

Regulators' perspectives

based on Street map 6

Water is being recycled all over Australia for a variety of uses. To protect the health of people and the environment, treatment technologies used in water recycling schemes need to meet the performance targets specified in the *Australian Guidelines for Water Recycling*. Across Australia, there is currently no consistent approach to validating treatment technologies against these guidelines. The Australian Water Recycling Centre of Excellence has engaged Water Quality Research Australia to deliver a national framework for validating treatment technologies.

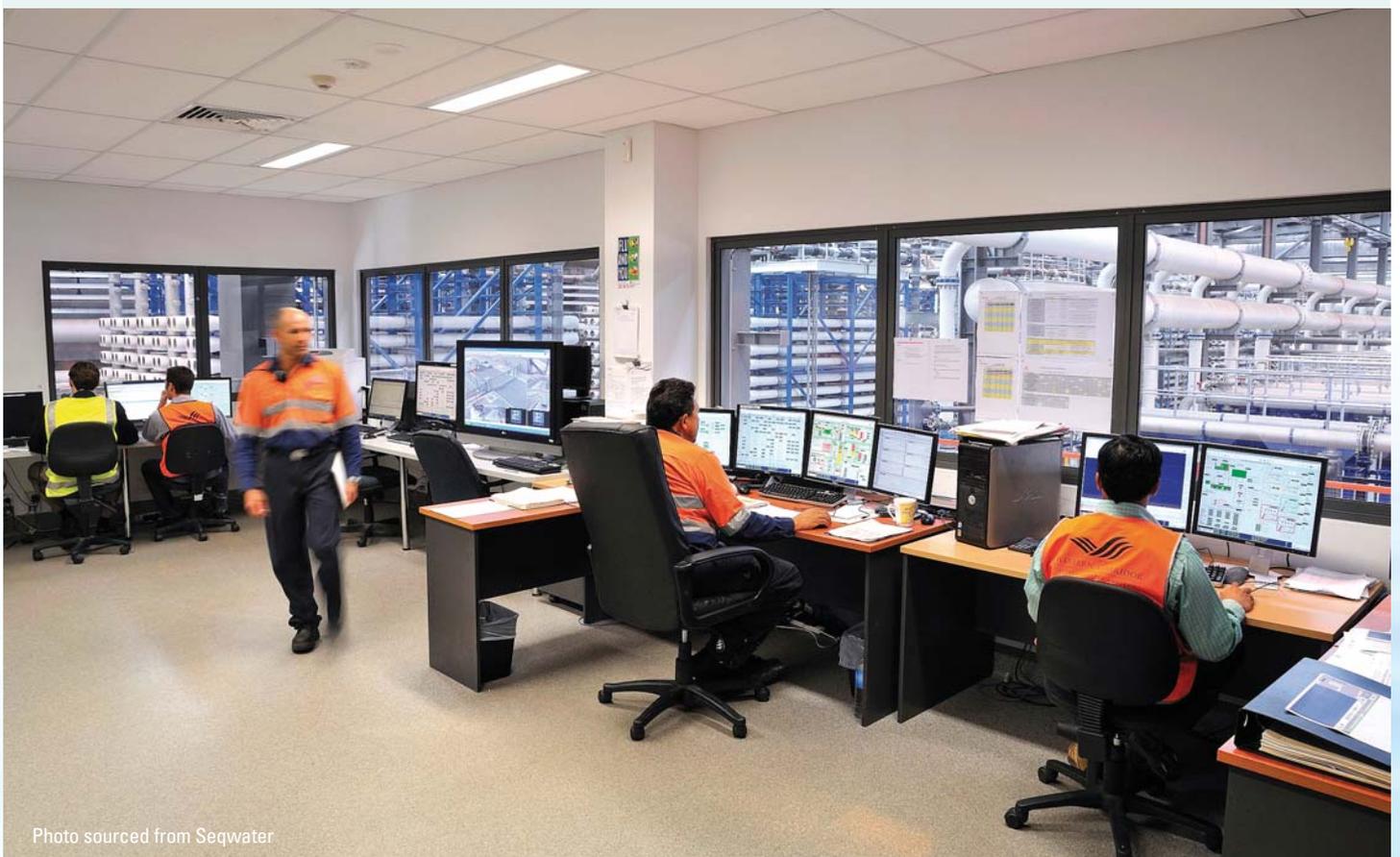
Government regulators in each state/territory are responsible for approving water recycling schemes. Because there is no consistent approach to validating technology across Australia, validation of identical or similar technologies is often replicated in multiple jurisdictions. Regulators strongly support the proposed national framework because of the clarity, consistency and efficiency it will provide, with technologies needing to be validated and approved only once for all jurisdictions.

What is validation?

The *Australian Guidelines for Water Recycling (2006)* require that a treatment technology or process be validated before the water recycling scheme is operational. Validation is the confirmation that the treatment technology meets the specified performance targets. The guidelines describe the concept of and need for validation but do not specify how the validation should be done.

Finding out what regulators want

A consultation paper outlining the roles of the different groups and the possible organisational structure of a validation framework was sent to all members of the National Recycled Water Regulators Forum with a request for feedback. The project team followed up with phone calls to officers within those agencies known to have a direct regulatory role in the approval of recycled water schemes, in particular high exposure schemes. The key findings are presented here.



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Requirements

Regulators identified the following needs from a national validation framework:

- The framework should be designed for longevity and formalised through COAG or some Ministerial Council process.
- The validation guidelines should reference the *Australian Guidelines for Water Recycling* to ensure uptake and updating.
- All treatment technologies need to be assessed against Australian guidelines or requirements. The acceptability of validation data collected as part of overseas work or testing for other overseas regulatory requirements can be covered in the guidelines and assessed by the Independent Assessor.
- Retrospective validation of existing schemes should be left to individual jurisdictions to determine as part of their own approvals framework. A transition period should be allowed for.
- The oversight entity should administer the framework and develop the rules or requirements for assessment bodies and independent assessors. To ensure its sustainability and acceptance, it should be a national organisation, supported by the federal government.
- The oversight entity and certification body could be the same organisation.
- Accreditation of assessment bodies and independent assessors could be the responsibility of existing private organisations.

“The benefits of addressing the problems identified include regulatory simplification and removal of red tape, confidence and assurance, reduced costs to government and industry, and improved water, public health and environmental outcomes”

- Multiple independent, diverse and accessible laboratories are preferred for testing treatment technologies. Laboratories should be NATA accredited.
- Technical committees should include regulators, technology suppliers and technical specialists.
- The framework should have mechanisms for regulators to give feedback to the oversight entity and a mechanism for resolving disputes.



Photo sourced from Seqwater

The implications of the proposed framework for regulators

Most jurisdictions indicated that there would be little if any regulatory changes required for the framework to be implemented.

Regulators would continue to be responsible for approving schemes in their jurisdiction. They would have input to technology specific validation through being part of working parties, and other mechanisms developed with the oversight entity to engage stakeholders. They would be responsible for the final endorsement of the validation schedule for each scheme. This could be through one of the following methods:

- requiring a certified technology to be used (in which case the regulator would defer to the oversight entity for endorsement)
- requiring onsite validation to be carried out using the guidelines developed by the oversight entity
- arranging for the endorsement of onsite validation, through an independent assessor.

Regulators would undertake or arrange for the ongoing auditing of any scheme under each jurisdiction's regulatory requirements. They would approve the verification and ongoing operational monitoring as part of approving water recyclers' management plans for recycled water.

Advantages of the proposed framework for regulators

Regulators are highly supportive of the proposed framework because of:

- the clarity it provides
- the reduced need for them to have technical expertise in every technology
- the consistency in requirements for validation across jurisdictions.

They agreed with the basic structure of the framework and the roles assigned to each of the organisations.



Photo sourced from SA Water



Challenges

Regulators identified the following challenges with the proposed framework:

- The long-term viability of the national framework is a challenge due to the size of the market, the cost of implementing the framework and the maintenance required to the framework.
- Finding the skills and capacity within the industry to fill roles such as the independent assessors and the guideline writers is seen as a challenge.
- Grandfathering of schemes through the process is seen as a challenge, especially those that have already been extensively tested under the current requirements.
- The long term viability of the testing laboratories and the ability to maintain expertise are a concern as the large influx of work when the framework is first implemented would reduce as technologies were certified. This could be managed by including in situ treatment technologies and by extending the scope of the framework to incorporate drinking-water treatment technologies and onsite systems.
- Access to previous validation data for treatment technologies is a potential intellectual property issue.

Research Gaps

Following development of the validation framework, consultation with regulators identified the following issues that still need to be considered:

- What role do state regulators have in the framework
- What are the minimum requirements for representatives on the rule setting group
- Interface between National Recycled Water Regulators Forum and administrator
- How to formulate the criteria and competencies for the certification body
- Need for feedback loops between jurisdictions and administrator, to improve or identify problems
- How can the framework be integrated into jurisdictional requirements
- How will the influx of technologies for certification be managed in the initial stages
- How will the certification body and rule setting group be resourced
- Will the framework for validation consider environmental hazards
- Will the framework consider the life cycle of technologies.

National Validation Framework factsheet suite

This brochure is based on a 'road map' report funded by the Australian Water Recycling Centre of Excellence. The 'road map' describes a national approach for validating treatment technologies, and was based on extensive consultation with stakeholders.

This brochure is one of a series that describes the outcomes of the first stage of this national validation project.

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For further information visit www.australianwaterrecycling.com.au

Other brochures in the series cover:

- > An overview of the draft National Validation Framework
- > Perspectives of water recyclers, technology suppliers and regulators
- > Validation of various treatment systems
- > Building capacity in the industry