

Technology Assessment – non-potable water schemes

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1 Introduction

This fact sheet summarises IPART's recommended processes for technology assessments of non-potable water schemes to help WICA licensees and auditors to plan their assessments and audits.

This fact sheet updates our approach to the audit framework for non-potable water schemes under the *Water Industry Competition Act 2006* (the Act). This approach will increase regulatory certainty for licensees in relation to the design and construction of schemes and reduce the risk of additional costs and time being incurred.

2 Background

Under the *Water Industry Competition (General) Regulation 2008* (the Regulation), licensees must prepare infrastructure operating, water quality, sewage management or retail supply management plans (the licence plans) as is relevant to the licensee's activities.

The licence plans and an audit report on the plans must be provided to us before commercial operation of the scheme. The audit report is about the adequacy of the network operator's licence plans.

The Minister has the power to require amendments to the plans if the plans are considered inadequate. If the amendments require changes to the infrastructure and the infrastructure is already constructed, there may be additional (and possibly significant) costs in complying with the amendments.

3 What is a technology assessment?

This is a new element of the audit framework. The technology assessment is an early audit of part of the water quality plan. We consider an early assessment of the following aspects of the water quality plan will help determine whether the proposed infrastructure will provide water which is fit for purpose. The technology assessment should cover:

- a flow diagram which identifies each component of the treatment train and conveyance infrastructure, from the source to the end use (not a detailed engineering drawing)
- all the critical control points in the process for the control of pathogens and in some cases chemical contaminants

- the log reduction values that are being claimed for each critical control point, for bacteria, viruses and protozoa or percentage removal in the case of chemicals.
- any documentation supporting the claimed log reduction values for the specific critical control points (if it has been validated elsewhere) and associated operational conditions
- a validation plan to prove the log reduction values for the critical control points (if it has not been demonstrated elsewhere).

The remaining aspects of the water quality plan (including the water quality monitoring plans and other management procedures) can all be audited after construction has started, and are less likely to present a risk of unforeseen costs.

4 When do the audits happen?

Audits are broken up into 2 parts to be undertaken at the following times:

- Technology assessment to be done prior to detailed design. This review is intended to provide approval of the scheme's concept design as outlined below.
- Licence plans audit when construction of the infrastructure is completed or substantially completed.^a

Licensees have advised that before construction it is difficult to complete the licence plans. This meant that licence plans (which include the technology to be used) were being audited for adequacy as construction neared completion. In one case this has led to a licensee incurring significant additional costs where their treatment process was assessed as inadequate.

In light of this, we now strongly recommend that licensees break up these audits into 2 parts, as outlined above.

5 What is the process for undertaking the audit?

The process for undertaking a sustainability assessment is the same as any audit under the Act. The process is outlined in the Audit Guideline – Water Industry Competition Act at:

http://www.ipart.nsw.gov.au/Home/Industries/Water/Private_Sector_Licensing_WICA

6 Who will conduct the audits?

IPART has established an audit panel, the Water Licensing Audit and Technical Services Panel (the Panel). A [list of approved auditors](#) on the Panel is available on IPART's website.

^a This may be combined with a new infrastructure audit. For this to happen construction must be at a stage (i.e. completed or substantially completed) where an auditor can certify that the infrastructure complies with the licence, the Regulations and is capable of operating safely in accordance with the licence plans.

We recommend that the same auditor is used for the technology assessment as for the audit of the water quality plan. Provided there have been no changes to the treatment process or technology during construction, an auditor may be satisfied that these parts of the licence plan do not need re-auditing to provide a report about the adequacy of the whole plan.

For further details on the whole audit framework (not just the technology assessment covered in this fact sheet), as well as the approved auditors, see Fact Sheet "[Summary of audit framework under the *Water Industry Competition Act 2006*](#)".