

Huntlee Water Pty Ltd

Network Operator's Licence Operational Audit



Flow Systems

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Final report



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Executive Summary

Auditor's declaration

This report presents the findings of the audit of network operations for Huntlee Water Pty Ltd, against the licence number 15_030 and the *Water Industry Competition Act 2006 (NSW)*, consistent with audit requirements set out in IPART's *Audit Guideline for Greenfield Schemes Water Industry Competition Act 2006 (NSW)* (July 2013) for the audit period 1/6/16 - 31/10/17. Huntlee Water Pty Ltd is wholly owned by Flow Systems Pty Ltd.

- The auditor has seen sufficient evidence on which to base their conclusions.
- The audit findings accurately reflect the professional opinion of the auditor.
- The auditor has conducted the audit, determined audit findings and prepared the report consistent with audit requirements set out in IPART's *Audit Guideline for Greenfield Schemes Water Industry Competition Act 2006 (NSW)* (July 2013) and IPART's Combined Network Operator's Licence Operational Audit letter dated 9 November 2017.
- The audit findings have not been unduly influenced by the utility and/or any of its associates.

Major findings

A summary of major audit findings for the audit period is shown in Table i-i.

Table i-i Summary of audit findings against audited licence obligations

Aspect	Licence Clause	Audit findings
General obligations for a network operator	WIC Reg Sch1 cl. 1(2)(a)	Non-compliant Insignificant
	WIC Reg Sch1 cl. 1(2)(b)	Non-compliant Insignificant
	WIC Reg Sch1 cl. 1(2)(c)	Non-compliant Insignificant
	WIC Reg Sch1 cl. 1(2)(e)	Compliant
	WIC Reg Sch 1 cl 2 (1)	Compliant
	WIC Reg Sch 1 cl. 2(2)(a)	No requirement
	WIC Reg Sch 1 cl. 2(2)(b)	No requirement
	WIC Reg Sch 1 cl. 3(c)	Compliant
Obligations for water supply infrastructure	WIC Reg Sch 1 cl. 6(2)(a)	Non-compliant Insignificant
	WIC Reg Sch 1 cl. 7(4)(a)	Non-compliant Insignificant
	WIC Reg Sch 1 cl. 11	Compliant
Obligations for non-potable water supply infrastructure	WIC Reg Sch 1 cl.10(a)	No requirement
Obligations for sewerage infrastructure	WIC Reg Sch 1 cl. 14(3)(a)	Non-compliant Insignificant
Obligations in Schedule A to the network operator's licence	Huntlee Licence cl A4.2	Compliant
	Huntlee Licence cl A4.6	Compliant
Obligations in Schedule B to the network operators licence	Huntlee Licence cl B11	No requirement
	Huntlee Licence cl B13	No requirement



Recommendations

Recommendations arising from the operational audit are shown in Table i-ii.

Table i-ii Operational audit recommendations

Aspect	Licence Clause	Recommendation
General obligations for a network operator	WIC Reg Sch1 cl. 1(2)(a)	R1-1 Flow Systems should review its incident notification processes to ensure future incident reporting meets the immediate notification requirements of this clause.
Obligations for water supply infrastructure	WIC Reg Sch 1 cl. 6(2)(a)	R 6-1 Flow Systems should conduct a thorough review of its Infrastructure Operating Plan to ensure the Infrastructure Operating Plan documents what is occurring across its schemes in practice, this review should include a thorough review of the Incident Management Plan and Asset Management Plan and supporting procedures and processes. R 6-2 Flow Systems should review document management in its BMS to ensure only current and approved versions are accessible for operational use.
	WIC Reg Sch 1 cl. 7(4)(a)	R 7-1 The Recycled Water Quality Plan should be reviewed to ensure it documents Flow Systems current approach to recycled water management. References to supporting documentation should be cross-checked to confirm they exist and are current. R7-2 The Drinking Water Quality Plan should be reviewed to ensure it documents Flow Systems current approach to drinking water management. References to supporting documentation should be cross-checked to confirm they exist and are current. Attention should be given to drinking water verification including sampling locations and frequency triggers.
Obligations for sewerage infrastructure	WIC Reg Sch 1 cl. 14(3)(a)	R14-1 The Sewage Management Plan should be reviewed to ensure it documents Flow Systems current approach to sewage management. References to supporting documentation should be cross-checked to confirm they exist and are current.



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Glossary

Item	Detail
ADWG	NHMRC, NRMCC (2011) <i>Australian Drinking Water Guidelines Paper 6 National Water Quality Management Strategy</i> . National Health and Medical Research Council, National Resource Management Ministerial Council, Commonwealth of Australia, Canberra. ISBN Online: 1864965118
AGWR	AGWR (2006) <i>Australian Guidelines For Water Recycling: Managing Health and Environmental Risks (Phase1)</i> . Natural Resource Management Ministerial Council, Environment Protection And Heritage Council, Australian Health Ministers' Conference. Web Copy: ISBN 1 921173 06 8
AS/NZ ISO 14001	Environmental management system – Requirements with guidance for use (2016)
AS/NZ ISO 19011	Guidelines for auditing management systems (2014)
AS/NZ ISO 9001	Quality Management Systems - Requirements (the Quality Management System) (2008)
AS/NZS 4801	Occupational Health and Safety Management Systems (2001)
ASAE	Australian Standard on Assurance Engagements
ASAE 3100	Compliance Engagements issued by the Auditing and Assurance Standards Board (2017)
Audit Guideline	Audit Guideline for Greenfield Schemes <i>Water Industry Competition Act 2006 (NSW)</i> (July 2013)
Audit Period	1/6/16 - 31/10/17 over which Flow Systems compliance is checked against certain clauses of its Network Operator's Licence (as determined by IPART)
BMS	Business management system
Framework	This term refers to either the <i>Framework for Management of Drinking Water Quality</i> or the <i>Framework for Management of Recycled Water Quality and Use</i> . Its meaning <i>in situ</i> depends on the context of the clause being assessed
IPART	Independent Pricing and Regulatory Tribunal of NSW
ISO	International Standards Organisation
ISST	Interim sewage servicing tanks
Licence	The Network Operator's Licence issues under the <i>Water Industry Competition Act 2006 (NSW)</i>
MWD	Metropolitan Water Directorate
NSW Health	NSW Ministry of Health
REF	Review of Environmental Factors
Reporting Manual	Network Operators' Reporting Manual under the <i>Water Industry Competition Act 2006 (May 2010)</i>
SCADA	Supervisory Control and Data Acquisition
SDS	Safety data sheets
WHS	Work, health and safety
WIC Act	<i>Water Industry Competition Act 2006 (NSW)</i>
WIC Regulation	Water Industry Competition Regulation 2008
WSAA	Water Services Association of Australia
WSA-03	Water Services Association of Australia Water Supply Code of Australia



1 Introduction

1.1 Objectives

This report presents the findings of the audit of network operations for Huntlee Water Pty Ltd, against Licence number 15_030 and the *Water Industry Competition Act 2006 (NSW)*, consistent with audit requirements set out in IPART's *Audit Guideline for Greenfield Schemes Water Industry Competition Act 2006 (NSW)* (July 2013) for the period 1/6/16 - 31/10/17.

1.2 Licensee's infrastructure, systems and procedures

Huntlee Water Pty Ltd is wholly owned by Flow Systems Pty Ltd. There is a corporate services agreement in place between Huntlee Water and Flow Systems. The auditor refers to Flow Systems as the service provider throughout this report for as its was Flow Systems procedures and systems that were audited. Huntlee Water Pty Ltd as the licensee is ultimately responsible for the implementation of the licence conditions.

Flow Systems uses an integrated Business Management System (BMS), independently certified by a JAS-ANZ accredited independent certifying body to the following international and Australian management standards:

- AS/NZS ISO 9001 Quality Management Systems
- AS/NZS ISO 14001 Environmental Management System
- AS/NZS 4801 Work Health and Safety Management Systems
- OSHAS 18001:2007 Occupational Health and Safety Management Systems

The BMS is managed through a SharePoint site. As Flow Systems operate a number of schemes under the WIC Act it has a cross-functional approach to its systems and procedures. It has overarching documents including its:

- Infrastructure Operating Plan (Version 6 - 25/5/16, Version 7 - 21/10/16, Version 8 - 21/12/16)
- Recycled Water Quality Plan (Version 5 - 25/5/16, Version 6 2- 1/10/16, Version 7 - 25/7/17, Version 8 - 31/8/17)
- Drinking Water Quality Plan (Version - 4 8/9/15, Version 5 - 22/11/16, Version - 31/8/17)
- Operations Environmental Management Plan (Version 3 --7/1/16, Version 4 - 2/6/2017)
- Incident Management Plan (Version 5 – 25/8/16, Version 6 14/10/16)
- Asset Management Plan (Version 2 - 22/11/16)
- Monitoring and Sampling Plan (Version - 5 8/9/15, Version - 6 22/11/16)

These are supported by both utility wide and scheme specific documentation as illustrated in Table 1-1.

Table 1-1. Examples of scheme specific and utility wide supporting documentation

Utility wide supporting documentation	Scheme specific documentation
Responsibilities and authorities matrix	Huntlee Scheme Management Plan
Incident Register	Monitoring and Sampling Programme
Incident Report and Investigation Form	Risk Assessment
Monitoring and Sampling Plan	Form A Incident Notification



1.2.1 Huntlee Infrastructure

Huntlee had drinking water and sewerage infrastructure in operation during the audit period. Recycled water distribution and reticulation had been constructed but is currently supplied with drinking water until the Local Water Centre (sewage treatment and recycling plant) is commissioned.

The drinking water infrastructure included a 62 kL interim storage tank, chlorine dosing unit, chlorine analyser, duty and standby distribution pumps and a back-up generator. Much of this infrastructure had been decommissioned as part of the infrastructure upgrade so the auditor could not verify the infrastructure or its operation during the site visit.

Household sewage is transferred via the on-lot infrastructure (which includes a 900 L wastewater collection tank and pump set), to the interim sewage servicing tanks. These tanks store the sewage prior to pump-out to Hunter Water's Kurri Kurri STP. The sewage holding system comprises:

- Four 45kL polyethylene tanks to collect the sewage
- Odour control unit
- Bunding around each pair of tanks
- Concrete hardstand and bunding for the tanker loading area
- High-level alarms

1.3 Audit method

1.3.1 Audit scope

The scope of the audit was the operational licence clauses listed in Table 1-2. These clauses were selected by IPART.

Table 1-2. Licence sections within the 2016-17 audit scope

Aspect	Licence Clause	Obligation
General obligations for a network operator	WIC Reg Sch1 cl. 1(2)(a)	A network operator must immediately notify IPART of any incident in the conduct of activities that threatens, or could threaten water quality, public health or safety.
	WIC Reg Sch1 cl. 1(2)(b)	A network operator must immediately notify the Minister administering the <i>Public Health Act 2010</i> (NSW) and the Public Health Regulation 2012 (NSW) of any incident in the conduct of its activities that threatens, or could threaten, water quality, public health or safety.
	WIC Reg Sch1 cl. 1(2)(c)	A network operator must immediately notify the Minister administering Part 2 of the <i>Water Industry Competition Act 2006</i> (NSW) of any incident in the conduct of its activities that threatens, or could threaten, water quality, public health or safety.
	WIC Reg Sch1 cl. 1(2)(e)	A network operator must immediately notify any other licensed network operator or public water utility whose infrastructure is connected to the licensee's infrastructure, of any incident in the conduct of its activities that threatens, or could threaten, water quality, public health or safety.
	WIC Reg Sch 1 cl 2 (1)	A network operator must not bring any new water or sewerage infrastructure into commercial operation without the written approval of the Minister.
	WIC Reg Sch 1 cl. 2(2)(a)	The network operator must provide to the Minister a report, prepared by an approved auditor that indicates the infrastructure complies with the requirements of the Regulation and any licence conditions.



Aspect	Licence Clause	Obligation
	WIC Reg Sch 1 cl. 2(2)(b)	The network operator must provide to the Minister a report, prepared by an approved auditor that indicates that the infrastructure is capable of operating safely and in accordance with its infrastructure operating plan and its water quality or sewage management plan, as the case requires.
	WIC Reg Sch 1 cl. 3(c)	The water or sewerage infrastructure is properly designed and constructed, operated in a safe and reliable manner and maintained in a proper condition, having regard to any publicly available standards or codes relating to its design, construction, operation and maintenance.
Obligations for water supply infrastructure	WIC Reg Sch 1 cl. 6(2)(a)	The network operator must ensure that its infrastructure operating plan is fully implemented and kept under regular review and, in particular, that all of its activities are carried out in accordance with that plan.
	WIC Reg Sch 1 cl. 7(4)(a)	The network operator must ensure that its water quality plan is fully implemented and kept under regular review and, in particular, that all of its activities are carried out in accordance with that plan.
	WIC Reg Sch 1 cl. 11	The licensee must not allow a customer's installation to be connected to a licensee's water main unless the installation is code compliant (within the meaning of the <i>Plumbing and Drainage Act 2011</i>).
Obligations for non-potable water supply infrastructure	WIC Reg Sch 1 cl.10(a)	The network operator under a licence for water infrastructure to supply non-potable water for a particular purpose must ensure that the water supply is fit for that purpose.
Obligations for sewerage infrastructure	WIC Reg Sch 1 cl. 14(3)(a)	A network operator must ensure its sewage management plan is fully implemented and kept under regular review and all its activities are carried out in accordance with the plan.
Obligations in Schedule A to the network operator's licence	Huntlee Licence cl A4.2	The Licensee is to implement environmental mitigation measures substantially consistent with the environmental risk mitigation measures identified in: <ul style="list-style-type: none"> a) The Water Centre REF and the Proposed System REF in carrying out any activities authorised under clause A 1 of this licence b) the Proposed System REF in carrying out the activities authorised under clause A2 of this licence c) the System Extension REF and the Proposed System REF in carrying out the activities authorised under clause A3 of this licence
	Huntlee Licence cl A4.6	If the Licensee proposes to vary its environmental mitigation measures referred to in cl A4.2, it must first notify IPART in accordance with the Reporting Manual. The Licensee must not vary its environmental mitigation measures without the prior written approval of IPART.
Obligations in Schedule B to the network operators licence	Huntlee Licence cl B11	If the Licensee proposes to operate the Specified Water Industry Infrastructure to supply water for an end use which is not set out in the most recent Water Quality Plan provided by IPART, the Licensee must notify IPART in writing at least 3 months before commencing such operation.



Aspect	Licence Clause	Obligation
	Huntlee Licences cl B13	<p>This clause B13 applies each time if the Licensee has brought any of the specified Water Industry Infrastructure into commercial operation.</p> <p>The Licensee must:</p> <p>(a) notify IPART in accordance with the Reporting Manual that it has brought the relevant Specified Water industry Infrastructure into commercial operation</p> <p>(b) provide such notification within 10 days after it has brought the relevant Specified Water Industry Infrastructure into commercial operation</p>

1.3.2 Audit standards

In conducting this audit, the auditor has adopted the audit standard ISO 19011:2014 Guidelines for auditing management systems. This standard ensures that the audit is conducted in accordance with an established and recognised audit protocol.

Regard was also given to the following standards/guidelines, especially where these provide specific detail appropriate to this audit.

- *ISO 14011:1996 Guideline for Environmental Auditing*
- *ASAE 3100 (2017) Compliance Engagements* issued by the Auditing and Assurance Standards Board
- *ISO 17021:2011 Conformity Assessment – Requirements for bodies providing audit and certification of management systems* (contains principles and requirements for the competence, consistency and impartiality of the audit and certification of management systems of all types)
- *IPART (2013) Audit Guideline for Greenfield Schemes, Water Industry Competition Act 2006* (NSW) Water – Guideline July 2013
- *AS/NZ ISO 19011:2014 Guidelines for auditing management systems*
- *AS/NZS ISO 9001:2008: Quality management systems – Requirements*

1.3.3 Audit steps

A summary of audit steps is shown in Table 1-3.

Table 1-3. Audit steps

Step	Item	Details
Step 1	Initiation	IPART initiates audit
	Engagement of approved auditor	Licensee engages approved auditor to undertake audit
	Audit proposal	Auditor develops audit proposal and seeks licensee approval
		Auditor submits the audit proposal to IPART for approval
		IPART reviews proposal
		IPART approves audit proposal
Step 2	Opening meeting	Auditor undertakes opening meeting with the licensee and IPART
	Audit interviews	Auditor undertakes interviews
Step 3	Draft audit report	Auditor prepares draft audit report
		Licensee reviews draft audit report
	Final audit report	Auditor finalises audit report
	Final audit report submission	Auditor submits final reports to IPART
Step 4	Non-compliance matters	Non-compliance matters will be addressed in accordance with IPART’s Energy and Water Licence Compliance Policy



1.3.4 Audit team

The audit team and audit qualifications are provided in Table 1-4.

Table 1-4. Audit team members and their qualifications

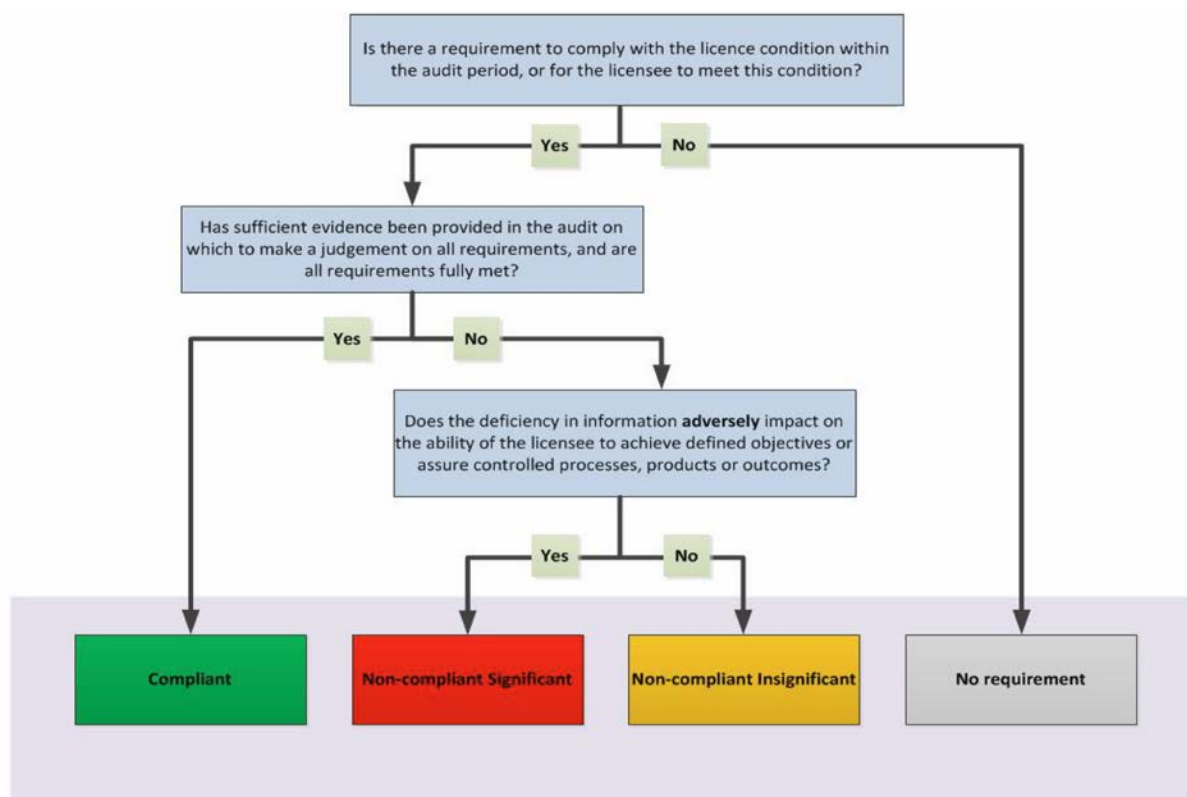
Team Member	Details
Dr Annalisa Contos Atom Consulting Auditor	Dr Annalisa Contos holds the following auditor qualifications: <ol style="list-style-type: none"> 1. Registered Exemplar Global lead auditor (Certificate No. 113465): <ol style="list-style-type: none"> a. Exemplar Global -DW (Drinking Water) b. Exemplar Global -RW (Recycled Water) c. Exemplar Global TL-AU (Lead Auditor) d. Skill Examiner 2. NSW IPART (Independent Pricing and Regulatory Tribunal) qualified: <ol style="list-style-type: none"> a. Lead Auditor and Area Specialist Drinking Water Quality b. Lead Auditor and Area Specialist Licence and Regulatory Compliance c. Lead Auditor and Area Specialist Infrastructure Performance d. Lead Auditor and Area Specialist Recycled Water Quality e. Lead Auditor and Area Specialist Sewage Management f. Area Specialist Environmental Management
Dr Annette Davison Risk Edge™ Peer Reviewer	Dr Annette Davison holds the following auditor qualifications: <ol style="list-style-type: none"> 1. Moderating Auditor, registered by the Water Services Association of Australia (WSAA) with skills to use the WSAA “Aquality” benchmarking tool 2. Registered Exemplar Global lead auditor (Certificate No. 12454): <ol style="list-style-type: none"> a. Exemplar Global-DW (Drinking Water) b. Exemplar Global TL-AU (Lead Auditor) c. Certified <i>ISO 22000</i> competency from NCSI (Food Safety Management Systems) 3. NSW IPART (Independent Pricing and Regulatory Tribunal) qualified: <ol style="list-style-type: none"> a. Lead Auditor and Area Specialist Drinking Water Quality b. Lead Auditor and Area Specialist Recycled Water Quality c. Lead Auditor and Area Specialist Sewage Management d. Lead Auditor and Area Specialist Environmental Management e. Lead Auditor Licence and Regulatory Compliance f. Auditor Retail Supply



1.3.5 Audit grades

The audit grade definitions used in assessing the auditee’s performance against the requirements are set out in Figure 1-1.

Figure 1-1. Audit grades



Source: Audit Guideline for Greenfields Schemes, Water Industry Competition Act 2006 (NSW) (IPART 2013)

1.4 Regulatory regime

Flow Systems operates largely in a NSW context but must also have regard to matters outside of that jurisdiction, where those matters may affect how it does business. A summary of the key legal and regulatory instruments for Flow Systems is provided in Table 1-5.

Table 1-5. Key legal and formal instruments relevant to Flow Systems’ operating licence

Instrument	Relevance
<i>Competition and Consumer Act 2010</i> (Cth)	An Act for the promotion of competition and fair trading and provision for consumer protection. Could apply to the ‘fitness for purpose’ of any product or service supplied including drinking water and recycled water.
Current versions of the Australian Drinking Water Guidelines and the Australian Guidelines for Water Recycling	These guidelines are called up under the WIC Regulations
Licence	A licence issued by IPART NSW, which enables Flow Systems to provide relevant services within its area of operations.
<i>Independent Pricing and Regulatory Tribunal Act 1992</i> (NSW)	Allows for the regulation of utilities such as Flow Systems including the administration and auditing of licences.
<i>Protection of the Environment Operations Act 1997</i> (NSW)	This Act sets out the environmental operating context for Flow Systems.



Instrument	Relevance
<i>Public Health Act 2010 (NSW)</i>	The objectives of this Act are to protect and promote public health, control risks to public health, promote the control and prevent the spread of infectious diseases and recognise the role of local governments in protecting public health. Supporting Regulations are intended to support the smooth operation of the Act. Flow Systems has obligations under this Act including notifying the Minister of any situation that is likely to be a risk to public health.
<i>Water Industry Competition Act 2006 (NSW)</i>	The WIC Act includes provisions for a licensing regime for private sector providers of reticulated drinking water, recycled water and sewerage services. This Act gives effect to the operational audits (this audit) to which Flow Systems is subject.
<i>Plumbing and Drainage Act 2011 (NSW)</i>	This Act requires plumbing and drainage work to be carried out only by authorised persons, to comply with the Plumbing Code of Australia and to use only authorised (WaterMark) fittings. The Act establishes requirements for plumbers carrying out plumbing and sanitary drainage work, provides regulatory powers to the plumbing regulator and establishes a mandatory inspection scheme for compliance with prescribed codes and standards.

1.5 Quality assurance process

Checks of information received were conducted and included aspects such as dates for audit scope compliance, veracity of information, coverage of the subject area being audited and depth of implementation. Professional scepticism (as per ASAE 3100) was applied as part of the document review and on-site audit. Our quality assurance approach to this audit involved peer review from a qualified auditor (Dr Annette Davison) who was not part of the on-site audit.



2 Audit findings

2.1 Recommendations

Aspect	Licence Clause	Recommendation
General obligations for a network operator	WIC Reg Sch1 cl. 1(2)(a)	R1-1 Flow Systems should review its incident notification processes to ensure future incident reporting meets the immediate notification requirements of this clause.
Obligations for water supply infrastructure	WIC Reg Sch 1 cl. 6(2)(a)	R 6-1 Flow Systems should conduct a thorough review of its Infrastructure Operating Plan to ensure the Infrastructure Operating Plan documents what is occurring across its schemes in practice, this review should include a thorough review of the Incident Management Plan and Asset Management Plan and supporting procedures and processes. R 6-2 Flow Systems should review document management in its BMS to ensure only current and approved versions are accessible for operational use.
	WIC Reg Sch 1 cl. 7(4)(a)	R 7-1 The Recycled Water Quality Plan should be reviewed to ensure it documents Flow Systems current approach to recycled water management. References to supporting documentation should be cross-checked to confirm they exist and are current. R7-2 The Drinking Water Quality Plan should be reviewed to ensure it documents Flow Systems current approach to drinking water management. References to supporting documentation should be cross-checked to confirm they exist and are current. Attention should be given to drinking water verification including sampling locations and frequency triggers.
Obligations for sewerage infrastructure	WIC Reg Sch 1 cl. 14(3)(a)	R14-1 The Sewage Management Plan should be reviewed to ensure it documents Flow Systems current approach to sewage management. References to supporting documentation should be cross-checked to confirm they exist and are current.

2.2 Opportunities for improvement

The following opportunities for improvement were identified:

OFI 7-1 Update s7.1 in the Recycled Water Quality Plan to remove the notification phone numbers and replace with a link to the Stakeholder Register.

OFI 7-2 Consider opportunities to embed testing of the Incident Management Plan and associated staff training as part of the post incident review

OFI 7-3 Consider on-line monitoring of key drinking water quality parameters at the Hunter Water transfer point to provide real-time water quality verification. Develop appropriate action triggers or automated shutoff if water quality is not acceptable.

OFI 7-4 Review the resourcing requirements to ensure documentation is, and remains, aligned with current practice and regulatory requirements.



Appendix A Detailed findings: General obligations for a network operator

WIC Regulation Schedule 1 Clause 1(2)

Subclause	Requirement	Compliance grade
WIC Reg Sch1 cl. 1(2)	(a) A network operator must immediately notify IPART of any incident in the conduct of activities that threatens, or could threaten water quality, public health or safety	Non-compliant Insignificant
	(b) A network operator must immediately notify the Minister administering the Public Health Act 2010 (NSW) and the Public Health Regulation 2012 (NSW) of any incident in the conduct of its activities that threatens, or could threaten, water quality, public health or safety	Non-compliant Insignificant
	(c) A network operator must immediately notify the Minister administering Part 2 of the Water Industry Competition Act 2006 (NSW) of any incident in the conduct of its activities that threatens, or could threaten, water quality, public health or safety	Non-compliant Insignificant
	(e) A network operator must immediately notify any other licensed network operator or public water utility whose infrastructure is connected to the licensee's infrastructure, of any incident in the conduct of its activities that threatens, or could threaten, water quality, public health or safety	Compliant
Risk	Target for full compliance	
High	That incidents that threaten, or could threaten water quality, public health or safety are immediately notified to IPART, the appropriate Ministers via their delegated agencies and Hunter Water.	

Evidence sighted

Interviews with:

- Executive Manager Utility Operations
- HSE Manager
- Risk & Compliance Manager

Site inspection of Huntlee

Incident Register

Form A – Incident Initial Notification Huntlee 1/3/2017

Form B – Incident Written Notification Huntlee 2/3/17

Incident Report Form Huntlee Drinking Water Quality Incident Report 020317

Incident Notification Protocol with NSW Health for Supply of Drinking Water & Supply of Recycled Water (Version 2 15/1/15)

Incident Notification by Network Operators and Retail Suppliers (IPART, March 2016).

Email HSE Manager to Auditor 19/2/2018 regarding 2/3/2017 Huntlee incident notification

Email IPART to Auditor 9/2/2018 regarding 2/3/2017 Huntlee incident notification

Summary of reason for grade

There was an 18 hour delay between notification to Flow Systems of the incident and notification to IPART and NSW Health. The Metropolitan Water Directorate (MWD) was not notified of the incident (WIC Regulation Schedule 1 clause 1(2)(c)). A grade of non-compliant insignificant has been awarded to these sub clauses.



Discussion and notes

The incident register was reviewed. The register recorded 4 incidents at Huntlee:

- A loss of drinking and recycled water supply on 4th December 2016.
- A loss of drinking and recycled water supply on 8th October 2016.
- A drinking water quality incident on the 2nd March 2017.
- An environmental incident on the 18th July 2017.

The drinking water quality incident (2nd March 2017) was the only incident recorded that triggered these sub-clauses because it threatened water quality and could have threatened public health.

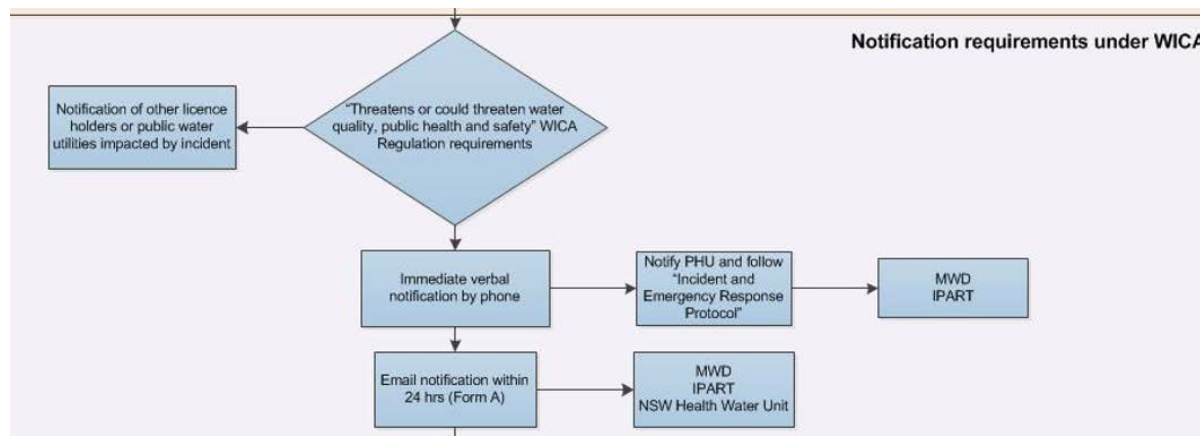
The incident notification protocol is detailed in *Incident Notification by Network Operators and Retail Suppliers* (IPART, March 2016). The auditor notes aspects of ambiguity in this incident notification protocol.

Page 6 states:

“Immediate notification to the Public Health Unit (in accordance with the Incident and Emergency Response Protocol), MWD and IPART must be made verbally as soon as the licensee becomes aware of the event or aware that the event is likely to occur, and followed up in writing to Water Unit, MWD and IPART... Verbal notification must then be followed up with written notification within 24 hours of the verbal notification. This is to be in provided using the template in Appendix A.”

Page 5 contains a flow chart that separates immediate verbal notification by phone from e-mail notification within 24 hours via Form A (Figure A-1).

Figure A-1. IPART Incident Notification Flowchart



Form A suggests immediate notification is within 24 hours (Figure A-2).



Figure A-2. IPART Form A

IMMEDIATE (within 24hrs) PHONE NOTIFICATION DETAILS

	Time / Date	Person contacted (<i>indicate if message was left with the contact</i>)
PHU Phone number outlined in Incident and Emergency Response Protocol		
Metropolitan Water Directorate (02) 9372 8521		
IPART (02) 9113 7722		

The timeline of the drinking water incident is recorded in Table i-i.

Table A-1. Incident timeline

Date	Time	Activity
1 st March 2017	10:48 pm	Incident commencement
2 nd March 2017	8:30 am	Hunter Water notified
	2:35 pm	Incident resolved
	4:30 pm	IPART notified
	4:35 pm	NSW Health notified

Flow Systems advised they had understood that immediate notification was within 24 hours due to the wording of Form A.

The auditor notes a new Incident Notification Protocol has been released that clarifies the above ambiguities.

Recommendations

R1-1 Flow Systems should review its incident notification processes to ensure future incident reporting meets the immediate notification requirements of this clause.

Opportunities for improvement

No opportunities for improvement were identified.



WIC Regulation Schedule 1 Clause 2(1)-2(2)

Table A-2. WIC Regulation Schedule 1 Clause 2(1)-2(2)

Subclause	Requirement	Compliance grade
WIC Reg Sch1 cl. 2(1)	A network operator must not bring any new water or sewerage infrastructure into commercial operation without the written approval of the Minister.	Compliant
WIC Reg Sch1 cl. 2(2)	<p>(a) The network operator must provide to the Minister a report, prepared by an approved auditor that indicates the infrastructure complies with the requirements of the Regulation and any licence conditions.</p> <p>(b) The network operator must provide to the Minister a report, prepared by an approved auditor that indicates that the infrastructure is capable of operating safely and in accordance with its infrastructure operating plan and its water quality or sewage management plan, as the case requires.</p>	No requirement
Risk	Target for full compliance	
Medium	No new water or sewerage infrastructure has been brought into commercial operation without the written approval of the Minister.	

Evidence sighted

Interviews with:

- Executive Manager Utility Operations
- HSE Manager
- Risk & Compliance Manager

Site inspection of Huntlee

Infrastructure Operating Plan (Version 6 - 25/5/16, Version 7 - 21/10/16, Version 8 - 21/12/16)

Summary of reason for grade

Network reticulation was constructed during the audit period and an additional 124 customers were connected to the Huntlee scheme. Under the WIC Regulation this does not constitute new infrastructure. Construction of treatment assets was also undertaken however these have not yet been brought into commercial operation and are therefore not part of the audit requirement.

Discussion and notes

The WIC Regulation Schedule 1 (c) states:

For the purposes of this clause, infrastructure that extends or expands existing infrastructure is not new infrastructure unless its design, construction or operation:

(a) involves different technology to that used in connection with the existing infrastructure, or

(b) is inconsistent with the infrastructure operating plan, or the water quality plan or sewage management plan, for the existing infrastructure.

Ministerial approval is not required for the construction of additional network reticulation under previous approved and audited master plans nor does the connection of additional customers trigger this sub-clause.

During the site visit the auditor checked with the auditee and observed that new infrastructure that had been constructed under this clause had not been brought into commercial operation.

Therefore, Flow System is compliant with WIC Regulation Schedule 1 clause 2(1) and there was no requirement for compliance with Clause 2(2).



Recommendations

No recommendations were made.

Opportunities for improvement

No opportunities for improvement were identified.



WIC Regulation Schedule 1 Clause 3(c)

Table A-3. WIC Regulation Schedule 1 Clause 3(c)

Subclause	Requirement	Compliance grade
WIC Reg Sch1 cl. 3(c)	The water or sewerage infrastructure is properly designed and constructed, operated in a safe and reliable manner and maintained in a proper condition, having regard to any publicly available standards or codes relating to its design, construction, operation and maintenance.	Compliant
Risk	Target for full compliance	
High	Water or sewerage infrastructure has been properly designed and constructed, operated safely and maintained in a proper condition.	

Evidence sighted

Interviews with:

- Executive Manager Utility Operations
- HSE Manager
- Risk & Compliance Manager

Site inspection of Huntlee

Infrastructure Operating Plan (Version 6 - 25/5/16, Version 7 - 21/10/16, Version 8 - 21/12/16)

Asset Management Plan (Version 2 - 22/11/16)

Pitt Town Masterplan Design Report (Issue C 19/7/10)

Blighton Subdivision Work as Executed 9/6/2017

Email 16/2/2017 HSE Manager to Auditor

Summary of reason for grade

The Infrastructure Operating Plan and supporting design documents refer to appropriate codes and standards. While the observable infrastructure was limited at the site visit, the infrastructure that could be observed was found to be compliant with relevant codes and standards.

Discussion and notes

The auditor did not consider in detail whether the equipment in operation was designed or constructed in a safe manner as this fell outside the audit period and had been audited prior to the scheme commencement. On the Huntlee site, the auditor observed during the site visit that the induction included a briefing on the construction hazards on site that day and that area beneath the crane lifting was cordoned off to prevent access under the lift zone. The site had good separation between the operational area and the construction area.

The auditor did sample whether the infrastructure was operated in a safe and reliable manner and maintained in a proper condition.

There were two combined safety showers and eye wash stations appropriately located. During the audit the eyewash component of each shower was verified as operational. The eyewash valves remained on until closed by the auditor. The flows for the eyewash stations appeared visually sufficient but were not verified by the auditor according to the standard (AS 4775)

The Executive Manager Utility Operations reported that this equipment was checked as part of the weekly walk-through. There was no weekly check-list as a memory aid for this activity nor was there other auditable evidence to support the weekly activation of the equipment (Section 9.6 of AS 4775). The auditor recognises many utilities would not have auditable records of the weekly safety checks and in the auditor’s experience tick-and-flick checklists are often not completed as intended. There was no evidence of annual testing of the combined safety showers.



Safety data sheets (SDS) were available for the chemicals on the construction site of the Huntlee LWC. The register showed these were all dated within the last 5 years consistent with the Model Code of Practice: Preparation of safety data sheets for hazardous chemicals (Safe Work Australia 2016). The register was verified for Fosrock EP-410L. An SDS for sodium hypochlorite was not available. While this chemical was not currently being used at the site, three containers (approximately 25 L) were stored on site and an SDS should have been held.

The drains on the interim sewage servicing tanks (ISST) bunds were observed to be closed. The steps for draining the bunds of both rainwater and chemicals should a tank break occur, were discussed and considered appropriate by the auditor. The level on the tanks was viewed on the SCADA. The SCADA was seen to oscillate at a frequency appropriate to the tankering activities. A sample of operational induction records was viewed. The auditor noted that while the records were signed by the inductee, the section recording the Flow Systems representative who conducted the induction was not completed.

Flow Systems' approach to asset management, planned and reactive maintenance is discussed and graded in WIC Regulation Schedule 1 6(2)(a).

Recommendations

No recommendations were made.

Opportunities for improvement

OFI 3-1 Consider reviewing how WHS requirements are discharged, monitored and audited on the Huntlee site to ensure activities and processes are current, appropriate and implemented.



Appendix B Detailed findings: Obligations for infrastructure

WIC Regulation Schedule 1 Clause 6(2)(a)

Subclause	Requirement	Compliance grade
WIC Reg Sch1 cl. 6(2)(a)	The network operator must ensure that its infrastructure operating plan is fully implemented and kept under regular review and, in particular, that all of its activities are carried out in accordance with that plan.	Non-compliant Insignificant
Risk	Target for full compliance	
High	Evidence that the infrastructure operating plan is fully implemented, regularly reviewed and that all of its activities are carried out in accordance with the plan.	

Evidence sighted

Interviews with:

- Executive Manager Utility Operations
- HSE Manager
- Risk & Compliance Manager

Infrastructure Operating Plan (Version 6 - 25/5/16, Version 7 - 21/10/16, Version 8 - 21/12/16)

Huntlee Scheme Management Plan Asset Management Plan (Version 2 - 22/11/16)

Incident Management Plan (Version 5 – 25/8/16, Version 6 14/10/16)

Incident Report and Investigation Form

Summary of reason for grade

Flow Systems has procedures and practices in place that meet the intent of the requirements of the infrastructure Operating Plan. There are discrepancies between what is documented in the overarching Infrastructure Operating Plan, what is documented in the supporting documentation and what is undertaken in practice. While the overarching Infrastructure Operating Plan has been reviewed within the audit period, the discrepancies mean the auditor cannot find that all of Flow's activities were carried out in accordance with the plan. Based on the sampling undertaken by the auditor, the issues did not adversely impact the ability of the licensee to achieve defined objectives nor assure controlled processes, products and outcomes during the audit period.

Discussion and notes

The Infrastructure Operating Plan is built up through a range of documents and work flow practices. There is an overarching Infrastructure Operating Plan covering all of the Flow Systems operations. There is an Asset Management Plan that also describes Flow Systems' approach to Asset Management. The Huntlee Scheme Management Plan contains scheme specific information relevant to the Huntlee Scheme. The Infrastructure Operating Plan sets out the infrastructure design and construction codes as noted under the previous clause (WIC Regulation Schedule 1 Clause 3(c)).

Flow Systems uses a cloud based system RAM500 to assist in asset management. During the audit interviews, the work order process was tracked through and found sound. The asset hierarchy holds asset details. Preventative maintenance programs can be associated with specific assets. A mix of computerised preventative maintenance and other systems are currently being used for preventive maintenance. As the schemes mature, additional formalisation of preventive maintenance programs, documentation and review will be required to support the appropriate management of assets.

Huntlee's ISST information was recorded to the valve level. Preventative maintenance schemes were not associated with this information. As the ISSTs are an interim system, a run to fail approach is



appropriate. Preventive maintenance is set up based on manufacturers' recommendations. Executive Manager Utility Operations advised that the preventive maintenance schedule was reviewed on-line although there was not auditable record of this.

The Infrastructure Operation Plan is subject to annual reviews. A review was completed in the audit period (21/12/16).

At Huntlee the sewerage infrastructure listed in the Infrastructure Operating Plan for the ISSTs was observed on site.

During the interviews the auditor noted there were a number of aspects where statements in the Infrastructure Operation Plan did not align with Flow Systems' practices during the audit period.

The Infrastructure Operating Plan (p32) states there are detailed contingency plans in the Incident Management Plan. These plans are not contained in the Incident Management Plan. During the audit interviews the Risk & Compliance Manager stated Flow Systems had drafted these plans but decided a flow chart would provide a better approach. Flow charts had been developed but weren't in use during the audit period. The Operations Incident Reporting and Investigation procedure has a flowchart in the back. The general incident reporting form contains reporting prompts. During the audit interview, a lack of clarity regarding the current NSW Health Incident Notification Procedure was noted.

The auditor has made a recommendation to review the Infrastructure Operating Plan and its supporting documentation to ensure these documents reflect current practice.

While the Infrastructure Operating Plan contains generic descriptions of how the schemes are designed and operated, there were some areas that appeared related to a specific scheme without explicitly stating so (e.g. p18, p19). The recommendation regarding an Infrastructure Operating Plan review should address this issue.

Recommendations

R 6-1 Flow Systems should conduct a thorough review of its Infrastructure Operating Plan to ensure the Infrastructure Operating Plan documents what is occurring across its schemes in practice, this review should include a thorough review of the Incident Management Plan and Asset Management Plan and supporting procedures and processes.

R 6-2 Flow Systems should review document management in its BMS to ensure only current and approved versions are accessible for operational use.

Opportunities for improvement

No opportunities for improvement were identified.



WIC Regulation Schedule 1 Clause 7(4)(a)

Subclause	Requirement	Compliance grade
WIC Reg Sch1 cl. 7(4)(a)	The network operator must ensure that its water quality plan is fully implemented and kept under regular review and, in particular, that all of its activities are carried out in accordance with that plan.	Non-compliant Insignificant
Risk	Target for full compliance	
High	Evidence that the water quality plan is fully implemented, regularly reviewed and that all of its activities are carried out in accordance with the plan.	

Evidence sighted

Interviews with:

- Executive Manager Utility Operations
- HSE Manager
- Risk & Compliance Manager

Recycled Water Quality Plan (Version 5 - 25/5/16, Version 6 2- 1/10/16, Version 7 - 25/7/17, Version 8 - 31/8/17)

Drinking Water Quality Plan (Version - 4 8/9/15, Version 5 - 22/11/16, Version - 31/8/17)

Audit, Risk & Compliance Committee Meeting April 2017 Minutes

Audit, Risk & Compliance Committee Meeting September 2017 Minutes

Monthly Report - Risk & Compliance April 2017

Monthly Report - Risk & Compliance September 2017

Asset Management Plan (Version 2 - 22/11/16)

Australian Water Association Past Presentations NSW Site Tour – Flow Systems Central Park – 10 February 2017 (http://www.awa.asn.au/AWA_MBRR/Branches/NSW/Past_Presentations.aspx)

E-mails between Flow Systems and the University of Sydney School of Chemical and Biomolecular Engineering

Site visit to Huntlee 5/2/2018

Sydney Water Analytical Report 172313 for 30/6/2017

Summary of reason for grade

Flow Systems has procedures and practices in place that meet the intent of the requirements of the Drinking and Recycled Water Quality Plan. There are discrepancies between what is documented in the overarching Water Quality Plans, what is documented in the supporting documentation and what is undertaken in practice. While the overarching Water Quality Plans have been reviewed within the audit period, the discrepancies mean the auditor cannot find that all of Flow's activities were carried out in accordance with the plan. Based on the sampling undertaken by the auditor, the issues did not adversely impact the ability of the licensee to achieve defined objectives nor assure controlled processes, products and outcomes during the audit period.

Discussion and notes

The Implementation of Huntlee's Drinking and Recycled Water Quality Plan was audited under this sub-clause.

Flow Systems manages its water products through its Drinking and Recycled Water Quality Plans, the Scheme Specific Management Plan and a range of supporting organisation-wide and scheme specific documentation. The water quality management plans are structured around the 12 elements in the framework. Key audit findings are reported below.

Risk Assessment

There is a risk assessment for the scheme that meets the requirements of the AGWR and ADWG. Both the Drinking and Recycled Water Quality Plan state the risk assessment will be reviewed annually.



The Huntlee Scheme Risk Register had not had an annual review during the audit period. The auditor checked that controls identified in the risk assessment were in place in the field.

Verification Monitoring

Flow Systems advised that monthly water verification sampling was occurring for Huntlee. Evidence of sampling for June 2017 was provided. The samples were being taken from near the connection with the public water utility. Given the population increase in the scheme, a threshold for monitoring frequency had been passed in the audit period. Drinking water verification monitoring should be fortnightly when the scheme population is between 100 and 500. The auditor also noted the *NSW Health Drinking Water Monitoring Program (2005)* and ADWG provide guidance on the selection of sampling locations through the reticulation system for drinking water verification. This contrasts to Flow Systems current practice of sampling at the public water utility connection point.

Incident Management

Flow Systems incident management systems were exercised during the audit period as a result of a live incident. These incidents are discussed under WIC Regulation Schedule 1 Clause 1(2).

Community Engagement

Flow Systems has excellent community engagement materials on its website including clear explanation of treatment processes. During the site visit of Huntlee, the auditor observed interpretive signage on the processes units. The auditor has third party evidence that during the audit period Flow Systems had undertaken tours of its recycling facilities for industry, university academics and students.

Documentation

The auditor noted a number of aspects when the suite of documentation was not complete:

1. Issues associated with the incident management plan and notification protocol for NSW Health were noted in WIC Regulation Schedule 1 Clause 7(4)(a).
2. The Monitoring and Sampling Plan called up in both the Drinking and Recycled Water Quality plans refers to a scheme specific monitoring and sampling programme. When viewed during the interviews, these spreadsheets were marked draft and did not include drinking water quality in the programme.
3. The Recycled Water Quality Plan (p48) makes reference to specific documented plans for eight incidents. As noted in WIC Regulation Schedule 1 Clause 7(4)(a), Flow System is not using detailed plans to manage incidents so the reference to these documented response plans is not correct.

The auditor noted a number of aspects where the documentation did not reflect what occurred in practice:

1. The Incident Management Plan (p31) states that refresher and scenario training should be provided at appropriate intervals and no greater than 12 months. This training was not undertaken during the audit period. Given the frequency at which Flow Systems managed incidents across its sites, the auditor considers this a documentation issue, rather than a potential skill gap. A recommendation is made to update the Incident Management Plan to reflect the current practice. There is also an OFI to utilise incidents as opportunities to train staff and test the incident management plan and its supporting processes.
2. The Recycled Water Management Plan (s7.1) contains list of stakeholders and contact numbers.

The auditor has noted an OFI that these are removed and replaced with a link to the stakeholder register as the NSW Fire & Rescue local station number (08 8087 2233) is for the Broken Hill Fire Station.



Recommendations

R 7-1 The Recycled Water Quality Plan should be reviewed to ensure it documents Flow Systems current approach to recycled water management. References to supporting documentation should be cross-checked to confirm they exist and are current.

R7-2 The Drinking Water Quality Plan should be reviewed to ensure it documents Flow Systems current approach to drinking water management. References to supporting documentation should be cross-checked to confirm they exist and are current. Attention should be given to drinking water verification including sampling locations and frequency triggers.

Opportunities for improvement

OFI 7-1 Update s7.1 in the Recycled Water Quality Plan to remove the notification phone numbers and replace with a link to the Stakeholder Register.

OFI 7-2 Consider opportunities to embed testing of the Incident Management Plan and associated staff training as part of the post incident review

OFI 7-3 Consider on-line monitoring of key drinking water quality parameters at the Hunter Water transfer point to provide real-time water quality verification. Develop appropriate action triggers or automated shutoff if water quality is not acceptable.

OFI 7-4 Review the resourcing requirements to ensure documentation is, and remains, aligned with current practice and regulatory requirements.



WIC Regulation Schedule 1 Clause 11

Subclause	Requirement	Compliance grade
WIC Reg Sch1 cl. 1(11)	The licensee must not allow a customer's installation to be connected to a licensee's water main unless the installation is code compliant (within the meaning of the <i>Plumbing and Drainage Act 2011</i>)	Compliant
Risk	Target for full compliance	
Medium	Customer installation to a Licensee water main must be code compliant (within the meaning of the <i>Plumbing and Drainage Act 2011</i>)	

Evidence sighted

Infrastructure Operating Plan (Version 6 - 25/5/16, Version 7 - 21/10/16, Version 8 - 21/12/16)
Interview with Executive Manager Utility Operations
Netsuite Customer Management System
Drinking Water Quality Plan (Version - 4 8/9/15, Version 5 - 22/11/16, Version - 31/8/17)

Summary of reason for grade

Flow Systems does not connect customers to its water main until they have received evidence from NSW Department of Fair Trading or a delegated inspector that the customer's installation is code compliant under the *Plumbing and Drainage Act 2011* (NSW).

Discussion and notes

Flow uses Netsuite as its Customer Management System. Flow does not connect customers until they have received evidence that the customer's installation has been certified as code compliant under the *Plumbing and Drainage Act 2011*.

The auditor viewed a plumbing and drainage inspection report from Cessnock City Council for a site in Huntlee that was connected during the audit period. The report found that the connection was code compliant.

Recommendations

No recommendations were made.

Opportunities for improvement

No opportunities for improvement were identified.



WIC Regulation Schedule 1 Clause 10(a)

Subclause	Requirement	Compliance grade
WIC Reg Sch1 cl. 10(a)	The network operator under a licence for water infrastructure to supply non-potable water for a particular purpose must ensure that the water supplied is fit for that purpose.	No requirement
Risk	Target for full compliance	
High	Non-potable water meets the requirement for the purposes for which its used (as per the requirements in the <i>Australian Guidelines for Water Recycling</i>)	

Evidence sighted

Site inspection of Huntlee

Summary of reason for grade

Huntlee currently supplies potable water through its recycled water line. As non-potable water is not being supplied there is no requirement to comply with this clause and the water being of a potable nature, is inherently fit for purpose.

Recommendations

No recommendations were made.

Opportunities for improvement

No opportunities for improvement were identified.



WIC Regulation Schedule 1 Clause 14(3)(a)

Subclause	Requirement	Compliance grade
WIC Reg Sch1 cl. 14(3)(a)	A network operator must ensure its sewage management plan is fully implemented and kept under regular review and all its activities are carried out in accordance with the plan.	Non-compliant Insignificant
Risk	Target for full compliance	
Medium	Evidence that the sewage management plan is fully implemented, regularly reviewed and that all of its activities are carried out in accordance with the plan.	

Evidence sighted

Sewage Management Plan (Version 3 - 23/3/16, Version 4 - 18/5/17)
Operations Environmental Management Plan (Version 3 – 7/1/16, Version 4 - 2/6/2017)
Operations Incident Management, Reporting and Investigation Procedure, FS-WAT-AUS-PR-INC-1295, 22/7/2015
Incident Management Plan (Version 5 – 25/8/16, Version 6 14/10/16)
Asset Management Plan (Version 2 - 22/11/16)
Incident Register
Incident Report and Investigation Form FS-ALL-AUS-FM-INC-1292
Monitoring and Sampling Plan (Version - 5 8/9/15, Version - 6 22/11/16)
Interviews with:

- Executive Manager Utility Operations
- HSE Manager
- Risk & Compliance Manager

Summary of reason for grade

Flow Systems has procedures and practices in place that meet the intent of the requirements of the Sewage Management Plan. There are discrepancies between what is documented in the overarching Sewage Management Plan, what is documented in the supporting documentation and what is undertaken in practice. While the overarching Sewage Management Plan has been reviewed within the audit period, the discrepancies mean the auditor cannot find that all of Flow's activities were carried out in accordance with the plan. Based on the sampling undertaken by the auditor, the issues did not adversely impact the ability of the licensee to achieve defined objectives nor assure controlled processes, products and outcomes during the audit period.

Discussion and notes

The Sewage Management Plan is built up through a range of documents and work flow practices. There is an overarching Sewage Management Plan covering all of the Flow Systems operations. There is an Asset Management Plan that also describes Flow Systems' approach to Asset Management. The Huntlee Scheme Management Plan contains scheme specific information relevant to Huntlee. The Responsibilities and Authorities matrix outlines the requirements of the plan. This matrix requires review to ensure responsibilities are appropriately allocated.

A procedure for loading the tanker was stored on the Flow Systems BMS. The observed tankering activities did not align completely with all aspects of this procedure. This procedure should be reviewed for currency. Induction records were available for the tanker driver.

The Sewage Management Plan is supported by a range of documents. There is the scheme specific management plan and scheme specific risk assessment. The auditor noted the scheme specific risk assessment was not reviewed within the audit period as it should have been. The auditor noted that the Scheme specific monitoring program was still in draft for Huntlee.

Other company-wide systems also support the Sewage Management Plan. Commentary previously provided on the Incident Management Plan (WIC Regulation Schedule 1 Clause 7(4)(a)) and Asset



Management Plan and Asset Management System (WIC Regulation Schedule 1 Clause 6(2)(a)) are also relevant. The issues with currency of these supporting documents is why this clause has been graded as non-compliant insignificant.

Recommendations

R14-1 The Sewage Management Plan should be reviewed to ensure it documents Flow Systems current approach to sewage management. References to supporting documentation should be cross-checked to confirm they exist and are current.

Opportunities for improvement

No opportunities for improvement were identified.



Appendix C Detailed findings: Schedule A obligations

Licence clause A4.2

Subclause	Requirement	Compliance grade
Licence clause A4.2	<p>The Licensee is to implement environmental mitigation measures substantially consistent with the environmental risk mitigation measures identified in:</p> <p>(a) The Water Centre REF and the Proposed System REF in carrying out any activities authorised under clause A 1 of this license</p> <p>(b) the Proposed System REF in carrying out the activities authorised under clause A2 of this licence; and</p> <p>(c) the System Extension REF and the Proposed System REF in carrying out the activities authorised under clause A3 of this licence.</p>	Compliant
Risk	Target for full compliance	
Medium	Environmental mitigation measures implemented consistent with the scheme REFs	

Evidence sighted

Site Interviews:

- Executive Manager Utility Operations
- HSE Manager
- Risk & Compliance Manager
- Construction Manager Huntlee

Huntlee Local Water Centre Construction Environmental Management Plan
Flow Systems OEMP

Summary of reason for grade

The mitigation measures observed during the site visit of Huntlee were consistent with the mitigation measures included in the Review of Environmental Factors, Construction Environment Management Plan and Flow Systems' Operational Environment Management Plan.

Discussion and notes

A walk-around of the Huntlee LWC site was undertaken during the audit. Much of the civil work was complete so many of the mitigation measures contained within the REF and Construction Environment Management Plan could no longer be observed.

The tree-clearing plan was ground-truthed. All trees that should have been retained on the Local Water Centre site had been retained. A spill kit was available on site. The site had been re-vegetated. No materials or plant were stored within the trees' dripline. No chemicals, fuels or waste was stored within or adjacent to drainage lines. The construction manager noted this revegetation was part of a contractual dispute and rectification work was still to be undertaken.

The SDS register was sighted and the SDSs were up to date as noted in the commentary for WIC Regulation Schedule 1 clause 3(c). The complaints register was managed through Flow Systems' retail customer service system and compliant.

Recommendations

No recommendations were made.



Opportunities for improvement

No opportunities for improvement were identified.



Licence clause A4.6

Subclause	Requirement	Compliance grade
Licence clause A4.6	If the Licensee proposes to vary its environmental mitigation measures referred to in cl A4.2, it must first notify IPART in accordance with the Reporting Manual. The Licensee must not vary its environmental mitigation measures without the prior written approval of IPART.	Compliant
Risk	Target for full compliance	
Medium	IPART must be notified of any variations in environmental mitigation measures referred to in the scheme REFs	

Evidence sighted

Operations Environmental Management Plan (OEMP).pdf
Huntlee LWC CEMP 19_02_16_FINAL_V2_reduced.pdf
Email 9/2 HSE Manager to Auditor

Summary of reason for grade

No variations in environmental mitigation measures occurred in the audit period, therefore there was no requirement to notify IPART. This clause is awarded a compliant grade.

Discussion and notes

Flow Systems advised they did not change their mitigation measures in the audit period. The Construction Environmental Management Plan was not updated during the audit period and there were no variations to the mitigation measures in the Operations Environmental Management Plan during the audit period. As Flow Systems did not propose to vary the environment mitigation measures there was no requirement to notify IPART.

Recommendations

No recommendations were made.

Opportunities for improvement

No opportunities for improvement were identified.



Appendix D Detailed findings: Schedule B obligations

Licence clause B11

Subclause	Requirement	Compliance grade
Licence clause B11	If the Licensee proposes to operate the Specified Water Industry Infrastructure to supply water for an end use which is not set out in the most recent Water Quality Plan provided by IPART, the Licensee must notify IPART in writing at least 3 months before commencing such operation.	No requirement
Risk	Target for full compliance	
High	IPART must be notified 3 months before commencing operation of an end use not set out in the most recent water quality plan	

Evidence sighted

Site visit Huntlee

E-mail HSE Manager to auditor 13/2/2018

Summary of reason for grade

The Licensee did not propose to operate the Specified Water Industry Infrastructure for an end use not set out in the Water Quality Plan. Therefore there was no requirement to notify IPART.

Recommendations

No recommendations were made.

Opportunities for improvement

No opportunities for improvement were identified.



Licence clause B13

Subclause	Requirement	Compliance grade
Licence clause B13	<p>This clause B13 applies each time if the Licensee has brought any of the specified Water Industry infrastructure into commercial operation. The licensee must</p> <ul style="list-style-type: none">(a) Notify IPART in accordance with the Reporting Manual that it has brought the relevant Specified Water Industry Infrastructure into commercial operation; and(b) provide such notification within 10 days after it has brought the relevant Specified Water Industry Infrastructure into commercial operation	No requirement
Risk	Target for full compliance	
Medium	IPART must be notified (within 10 days) each time Water Industry infrastructure is brought into commercial operation (in accordance with the Reporting Manual)	

Evidence sighted

Site visit to Huntlee 5/2/2018

Infrastructure Operating Plan (Version 6 - 25/5/16, Version 7 - 21/10/16, Version 8 - 21/12/16)

Interviews with:

- Executive Manager Utility Operations
- HSE Manager
- Risk & Compliance Manager

Summary of reason for grade

This clause applies when specified water industry infrastructure is brought into operation. Flow Systems did not bring any specified water industry infrastructure into commercial operation during the audit period in relation to this clause. Therefore, they had no requirement to notify IPART.

Discussion and notes

The specified water industry infrastructure for Huntlee is:

Non-potable water:

1. *A treatment plant for non-potable water and other water infrastructure used, or to be used, in connection with the treatment plant, where components of the treatment plant or the other water infrastructure may also be used for one or more of the following:*
 - a) *production of non-potable water;*
 - b) *treatment of non-potable water;*
 - c) *filtration of non-potable water;*
 - d) *storage of non-potable water; and*
 - e) *conveyance of non-potable water.*
2. *A reticulation network for non-potable water and other water infrastructure used, or to be used, in connection with the reticulation network, where components of the reticulation network or the other water infrastructure may also be used for one or more of the following:*
 - a) *storage of non-potable water;*
 - b) *conveyance of non-potable water; and*



- c) *treatment of non-potable water.*

Drinking water:

A reticulation network for drinking water and other water infrastructure used, or to be used, in connection with the reticulation network, where components of the reticulation network or the other water infrastructure may also be used for one or more of the following:

- a) *storage of drinking water;*
- b) *conveyance of drinking water; and*
- c) *treatment of drinking water.*

Sewerage services

1. *A treatment plant for sewage and other sewerage infrastructure used, or to be used, in connection with the treatment plant, where components of the treatment plant or the other sewerage infrastructure may also be used for one or more of the following:*

- a) *production of treated non-potable water from sewage;*
- b) *treatment of sewage;*
- c) *filtration of sewage;*
- d) *storage of sewage; and*
- e) *conveyance of sewage.*

2. *A reticulation network for sewage and other sewerage infrastructure used, or to be used, in connection with the reticulation network, where components of the reticulation network or the other sewerage infrastructure may also be used for one or more of the following:*

- a) *storage of sewage; and*
- b) *conveyance of sewage.*

No infrastructure meeting this criterion was brought into operation. Therefore there was no requirement for Flow Systems to notify IPART.

Recommendations

No recommendations were made.

Opportunities for improvement

No opportunities for improvement were identified.