



Australian
Industry and
Skills Committee

WATER NETWORK MAINTENANCE PROJECT

Case for Change

Name of allocated IRC: Water
Name of the SSO: Australian Industry Standards Limited

1. Administrative information

For a list of the products proposed to be reviewed as part of this project, please see **Attachment A**.

Name of IRC(s):	Water
Name of SSO:	Australian Industry Standards Limited

1.1 Name and code of Training Package(s) examined to determine change is required

NWP - National Water Training Package

2. The Case for Change

For information on the job roles to be supported through the proposed qualifications updates, enrolments data, completion rates, and the number of RTOs delivering these qualifications please see **Attachment B**.

2.1 Rationale for change

The Water IRC and industry have identified the need to develop four new units to address specific skills for maintaining and cleaning water networks, and for non-destructive investigation of water assets. With the ageing water assets across Australia there is an increased reliance of low-cost maintenance using non-destructive methods. These units will provide skills to enable quicker and lower cost maintenance, cleaning and identification of assets requiring repair to be made to Australia's water reticulation networks.

Water asset management has been significantly transformed in recent years. In the past, damaged or soiled pipes had to be excavated by a professional to locate and repair or maintain the network. Optical cameras and other leak detection technologies are now regularly used in the water industry to monitor the condition of assets in both water reticulation pipelines and wastewater sewers and in above ground and underground situations. The technologies allow the identification of current or potential issues within either network. This could be blockages, damage or cracks in pipes causing leaks, or intrusion of tree roots which could potentially cause pipe blockages. Reviewing the data allows these issues to be identified and appropriate plans made for repairs.

The adoption of high-pressure cleaning tools by the water industry now requires operators to be proficient in safely operating this equipment, and to clean and not contaminate network piping carrying drinking water.

Traditionally, the cameras were owned and operated by contractors such as plumbers or specialist pipe repair companies. As the technology has become more affordable, water Utilities are now investing in the purchase of the technology for their own staff to undertake this work. This change has driven demand for specific training in the operation of the equipment and interpretation of data.

The implication of not providing these skills is the water industry would have a far higher cost to maintain and repair the nations aging underground water reticulation and wastewater collection networks. There are also safety implications as these network assets are often in dangerous locations or contained in confined spaces.

2.2 Evidence for change

The use of flushing, air scouring and swabbing/pigging techniques to clean water reticulation mains and wastewater sewers is now a common task undertaken by operational staff in the water industry. It has been identified that the range of knowledge and skills required to undertake these tasks safely and effectively are not adequately covered by existing units of competency in the National Water Package. Some of these tasks have regularly been undertaken by contractors but the technologies are now being purchased and regularly used within water utilities by their own staff, highlighting the need for additional training.

There is also a requirement for a new unit to be developed for high-pressure water cleaning to cover the use of Class B high pressure cleaners for cleaning water assets such as tanks, pump stations and treatment plant assets. As this type of work is categorised as high-risk, safety measures must be taken to eliminate or reduce this risk by providing the appropriate training to protect all persons from risks to their health and safety. Common hazards and risks include the water jet piercing the skin, being hit by flying debris, exposure to noise, working in

confined spaces, fall hazards, respiratory and eye hazards, electric shock and potential exposure to hazardous chemicals.

Given this is now a common task for water operators industry has requested the development of these Units of Competency.

2.3 Consideration of existing products

There are no existing training products that meet these specific needs. This Case for Change proposes new Units of Competency that will sit in the NWP Training Package. The IRC have identified there are existing water jetting units, however they have determined they are not appropriate for the water industry and exclude the use of “gun and lance”, which is an essential high risk component of using this equipment to clean network assets pre and post maintenance or repair.

2.4 Approach to streamlining and rationalisation of the training products being reviewed

This project is for the development of four new Units of Competency, so no streamlining or rationalisation is possible.

3. Stakeholder consultation

3.1 Stakeholder consultation undertaken in the development of Case for Change

*For a full list of industry-specific stakeholders that actively participated in the stakeholder consultation process undertaken to develop the Case for Change, please see **Attachment C**.*

The Water IRC formed a sub-committee of subject matter experts to evaluate the need for Training Package development related to network maintenance units.

Development of the Case for Change also involved consultation with stakeholders via the following communication mechanisms:

- Stakeholder webinars
- Face to Face meetings (Virtual)
- AIS Website
- Stakeholder networks
- Teleconferences
- Emails

This development work was outlined during a stakeholder webinar which included representatives from all States/Territories and regional areas of those jurisdictions. Feedback on the proposed work was invited during the webinar.

The work was posted on the Engagement Hub of the AIS website and feedback invited. Notification of the opportunity to provide feedback through the Water IRC webinar, or in writing through the Engagement Hub, was provided to 499 water sector stakeholder subscribers including industry representatives from across the states/territories in rural, regional and remote areas.

3.2 Evidence of Industry Support

*For a list of the issues raised by stakeholders during consultation and the IRC's response to these, please see **Attachment D**.*

No objections to the development of new Training Package products were raised during the consultation for this project and there was strong support of the need to develop these products for the water industry.

This project work was outlined and discussed during a webinar conducted for the water industry on 11 March 2021 which had 44 participants representing enterprises, industry associations and peak bodies, regulators and RTOs. No issues regarding the proposed work were posed in the Q & A section of the webinar.

The proposed work was also detailed in the Engagement Hub of the AIS website for stakeholders to review and provide feedback, and no issues were raised in response.

3.3 Proposed stakeholder consultation strategy for project

*Note: For a full list of industry-specific stakeholders who are planned to be contacted to participate in the stakeholder consultation process undertaken for this project, please see **Attachment E**.*

Key Industry stakeholders have been identified in consultation with industry associations and the Water IRC which includes sub-committee members with expertise in water network maintenance. AIS, on behalf of the Water IRC, will promote the opportunity to contribute through stakeholder webinars, the AIS website, EDM's, AIS newsletter and public notifications. Stakeholders will also be notified of key milestones throughout the life of the project, including requests for feedback on draft materials.

Stakeholder engagement and consultation will occur over the life of the project via a combination of the following methods:

- Direct engagement: face to face consultations, site visits, phone, emails, video/teleconferencing meetings
- Industry forums and conferences
- Webinars
- Online feedback mechanisms
- STA direct engagement

Given the size of Australia and that all stakeholders are not centrally located in major cities, a range of consultation strategies will be used so stakeholders in rural, regional and remote areas, and in smaller jurisdictions have multiple avenues to provide feedback.

These include industry advocacy, representation, advice, networking opportunities, business promotional opportunities.

This includes but is not limited to:

- online/video consultation
- email correspondence
- promotional activity via targeted communications including social media.

Also the engagement hub on the AIS website provides a one stop portal for information about how all stakeholders can participate and inform Training Package development work.

4. Licencing or regulatory linkages

The product to be developed does not have any regulatory requirements but will need to comply with the Australian Drinking Water Guidelines that provide guidance to water regulators and suppliers on monitoring and managing drinking water quality.

5. Project implementation

5.1 Prioritisation category

It is proposed that this product development is progressed as a routine project.

5.2 Project milestones

Key project milestones include:

- AISC project approval – August 2021
- Draft 1 consultation – December 2021
- Stakeholder validation – March 2022
- Quality Assurance – April/May 2022
- Final consultation with states and territories – June 2022
- CfE submitted for approval – 30 June 2022.

5.3 Delivery or implementation issues

No delivery or implementation issues have been identified to date. The CVIG will be updated to provide RTO's delivery implementation advice.

6. Implementing the Skills Minister's Priority reforms for Training Packages (2015 and October 2020)


The project submission will support industry's expectations for training delivery and provide a revised Companion Volume Implementation Guide (CVIG) to support delivery of the new products.

The qualifications in the Water Training Package allow for portability between related occupations as operators can complete more than one specialisation concurrently.

This new Unit is being developed for the water industry but could be contextualised for other applications where flooding is an issue.

A new Skill Set is proposed for this development.

This Case for Change was agreed to by the Water IRC

Name of Chair	George Wall
Signature of Chair	
Date	3 June 2021

Attachment A: Training Package components to change

Australian Industry Standards Limited

Contact details: David Dixon - Chief Operating Officer

Date submitted: 3 June 2021

Project number	Project Name	Qualification / Unit / Skillset	Code	Title	Details of last review (endorsement date, nature of this update transition, review, establishment)	Change Required
1	Water Network Maintenance	Unit	NWPNET999Y	Use optical vision technology in the field	NA	New
1	Water Network Maintenance	Unit	NWPNET998Y	Maintain network assets using high pressure water systems	NA	New
1	Water Network Maintenance	Unit	NWPNET997Y	Clean water mains using air scouring or swabbing techniques	NA	New
1	Water Network Maintenance	Qualification	NWP30219Y	Certificate III in Water Industry Operations	24/Mar/2021 – Minor Review	Update
1	Water Network Maintenance	Unit	NWPNET996Y	Flush water distribution systems	NA	New
1	Water Network Maintenance	Qualification	NWP20119Y	Certificate II in Water Industry Operations	22/Jan/2021 – Minor Review	Update

Attachment B: Job role, enrolment information, the number of RTOs currently delivering these qualifications

Please set out the job roles to be supported through the updated qualifications, enrolment data over the past three years in which data is available for each qualification, completion rates for each qualification, and the number of RTOs delivering these qualifications.

Job role	Qualification to be updated to support the job role	Enrolment data (for the past three years)	Completion rates (for the past three years)	Number of RTOs delivering (for the past three years)
	NWPNET999Y Use optical vision technology in the field	NA	NA	
	NWPNET998Y Maintain network assets using high pressure water systems	NA	NA	
	NWPNET997Y Clean water mains using air scouring or swabbing techniques	NA	NA	
712921, Waste Water Or Water Plant Operator	NWP30219Y Certificate III in Water Industry Operations	3679	1177	12
	NWPNET996Y Flush water distribution systems	NA	NA	
712921, Waste Water Or Water Plant Operator	NWP20119Y Certificate II in Water Industry Operations	725	341	11

Attachment C: List of stakeholders that actively participated in the consultation process of the Case for Change

Entity Name	Sector	State	Rural/Regional/Remote (RRR)	Activity
Veolia	Water	National	Rural/Regional/Remote	1,2,3,4
Australian Hydrographers Association	Water	National	Rural/Regional/Remote	1,2,3,4
Best Practice Training	Water	Multi-State	Rural	1,2,3,4
Coliban Water	Water	State	Rural/Regional	1,2,3,4
Department of Industry	Water	National	Rural/Regional/Remote	1,2,3,4
Department of Planning, Industry and Environment	Water	National	Rural/Regional/Remote	1,2,3,4
Flinders University	Water	Multi-State	Rural/Regional	1,2,3,4
Hunter H2O	Water	State	Rural/Regional	1,2,3,4
Icon Water	Water	State	Rural/Regional	1,2,3,4
Logan City Council	Water	State		1,2,3,4
Melbourne Water	Water	State		1,2,3,4
National Water Centre	Water	National	Rural/Regional/Remote	1,2,3,4
NSW Dams Safety Committee	Water	State	Rural/Regional/Remote	1,2,3,4
NSW Department of Primary Industries	Water	State	Rural/Regional/Remote	1,2,3,4
NSW Health	Water	State	Rural/Regional/Remote	1,2,3,4
NSW Water Directorate, Riverina Water County Council	Water	State	Rural/Regional/Remote	1,2,3,4
Pump Industry Australia Inc.	Water	State	Rural/Regional/Remote	1,2,3,4
QLD Water Directorate	Water	State	Rural/Regional/Remote	1,2,3,4

Entity Name	Sector	State	Rural/Regional/Remote (RRR)	Activity
Queensland Urban Utilities	Water	State		1,2,3,4
R. J. Allen's Training & Assessment Services	Water	Multi-State	Rural/Regional	1,2,3,4
SA Water	Water	State	Rural/Regional/Remote	1,2,3,4
Simmonds & Bristow Pty Ltd	Water	National	Rural/Regional	1,2,3,4
Streamline Learning	Water	State		1,2,3,4
Sydney Water	Water	State		1,2,3,4
TAFE QLD, Skillstech	Water	State	Rural/Regional	1,2,3,4
TAS Water	Water	State	Rural/Regional/Remote	1,2,3,4
Unity Water	Water	State		1,2,3,4
Victorian Water Industry Association	Water	State	Rural/Regional/Remote	1,2,3,4
Wannon Water	Water	State	Rural/Regional	1,2,3,4
Water Corporation	Water	State	Rural/Regional/Remote	1,2,3,4
Water Corporation WA	Water	State	Rural/Regional/Remote	1,2,3,4
Water Industry Operators Association of Australia (WIOA)	Water	National	Rural/Regional/Remote	1,2,3,4
Water Industry Training Consultants	Water	Multi-State	Rural/Regional	1,2,3,4
Water Research Australia	Water	National	Rural/Regional/Remote	1,2,3,4
Water Training Australia	Water	National	Rural/Regional	1,2,3,4

Attachment D: Issues Raised by Stakeholders during consultation on the development of the Case for Change

Stakeholder Type	Issues Raised	IRC's Response to Issues Raised
Industry Reference Committee (IRC) Representatives	There were no issues raised at this time.	N/A
Peak Industry Bodies	AUSJET - disagree with the development of NWPNE998Y due to duplication with an existing unit (MSMWJ305) currently before all states and territories for sign off.	The Water IRC have consulted experts in this area and believe the final version of unit MSMWJ305 will not be "fit for purpose" for water industry workers as it does not "compel the use of gun & lance", a requirement under the relevant standard for class B water jetting systems. (Also refer to WA STA's feedback below).
Employers (Non-IRC)	<p>Cleanaway (Waste management) - disagree with the development of NWPNE998Y due to duplication with an existing unit (MSMWJ305) currently before all states and territories for sign off.</p> <p>Veolia (Waste management) - disagree with the development of NWPNE998Y due to duplication with an existing unit (MSMWJ305) currently before all states and territories for sign off.</p>	The Water IRC have consulted experts in this area and believe the final version of unit MSMWJ305 will not be "fit for purpose" for water industry workers as it does not "compel the use of gun & lance" a requirement under the relevant standard for class B water jetting systems. (Also refer to WA STA's feedback below).
Regulators	There were no issues raised at this time.	N/A
Registered Training Organisations (RTOs)	Train Right Industrial Services disagree with the development of NWPNE998Y due to duplication with an existing unit (MSMWJ305) currently before all states and territories for sign off.	The Water IRC have consulted experts in this area and believe the final version of unit MSMWJ305 will not be "fit for purpose" for water industry workers as it does not "compel the use of gun & lance" a requirement under the relevant standard for class B water jetting systems. (Also refer to WA STA's feedback below).

Training Boards/Other	<p>There were no issues raised at this time.</p>	<p>N/A</p>
State and Territory Training Authorities (STAs)	<p>We note that Western Australia Water Corporation is supportive of the Water Network Maintenance Project Case for Change and is the proponent of the high pressure water jetting unit.</p> <p>The MSM Training Package has units dealing with high pressure water jetting with the Case for Endorsement currently being finalised by IBSA following STA feedback.</p> <p>The WA STA did not support the MSM Training Package Case for Endorsement and provided a Report by Exception on the unit identifying the gun and lance issue. We made recommendations on how the unit could be improved.</p> <p>We are still to hear what is happening with our feedback however understand that the Case for Endorsement is to be presented to AISC at the June meeting.</p> <p>The Western Australian State Training Authority supports this project.</p>	<p>N/A</p>
	<p>The NT STA supports the NWP National Water Cases for Change being submitted to the Australian Industry and Skills Committee for consideration.</p>	<p>N/A</p>
	<p>Thanks, and providing any issues raised by Tasmanian stakeholders have been addressed, Skills Tasmania supports the NWP TP Cases for Change."</p>	<p>No issues have been raised by Tasmanian stakeholders.</p>
	<p>Given the limited usage of the Certificate III in Water Industry Operations in Victoria the Victorian STA will not impede the Case for Change proceeding to the AISC.</p>	<p>N/A</p>
Unions	<p>There were no issues raised at this time.</p>	<p>N/A</p>

Attachment E: List of stakeholders to be contacted as part of the development of the Case for Endorsement

The Case for Endorsement development will involve contacting relevant stakeholders from the following organisations across all states and territories within Australia:

- NWP Industry Reference Committee (IRC) Representatives
- Employers (Non-IRC)
- Peak Industry Bodies
- Unions
- Regulators
- State Training Authorities
- RTOs
- Other/Consultants