



Report on the Follow-up Licence Plan Audit of the 1 Bligh Street Recycled Water Scheme

Independent Pricing and Regulatory Tribunal
Water Industry Competition Act 2006

Network Operator's Licence Audit Report
(Follow-up Licence Plan Audit)

Licence No. 09_003: 1 Bligh Street Recycled Water Scheme, NSW

Aquacell Pty Ltd (ACN 072 487 015)

Final Report
6th August 2015

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1. Executive Summary

This report sets out the findings of a Follow-up Licence Plan Audit completed in respect of the Network Operator's Licence (Licence No. 09_003) for the 1 Bligh Street Recycled Water Scheme, NSW. An Operational Audit, which is reported separately, was undertaken in conjunction with this audit.

The auditors were provided with sufficient and appropriate evidence, as described in the *IPART Audit Guideline for Greenfield Schemes, Water Industry Competition Act 2006 (NSW), July 2013* (the Audit Guideline), on which to base the conclusions reached during the audit. The auditors have observed the requirements of the Audit Guideline and the Audit Deed in conducting the audit, determining audit findings and preparing the report.

The reported audit findings accurately reflect the professional opinion of the auditors. The findings have not been unduly influenced either by the Licensee or any of its associates and express the auditors' opinions as to whether the Licensee has met the regulatory requirements as specified in the scope. A summary of the audit findings is given in the following chapters and a detailed breakdown of the full audit findings against the audited criteria is given in the detailed Audit Tables in Appendices A (Infrastructure Operating Plan) and B (Water Quality Plan (non potable water)).

The audited infrastructure complied with the audited requirements of the Regulation and Licence conditions and was found to be operating safely. The Licensee, Aquacell Pty Ltd (ACN 072 487 015) was found to be constructing, repairing, maintaining and operating the infrastructure in compliance with all of the assessed audit criteria.

In summary, the *Infrastructure Operating Plan* and *Water Quality Plan (non potable water)* were found to be adequate. The audited recycled water infrastructure complied with the audited requirements of the Regulation and Licence conditions, and was found to be capable of operating safely and in accordance with the 1 Bligh Street *Infrastructure Operating Plan* and *Water Quality Plan (non-potable water)*.

In the opinion of the auditors, the Licence Holder can continue commercial operation for the safe and reliable supply of recycled water. The auditors support IPART in continuing approval of the commercial operation of the assets operated under this WICA licence.

2. Introduction

2.1 Objective

This report presents the findings of an audit undertaken for the Independent Pricing and Regulatory Tribunal (IPART) under the *Water Industry Competition Act 2006*.

The audit comprised of a Follow-up Licence Plan Audit, as required in respect of the Network Operator's Licence (Licence No. 09_003) for the 1 Bligh Street Recycled Water Scheme, NSW. The Licensee is Aquacell Pty Ltd (ACN 072 487 015).

An Operational Audit was undertaken in conjunction with this audit and is reported separately.

2.2 Licensee's infrastructure, systems and procedures

The Licensee's infrastructure, systems and procedures audited were those related to the 1 Bligh Street Recycled Water Scheme.

2.3 Audit method

Audit scope

This audit covers the operation and maintenance of the licenced infrastructure and addresses the scope specified by IPART in its letter to Colin Fisher dated 5 March 2015 relating to a Follow-up Licence Plan Audit.

Audit standard

The audit broadly followed the generic principles of auditing given in *ISO 19011:2011 - Guidelines for auditing management systems*. The principal document used to guide the audit was the *IPART Audit Guideline for Greenfield Schemes, Water Industry Competition Act 2006 (NSW), July 2013* (the Audit Guideline).

Audits are by necessity limited to sampling processes. It is not practicable, nor necessary, to inspect 100 per cent of items within an audit scope. Auditing forms part of the broader risk management process, providing an independent check on the veracity of the processes and procedures in place to manage risk. Finding a balance between audit effort and practicality requires the exercise of experienced professional judgement. The amount of effort allocated to this audit has been kept to a reasonable minimum level.

The audit was undertaken and reported in accordance with the Audit Guideline and its associated Appendices. The audit templates given in the Guideline provided the reporting format for the audit as well as the detailed audit criteria.

Audit steps

An Audit Plan was submitted to both IPART and the Licensee prior to the audit taking place. Documentation was supplied by the Licensee to both the auditor and IPART.

Desktop auditing took place both prior and subsequent to the site audit. A site visit took place on Tuesday 7th July 2015; this comprised of on-site asset inspections during the morning. Some evidence was followed up after the audit with the report being prepared and submitted to the Licensee as a draft, then a final, before submission to IPART.

The audit process involved seeking objective evidence that the Licensee met the Licence obligations identified for the audit by IPART. The auditors collected evidence through interview, document review and site inspection. The auditors randomly sampled examples sufficient to verify claims made by the Licensee.

Audit team

The audit was conducted in an integrated manner by two auditors who collectively addressed the various components of the audit scope; this report sets out the audit criteria that were applied. The two-member team that conducted the audits consisted of Dr Dan Deere and Mr Tom Carpenter, who hold relevant Lead Auditor Accreditation under IPART's *Technical Services and Water Licensing Audit Panel*, as follows:

- Dr Dan Deere – Recycled Water Quality, Sewage Management and overall management of audit;
- Mr Tom Carpenter – Infrastructure Performance and related components.

Acknowledgements

The audit team notes, and greatly appreciates, the presence of IPART staff member Serge Detoffi as a valuable observer and commentator during the audit.

The audit team notes, and greatly appreciates, the work and effort put in by those audited, including Warren Johnson, Belinda Layson and Justin Taylor of Aquacell.

Audit grades

Audit grades were awarded in accordance with the definitions given in the Audit Guideline. Compliance of operation of the infrastructure with the relevant legal and formal requirements was assessed. More generally the infrastructure was assessed for its capability to operate safely. Grades were allocated as follows:

- No Requirement (NR)
- Compliant (C)
- Non-compliant Insignificant (NCI)
- Non-compliant Significant (NCS)

2.4 Regulatory regime

The scheme operates under the *Water Industry Competition Act 2006* (WICA) which in turn references the following requirements:

- *Water Industry Competition (General) Regulation (2008)*.
- Conditions of *Network Operator's Licence No. 09_003*.
- *IPART Audit Guideline for Greenfield Schemes, Water Industry Competition Act 2006 (NSW), July 2013*.
- Relevant aspects of the national *Australian Guidelines for Water Recycling: Managing Health and Environmental Risks (Phase 1) 2006*.
- Relevant water industry and environmental NSW and national codes of practice and regulations, as applicable.

2.5 Quality assurance process

Quality was assured using a professional review process. Each auditor's work was reviewed and approved by the other auditor. Both auditors are longstanding members of the IPART audit panel.

2.6 Audit findings

Audit findings are summarised in the above Executive Summary; they are presented in more detail in sections 3 and 4 and in full detail in the following Appendices:

- Appendix A – Infrastructure Operating Plan; and
- Appendix B – Water Quality Plan (non-potable water).

2.7 Audit agenda for Monday 6th and Tuesday 7th July 2015

Item	Details
Audit title:	<p>Audit of Licence Plans and Operational Audit for recycled water schemes for Aquacell Pty Ltd (ACN 072 487 015) for:</p> <ul style="list-style-type: none"> • Workplace 6 (WP6); and • 1 Bligh St (Bligh St).
Doc. Version:	Version 3, dated 30 th June 2015
Logistics	<p>Estimated timing (logistics and timing to be confirmed with IPART staff):</p> <ul style="list-style-type: none"> • Day 1, Monday 6th July 2015. 8 am to 5 pm. Aquacell Office at 1/10B Production Place, Penrith. • Day 2, Tuesday 7th July 2015. 8 am to 11 pm. 1 Bligh St, Sydney. • Day 2, Tuesday 7th July 2015. 2 pm to 5 pm. Workplace 6, 48 Pirrama Rd, Pyrmont. <p>PPE for asset inspection and field trip during the second day: long sleeves and pants and enclosed, flat shoes.</p>
Objectives:	<ul style="list-style-type: none"> • To provide an independent audit of the way in which the network operator complies with the conditions of its network operator's licence. • To conduct that audit on behalf of the Independent Pricing and Regulatory Tribunal (IPART) under the <i>Water Industry Competition Act 2006</i> (NSW) (the Act; WICA) and to report the findings of the assessment to IPART.
Audit standard:	<p>The principal documents that will set the standard for this audit are as follows:</p> <ul style="list-style-type: none"> • <i>IPART Audit Guideline for Greenfield Schemes, Water Industry Competition Act 2006 (NSW) July 2013.</i> • <i>IPART Audit Guideline for Brownfield Schemes, Water Industry Competition Act 2006 (NSW) July 2013.</i> • <i>ISO 19011:2011 - Guidelines for auditing management systems.</i>
Scope:	<ul style="list-style-type: none"> • Audit type: Two types of audit are required which will generate two audit reports for each site: <ol style="list-style-type: none"> 1. Licence Plan Audit (initial adequacy assessment for WP6; follow-up audit for Bligh St); and 2. Operational Audit. • Criteria: Aspects of the Network Operator's Licence Nos. 13_023 for WP6; 09_003 for Bligh St; and associated aspects of the IPART audit guidelines (unless this scope becomes modified by IPART) that were identified in Attachments A and B of IPART's letters to Colin Fisher dated 5th March 2015. • Site: The sites delineated in the relevant licences. • Services: Recycled water. • Suppliers and customers: <ul style="list-style-type: none"> ○ Sydney Water supplies two services to the sites: potable water and sewerage services. ○ Aquacell supplies recycled water to retail customers at the sites. • Audit periods: <ul style="list-style-type: none"> ○ WP6: 21st July 2014 to 28th February 2015. ○ Bligh St: 6th September 2013 to 28th February 2015.
Audit personnel:	<p>The following personnel are proposed to undertake this project:</p> <ul style="list-style-type: none"> • Water quality plan (non-potable water) and all related audit criteria: Dan Deere. • Infrastructure operating plan and some related audit criteria: Tom Carpenter. • Representatives of the licensee: Warren Johnson, Belinda Layson and Justin Taylor.
Work schedule:	<ul style="list-style-type: none"> • 12th June 2015: Audit Proposal to IPART for review. • 3rd July 2015: Deed Polls from licence holder to IPART. • 6th and 7th July 2015: Desktop audits and field inspections. • 28th July 2015: Draft audit reports to licence holder for review following quality review by auditors. • 31st July 2015: Final audit reports to IPART.

3. Infrastructure Operating Plan – Outstanding Issues

3.1 Summary of findings

No non-compliances were identified in respect of the requirements of the *Infrastructure Operating Plan* as a result of this audit.

3.2 Review of actions

The Licensee did not provide any additional data or information and did not make any suggestions for corrections or clarifications following the review of the draft report prior to the final report being issued.

3.3 Opportunities for improvement

Two opportunities for improvement were identified in respect of the requirements of the *Infrastructure Operating Plan* as a result of this audit. The IOP could benefit from the following changes:

- Insert a new heading along the lines of ‘Resilience and Reliability’ and ‘Continuous Improvement’ to better highlight the new sections that addressed the previously identified non-compliances.

- Explicitly mention and cross-reference the Service Agreement with Aquacell’s customer.

4. Water Quality Plan (non-potable water) (WQP (npw)) – Outstanding Issues

4.1 Summary of findings

No non-compliances were identified in respect of the requirements of the *Water Quality Plan (non-potable water)* as a result of this audit.

4.2 Review of actions

The Licensee did not provide any additional data or information and did not make any suggestions for corrections or clarifications following the review of the draft report prior to the final report being issued.

4.3 Opportunities for improvement

No opportunities for improvement have been identified in respect of the requirements of the *Water Quality Plan (non-potable water)* as a result of this audit.

Appendix A Infrastructure Operating Plan (IOP) – Outstanding Issues

WIC Reg Sch 1cl.6(1)	Requirement	Compliance Grade
	6 Infrastructure operating plans	Compliant
	(1) Before commencing to operate water infrastructure commercially, the licensed network operator for the infrastructure must prepare, and forward to IPART, an infrastructure operating plan that indicates the arrangements that the licensee has made, or proposes to make, in relation to: a) ... b) the continued safe and reliable performance of the infrastructure, and...	

Risk	Target for Full Compliance
No significant risks were identified.	N/A

Evidence sighted

- Interview with Warren Johnson, Belinda Layson and Justin Taylor of Aquacell.
- Review of electronic and hard copy documents and records on 6th July 2015 at Aquacell Head Office, Penrith.
- Field inspection at 1 Bligh Street on 7th July 2015.
- Safe work method statements (SWMS) uploaded into the 'Sassi' system.
- MSDS on site at the treatment plant.
- Monthly Service Checklist document (paper-based, completed records sighted).
- Monthly Service Request Visits document.
- Monthly Report to client for 1st October 2013.
- IOP (Revision 4, dated 23rd June 2015, filename *A0047-Infrastructure Operating Plan-04.pdf*).
- Maintenance schedule in computer calendar function.
- Risk analyses with supporting action planning.

Summary of reasons for grade

The IOP now includes sufficient details on resilience, reliability, continuous improvement and proactive asset replacement that this item is now considered compliant. Consequently a Compliant finding has been made for this audit clause.

Discussion and notes

Comprehensive IOP

Previously it was noted that the existing IOP was not considered comprehensive, thereby limiting its value as an overarching document that combines Asset and Operational Management Plans. However the requirements of the IOP were largely present so any associated adverse risks were considered to be low.

The IOP had been updated following the 2013 audit. The IOP now provides more cross-references to other standards that, collectively, make up the IOP but also provide for a better explanation of the strategy. The IOP now includes sections on resilience and reliability and continuous improvement sections, albeit not under a new heading. The IOP could benefit from new headings for these items, such as 'Resilience and Reliability' and 'Continuous Improvement' (this is recorded as an OFI).

Asset replacement

Previously it was noted that the Asset Replacement Checklist does identify the asset lives but there is no scheduling system for the replacement/renewal of these longer-term assets. Also, a number of longer-term asset replacement requirements have not been included in the current Asset Maintenance Checklist.

Appendix A of the new IOP includes a new section '*10. Appendix A – Asset Replacement Risk Assessment*'. The new section reviews what items simply need routine scheduled maintenance but can otherwise be run to fail and which need more proactive maintenance. The approach involves a risk-based criticality assessment and considers maximum and residual risk and takes into account customer impacts and redundancy. It included both technical and non-technical issues. It is noted that many assets have duty and standby components whilst others could fail but would only trigger a potable water supply backup and/or divert to sewer. The assessment considered possible extended periods of downtime related to factors such as sources of parts, personnel, equipment, etc.

Recommendations

There are no recommendations in respect of this requirement.

Opportunities for improvement

The IOP could benefit on page 6 from a new heading regarding such as 'Resilience and Reliability' and 'Continuous Improvement'.

WIC Reg Sch 1cl.6(1)	Requirement	Compliance Grade
	<p>6 Infrastructure operating plans</p> <p>(1) Before commencing to operate water infrastructure commercially, the licensed network operator for the infrastructure must prepare, and forward to IPART, an infrastructure operating plan that indicates the arrangements that the licensee has made, or proposes to make, in relation to:</p> <p>c) ...the continuity of water supply, and...</p>	Compliant
Risk		Target for Full Compliance
No significant risks were identified.		N/A
Evidence sighted		
<ul style="list-style-type: none"> Interview with Warren Johnson, Belinda Layson and Justin Taylor of Aquacell. Review of electronic and hard copy documents and records on 6th July 2015 at Aquacell Head Office, Penrith. Field inspection at 1 Bligh Street on 7th July 2015. Monthly Service Checklist document (paper-based, completed records sighted). Monthly Service Request Visits document. Monthly Report to client for 1st October 2013. IOP (Revision 4, dated 23rd June 2015, filename <i>A0047-Infrastructure Operating Plan-04.pdf</i>). Maintenance schedule in computer calendar function. Risk analyses with supporting action planning. 		
Summary of reasons for grade		
<p>The IOP now includes sufficient in the supporting risk assessments that this item is now considered compliant. Consequently a Compliant finding has been made for this audit clause.</p>		
Discussion and notes		
<p>Appendix A of the new IOP includes a new section '<i>10. Appendix A – Asset Replacement Risk Assessment</i>'. The new section reviews what items simply need routine scheduled maintenance but can otherwise be run to fail and which need more proactive maintenance. The approach involves a risk-based criticality assessment and considers maximum and residual risk and takes into account customer impacts and redundancy. It included both technical and non-technical issues. It is noted that many assets have duty and standby components whilst others could fail but would only trigger a potable water supply backup and/or divert to sewer. The assessment considered possible extended periods of downtime related to factors such as sources of parts, personnel, equipment, etc.</p>		
Recommendations		
<p>There are no recommendations in respect of this requirement.</p>		
Opportunities for improvement		
<p>No opportunities for improvement have been identified in respect of this requirement.</p>		

WIC Reg Sch 1cl.6(1)	Requirement	Compliance Grade
	6 Infrastructure operating plans	Compliant
	(1) Before commencing to operate water infrastructure commercially, the licensed network operator for the infrastructure must prepare, and forward to IPART, an infrastructure operating plan that indicates the arrangements that the licensee has made, or proposes to make, in relation to: <ul style="list-style-type: none"> d) ... e) the maintenance, monitoring and reporting of standards of service. 	

Risk	Target for Full Compliance
No significant risks were identified.	N/A

Evidence sighted

- Interview with Warren Johnson, Belinda Layson and Justin Taylor of Aquacell.
- Review of electronic and hard copy documents and records on 6th July 2015 at Aquacell Head Office, Penrith.
- Field inspection at 1 Bligh Street on 7th July 2015.
- Monthly Service Checklist document (paper-based, completed records sighted).
- Monthly Service Request Visits document.
- Monthly Report to client for 1st October 2013.
- IOP (Revision 4, dated 23rd June 2015, filename *A0047-Infrastructure Operating Plan-04.pdf*).
- WQP (npw) (Revision 8, dated 24th June 2015, filename *A0047-RWQMP-8.pdf*).
- Maintenance schedule in computer calendar function.
- Risk analyses with supporting action planning.

Summary of reasons for grade

The IOP now includes sufficient details performance criteria and levels of service that this item is now considered compliant. Consequently a Compliant finding has been made for this audit clause.

Discussion and notes

Previously it was noted that there was a lack of established standards of service against which this requirement can be assessed. Therefore there is no risk of breaching the standards of service since none have been set. However, a recycled water supply that has been installed for the broader community purpose of reducing potable water demand should have standards of service set for it.

A new section '4. Performance Criteria and Level of Service' has been added that identified quality requirements as being to meet the WQP quality requirements and the volume requirements agreed and documented with the end user. However, the IOP does not explicitly mention the Service Agreement. As an OFI it is suggested that since the IOP doesn't explicitly mention or link to the service agreement, it is recommended that the IOP explicitly mention the Service Agreement.

Recommendations

There are no recommendations in respect of this requirement.

Opportunities for improvement

The IOP would benefit from explicitly mentioning the Service Agreement.

Appendix B Water Quality Plan (non-potable water) (WQP (npw)) – Outstanding Issues

WIC Reg Sched 1 cl. 7(1(b)),(3), particularly AGWR Element 7	Requirement	Compliance Grade
	The Recycled Water Quality Management Plan outlines operator, contractor and end user awareness and training requirements.	Compliant
Risk		Target for Full Compliance
No significant risks were identified.		N/A

Evidence sighted

- Interview with Warren Johnson, Belinda Layson and Justin Taylor of Aquacell.
- Review of electronic and hard copy documents and records on 6th July 2015 at Aquacell Head Office, Penrith.
- Aquacell Training Register.
- CVs and Position Descriptions of Warren Johnson, Justin Taylor, Simon Grimwood and Belinda Layson.
- Training records in the 'Sassi' system.
- WQP (npw) (Revision 8, dated 24th June 2015, filename A0047-RWQMP-8.pdf).

Summary of reasons for grade

The WQP (npw), when considered along with the subordinate documents, systems and processes to which it refers, is adequate. The WQP (npw) is up to date, reflects the current situation and is being implemented, which makes the Licence Holder compliant with this requirement. Consequently a Compliant finding has been made for this audit clause.

Discussion and notes

It was noted during the previous audit that while Aquacell staff had undertaken the required confined space training, this training requirement was missing from the list of training covered within the relevant training register, which therefore represented a long- term risk of that training not being renewed. To mitigate that risk, Aquacell should add confined spaces training to the training register.

Aquacell has a 'Training Register' that lists training and renewal dates as well as using an external training currency recording tool: 'Sassi'. Sassi covers site inductions for instance. Confined space training/competency is not currently on the books as a routine requirement – it is an outsourced requirements. Inductions do however mention confined spaces if and where required. The Training Register has a register of routine training for particular staff.

The technical capability of the staff was assessed both inherently during the interview and systematically by examining the position descriptions and CVs. The CVs and Position Descriptions of Warren Johnson, Justin Taylor, Simon Grimwood and Belinda Layson were examined. All four were qualified engineers with excellent and suitable experience and background. In summary, Aquacell was found to have the technical capacity to carry out the WQP.

As an observation it was noted that first aid training had expired for Belinda, albeit not gained whilst at Aquacell. Aquacell need to find out whether or Aquacell staff need first aid training. It is noted that in general the sites that Aquacell staff attend have first aid staff on site. Aquacell need to make a conscious decision on whether or not their staff require such training.

Recommendations

There are no recommendations in respect of this requirement.

Opportunities for improvement

No opportunities for improvement have been identified in respect of this requirement.
