 2014 to Water Service Providers including bulk water entities and known private providers across the state to collect information on job roles, number of employees, age, gender, turnover rates and qualifications held. A total of 10 responses were received from small, medium and large local government providers, SEQ local government owned entities and bulk water providers. The responses received represent 2964.7 employees which reflects approximately 50.5% of the Queensland water industry workforce.

The organisations that responded to the survey were:

Banana Shire Council

Cairns Regional Council

Gold Coast City Council

Logan City Council**

Mackay Regional Council

North Burnett Regional Council

Seqwater

Toowoomba Regional Council

Unitywater

Wide Bay Water Corporation**

***New in 2014.*

2 Size and Scope of the Queensland Water Industry

Around 6,000 employees deliver the state's crucial water and wastewater services.

2.1 Section Summary

This section summarises available information on the size of the urban water industry in Queensland, taking into account Local Government, Local Government-owned utilities, bulk water providers and private entities providing contracted staff or a wholly outsourced function. In 2010 and 2012, ***qldwater*** conservatively estimated the total size of the industry to be 5,500 employees excluding an average vacancy rate of up to 10% and excluding contractors. The 2014 results confirm this estimate.

There has been significant downscaling in SunWater, while other organisations reported both increases and decreases to employee numbers overall. Anecdotally, there is a trend towards outsourcing and a greater reliance on contractors for many operations roles, however this was not able to be verified in the data provided for this report (refer to Section 3.8).

2.2 Queensland Urban Water Industry

As of November 2014 in Queensland there were 75 water service providers excluding small private schemes. This figure has slightly changed since the 2012 report due to Council de-amalgamations. These organisations constitute the scope of this report.

- 65 are local governments outside South-East Queensland (SEQ), 17 of these utilities are indigenous councils including two Torres Strait Island councils and 15 Aboriginal councils.
- There is a single council-owned corporation for the Fraser Coast Region.
- The distribution/sewage collection and retail services of seven of the 10 SEQ councils are managed by two statutory authorities, owned by the councils.
- The remaining three SEQ councils are directly responsible for distribution/sewage collection and retail services.
- There are also two very large, state-owned entities responsible for bulk water supply and transport (along with treatment in SEQ and limited other areas of the state) and an additional two state-owned commercialised statutory authorities (Water Boards) operating in Mount Isa and Gladstone.

Some of these organisations outsource part of their operations to private companies. Approaches were made to companies which offer ongoing contract services for example treatment plant operation and network construction and maintenance services, however no responses were received. There are many other organisations including construction companies and consultants servicing the industry on an ad hoc basis which could be included in future scope, however the benefits of participation need to be made more explicit.

2.3 Total Size of the Queensland Urban Water Industry

The following table summarises the number of employees working in each of the organisations making up the broader Queensland urban water industry.

Table 1: Size of major employers in the Queensland urban water industry

Business	Estimated Size of the Workforce
Total SEQ local government-owned employees (3 council service providers, Queensland Urban Utilities, Unitywater)	2,735 employees
Local Government service providers outside SEQ	1,900 employees
Bulk water providers	1,070 employees
Private and other organisations	100 employees
Gladstone and Mt Isa state-owned water boards	70 employees
TOTAL	5,875 (including vacancies)

2.4 Geographic Coverage

Figure 1: Property connections (water) and water supply scheme locations by Local Government Area (developed with the support of LGAQ)

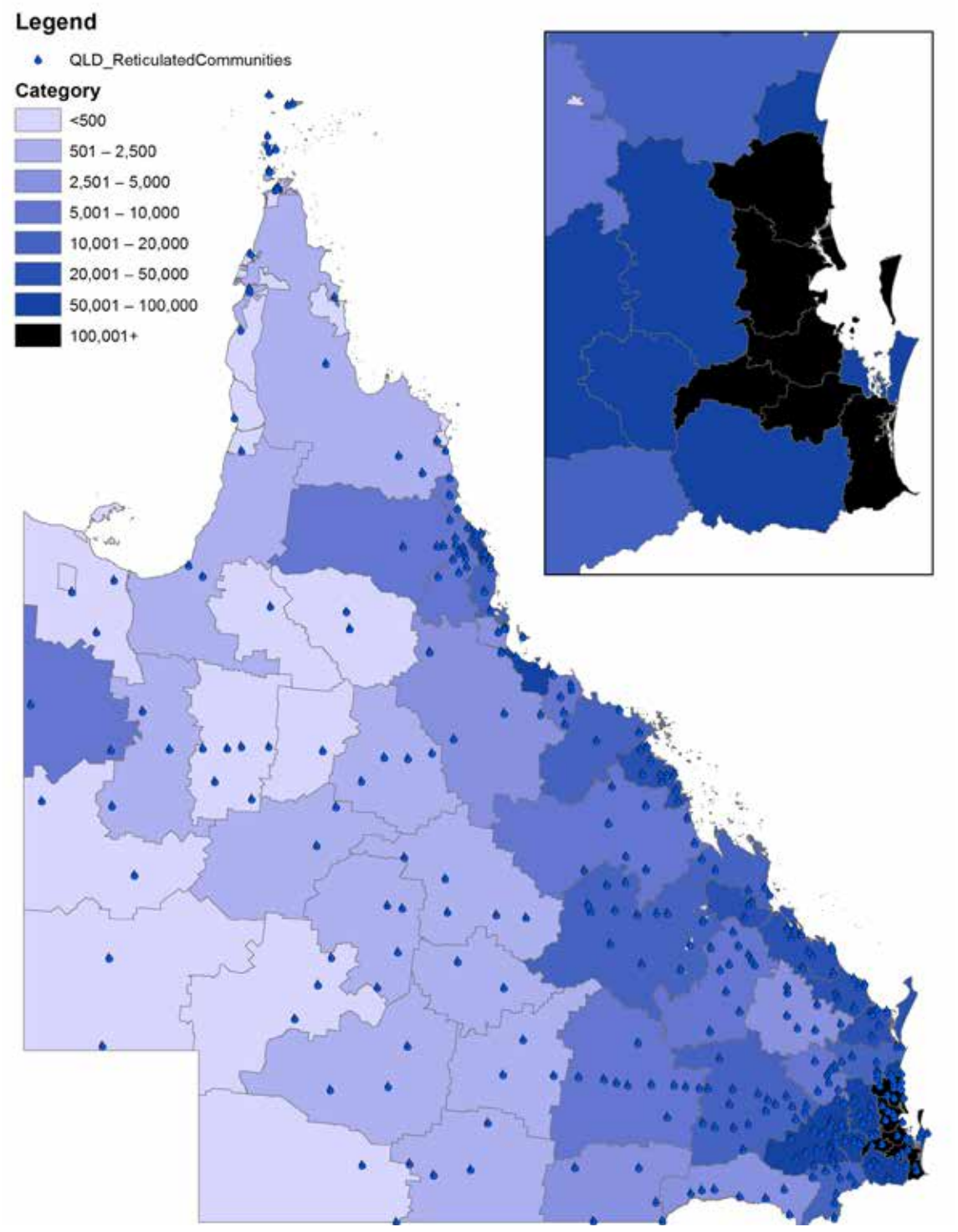


Figure 1 shows the grouped property connections by local government area in Queensland as well as the water supply scheme locations.

The map clearly demonstrates the significant diversity in density of regions in Queensland and large geographic separation between communities with water supplies. This creates challenges in achieving financial sustainability for many service providers, in sourcing skilled staff and delivering industry's preferred face to face training for technical and operational roles.

3 Internal Analysis: Workforce Statistics

Data demonstrates that within the water industry in Queensland the majority of employees are 41 years or older (54.14%) with over half of those (31.87% of total workforce) older than 51.

This section sets out the current workforce of participating water utilities in terms of job family, age, gender and qualification level and compares the 2014 data to the 2012 Snapshot Report data and 2010 Snapshot Report where deemed relevant.

3.1 Job Families 2014 and 2012

Figures 2a and 2b represent the proportion of the workforce employed within each Job Family in 2014 and 2012, respectively.

Collectively, Water Operations roles (civil, water/wastewater treatment and dam) comprise the majority of the workforce for 2014 at 33%. This figure is lower than the 2012 and 2010 data in which Water Operators comprised 40% and 36% of the workforce, respectively. Civil operations roles make up the majority of those figures with 20% in 2014 and 24% in 2012.

The proportion of the workforce reported as being employed in trades roles has also reduced notably from the first Snapshot Report (2010) which reported 19% of the workforce in trades roles in comparison to 12% for both 2012 and 2014.

Business support roles continue to represent a significant proportion of the water industry workforce (28%) in 2014.

The following observations are offered to help explain possible changes in job family composition:

- Many participating organisations had been through significant organisational change prior to 2010 and were dealing with legacy HR systems. Confidence in collecting the data for the first time was not as high as in 2014.
- There are differences in participating organisations between 2010 and 2014. Where organisations have been able to participate across a number of snapshot surveys, there are some minor trends in job family composition for several of the participating organisations. Further reports will be useful in validating this data.
- There are significant differences between a council and a standalone entity, especially in the area of business support which is more likely to be an estimate for a council – reflecting a shared service. The modification of methods used by councils to estimate these roles (due to differences in individual personnel responding each year) may account for some of the variance between reports for this job category.

As the overall distribution for job categories has not changed significantly over the different reports, the data is likely a reasonably accurate representation of job category breakdown in the Queensland urban water industry workforce as a whole.

Figure 2a: Proportion of the workforce employed in each Job Family 2014

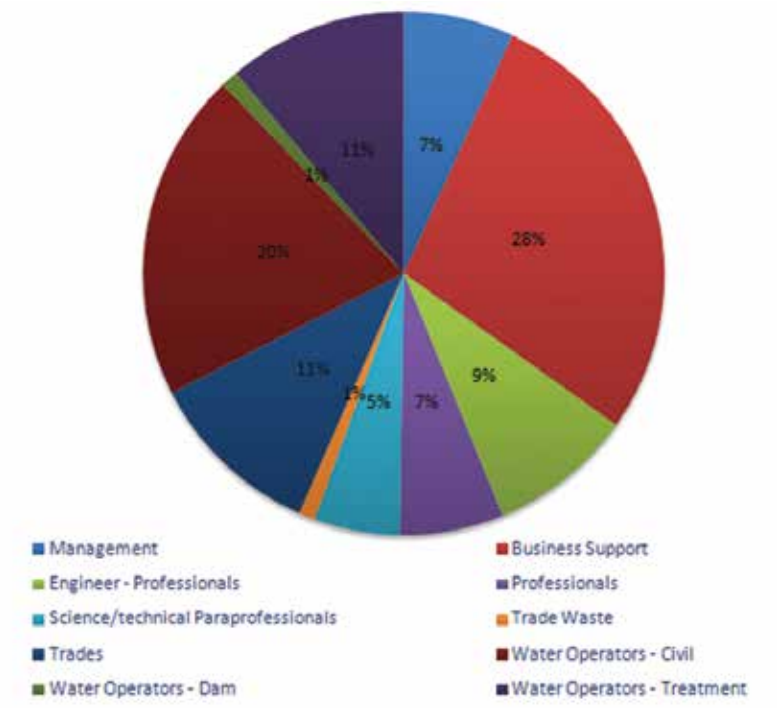
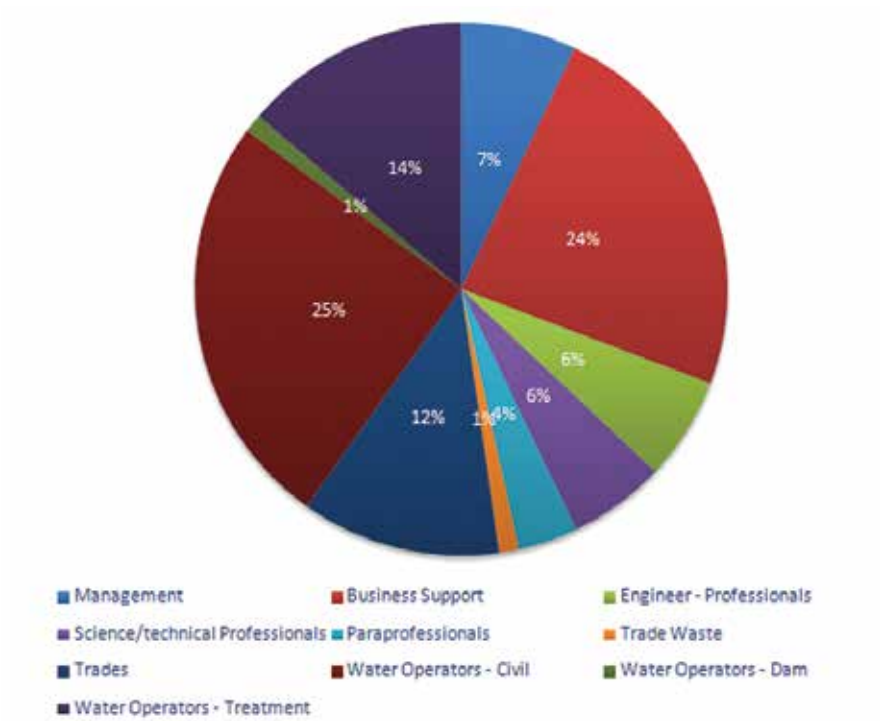


Figure 2b: Proportion of the workforce employed in each Job Family 2012



3.2 Age Profile

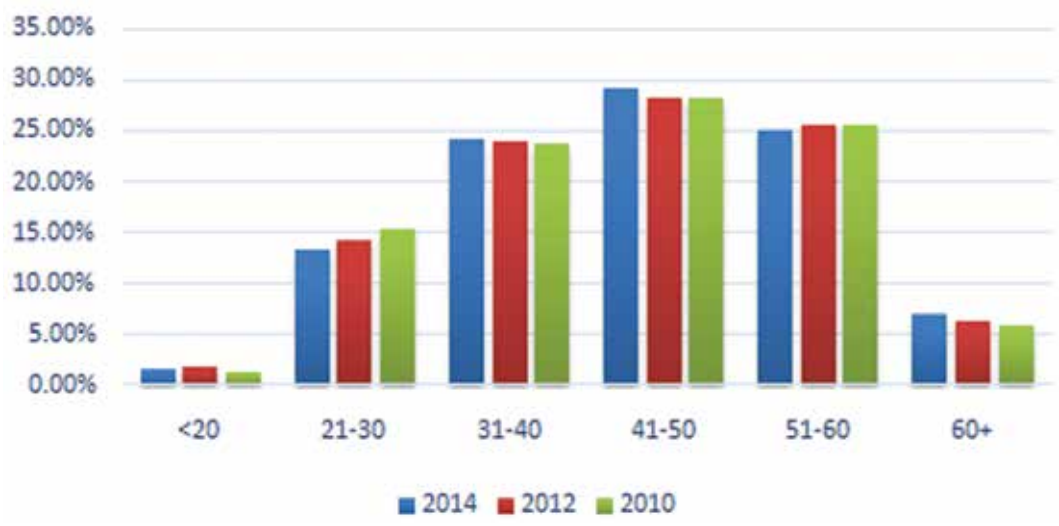
In comparison to the Age Profile data in the 2012 and 2010 Snapshot reports the overall Age Profile in 2014 is largely unchanged, with some minor movements (Figure 3).

There are no notable changes in the 31-40, 41-50 and 51-60 age categories (changes as a percentage of the total workforce were under 0.75% for all categories). A decrease for the 21-30 age category was observed which was the largest change reported, representing a reduction of over 2% of the total workforce share from the 2010 to the 2014 report. A review of detailed data from individual survey participants suggests contradictory data from organisations which have responded in previous reports with some reporting growth in this age group and others reporting a decline. There were no notable trends in the number of employees in the <21 age category moving from a 1.44% share of the total workforce in 2010 to 1.73% in 2012 and back to 1.57% in 2014.

There has been a marginal yet notable increase in the 60+ category from 2010 to 2012 and now 2012 to 2014 data (an almost 2% increase in total workforce share since the 2010 report). A gradual increase in this age group was anticipated, as more of the 'baby boomer' workforce enters this category and also stayed in employment longer than planned due to the global economic downturn. Many employers acknowledge the challenge of being better able to plan for retirement of key staff and transfer knowledge to others in their organisations.

Complementing the results of both the 2012 and 2010 Reports the 2014 Snapshot report data demonstrates that within the water industry in Queensland the majority of employees are 41 years or older (54.14%) with over half of those (31.87% of total workforce) older than 51.

Figure 3: Age profile of Queensland Water Industry - comparison of 2014, 2012 and 2010 Snapshot Reports.



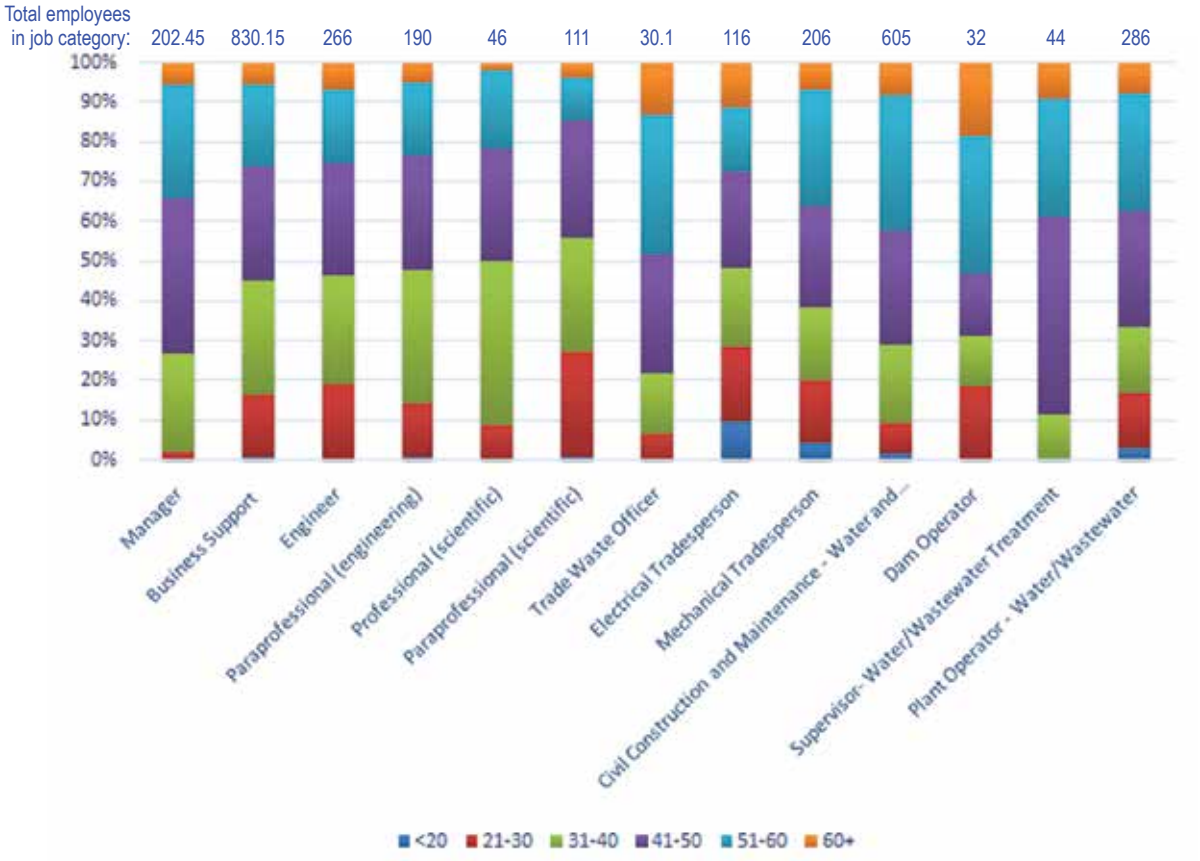
3.3 Age Profile and Job Role Category

Figure 4 represents the different job role categories in the water industry and the full time equivalent employees who work in each role, broken into age categories. The display for this chart has been slightly amended from the 2012 report to consolidate specific job roles into their major job role category, where applicable.

The electrical tradesperson role has the highest proportion of employees under 31 years (28.5%). This may be attributed to a higher number of apprentices as the job role also has the highest percentage of employees under 20 (9.48%). Supervisors for water/wastewater had the lowest number of employees under 30 (0%). The majority (50%) of wastewater/water treatment supervisors fall within the 41-50 age category. This may indicate a longer lead time for employees to become skilled in the technical aspects of a water/wastewater treatment operator role before moving into a supervisory level role. Anecdotal evidence also suggests that people may enter operator roles later in life (often when qualified in another trade) and an organisational tendency to promote operators to supervisor roles based on experience/length of service due.

Civil Construction and Maintenance - Water and Wastewater employees represent the second largest proportion of employees in the overall water industry workforce (after business support roles). The number of employees in these roles over 51 years of age is relatively high at 42.48%. However, these roles are often regarded as easier to recruit and train to a minimum standard reducing the risk of the ageing workforce. Furthermore, nationally and within Queensland, some organisations (which are not participants in the Snapshot) have moved to outsource some of these activities, a trend that may be reflected in future reports if adopted more broadly.

Figure 4: Age profile by job role category



Specialised occupations – a more detailed consideration of key occupations

For the 2012 Snapshot Report the Water Skills Partnership Industry Leaders Group representatives were asked to consider a range of standard "skills, experience and education terms" (SEET) for Job Roles. These terms were created to reflect "the number of years required for adequate skilling for proficiency in the role (including obtaining a qualification)." The terms were applied to job roles to further analyse the impact of factors including the ageing workforce.

The National Industry Snapshot 2013: Electricity, gas, water and waste services (Australian Workforce and Productivity Agency, 2013) adopted a similar approach to the 2012 Snapshot Report's Skills, Education, Experience, Training factors (SEET).* The 2013 report focused on "specialised occupations" which it defines as those 'where specialised skills, learned in formal education and training, are needed at entry level and where the impact of market failure is potentially significant for the economy and/or the community.'

*In the interests of clarity for this section, the two reports will be referred to as AWPA 2013 and ***qldwater*** 2012 respectively.

Further, AWPA 2013 stated that specialised occupations demonstrate these characteristics:

- long lead time — skills are highly specialised and require extended learning and preparation time over several years;
- high use — skills are deployed for the uses intended (i.e. good occupational 'fit');
- high risk — the disruption caused by the skills being in short supply is great, resulting either in bottlenecks in supply chains or imposing significant economic or community costs because an organisation cannot operate; and
- high information — the quality of information about the occupation is adequate to the task of assessing future demand and evaluating the first three criteria.

In the interests of continually improving these reports to allow greater comparability, the SEET factors used to determine "at risk occupations" in this current 2014 report have been aligned to the AWPA 2013 'specialised occupations' definitions and commentary provided for those roles.

qldwater 2012 included Electrical Engineers and Engineering Managers (Corporate Manager Water) as high SEET factor roles. These roles were also included in AWPA 2013 as 'specialised occupations'. Plumbers were also listed in AWPA 2013 as a specialised occupation but not included in the ***qldwater*** 2012 SEET list.

Table 2 provides a summary of "at risk" specialised occupations with age profiles for 2014 as compared to the data in ***qldwater*** 2012. The following roles have been removed from the 2012 list:

- Corporate Manager General – significant reduction in employees older than 51 from 43.5% to 21.72%. As a relatively small proportion of the workforce (3%) with low overall numbers changes to this job role may fluctuate between reports. Further, the job role is a generic non-water specific management role and the difficulties in measuring these roles for Council water businesses (where the role sits outside a defined water and sewerage services business unit) may influence data across reports.
- Electrical Engineer – significant reduction in employees older than 51 from 63.6% to 21.67%. The job role also reflects a small proportion of the overall workforce (0.5%) and variances are therefore likely due to the small data set.

Table 2 "At Risk" Specialised Occupations

Job Role	Total Employees	Age Profile
Corporate Manager Water	0.65%	In 2012, it was noted that the very high proportion of employees in the 51-60 and 61+ age group may suggest potential risk. The two age categories combined made up 48.9% of the total employees allocated to this job role in 2012. In 2014, there has been a small but notable reduction in the proportion of employees in these two age categories, now at 41.34%.
Operational Manager Water	3.06%	The very high proportion of employees in the 51-60 and 61+ age groups again suggests a potential risk with this role, which falls within the 'specialised occupations' category. The two age categories combined make up 45.05% of the total employees allocated to this job role.
Trade Waste Officer	1.01%	The number of employees in the 60+ age group represent one of the highest proportions for this age group across any job role (21.65%). The number of employees in the over 51 age categories has increased from 38.46% in 2012 to 48.17% in 2014.
Dam Operator	1.07%	The two higher age categories combined are 53.13% as compared to 61.5% for 2012, representing a significant decrease, but a still significant proportion.
Supervisor Wastewater Treatment	0.42%	The two higher age categories (51-60 and 61+) represent 45.16% of total employees for the job role compared to 46.4% in 2012, suggesting a relatively stable workforce but still a significant proportion of employees in the higher age categories.
Civil Engineer (NEW)	5.86%	The two higher age categories (51-60 and 61+) represent 26.49% of total employees for the job role compared to 16.16% in 2012. This job role is often seen by industry as critical to core business.
Process/ Chemical Engineer (NEW)	1.14%	The two higher age categories (51-60 and 61+) represent 25.00% of total employees for the job role compared to 5.88% in 2012. The overall number of employees has increased from 17 to 36. While the role represents a relatively small proportion of the overall workforce, it has often been identified as an important recruitment target for employers, and the data suggests that where that recruitment has been successful, it has been in older age groups.
Chemist Professional (NEW)	0.51%	The two higher age categories (51-60 and 61+) represent 37.50% of total employees for the job role compared to 12.77% in 2012 and the total number of staff has decreased from 23.5 to 16. At face value it would appear to represent a significant risk for a small but important job role.

3.4 Gender Profile

Figure 5: Number of employees in each job family as a % of total workforce — comparison of 2014, 2012 and 2010 Snapshot data.

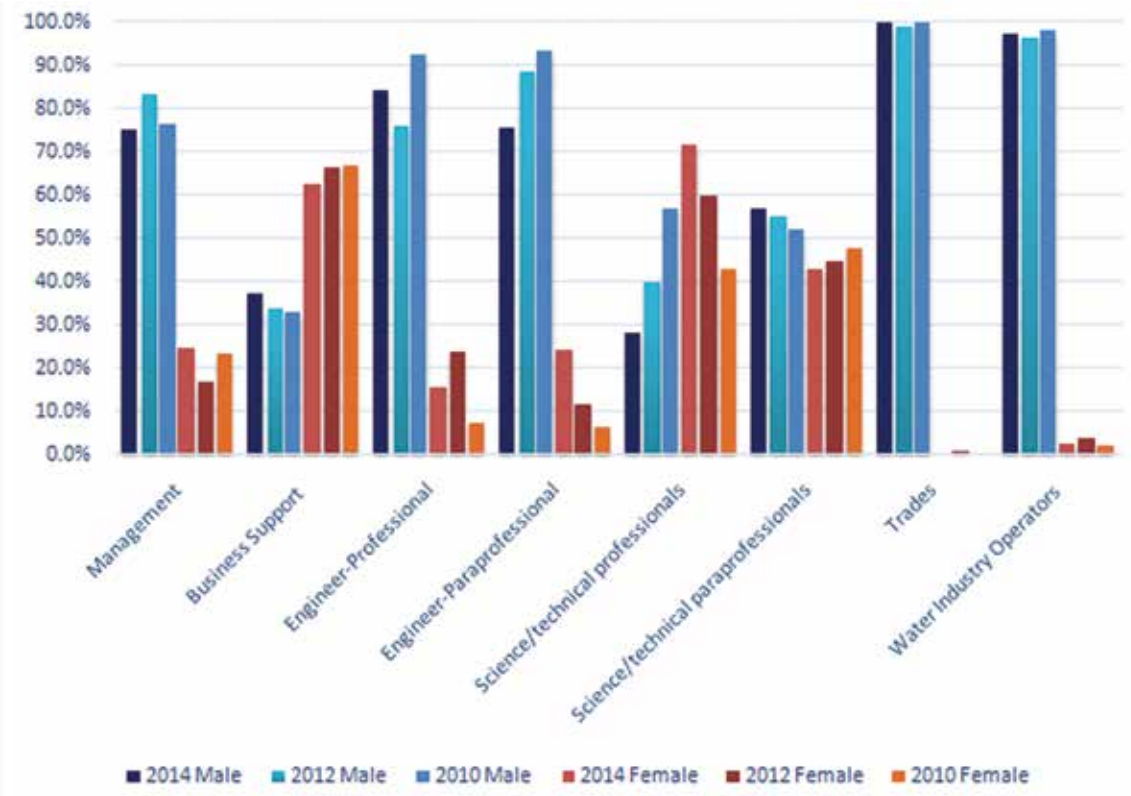


Figure 5 compares the gender statistics of the 2014, 2012 and 2010 Snapshot report data by job category. The 2014 data supports both the 2012 and 2010 report conclusions and anecdotal evidence that the water industry is male-dominated with males continuing to represent the majority of the workforce (75.25% in 2014). This figure is in line with national data from AWPA 2013 which reported a male workforce of 75% in 2013 for the electricity, gas, water and waste industry.

The 2014 data suggests a possible increase in women in management roles since the 2012 report (a move from 16.9% to 24.7% in 2014) however, there is no observable trend when factoring in the 2010 data which was similar to 2014 (23.6%). More significant trends towards increases in women were seen for engineering paraprofessional and science/technical professional roles moving from just 6.7% in 2010 to 11.6% in 2012 and again increasing to 24.2% in 2014 for engineering paraprofessionals and from 42.9% in 2010 to 60% in 2012 and 71.7% for 2014 for science/technical professional roles.

These notable increases from the 2010 to 2012 and then 2012 to 2014 reports indicate a clear trend towards recruitment of more women into these roles, validated when reviewing data provided by individual respondents which contributed to all three surveys. Conversely, a decrease in women in engineering professional roles was noted from the 2012 to 2014 report (24.1% in 2012 and 15.8% in 2014). The data, however, indicates that this does not appear to be a specific trend as the number of women in these roles in 2014 is still notably higher than in 2010 (7.5%).

No significant changes were evident in the traditionally male-dominated job role categories of Trades or Water Industry Operators – all roles have less than 4% women. This remains an ongoing challenge for the water industry and many other industries employing similar roles. The proportion of women in all industries is 45.7% nationwide but only 11.8% in construction, 15.1% in mining and 22.6% in utilities (Australian Human Rights Commission, 2013). Yet while the figures are consistent with national findings for other utilities, they demonstrate that the industry still has a significant opportunity to market to this workforce segment. There are numerous benefits that the water industry can offer that many other male-dominated industries may not, including stable employment, often with family friendly hours.

3.5 Job Categories and Qualification Levels

Figure 6 compares the highest level of qualification achieved for each of the job categories surveyed. The results in this figure represent a smaller subset of the total survey responses (n = 978) as not all respondents were able to source qualifications data. Many organisations have reported the impending introduction of new HR systems and a slow improvement in capacity to capture this data – the legacy of amalgamation and other industry reform has typically made maintaining these types of records challenging.

As would be expected, the majority of employees in professional roles such as Engineers, Managers and Science/Technical Professionals hold a Bachelor Degree in 2014. This data is similar to the 2012 data with some minor changes.

Similar to the results from the 2012 Report, in 2014 over 80% (88.3% in 2014, an increase from 2012) of water treatment operators hold a qualification at Certificate III level or above. Certificate III is generally considered to be the minimum standard to which all such operators should be trained where they operate conventional and more complex treatment plants. However, other ***qldwater*** data (from the Queensland Certification pilot program) has identified that in most instances plant processes do not completely match competencies completed as part of qualifications.

In October 2013, ***qldwater*** commenced a Queensland pilot program to implement the proposed "National Certification Framework for Operators within Drinking Water Treatment Systems." The Framework was released by the National Water Commission in December 2012 and in the absence of an identified Australian Government "Owner" for the framework, the Water Industry Skills Taskforce (WIST), convened by the Australian Water Association, was given carriage of the Framework. The Framework provides for a range of qualifications determined by an assessed risk/ complexity of plant and drinking water systems and would require Certificate III as a minimum for "medium" and higher complexity treatment plants. Small and remote systems which may have no or limited treatment would likely fit the "low" complexity definition, thus requiring a partial Certificate II qualification.

A Queensland pilot program discovered that although many operators already hold Certificate III Water Operations qualifications, there are often significant gaps between the units undertaken and the processes at the plant operated. As per the Framework, the units undertaken must match the specific plant processes at the plant the operator is currently employed. The Queensland pilot, in line with similar findings in Victoria, found that operators require on average an additional five units of competency in order to meet the requirements for Certification. These results suggest that the industry needs to be proactive in negotiating units to be undertaken with Registered Training Organisations, but also must ensure that processes are in place to train staff in "gap" areas which occur naturally as they move around the industry, or new processes are introduced.

In comparison to the 2012 Report, there has been a significant increase in the number of Water Industry Operators - Civil holding Certificate II or higher level qualifications and in particular in those holding at least a Certificate III. In 2012, almost 25% (24.4 %) of those in the survey sample had attained Certificate I, II, III or IV qualifications. In 2014, this number has increased to over 50% (51.14%).

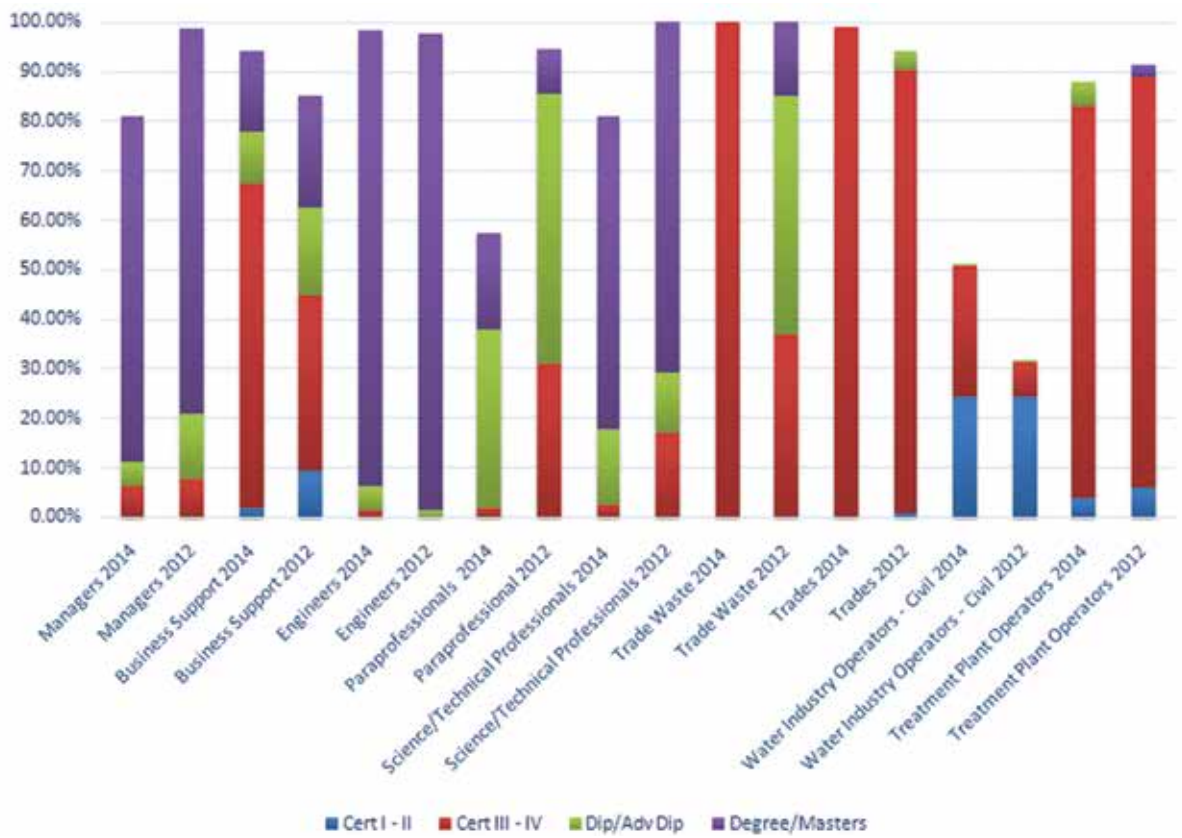
In South East Queensland there has been a significant industry push for recognition and training for water operations – civil roles. The Water Industry Worker (WIW) program, targeting those roles, was piloted in 2009 and focussed on a multi-skilling approach to training (across both water and wastewater assets). Since the 2009 pilot, over 250 water industry operators across the networks/ civil stream have undertaken qualifications in Certificate II or III Water Operations. Further Certificate IV Water Operations and Diploma Water Operations courses have also been undertaken through the program. It is expected that the number of staff in these roles that hold at minimum a Certificate II qualification will increase for future reports. However, the program is currently largely based in SEQ, and uptake of these qualifications in regional Queensland remains limited. The high numbers of employees in SEQ (also reflected in survey respondents) may therefore somewhat 'skew' the data towards indicating a higher uptake of the qualifications than is evident throughout the remainder of Queensland.

Another notable change between the 2012 and 2014 reports is the level of qualification undertaken by trade waste employees. Whilst employees in 2012 had undertaken qualifications at the Diploma or Bachelor level, it appears that Certificate III / IV is now undertaken by almost 100% of those in trade waste roles. A degree of staff turnover in these roles is to be assumed given that the qualification reported is the 'highest level achieved'.

Another key factor influencing this change is likely to be directly related to an industry supported VET qualification established since the last report. The Certificate IV Water Operations (trade waste) training program aimed at up-skilling employees in the trade waste sector of the industry was piloted in 2012 with strong industry interest.

Although the survey data does not allow for a breakdown of the qualification specifically undertaken by employees in this job role (e.g. Certificate III or Certificate IV), it would appear to be a reasonable assumption that the survey is reflecting the increased uptake of the Certificate IV Water Operations (Trade Waste).

Figure 6: Highest Qualification Achieved by job category 2014 and 2012 data

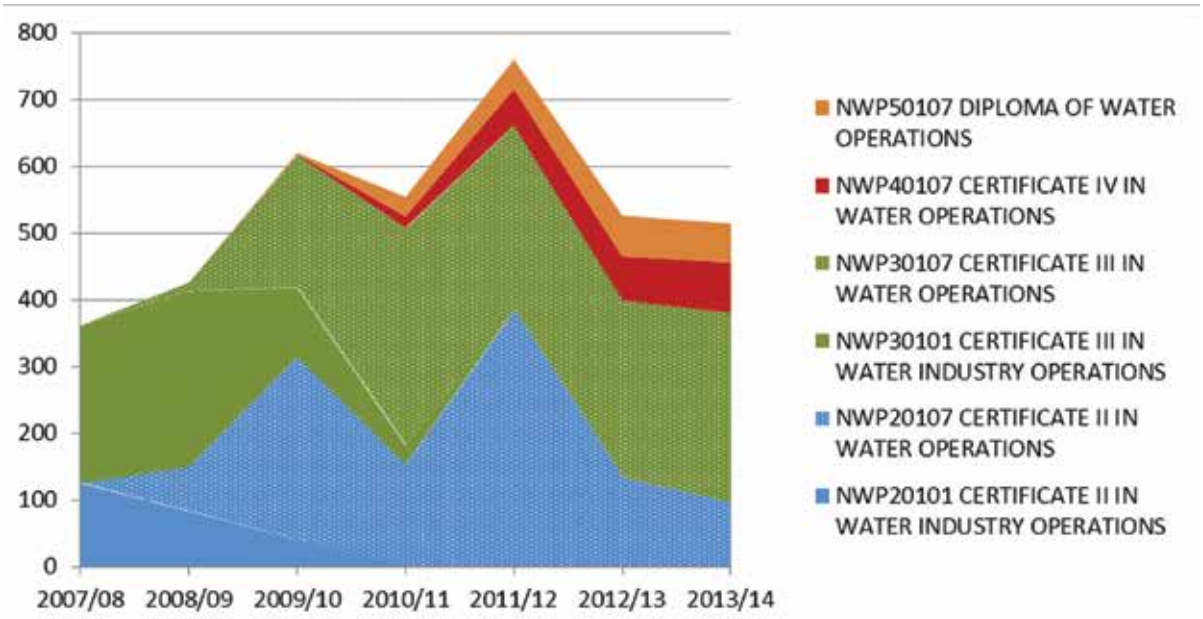


Overall, the 2014 Snapshot data suggests an increase in the proportion of water operations staff with formal VET qualifications since the last report. This trend is supported by State data on the number of water operations qualifications (from the National Water Training Package – NWP01 & NWP07) undertaken in Queensland since 2007 (Figure 7 next page).

The data indicates a clear increase in the number of qualifications undertaken in 2009 which coincides with the establishment of the Water Skills Formation Strategy and Water Industry Worker Program, led by ***qldwater.*** A peak for enrolments in Water Operations qualifications is evident in 2011/2012, which correlates to large program intakes for the Water Industry Worker program in South East Queensland.

Based on existing data on the number of enrolments for the Water Industry Worker program Certificate II level, it is reasonable to assume that the majority of Certificate II Water Operations qualifications represented in the data are from the civil/networks stream. The increase in the number of enrolments in the higher level qualifications – Certificate IV and Diploma since 2009 is positive and anecdotal evidence supports a greater focus on career paths for operations staff.

Figure 7: National Water Operations Qualifications undertaken in Queensland 2007 – 2014 (Source: DETE,2014)



3.6 Outsourced roles

At the request of the Industry Leaders Group of the Queensland Water Skills Partnership the 2012 iteration of the Snapshot report captured a measure of the number of roles traditionally performed in-house that are now undertaken by outsourced staff. Limited demographic data was available on these roles and data was not provided by all respondents. In 2014, the data provided on outsourced roles was limited and inadequate for a representative analysis in this Report.

Based on anecdotal evidence from industry, it is anticipated that the number of outsourced roles would have increased from the 2012 report. Increased efforts will be made for future reports to look at alternative methods of capturing this data in order to monitor potential trends, however obtaining full time equivalent staff estimates for contractors is always going to be challenging – it becomes an operational expense for the water service provider and potentially commercial in confidence information for the contractor.

4 Conclusion and Recommendations for Future Reports

The 2014 Snapshot Report provides a first opportunity to begin to analyse some of the potential trends in workforce composition since the first Snapshot Report published in 2010.

Positively, the industry has continued its commitment to addressing future workforce issues through investment in collaborative programs such as the Queensland Water Skills Partnership. As a significant proportion of industry occupations continue to be in 'hands-on' roles such as Water Operations (Civil, Treatment, Dams) and Trades support for operations, staff training and recognition of those roles is important. The high numbers of staff with qualifications in these fields (where it is not a legislated requirement outside of trades) indicate that employing a skilled workforce is being prioritised by the industry. The Water Skills Partnership has invested significantly in promoting skills and career pathways for staff in operations roles though various programs and continues to support the implementation of the National Certification Framework for Operators of Potable Water Schemes in addition to pursuing development of a similar industry led Framework for wastewater treatment plant operators.

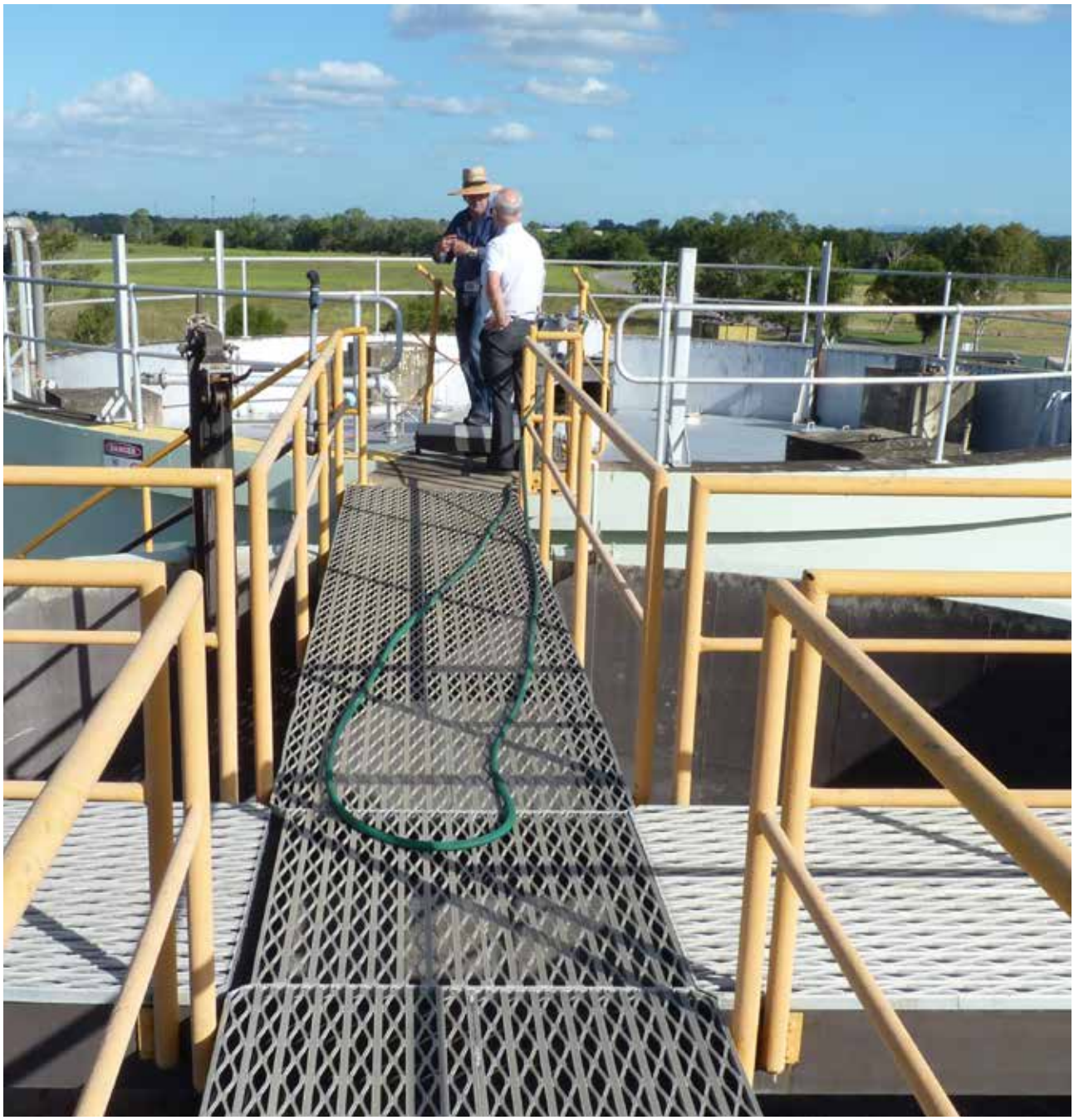
The 2012 Snapshot Report recommended that future reports more strongly consider competitor analysis for skills. There has been a further decline in major resource sector projects since the 2012 report and anecdotal feedback from the industry suggests that recruitment and retention issues (outside of remote and regional Queensland) have significantly eased, likely as a direct result. Further, it appears that the industry is engaging with private providers on a more ongoing basis, including for operations roles. Implementing mechanisms for gathering this data on outsourcing and private contracts will be important in future reports and will be investigated through the Industry Leaders Group.

The Queensland Government released its 30 year water sector strategy – WaterQ in June 2014. The Strategy focusses on seven key principles:

- Empowering customers and educating the community;
- Providing equitable and affordable water;
- Promoting efficient and productive water use;
- Encouraging responsible and productive water management;
- Developing a skilled and sustainable workforce;
- Developing smart regulation that encourages private sector investment; and
- Adopting innovative technology and infrastructure.

Skilling has been given a high profile and a number of the activities of the Water Skills Partnership are likely to support the State in achieving its objectives. In addition, while the concept of increased private sector investment means different things to different stakeholders, increased outsourcing of traditional services including treatment and network construction and maintenance are clearly evident as downward pricing pressure challenges the sector to explore all efficiency options.

In conclusion, while this series of Snapshot Reports can only provide a glimpse into ongoing change in the sector, they remain an important initiative to support both sector-wide attempts to focus efforts on skills needs and individual organisations in developing their analyses of external environments to support workforce planning.



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Special thanks to each of the organisations who contributed data to this study.

Appendix 1
Queensland Water Skills Partnership Members and Industry Leaders Group Representatives
(as at December 2014)

Water Skills Partnership Subscribers
(in alphabetical order)

Balonne Shire Council

Banana Shire Council

Barcaldine Regional Council

Barcoo Shire Council

Bundaberg Regional Council

Burdekin Shire Council

Carpentaria Shire Council

Cassowary Coast Regional Council

Charters Towers Regional Council

Central Highlands Regional Council

Diamantina Shire Council

Etheridge Shire Council

Gladstone Area Water Board

Gold Coast City Council

Goondiwindi Regional Council

Gympie Regional Council

Hinchinbrook Regional Council

Logan City Council

Longreach Regional Council

Mackay Regional Council

McKinlay Shire Council

Mount Isa City Council

North Burnett Regional Council

Queensland Urban Utilities

Redland City Council

Richmond Shire Council

Rockhampton Regional Council

Seqwater

South Burnett Regional Council

Sunwater

Tablelands Regional Council

Toowoomba Regional Council

Townsville City Council

Unitywater

Wide Bay Water Corporation

Winton Shire Council

Industry Leaders' Group Representatives

Alan Kleinschmidt, Toowoomba Regional Council (Chair)

Dick Went, Gold Coast City Council

Joseph Bufalino, Seqwater

Trevor Seth, Goondiwindi Regional Council

Moira Zeilinga, Central Highlands Regional Council

Michael Denton, Queensland Urban Utilities

Alexis McCarthy, Sunwater

Kim Moore, Unitywater

Daryl Ross, Logan City Council

Kevin McGuire, Redlands City Council

Jeff Rohdmann, Bundaberg Regional Council

David Brooker, Mackay Regional Council

Anthony Lipsys, Banana Shire Council

Dave Cameron, CEO, ***qldwater***

Michelle Hill, Manager Skills and Strategy, ***qldwater***

Rob Fearon, Director Innovation Partnerships, ***qldwater***

Desire Gralton, Manager Communications, ***qldwater***

Richard Scott, Department of Energy and Water Supply (Observer)

Appendix 2
Summary of water industry reform in Queensland since 2005

- Local government reform process completed in 2008. Amalgamation affected the majority of councils with up to 8 previous local government areas combining to form one. The total number of registered water service providers reduced to 84 (73 local government).
- Water reform in South-East Queensland commenced in 2008
    - Water retail and wastewater services transferred to council control with former council bulk water functions moved to the state under the control of Seqwater
    - Establishment of the water grid including the Water Grid Manager, Linkwater, Watersecure and (the expanded) Seqwater
    - Establishment (briefly) of a distribution/ retail entity to take control of water retail and wastewater services from the 10 SEQ councils
    - May - July 2010 Removal of that entity, establishment instead of:
        - Unitywater (servicing Sunshine Coast and Moreton local government areas)
        - Queensland Urban Utilities (servicing Brisbane, Ipswich, Somerset, Lockyer Valley, Scenic Rim local government areas)
        - Allconnex Water (servicing Gold Coast, Redland, Logan local government areas)
    - Merger of Watersecure and Seqwater July 2011.
    - Disaggregation of Allconnex Water – back to council distribution/ retail businesses in July 2012.
    - Merger of all remaining SEQ bulk entities into new Seqwater January 2013.
- De-amalgamation of some councils with new operations commencing on 1 January 2014:
    - Douglas Shire Council separating from Cairns Regional Council (and responsible for its own water and sewerage services)
    - Livingstone Shire Council separating from Rockhampton Regional Council (and responsible for its own water and sewerage services)
    - Mareeba Shire Council separating from Tablelands Regional Council (and responsible for its own water and sewerage services)
    - Noosa Shire Council separating from Sunshine Coast Regional Council (with Unitywater retaining water and sewerage services – Seqwater responsible for bulk water and drinking water treatment as with other SEQ local government areas).

About qldwater

The Queensland Water Directorate (***qldwater***) is the central advisory and advocacy body within Queensland's urban water industry and represents members from Local Government and other water service providers across Queensland.

The Directorate actively promotes collaboration and development across the industry. One major area of focus for ***qldwater*** has been to help identify and understand as well as guide the development of industry-wide strategies to aid the industry's significant skill development, attraction and retention challenges across the state.

qldwater will continue to work with industry to further develop its workforce and improve and retain valuable skills unique to the industry. Further information about this and other programs is available at www.qldwater.com.au.

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