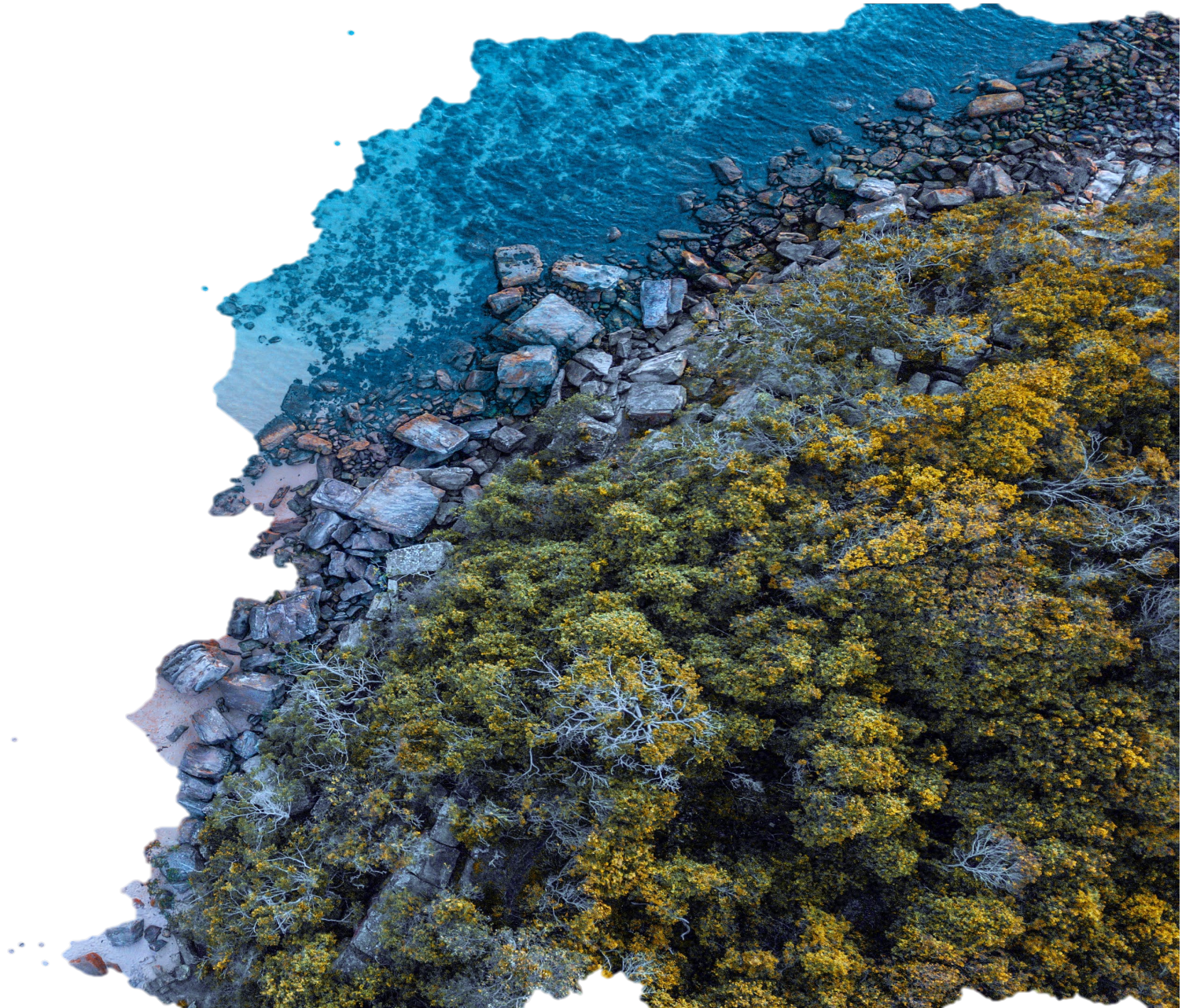




# WATER INDUSTRY SKILLS AND TRAINING NETWORK (WTAN) FORUM

28 May 2024

# Acknowledgement of Country



# WTAN Program

- Skills and training update – ITAB
- Short JSC Update
- Town Water Risk Reduction Project (TWRRP) – Skills and Training Action Plan – DPE (now DCCEEW)
- One strategy for administering training to water operators



# ITAB – Industry Skills Update

**Lisa Giammarco**

Executive Officer

NSW Public Sector ITAB

[www.australianindustrystandards.org.au/nsw-itab/](http://www.australianindustrystandards.org.au/nsw-itab/)



# Training Package Coverage

## ❖ LOCAL GOVERNMENT (LGA)



## ❖ PUBLIC SAFETY (PUA, POL, DEF)



## ❖ WATER (NWP)



## ❖ PUBLIC SECTOR (PSP)



## ❖ CORRECTIONS (CSC)



# ITAB Update

## The ITAB's remit is to:

- Collect employment and workforce development data for public sector industries
- Provide advice to DoE on sectoral and regional issues around skills and training
- Communicate issues related to critical skills shortages and training supply and demand
- Identify examples of best practice where employers are implementing innovative strategies to address unique local challenges
- Disseminate information on skills and training and VET more generally to NSW stakeholders

# ITAB activities and projects

- Regional visits
  - March: Central West (Orana) Region (Dubbo)
  - May: Central West Region – Orange and Bathurst
  - July: Illawarra and Capital Region
  - September: New England Region - Tamworth and Armidale
- Local Industry and Schools Events
  - Partnering with Regional Industry Education Partnerships (RIEP) Officers and SBAT Teams for Local Industry School events on Mid North Coast and North Coast Regions
    - Proposed dates: 24, 25 and 26 September 2024
  - Jobs and Career events
    - Central West – Careers Facts Day Bathurst - May
    - Northern Rivers - Careers Expo – July
- Water (WTAN) and Government (GTAN) Industry Network forums
  - Tues 28 May
  - Tues 20 August
- Various TSNSW projects and initiatives e.g. communicating Smart & Skilled advice



# Public Sector funded programs and grants

## 1000 NSW Public Sector Apprentices and Trainees Program

- Applications for funding support are now open for all NSW State Government agencies, NSW State-Owned Corporations and NSW Public Non-Financial Corporations. Round 2 should open in weeks ahead



## 2024 Bert Evans Apprentice Scholarships

- NSW apprentices facing financial or personal hardships can now apply for the Bert Evans Apprentice Scholarships.
- With a total investment of \$2.25 million, the program will award 150 successful applicants a annual scholarship for three years, amounting to \$15,000 each. Eligible first-year apprentices, including school-based apprentices, are encouraged to *apply by Friday, 31 May 2024*.



## NSW Fee Free – giving people skills to meet industry demand

- NSW Fee Free July to December 2024 improves access to training, including for young people, job seekers, First Nations People, unpaid carers, women undertaking study in non-traditional trades and certain categories of visa holders by offering:
  - *courses that support priority industries, fee-free*
  - *the priority courses at TAFE NSW and other Smart and Skilled contracted training providers, including Adult and Community Education providers.*



# NSW VET Review : Interim Report

- **Recommendation 1:** The NSW Government should clarify TAFE NSW's role and purpose through a TAFE NSW Charter based on the following key principles: (*Already commenced*)
  - i. TAFE NSW as a future-focused, strategic leader that meets the skills needs of NSW
  - ii. TAFE NSW as a provider of a public good
  - iii. A place based and locally-focused TAFE NSW
  - iv. An industry-aligned TAFE NSW
- **Recommendation 2:** To align with TAFE NSW's role and purpose, TAFE NSW should develop and implement a revised operating model that:
  - i. Aligns educational delivery with industry needs.
  - ii. Prioritises local, regional and community engagement.
  - iii. Enhances support for teachers.
- **Recommendation 3:** TAFE NSW and the NSW DOE should work with education regulators to pilot targeted self-accreditation processes across selected and agreed Australian Qualifications Framework (AQF) qualifications.
- **Recommendation 4:** The NSW Government should consider the following funding directions to rebuild TAFE NSW:
  - i. Remove TAFE NSW from the contestable funding market, providing a single funding envelope.
  - ii. Streamline funding for TAFE NSW through a direct appropriation
  - iii. Increase the TAFE NSW funding commitment to ensure it is reflective of general operating costs in the 2024-25 budget
  - iv. Establish effective guidance and processes to enable TAFE NSW to maximise public assets for public good

# NSW VET Review : Interim Report

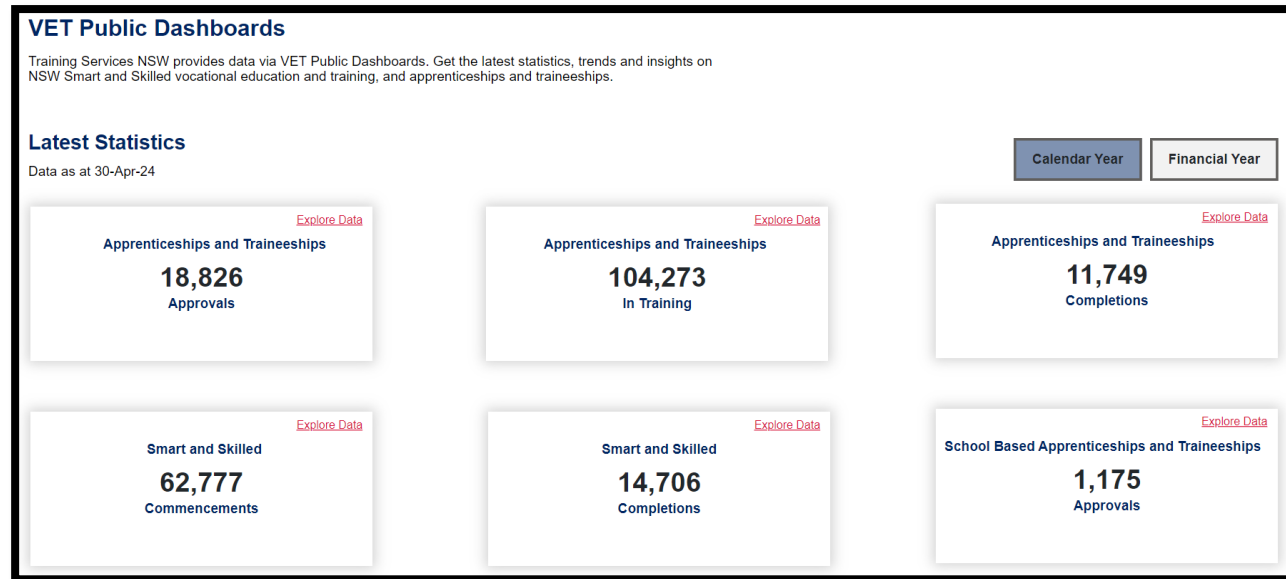
- **Recommendation 5:** To ensure governance arrangements for the NSW VET system are strengthened, focused and appropriately set-up to represent industry, provider and workforce expertise, the NSW Government should review the:
  - i. TAFE Commission Advisory Board
  - ii. NSW Skills Board Act 2013 to clarify the Skills Board's role and purpose, and renew its focus
  - iii. NSW industry training advisory bodies (ITABs) program to ensure strategic alignment with the structure and function of the Australian Government's Jobs and Skills Councils (JSCs) and consider how ITABs could better support targeted objectives of the strategic governing bodies led by the NSW Department of Education and TAFE NSW.
- **Recommendation 6:** The NSW Government should prioritise the expansion and conversion of permanent roles for VET teachers in the NSW Department of Education and TAFE NSW workforce.
- **Recommendation 7:** The NSW Government should undertake an asset audit to ensure it has a clear understanding of current VET infrastructure across NSW, including its condition, age and geographic location.

# NSW DoE Public VET Dashboard

## Accessing latest reports on NSW training data

Training Services NSW now provides the latest data on NSW vocational education and training, and apprenticeships and traineeships in an interactive format and allows users to filter, sort and download.

[Statistics on vocational education and training | NSW Government](#)



The 'Performance of NSW VET programs' report is no longer published. For copies of previous reports, Jan 2016 to Jun 2021 email: [Skills.Reporting.Analysis@det.nsw.edu.au](mailto:Skills.Reporting.Analysis@det.nsw.edu.au).

[www.australianindustrystandards.org.au/nsw-itab/](http://www.australianindustrystandards.org.au/nsw-itab/)

# NSW DoE Public VET Dashboard

## Smart & Skilled Commencements

Calendar Year ▼

### Filters

#### Calendar Year

All ▼

#### Financial Year

All ▼

#### Provider Type

All ▼

#### Stream

All ▼

#### Delivery Mode

All ▼

NWP

NWP30315 Certificate III in Water...

NWP40107 Certificate IV in Water...

NWP40120 Certificate IV in Water...

NWP40515 Certificate IV in Water...

NWP50118 Diploma of Water Ind...

Qualification ID & Name	2024	2023	2022	2021	2020	2019	2018
NWP20107 Certificate II in Water Operations							
NWP20115 Certificate II in Water Industry Operations				10	19	17	11
NWP20119 Certificate II in Water Industry Operations		<5	5				
NWP20122 Certificate II in Water Industry Operations	8						
NWP30107 Certificate III in Water Operations							
NWP30215 Certificate III in Water Industry Operations				21	150	159	67
NWP30219 Certificate III in Water Industry Operations	<5	190	195	65	14		
NWP30222 Certificate III in Water Industry Operations	164	223					
NWP30315 Certificate III in Water Industry Treatment				<5	86	7	44
NWP40107 Certificate IV in Water Operations							
NWP40120 Certificate IV in Water Industry Operations	21	42					
NWP40515 Certificate IV in Water Industry Operations							
NWP50118 Diploma of Water Industry Operations		9					
<b>Total</b>	<b>194</b>	<b>465</b>	<b>200</b>	<b>97</b>	<b>269</b>	<b>183</b>	<b>122</b>

# Smart and Skilled RTO Contracts

## Smart and Skilled Program for 2023-24

- RTOs contracted to deliver NWP:
  - NWP Certificate II
    - Simmons & Bristow
    - TAFE SA
    - TAFE NSW
    - Fusion Training Solutions
  - NWP Certificate III
    - Simmons & Bristow
    - TAFE SA
    - TAFE NSW
    - Fusion Training Solutions
  - NWP Certificate IV
    - TAFE SA
    - TAFE NSW
    - Fusion Training Solutions
  - NWP Diploma
    - Simmons & Bristow
    - Timber Training Creswick Ltd



# Revised Standards for RTOs

**Aim: To lift quality and integrity across the entire sector, through a more flexible, robust, quality driven approach to regulation** (Public Release in August)

## Revised Standards to offer expanded eligibility for training delivery

- initial modifications to the Standards aimed at broadening the pool of individuals authorized to deliver training are planned for implementation in the coming months

Key amendments include:

- Allowing individuals holding an educational degree to serve as VET trainers and/or assessors
- Permitting individuals actively pursuing a Certificate IV or Diploma from the TAE Training Package to conduct training and contribute to assessment under supervision.
- Empowering individuals possessing a variety of newly acquired or updated skill sets to deliver training under supervision.
- Enabling industry experts to provide training alongside a designated trainer and/or assessor.

## New Standards for RTOs – Full regulatory effect from 1 July 2025

- Guidance for RTOs – New Users Guide will be released in the coming months
  - To explain interpretation of key terms and concepts within the revised standards
  - To help RTOs understand their regulatory obligations and how provider performance will be assessed.

# Qualification Reform Design Group - March 2024 update

## Purpose driven, principles-based system

The Design Group has proposed a revised system that moves from a 'one size fits all' approach to qualifications based on their purposes, to respond to changing workplaces and industries.

Supported by the Qualification Development Quality Principles, it preserves the qualifications that are working well and enables new models that provide flexibility to improve outcomes for learners and industry.

Three broad purposes have been identified:

- Purpose 1 – qualifications leading to a specific occupation (for example a licensed trade), that maintain a level of specificity necessary for safety or licencing requirements, particularly the integrity of the trades, and is unlikely to change substantially from the current approach;
- Purpose 2 – qualifications that prepare learners for multiple, related occupations while retaining industry relevance; and
- Purpose 3 – qualifications that develop cross-sectoral or foundation skills and knowledge which may be applied across industries, or lead to tertiary education and training pathways.

Next steps is testing and designing qualification models in proposed VET qualification system

- Conducted by Design Group, Jobs and Skills Councils and State and Territory officials via an action learning approach
- Feedback and advice expected by end of 2024

# Key challenges and training issues for Water Industry

## General Workforce challenges

- Attraction and retention of workers
- Impacts of climate change
- Rising energy costs
- Finite pool of skilled workers + housing shortages
- Diversity and inclusion issues
- Digital capability not meeting industry needs

## Prevailing training issues for Water

- Thin markets across regional NSW
- Access to funded and fit for purpose training
- Shortage of trainers and assessors
- Funding applied via S&S doesn't cover costs of delivery (ongoing conversation)





# Jobs and Skills Council Update

## BuildSkills Australia (BSA)

**Contact: George Wall**

National Manager, Water Sector Industry Engagement

BuildSkills Australia (BSA) [GeorgeW@buildskills.com.au](mailto:GeorgeW@buildskills.com.au)



# 2024-25 May Budget – Skills & Training

- + \$265.1M over 4 years: Australian Apprenticeships Incentive System, to continue supporting apprentices in priority occupations
- \$91 million over 4 years: Improve the capacity of the clean energy training system and increase the number of trainees and apprentices in clean energy occupations
- \$55.6M: New Building Women’s Careers program
- +\$10.6M: implementation of the Australian Skills Guarantee, to help train the next generation of skilled workers.
- \$4.4M: raise awareness and boost status of VET
- 20,000 additional Fee-Free places relevant to the construction sector
- \$30.2M over 5 years: Establish a network of Remote Training Hubs.
- \$6.1 million for careers information and policy through the National Careers Institute
- \$9.5 million in 2024–25 to Jobs and Skills Australia (JSA), to continue providing independent advice

# DCCEEW - Town Water Risk Reduction Program (TWRRP) – Skills and Training Action Plan (Phase 2)

**Josh Tickell, Lisa Andersons, Melissa Wortman**

Local Water Utilities Branch, Dept of Climate Change, Energy,  
the Environment and Water (DCCEEW)

[www.australianindustrystandards.org.au/nsw-itab/](http://www.australianindustrystandards.org.au/nsw-itab/)

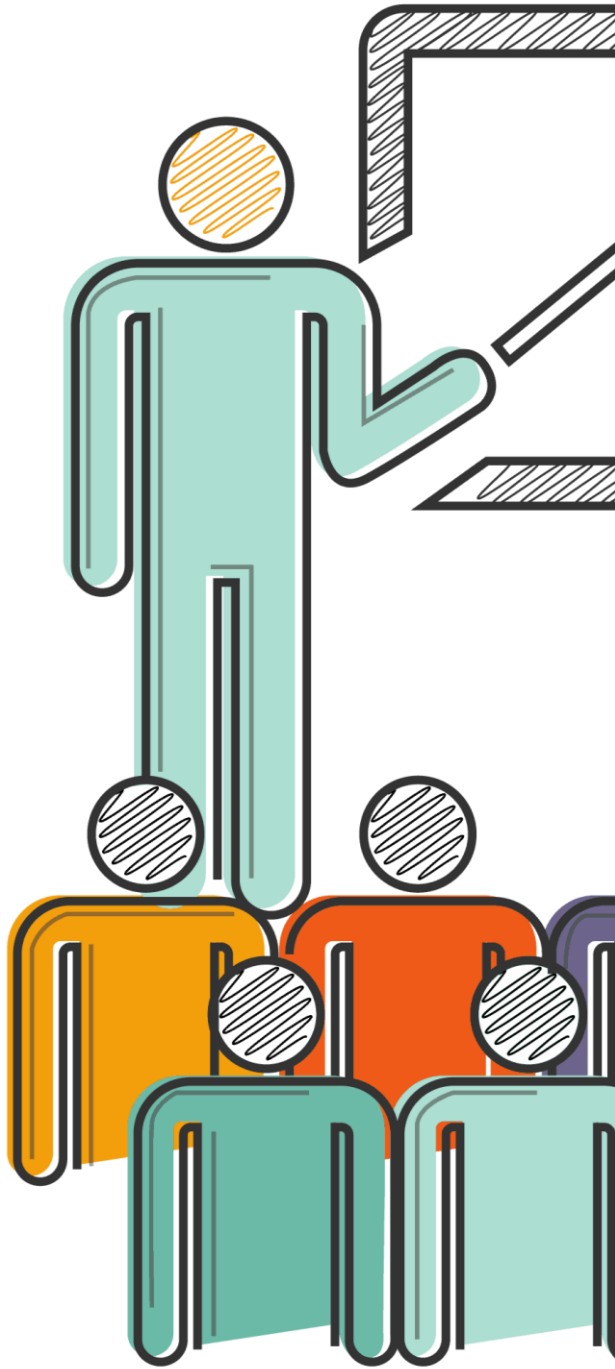


# Town Water Risk Reduction Program Phase 2

Water operations skills and training action  
plan

Lisa Andersons, Melissa Wortman,  
Murray Thompson and Josh Tickell

28 May 2024



# Contents



1. Program update
2. Competency benchmark for water operators in NSW LWU
3. Diving deeper into units of competency

# Town Water Risk Reduction Program

## Phase 1: 2021-2022

Working together with the sector to identify long-term solutions to the key barriers facing Local Water Utilities

## Phase 2: 2023-2024



Implementing the Regulatory and Assurance Framework



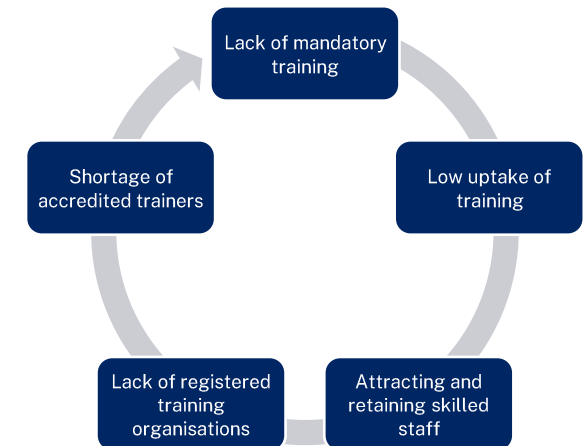
Advanced Operational Support



Dam Safety and Community Service Obligation



Skills and Training



# Program update

- ✓ Phase 2 extended for 6 months to end June 2025
- 👥 Workforce composition survey open 28 May – 22 July
- 👍 Successful meeting with NWP RTOs for feedback on minimum competency benchmark
- 🗺️ Working with Vic and Qld counterparts
- 💬 GTO discussion paper
- 📄 Resources available: [Careers in the water industry | Water \(nsw.gov.au\)](#)
- 📅 Conference participation: NSW & ACT Careers Advisors, LG NSW, AWA, WIOA conferences
- 📅 Traineeship and apprenticeship LWU opportunities calendar
- 🔧 Launched showcase day toolkit for LWUs to replicate in their regions.

# Competency benchmark for water operators in NSW local water utilities

1

1. Defining job functions  
within operational roles

2

2. Defining the  
competencies required to  
perform the job functions

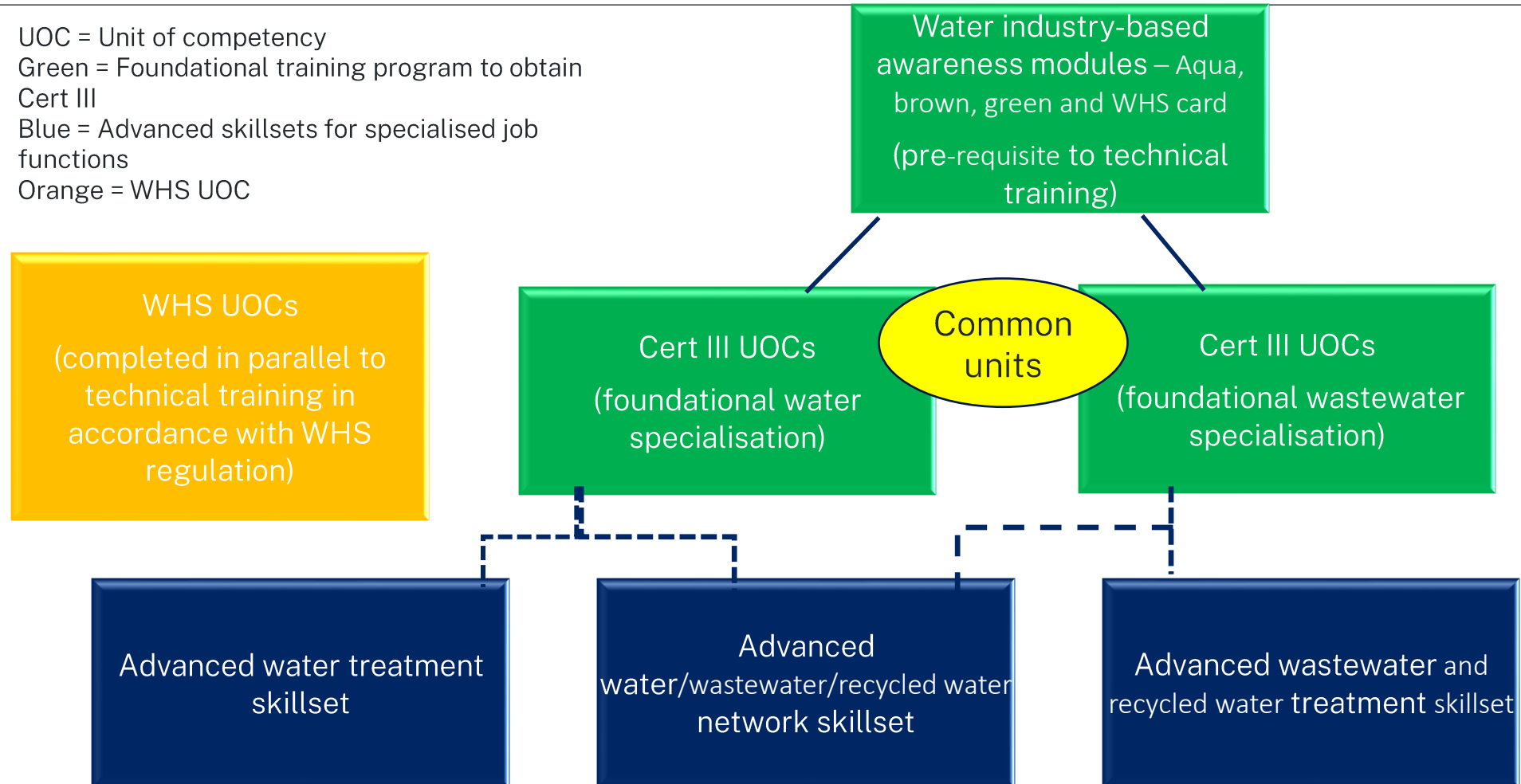
3

3. Defining a benchmark,  
model training program  
and NSW assessment  
requirements, mapped to  
individual units of  
competency

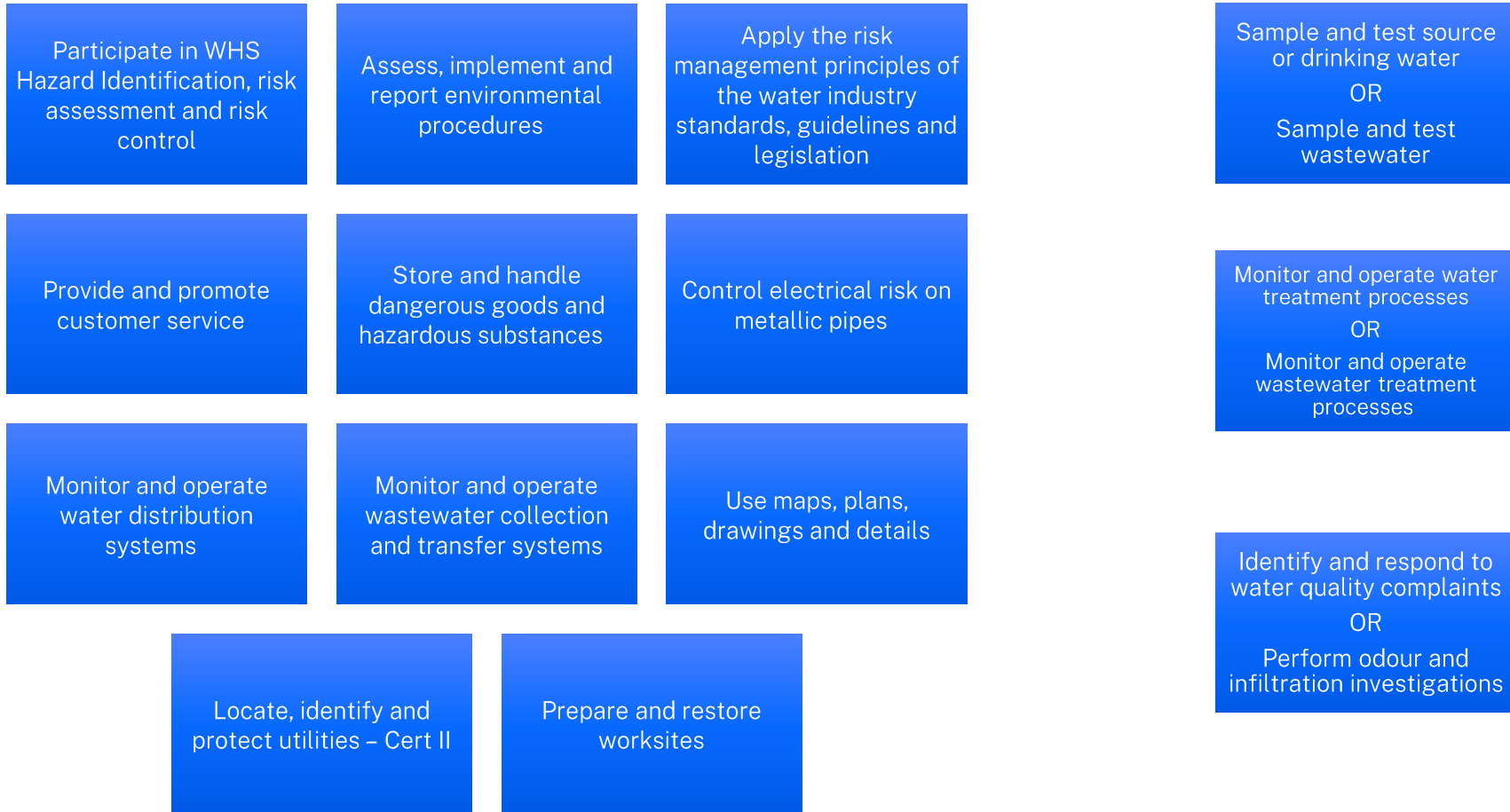


# Progression through training program

UOC = Unit of competency  
Green = Foundational training program to obtain Cert III  
Blue = Advanced skillsets for specialised job functions  
Orange = WHS UOC



# Foundational training – all operators



- Job roles:
- Assistant network operator / field staff
  - Assistant water or wastewater plant operator
  - Simple water or wastewater system lead operator

# Advanced skillsets – water treatment plant operator

## Water treatment – required

- Sample and test source or drinking water \*
- Perform laboratory testing
- Operate and control sedimentation and clarification processes
- Operate and control coagulation and flocculation processes
- Operate and control dissolved air flotation processes
- Operate and control granular media filters
- Operate and control membrane filters
- Operate and control iron and manganese removal processes
- Monitor and operate ultraviolet processes
- Operate and control activated carbon processes
- Use SCADA systems in operations
- Monitor and operate pump stations
- Monitor and operate hypochlorite disinfection processes

## Only required if you have this in your job function:

Monitor and operate fluoride addition processes

Operate breathing apparatus

Operate and control ozone processes

Monitor and operate liquified chlorine gas disinfection processes

### Job roles:

- Lead water treatment plant operator

# Advanced skillsets – wastewater and/or recycled water treatment plant operator

## Wastewater and/or recycled water treatment –required

- Sample and test wastewater \*
- Perform laboratory testing
- Operate and control activated sludge processes
- Operate and control nutrient removal processes
- Operate and control solids handling processes
- Monitor and operate ultraviolet processes
- Use SCADA systems in operations
- Monitor and operate pump stations
- Perform odour and infiltration investigations\*
- Monitor and operate hypochlorite disinfection processes

## Only required if you have this in your job function:

Operate and control sedimentation and clarification processes

Operate and control reclaimed water irrigation

Operate and control fixed film processes (if trickling filter is separate process unit within larger plant)

Operate and control digestion processes

### Job roles:

- Lead wastewater treatment plant operator
- Lead recycled water treatment plant operator

# Advanced skillsets – networks operator-water, wastewater, and/or recycled water networks

## Networks operator–required

- Install, maintain and repair hydrants
- Monitor and operate pump stations
- Disinfect network assets
- Operate a hydro excavation system
- Clean networks using air scouring, chemical or swabbing techniques
- Perform leak detection
- Install trench support
- Commission and maintain backflow prevention devices
- Perform odour and infiltration investigations

Only required if you have this in your job function:

Maintain and repair network assets for wastewater

Monitor and operate hypochlorite disinfection processes

Job roles:

- Water network team leader
- Wastewater network team leader
- Water/wastewater civil crew operator

## Training timeline

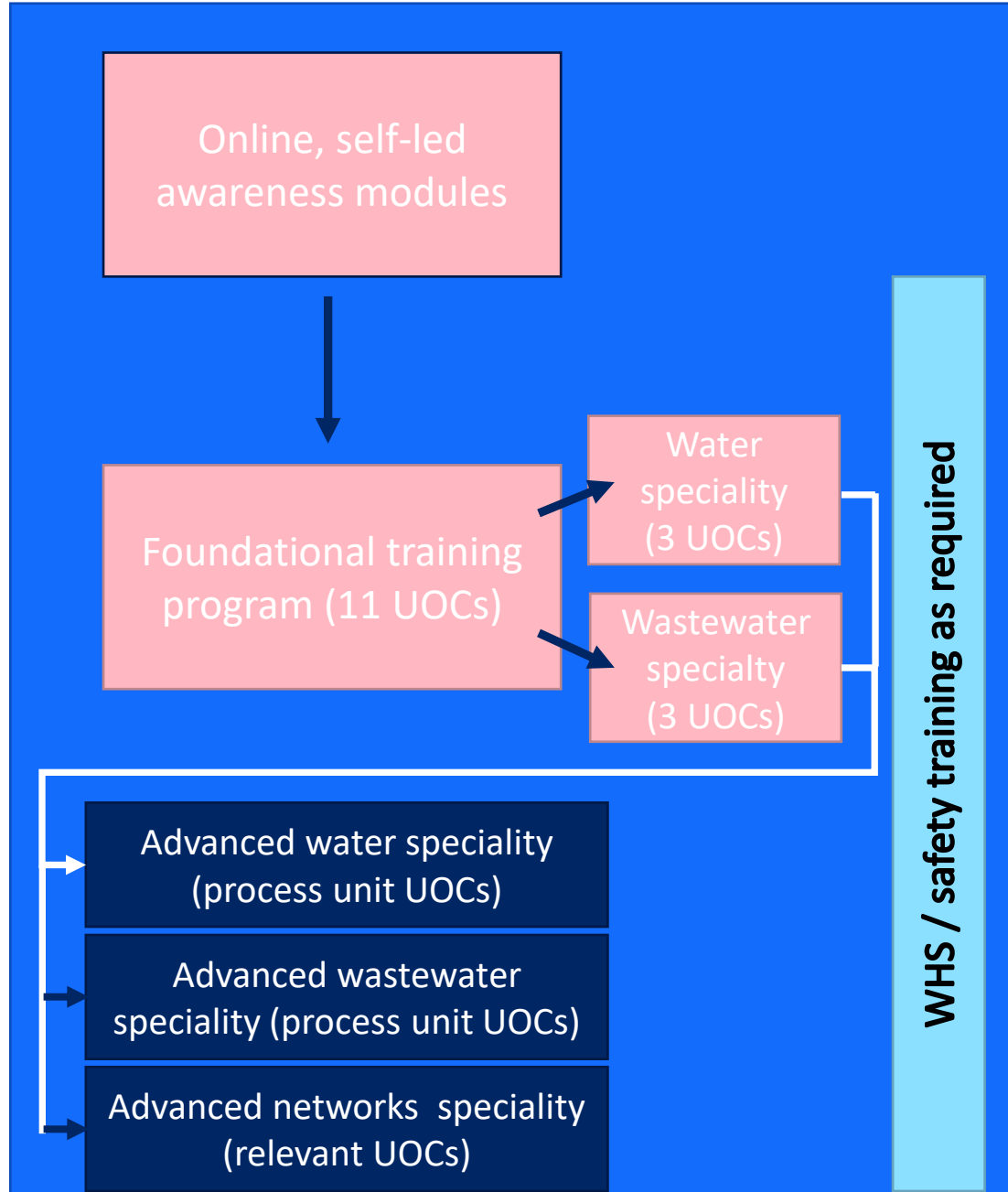
## Training program progression

## Implementation timeline

New industry entrants  
First weeks on the job

New industry entrants  
0 – 2 years on the job

Continuing training  
2 – 5 years on the job



Implement immediately,  
continue development  
and rollout

Seek support in 2024,  
implement 2025 - 2027

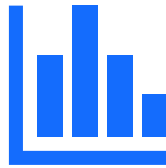
Develop 2025 onwards,  
implement 2027 onwards

# NWP units of competency components

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Elements and  
performance criteria



Performance  
evidence



Knowledge evidence



NSW assessment  
requirements

# NWP units of competency implementation guide



IMPLEMENTATION ADVICE



UNDERPINNING SKILLS AND  
KNOWLEDGE



# Assessment Requirements for NWPGEN021 Sample and test wastewater



## Modification History

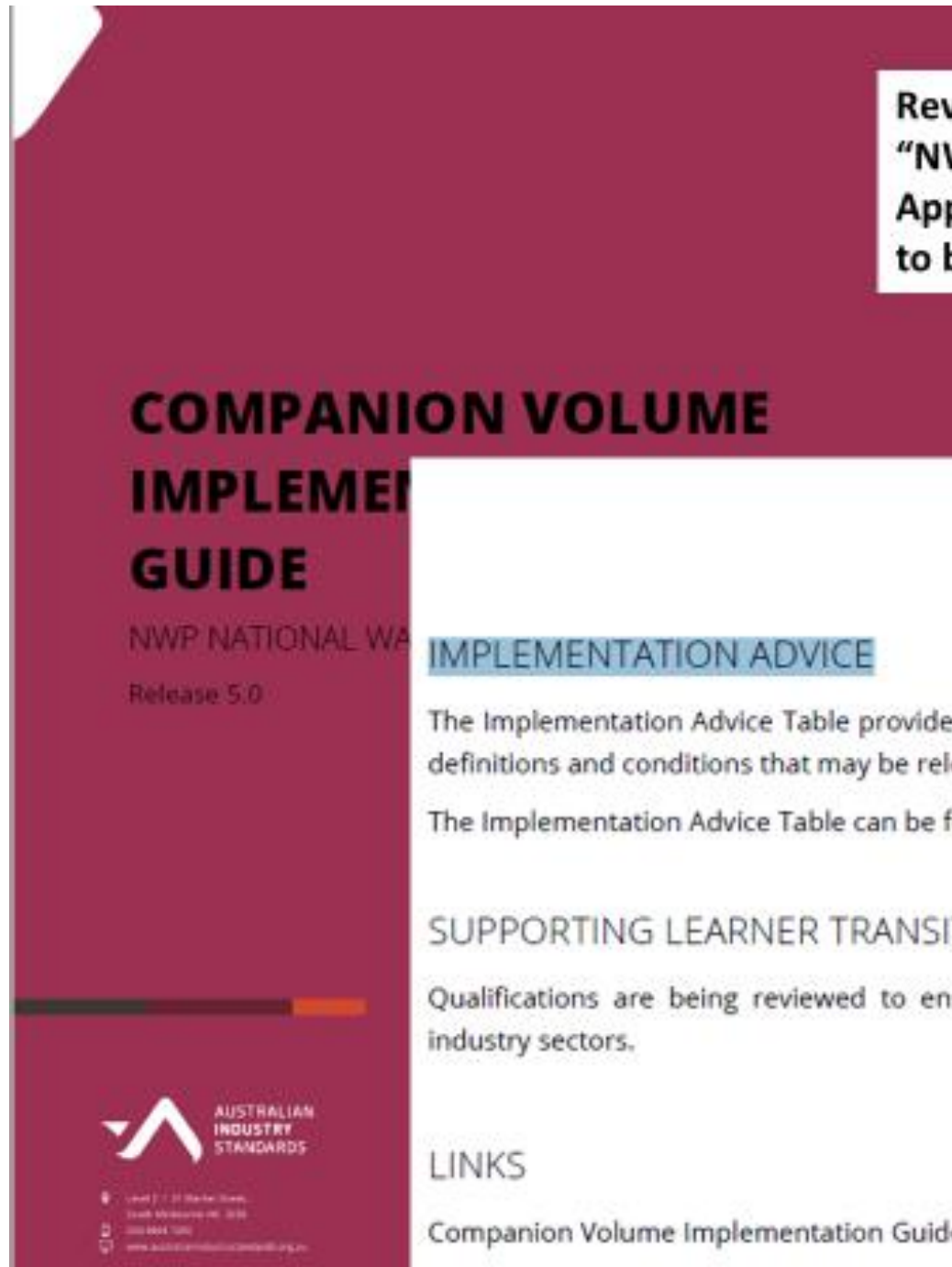
Release 1. This is the first release of this unit of competency in the NWP National Water Training Package.

## Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all the requirements of the elements and performance criteria on at least one occasion and includes:

- assessing risks
- calibrating worksite testing equipment
- **collecting samples from the following:**
  - **raw wastewater**
  - **mixed liquor**
- collecting samples from at least one of the following:
  - effluents
  - ~~raw wastewater~~
  - reclaimed water
  - sludges
- disposing of waste and spent samples
- following sampling and testing procedures
- **performing the following types of worksite tests on the collected samples:**
  - **settleability:**
    - **MLSS**
    - **1000 mL cylinder settlement**
  - **pH**
- performing at least three of the following types of worksite tests on the collected samples:
  - dissolved oxygen
  - electrical conductivity
  - foaming
  - microscopic observations
  - odours
  - pH
  - redox potential
  - **settleability – stirred cylinder**
  - sludge blanket depth
  - temperature

Review/Expand;  
“NWP Companion Volume  
Appendix F : Implementation Advice”  
to better inform RTOs/Trainers/Assessors



### IMPLEMENTATION ADVICE

The Implementation Advice Table provides non-essential industry specified advice on resources, definitions and conditions that may be relevant for assessment of a Unit of Competency.

The Implementation Advice Table can be found in [Attachment F](#).

### SUPPORTING LEARNER TRANSITION BETWEEN EDUCATION SECTORS

Qualifications are being reviewed to ensure flexibility of transition of workers between the industry sectors.

### LINKS

Companion Volume Implementation Guide (CVIG) for NWP National Water Training Package.

# Questions?

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# Successful strategy for administering water operator training in the regions

**Carolyn Griffin**

Project Officer

Central NSW Joint Organisation

[www.australianindustrystandards.org.au/nsw-itab/](http://www.australianindustrystandards.org.au/nsw-itab/)

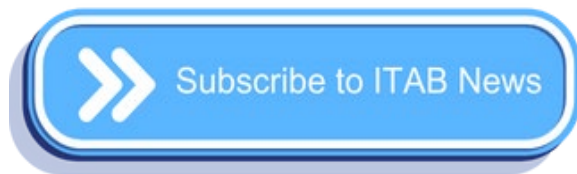


## Stay in touch with Water Industry Skills & Training News

The ITAB website is now rebuilt and can be found here.

[www.aisglobal.org.au/itab-home](http://www.aisglobal.org.au/itab-home)

You can subscribe to the ITAB Monthly Newsletter using this button:



[www.australianindustrystandards.org.au/nsw-itab/](http://www.australianindustrystandards.org.au/nsw-itab/)





**Lisa Giammarco**

**Executive Officer, NSW Public Sector ITAB**

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**Next WTAN – 20 August 2024**

[www.australianindustrystandards.org.au/nsw-itab/](http://www.australianindustrystandards.org.au/nsw-itab/)