

Entry Level Pathways in the Water Industry



The Industry Skills and Jobs Advisor (ISJA) program is a Queensland Government initiative managed by the Department of Trade, Employment and Training (DTET)



**Queensland
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Executive Summary

Water's Industry Skills and Jobs Advisor (ISJA) conducted an Entry-Level Pathways for Water survey to better understand the pathways currently being used to attract, develop and support new entrants into Queensland's water industry. The survey sought information on entry-level programs, host workforce areas, program structures, partnerships and the challenges organisations face when delivering these opportunities. The findings provide valuable insight into current industry practice and highlight opportunities for greater collaboration and resource sharing across the sector.

A total of 20 responses were received from Queensland water service providers (WSPs), including local government, water utilities and service providers. While 17 organisations participated, three councils submitted multiple responses from different business areas. These responses have been retained within the analysis as they provide useful insight into the variation that can exist within a single organisation regarding the availability, management and promotion of entry-level programs. This finding suggests that awareness and communication of workforce pathways may not always be consistent across operational teams.

The survey confirms a strong commitment across the water industry to workforce development and succession planning. Traineeships in Water Industry Operations remain the most common entry-level pathway, followed by work experience placements and graduate programs. These findings indicate that organisations continue to prioritise practical, workplace-based learning opportunities as a key mechanism for attracting and developing future workers.

Water and wastewater treatment operations were identified as the primary workforce areas hosting entry-level participants. Engineering was also represented; however, relatively few responses specifically identified network reticulation activities as a major host area. This may indicate an opportunity to increase awareness of the diverse range of career pathways available across the broader water industry, particularly within network operations and maintenance functions.

The most significant challenge reported by organisations is the capacity and supervision requirements associated with hosting trainees, graduates and work experience participants. This challenge was consistently identified across both large and small organisations and reflects the considerable investment of staff time and resources required to support entry-level development activities. Budget constraints were the second most identified barrier, followed by difficulties attracting applicants and limited accommodation options, particularly in regional areas. These findings highlight that while organisations recognise the value of entry-level pathways, many require additional support to expand and sustain these programs.

Responsibility for coordinating entry-level programs is largely managed by workforce development functions, including Learning and Development teams, Talent Acquisition teams, People and Culture teams and Organisational Development teams. For the purpose of this report, these functions are collectively referred to as Development Pathway Team (DPT). Eighteen responses identified one of these teams as having primary responsibility for the delivery, coordination and monitoring of entry-level activities. Survey responses also indicate a mix of fully documented, partially documented and informal program structures, demonstrating varying levels of maturity across participating organisations. Investigating shared industry resources, partnership opportunities and promotion of water careers would assist DPTs to deliver strong entry-level programs for the urban water sector.

Formal partnerships with higher education providers remain relatively limited. Where partnerships do exist, they predominantly involve University of Southern Queensland (USQ), CQUniversity, Griffith University. Few organisations reported partnerships with recruitment agencies or other external providers specifically designed to support entry-level pathways. This suggests further opportunities to strengthen collaboration between industry, education providers and workforce support organisations.

Importantly, all respondents expressed at least some level of interest in accessing shared industry resources to support entry-level pathways. Half of respondents indicated they would utilise shared resources, while the remaining respondents indicated potential interest. This demonstrates broad support for industry-led initiatives that reduce duplication of effort and provide practical tools to help organisations deliver consistent, high-quality entry-level experiences.

Survey Findings

Industry commitment to entry-level pathways

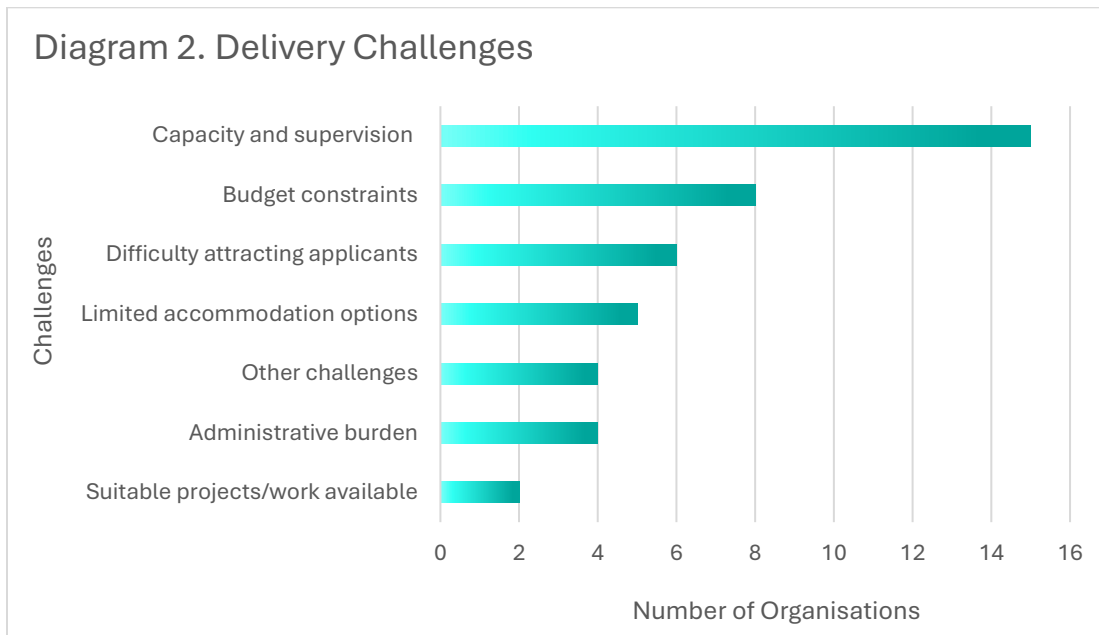
As shown in Diagram 1, Water Industry Operations (WIO) traineeships are the most offered pathways, demonstrating a strong commitment by WSPs for developing future talent. Work experience placements are also commonly available, with twelve organisations providing opportunities for students and job seekers to gain exposure to the industry. Graduate programs are offered by nine organisations, while university placements are available through six organisations. Cadetship and vocational programs are less common but remain important mechanisms for building specialist skills and supporting workforce succession planning. Only two respondents indicated that they do not currently offer any entry-level programs.



Challenges to delivering entry-level programs

The top three challenges to delivering entry-level programs identified by respondents were capacity and supervision requirements, budget constraints and difficulty attracting applicants, as shown in Diagram 2. Administrative burden was identified by four respondents, while a range of other challenges, including workforce planning considerations,

participant retention, training delivery and competing operational priorities were raised by individual organisations. These findings suggest that while WSPs are committed to offering entry-level pathways, many require additional resources, supervisory capacity and organisational support to expand and sustain these programs.



Structure and responsibilities

The survey found that DPTs are responsible for the planning, coordination, monitoring and administration of the entry-level programs outlined in Diagram 1. While job titles and team structures vary across organisations, there is a consistent approach whereby responsibility for these activities is typically centralised within people and culture functions.

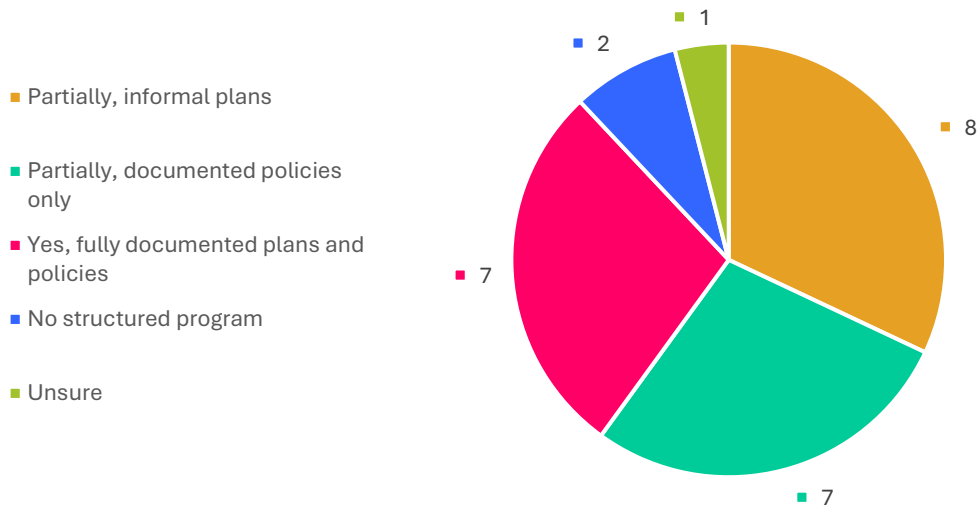
The scale and complexity of this responsibility differs significantly between organisations. Within dedicated WSPs, DPTs may primarily support water and wastewater operations and associated business functions. In contrast, local government councils are often responsible for coordinating entry-level pathways across a broad range of service areas. These areas may include civil construction, parks and gardens, libraries, airports, administration and other council operations.

Despite these differences in organisational scope, DPTs play a critical role in attracting, onboarding and supporting entry-level participants. Their centralised oversight helps ensure a consistent approach to workforce development while balancing the diverse workforce needs of their respective organisations.

Respondents reported a range of approaches for structuring and managing entry-level pathways, reflecting different levels of program maturity across the sector. As shown in Diagram 3, seven responses indicated that their organisation has fully documented plans and policies in place to support participants. A similar number of responses indicated that entry-level programs are supported by documented policies but are only partially structured, while eight responses reported relying on informal plans and arrangements.

Overall, the findings indicate that while entry-level pathways are widely offered across the sector, there is significant variation in how programs are structured, documented and administered.

Diagram 3. Governance Support



Established Partnerships

The survey found that formal partnerships with universities and other higher education providers are relatively uncommon across participating WSPs. Most respondents indicated that they do not currently have established partnerships to support undergraduate placements, vocational programs or other entry-level pathway initiatives. Where partnerships do exist, they are primarily with University of Southern Queensland, CQUniversity and Griffith University. One respondent noted they are currently engaging with universities to better understand potential partnership opportunities, suggesting there is interest across the sector in expanding collaboration with higher education providers.

One respondent identified a partnership with RESQ+, the remaining organisations reported having no formal partnerships with all-inclusive recruitment agencies or employment service providers to support entry-level workforce development. These results indicate opportunities to strengthen engagement with employment consultants and community employment providers. Working collaboratively to map achievable pathways to better connect priority and underrepresented cohorts with sustainable and rewarding careers in the water sector.

40% of respondents identified a partnership with a higher education provider, in comparison, only 5% reported an existing arrangement with a community recruitment

Conclusion

The survey demonstrates that Queensland's water industry has a strong foundation of entry-level pathways already in place. However, respondents consistently highlighted resourcing, supervision capacity and workforce attraction challenges that limit their ability to expand these opportunities. By supporting collaboration, developing shared resources and strengthening connections between industry, education and employment providers, the ISJA can play an important role in helping members build sustainable pathways that support the attraction and development of the future water workforce.