

Independent Pricing and Regulatory Tribunal

State Water Corporation Operational Audit 2013/14

Report to the Minister

Water — Compliance Report December 2014



Independent Pricing and Regulatory Tribunal

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1 Executive summary

The Independent Pricing and Regulatory Tribunal of New South Wales (**IPART**) has completed the audit of State Water Corporation's (**State Water**) compliance with the requirements of its 2013-2018 operating licence (**licence**). This audit covers the period from 1 July 2013 to 30 June 2014.

The operational audit is the main regulatory instrument that we use to assess compliance with the licence. We apply a risk based approach to the audit. Under this approach, we assess the risk of non-compliance with a licence obligation to determine an appropriate audit frequency for that requirement. We audit clauses that we consider to be 'high risk' more frequently, while low risk clauses are audited less frequently. We audit all requirements of the operating licence at least once during the 5-year term of the licence.

Further, in determining the scope of the audit we consult with the NSW Ministry of Health (NSW Health) and seek public submissions. This year, NSW Health did not identify any areas of interest and we received no public comment. We also engaged a specialist auditing firm, Cardno (QLD) Pty Ltd (**Cardno**), to assist with the 2013/14 operational audit.

Adopting a risk based approach has improved the effectiveness and efficiency of the auditing process, without increasing risks to the community. The approach allows audit resources to be targeted to areas of higher risk. It also reduces the overall burden of compliance for the utility.

1.1 Overview of audit findings

This year State Water demonstrated a high level of compliance with its operating licence. The auditor awarded Full Compliance to 17 of the 21 clauses audited and High Compliance for the remaining four clauses. In summary, the audit found that State Water achieved:

- ▼ **Full Compliance** with requirements relating to licence and licence authorisation.
- **High to Full Compliance** with requirements relating to water quality.
- High to Full Compliance with requirements relating to water quantity.
- **Full Compliance** with requirements relating to assets.

- High to Full Compliance with requirements relating to customers.
- Full Compliance with requirements relating to environmental management.

State Water's compliance is summarised in Table 1.1 below.

| Table 1.1 | State Water's compliance in 2013/14, the first year of its 2013-2018 |
|-----------|--|
| | operating licence |

| | Number of | Compliance grade awarded | | |
|---|-----------------|--------------------------|------|----------|
| Licence chapter | audited clauses | Full | High | Adequate |
| Chapter 1 – Licence and licence authorisation | 3 | 3 | - | - |
| Chapter 2 – Water quality | 4 | 2 | 2 | - |
| Chapter 3 – Water quantity | 6 | 5 | 1 | - |
| Chapter 4 – Assets | 3 | 3 | - | - |
| Chapter 5 – Customers | 4 | 3 | 1 | - |
| Chapter 6 – Environmental management | 1 | 1 | - | - |
| Total | 21 | 17 | 4 | 0 |

Source: Cardno, Operational Audit of State Water Corporation – Prepared for Independent Pricing and Regulatory Tribunal, November 2014.

1.2 Annual statement of compliance

In preparing this report we have also reviewed State Water's annual Statement of Compliance (Appendix D). This is an exception based report certified by the CEO and the Chairman of the State Water Board. It lists any licence breaches that occurred during the year. Further, any remedial action taken, or in the process of being taken, is reported. This year State Water reported one breach of its operating licence regarding its obligation to maintain a system to provide notification of significantly changed flow patterns from its water management works. State Water reported that corrective actions have been taken. Further details are provided in section 3.3.

1.3 Our recommendations

The auditor prepared a final audit report detailing its findings and recommendations (Appendix C). We endorse the auditor's findings. There were four clauses for which the auditor did not award Full Compliance. We make three recommendations based on the auditor's recommendations. These are outlined below. We have not made a recommendation in relation to clause 3.2.1 (advance notification system for changes to flow release patterns), which was awarded High Compliance, as State Water has already taken appropriate action to prevent future incidents from occurring.

Recommendations

- 1 With regards to the Local Water Utility (LWU) register (clause 2.1.1), State Water should:
 - Prepare a documented procedure to maintain the register.
 - Contact and confirm details for LWUs who have yet to confirm contact details for the register.
- 2 State Water should update the water quality information request procedure to describe how fees or charges are to be paid. (clause 2.1.3)
- 3 State Water should take steps to increase awareness of its internal Complaints Handling Procedure and continue to monitor implementation of the procedure. (clause 5.6.2)

Subject to your endorsement, we will request that State Water provides a progress report to us on its implementation of these recommendations by 31 March 2014.

2 | Introduction and scope

State Water is a State Owned Corporation owned by the NSW State Government. Its primary role is to capture, store and release water in an efficient, effective, safe and financially responsible manner for its customers in various locations across NSW. These roles and responsibilities, as well as State Water's objectives, were prescribed by the *State Owned Corporations Act* 1989, the *State Water Corporation Act* 2004 (**Act**) and the licence issued to State Water under part 11 of the Act. We note that on 5 November 2014, the Water NSW Bill (2014) was passed, which now applies to activities previously undertaken by the State Water.¹

State Water's new five year operating licence commenced on 1 July 2013. We have completed the annual operational audit of State Water's compliance with obligations outlined in its licence. We do this by receiving and reviewing reports, attending audit interviews with utility staff and undertaking field verification to investigate how effectively requirements of the operating licence are met in practice. At the completion of the audit we publish the audit report and report our findings to the Minister for Natural Resources, Lands and Water (the Minister).

We applied a risk based approach to the State Water audit, as outlined in the Executive Summary. Further, we assessed compliance by reviewing an annual statement of compliance prepared by State Water (Appendix D). This is an exception based report listing any licence breaches that occurred during the year and what remedial action has been taken, or is being taken, to resolve the matter.

¹ Under the Bill, State Water becomes Water NSW (which will also include the Sydney Catchment Authority's functions), the provisions of the Act are replaced with those of the Bill, and State Water's existing operating licence continues to be in force for the State Water component of Water NSW (as is the case for the Sydney Catchment Authority's current operating licence).

2.1 **Purpose and structure of this report**

The purpose of this report is to inform the Minister of State Water's performance against its audited licence obligations for the audit period and to set out recommendations in response to these findings.

- This chapter (chapter 2) explains the scope of the audit review and the process followed in undertaking the audit.
- Chapter 3 presents a summary of the audit findings and recommendations.
- Chapter 4 summarises the progress by State Water to address and implement recommendations from previous audits.
- Appendix A contains the table of compliance grades used for this audit.
- Appendix B contains the audit scope.
- Appendix C provides the auditor's detailed audit report.
- Appendix D provides State Water's annual statement of compliance.

2.2 Audit scope

This audit covers the period from 1 July 2013 to 30 June 2014.

The scope of this year's audit included obligations relating to:

- Licence and licence authorisation requirements relating to public availability of State Water's operating licence and its conferred functions.
- Water quality requirements for State Water to have a publicly available procedure outlining how Local Water Utilities (LWUs) can request information relating to bulk water supplied.
- Water quantity requirements for State Water to efficiently manage and deliver water to its customers.
- Assets requirement for State Water to have a certified Asset Management System (AMS) by 30 June 2018; and ensure its customer meters are read.
- Customers requirements for State Water to have developed a code of practice for payment difficulties, complaints handling procedure and dispute resolution scheme.
- Environmental management requirement to have a certified Environmental Management System (EMS) by 30 June 2018.

2 Introduction and scope

2.3 The audit process

We engaged Cardno (QLD) Pty Ltd (Cardno) to assist with the 2013/14 audit of State Water. The auditor was required to undertake the following tasks:

- 1. Liaise with NSW Health and other relevant departments to determine the agencies' views on State Water's licence compliance and whether any licence obligations should receive special focus as part of the audit.
- 2. Receive stakeholder submissions and comments for inclusion in the audit scope.
- 3. Prepare an information request (questionnaire) for State Water, setting out all information and evidence requirements, two weeks prior to the commencement of audit interviews.
- 4. Review reports and documents provided by State Water in response to the questionnaire.
- 5. Conduct face-to-face interviews with State Water staff at its offices.
- 6. Conduct field verification to view a physical asset or facility and assess the implementation of State Water's systems and procedures.
- 7. Assess the level of compliance achieved by State Water against each of the obligations of the licence set out in our risk-based audit scope, providing supporting evidence for this assessment and reporting compliance according to our compliance grades (Appendix A).
- 8. Assess and report on progress by State Water in addressing any comments made by the relevant Minister and/or recommendations endorsed by us following previous audits, providing supporting evidence for these assessments.
- 9. Provide drafts of the audit report to us and address comments from State Water and us regarding draft audit findings.
- 10. Prepare a final report outlining audit findings.

As part of the audit process, we sought submissions from the public on any matter related to the operating licence prior to the commencement of the audit interviews. We advertised for public submissions in the Sydney Morning Herald and The Daily Telegraph on 9 July 2014, and The Land on 10 July 2014. No submissions from the public were received.

Cardno contacted NSW Health prior to the audit interview to seek its views on compliance and any other areas, which should be reviewed as part of this audit. NSW Health did not advise the auditor of any specific issues it required to be addressed during the audit (refer to Appendix C for more details).

The auditor adopted an audit methodology that was consistent with the following standards:

- ▼ ASAE 3100: Standard on Assurance Engagements Compliance Engagements
- ▼ ASAE 3000: Assurance Engagements Other than Audit or Reviews of Historical Financial Information
- ▼ ISO 19011:2011: Guidelines for quality and/or environmental management systems auditing.

The guidelines contained in the above standards set out a systematic approach to defining the requirements of an audit, ensuring that it is conducted in accordance with an established and recognised audit protocol.

The auditor also carried out the audit according to our Audit Guideline for Public Water Utilities.² Under this guideline, auditors can either make **recommendations** or suggest **opportunities for improvement**. Where we support an auditor's **recommendation**, we follow up the matter to ensure that it is addressed.

Where auditors have suggested **opportunities for improvement**, we take a different approach. The utility can decide whether to implement an opportunity based on its own assessment of whether the improvement is a prudent and efficient way to achieve its outcomes. We take this approach to balance improved performance with the investment required to achieve it. That is, we want the utility to consider the pricing implications of continued improvement and value for money, before the utility implements further improvements. As a consequence, we do not follow up these matters.

We held a project start up meeting with the auditors on 6 August 2014, to agree on the project milestones and timing of the audit, and outline our audit expectations. We also held an audit inception meeting with State Water and Cardno on the first day of the audit interviews, 17 September 2014. At this meeting mutual understanding and expectations of the audit were established and protocols for the conduct of the audit were agreed. All parties adhered to the agreed protocols throughout the audit.

The operating licence audit interviews were conducted from 17 to 19 September 2014 at State Water's offices in Sydney and Dubbo. On 18 September 2014, the auditor also undertook a site visit to Burrendong Dam and Marebone Weir.

State Water's compliance with the relevant requirements of the operating licence was assessed according to the compliance grades outlined in Appendix A.

² IPART, *Audit Guideline – Public Water Utilities*, July 2014. This Audit Guideline is on our website (www.ipart.nsw.gov.au).

3 Summary of audit findings and recommendations

This chapter provides a summary of the auditor's findings and recommendations for each of the audited clauses of the licence. The 2013/14 audit is the first audit of the 2013-2018 licence.

Each section includes a table providing a comparison of State Water's audit performance during its licence period. However, comparison data will only be available from 2015 onwards as this is the first year of the new operating licence. Compliance grades are abbreviated according to the following convention:

- ▼ **Full** = Full Compliance
- ▼ **High** = High Compliance
- Adeq = Adequate Compliance
- ▼ NC = Non-Compliant
- ▼ **NR** = No requirement.

Following each table, we discuss compliance and reasoning for the grade. We also discuss any recommendations and opportunities for improvement.

3.1 Licence and licence authorisation

State Water achieved Full Compliance for the audited *licence and licence authorisation* clauses.

Chapter 1 of the licence outlines State Water's obligation to make the licence available to the public and outlines any conferred functions under the licence. Under the risk based auditing framework, we consider that this chapter of the licence poses a low risk with respect to both the likelihood and consequence of non-compliance.

| Clause | Clause Requirement Compliance grading | | | | | |
|--------|--|---------|---------|---------|---------|---------|
| 1 | Licence and Licence authorisation | 2013/14 | 2014/15 | 2015/16 | 2016/17 | 2017/18 |
| 1.3.1 | Availability of Licence | Full | - | - | - | - |
| 1.4.3 | Publication of its Conferred functions by 1 October 2013 | Full | - | - | - | - |
| 1.4.4 | Availability of statement of Conferred functions | Full | - | - | - | - |

 Table 3.1
 Summary of compliance with Chapter 1 of the licence – Licence and Licence authorisation

Source: Cardno, Operational Audit of State Water Corporation – Prepared for Independent Pricing and Regulatory Tribunal, November 2014.

The auditor found that State Water has complied with the requirement to make its operating licence and statement of conferred functions available to members of the public. The auditor noted that this requirement was satisfied by publishing the documents on State Water's website and having appropriate processes in place to provide documents to members of the public upon request. As a result, the auditor awarded Full Compliance for clauses 1.3.1, 1.4.3 and 1.4.4. No recommendation or opportunities for improvement were identified.

3.2 Water quality

State Water achieved High to Full Compliance for the audited *water quality* clauses.

Chapter 2 of the licence outlines State Water's requirements to maintain records of Local Water Utilities (LWUs) supplied by State Water. This chapter of the licence also requires State Water to make publicly available a procedure outlining how LWU's could request information, including details of any fees and charges to be paid for such information. Under the risk based auditing framework, we consider that this chapter of the licence poses a low to medium risk with respect to both the likelihood and consequence of non-compliance.

| | quanty | | | | | |
|--------|--|--------------------|---------|---------|---------|---------|
| Clause | Requirement | Compliance grading | | | | |
| 2 | Water quality | 2013/14 | 2014/15 | 2015/16 | 2016/17 | 2017/18 |
| 2.1.1 | Maintain LWU register | High | - | - | - | - |
| 2.1.2 | Develop and implement LWU Information Request Procedure | Full | - | - | - | - |
| 2.1.3 | Ensure the LWU Information Request Procedure describes State Water's response process and fees/charges to be incurred | High | - | - | - | - |
| 2.1.4 | Availability of LWU Information Request Procedure | Full | - | - | - | - |

| Table 3.2 | Summary of compliance with Chapter 2 of the licence – Water |
|-----------|---|
| | quality |

Source: Cardno, Operational Audit of State Water Corporation – Prepared for Independent Pricing and Regulatory Tribunal, November 2014.

Clause 2.1.1 - Maintain a register of Local Water Utilities (LWUs)

The auditor found that State Water had in place a register of LWUs, with two minor shortcomings. The auditor noted that State Water had sent letters to LWUs requesting that a primary contact person be nominated. The auditor found that 22 of the 42 LWUs contacted had not responded to State Water's letter and these had not been followed up, thus the register was not considered up to date. Further, the auditor identified that State Water does not currently have a documented process to maintain and periodically update the LWU register.

Accordingly, the auditor awarded State Water High Compliance for clause 2.1.1. Refer to Recommendation 1 below.

Clause 2.1.2 – Develop and implement a LWU Information Request Procedure by 1 October 2013

The auditor found that State Water had in place a documented LWU Information Request Procedure to provide drinking water quality assurance program details to LWU's when requested. The auditor noted that State Water had provided details of this procedure to us by 1 October 2013.

Accordingly, the auditor awarded State Water Full Compliance for clause 2.1.2.

Clause 2.1.3 – Ensure the LWU Information Request Procedure describes how State Water will respond to information requests and define fees or charges to be incurred

The auditor found that State Water substantially met the requirements of this clause. The auditor noted that State Water's LWU Information Request

Procedure described how to place a request and how State Water would respond. However, the auditor identified minor administrative shortcomings regarding details of how fees for responding to information requests would be calculated by State Water and paid by LWUs, and lack of a formalised procedure to maintain LWU contact details in the contact register.

Accordingly, the auditor awarded State Water High Compliance for clause 2.1.3. Refer to Recommendation 1 below.

Clause 2.1.4 - Make LWU Information Request Procedure details available

The auditor found that the State Water's LWU Information Request Procedure was available on its website. Further, the auditor noted that appropriate arrangements to supply the statement to the public, when requested, were in place.

Accordingly, the auditor awarded State Water Full Compliance for clause 2.1.4.

We make two recommendations in relation to clauses 2.1.1 and 2.1.3, based on the auditor's recommendations.

Recommendations

- 1 With regards to the Local Water Utility (LWU) register (clause 2.1.1), State Water should:
 - Prepare a documented procedure to maintain the register.
 - Contact and confirm details for LWUs who have yet to confirm contact details for the register.
- 2 State Water should update the water quality information request procedure to describe how fees or charges are to be paid. (clause 2.1.3)

The auditor also provided one opportunity for improvement for clause 2.1.3. This opportunity addressed amending the water quality information request procedure to provide LWU's with an indication of expected costs to respond to information requests. Further details of the opportunity for improvement are available in the auditor's report in Appendix C.

3.3 Water quantity

State Water achieved High to Full Compliance for the audited *water quantity* clauses.

Chapter 3 of the licence outlines the requirements for State Water to efficiently manage and deliver water to its customers. This includes providing advance notification of any potential changes to flow release patterns and preparing water balance reports for the valleys in which it operates. Under the risk based auditing framework, we consider that this chapter of the licence poses a medium to high risk with respect to both the likelihood and consequence of noncompliance.

| Clause | Requirement | Complianc | e grading | | | |
|--------|--|-----------|-----------|---------|---------|---------|
| 3 | Water quantity | 2013/14 | 2014/15 | 2015/16 | 2016/17 | 2017/18 |
| 3.1.1 | Efficiently process Water Orders | Full | - | - | - | - |
| 3.1.2 | Manage Water Orders to ensure timely delivery to customers | Full | - | - | - | - |
| 3.1.3 | Maintain Water Allocation Accounts | Full | - | - | - | - |
| 3.1.4 | Take reasonable steps to conserve water and minimise water losses | Full | - | - | - | - |
| 3.2.1 | Maintain an effective system to provide advance notification of changes to flow release patterns | High | - | - | - | - |
| 3.3.1 | Prepare water balance reports in accordance with the Reporting Manual | Full | - | - | - | - |

| Table 3.3 | Summary of compliance with Chapter 3 of the licence – Water |
|-----------|---|
| | quantity |

Source: Cardno, Operational Audit of State Water Corporation – Prepared for Independent Pricing and Regulatory Tribunal, November 2014.

Clause 3.1.1 - Efficiently processing customers' Water Orders

The auditor found that State Water had in place processes and systems to ensure that Water Orders are processed promptly. The auditor noted that State Water uses the Ticket System to collect and organise orders, and the Water Accounting System (WAS) to process these orders.

Accordingly, the auditor awarded State Water Full Compliance for clause 3.1.1.

Clause 3.1.2 - Manage Water Orders to ensure timely delivery to customers

The auditor found that State Water uses WAS to check that orders received can only be made within achievable delivery timeframes, dependent on customer locations. The auditor noted that State Water uses its Computer Aided Improved River Operations (CAIRO) model to perform water balances along its system to determine required water release volumes to meet customer requests. The auditor identified that the percentage of customers who had lodged complaints about receiving deliveries outside the scheduled delivery window was low (only 0.007% of all orders by number). Accordingly, the auditor awarded State Water Full Compliance for clause 3.1.2.

Clause 3.1.3 – Maintain Water Allocation accounts for access licences issued under the *Water Management Act* 2000 (NSW) and *Water Act* 1912(NSW)

The auditor found that State Water maintains a Water Allocation Account for each of its customers using its WAS. The auditor also noted that details from the NSW Office of Water's Licensing Administration System were regularly exported into the WAS to confirm alignment of customer details between both systems. The auditor viewed a demonstration of the WAS and was confident that State Water used the system to comply with its obligation to maintain Water Allocation Accounts for its customers.

Accordingly, the auditor awarded State Water Full Compliance for clause 3.1.3.

Clause 3.1.4 – Take all reasonable steps to conserve water and minimise water losses

The auditor found that State Water undertook a number of water efficiency projects during the audit period, including its Computer Aided River Management (CARM) water efficiency project, Murrumbidgee metering project and Old Man Creek project. The auditor identified that State Water had demonstrated commitment toward continual improvement for minimising losses, where possible, through these water efficiency projects.

Accordingly, the auditor awarded State Water Full Compliance for clause 3.1.4.

Clause 3.2.1 – Maintain an effective system to provide advance notification to customers and other registered stakeholders, when significant changes to flow release patterns occur

The auditor reported that State Water substantially met requirements of this clause. However, State Water acknowledged one non-compliance in its annual compliance return for 2013/14. The auditor identified that the non-compliance was related to an increase in water from the hydro plant during power failure at one of State Water's dams in November 2013. The auditor noted that State Water has improved monitoring of all hydro plants through a connection to its iSMART monitoring system to prevent future incidents from occurring. The auditor agreed that corrective action taken was appropriate to minimise the chance of a repeat event occurring.

Accordingly, the auditor awarded State Water High Compliance for clause 3.2.1.

Clause 3.3.1 – Prepare water balance reports in accordance with the Reporting Manual

The auditor sighted water balance reports as part of its annual licence reporting process, prepared in line with requirements of State Water's reporting manual, for each valley. The auditor found that water balances for 2013/14 were still being prepared but would be available by December 2014, as required in the reporting manual. The auditor noted that reports for the previous year were accessible by the public, on State Water's website.

Accordingly, the auditor awarded State Water Full Compliance for clause 3.3.1.

No recommendations were identified for the above clauses.

The auditor provided two opportunities for improvement. These opportunities relate to the potential for State Water to redefine its water loss KPI; and formalising a process to encourage LWU's to register for notifications related to significant changes to flow releases. Further details of the opportunities for improvement are available in the auditor's report in Appendix C.

3.4 Assets

State Water achieved Full Compliance for the audited *assets* clauses.

Chapter 4 of the licence outlines State Water's requirement to develop a certified Asset Management System (AMS) by 30 June 2018. This chapter also requires State Water to ensure that its customers' meters are read. Under the risk based auditing framework, we consider that this chapter of the licence poses a medium to high risk with respect to both the likelihood and consequence of non-compliance.

| Clause Requirement Compliance grading | | | | | | |
|---------------------------------------|--|---------|---------|---------|---------|---------|
| 4 | Assets | 2013/14 | 2014/15 | 2015/16 | 2016/17 | 2017/18 |
| 4.1.4 | Manage asset risks and maintain levels of service | Full | - | - | - | - |
| 4.2.1 | Read all customers' meters | Full | - | - | - | - |
| 4.2.2 | Read metering equipment or determine groundwater extraction for Unregulated River licence holders | Full | - | - | - | - |

 Table 3.4
 Summary of compliance with Chapter 4 of the licence – Assets

Source: Cardno, Operational Audit of State Water Corporation – Prepared for Independent Pricing and Regulatory Tribunal, November 2014.

The auditor found that State Water had appropriate programs in place to manage asset risks and maintain the assets levels of service until its certified AMS is developed. The auditor reviewed State Water's comprehensive risk management processes and procedures and noted that these were integrated into its corporate risk management framework. Further, the auditor reviewed State Water's processes for reading its customer meters and determined that the requirement was being appropriately met.

As a result, the auditor awarded Full Compliance for clauses 4.1.4, 4.2.1 and 4.2.2 and no recommendations were identified.

The auditor provided one opportunity for improvement. This opportunity addresses presenting the risk profile of State Water's assets in a simplified manner, to help communicate information to a non-technical audience. Further details of the opportunity for improvement are available in the auditor's report in Appendix C.

3.5 Customers

State Water achieved High to Full Compliance for the audited *customers* clauses.

Chapter 5 of the licence outlines State Water's obligations to its customers. In particular, this audit focused on reviewing State Water's code of practice for payment difficulties, complaints handling procedure and dispute resolution scheme. Under the risk based auditing framework, we consider that this chapter of the licence poses a low risk with respect to both the likelihood and consequence of non-compliance.

| Clause | Requirement | Compliance grading | | | | |
|--------|---|--------------------|---------|---------|---------|---------|
| 5 | Customers | 2013/14 | 2014/15 | 2015/16 | 2016/17 | 2017/18 |
| 5.5.1 | Develop, maintain and implement a code of practice for payment difficulties | Full | - | - | - | - |
| 5.6.1 | Maintain procedure for customer complaints consistent with AS ISO 10002-2006 | Full | - | - | - | - |
| 5.6.2 | Fully implement internal Complaints Handling Procedure | High | - | - | - | - |
| 5.7.2 | Make available details of dispute resolution services | Full | - | - | - | - |

 Table 3.5
 Summary of compliance with Chapter 5 of the licence – Customers

Source: Cardno, Operational Audit of State Water Corporation – Prepared for Independent Pricing and Regulatory Tribunal, November 2014.

Clause 5.5.1 – Develop, maintain and implement a code of practice for payment difficulties

The auditor determined that State Water met its obligation to develop, maintain and fully implement a code of practice for customers experiencing payment difficulties. The auditors noted that State Water staff responsible for managing customers followed documented procedures for implementing its code of practice such as using the 'Ticket' system to track its customer contacts.

Accordingly, the auditor awarded State Water Full Compliance for clause 5.5.1.

Clause 5.6.1 – Maintain procedure for customer complaints consistent with AS ISO 10002-2006

The auditor found that State Water's Complaints Handling Policy was publicly available on its website. The auditor noted that the policy made reference to a Complaints Handling Procedure outlining how State Water would receive, respond and resolve complaints consistent with AS ISO 10002.

Accordingly, the auditor awarded State Water Full Compliance for clause 5.6.1.

Clause 5.6.2 - Fully implement internal Complaints Handling Procedure

The auditor noted the internal Complaints Handling Procedure was fully implemented by State Water. The auditor found that the Customer Information Officers (CIOs) responsible for responding to complaints were not specifically trained in the Complaints Handling Procedure. During review of the customer contact tracking system, Ticket, the auditor identified two instances where State Water's CIOs had not correctly followed the documented procedure for closing out customers' issues. State Water advised the auditor that it would undertake actions to increase awareness and better implement the procedure. The auditor considered this to be appropriate to address the issue identified.

Accordingly, the auditor awarded State Water High Compliance for clause 5.6.2. Refer to Recommendation 2 below.

Clause 5.7.2 - Make available details of dispute resolution services

The auditor found that State Water provided details of its dispute resolution service provided by the Energy and Water Ombudsman NSW (EWON) to customers with their bills. The auditor also found that information regarding its Complaints Handling Policy and information about EWON were available to the public through the State Water website. Finally, the auditor noted that State Water had set up a customer helpdesk, which could be contacted for information on the dispute resolution process.

Accordingly, the auditor awarded State Water Full Compliance for clause 5.7.2.

We make one recommendation in relation to clause 5.6.2, based on the auditor's recommendation.

Recommendation

3 State Water should take steps to increase awareness of its internal Complaints Handling Procedure and continue to monitor implementation of the procedure. (clause 5.6.2)

The auditor also provided one opportunity for improvement for clause 5.5. This opportunity relates to State Water providing further detail in its Code of Practice around the 'reminder process' to inform customers of an overdue bill. The auditor noted that the wording in its Code of Practice is currently abstract and may be open to interpretation. Further details of the opportunities for improvement are available in the auditor's report in Appendix C.

3.6 Environmental management

State Water achieved Full Compliance for the audited *environmental management* clause.

Chapter 6 of the licence outlines State Water's requirement to develop and implement a certified Environmental Management System (EMS) by 30 June 2018. Under the risk based auditing framework, we consider that this chapter of the licence poses a medium risk with respect to both the likelihood and consequence of non-compliance.

| Clause | Requirement | Compliance grading | | | | |
|--------|---|--------------------|---------|---------|---------|---------|
| 6 | Environmental management | 2013/14 | 2014/15 | 2015/16 | 2016/17 | 2017/18 |
| 6.1.4 | Maintain programs to manage environmental risks | Full | - | - | - | - |

| Table 3.6 | Summary of compliance with Chapter 6 of the licence | | |
|-----------|---|--|--|
| | Environmental management | | |

Source: Cardno, Operational Audit of State Water Corporation – Prepared for Independent Pricing and Regulatory Tribunal, November 2014.

The auditor found that State Water complied with the requirement to maintain programs to manage potential environmental risks until its EMS is certified. The auditor noted that State Water had a comprehensive Environmental Management Plan and conducted its activities in accordance with the plan. Further, the auditor found that State Water has in place an Environmental Audit Program which is reviewed quarterly. Finally, during site verification, the auditor observed that effective environmental management controls were being adopted by State Waters' contractors at the Burrendong Dam.

3 Summary of audit findings and recommendations

As a result, the auditor awarded Full Compliance for clause 6.1.4 and no recommendations were identified.

The auditor provided two opportunities for improvement. One opportunity addressed formalising requirements of the Environmental Audit Program (eg audit program review, training), which currently exist informally, as part of the move towards a certified EMS. The other opportunity addressed environmental audit training for a member of State Water's audit teams. Further information on these opportunities for improvement are available in the auditor's report in Appendix C.

4 Progress on previous audit recommendations

No previous audits have been conducted for State Water's 2013-2018 operating licence. Further, there were no outstanding recommendations from State Water's previous operating licence.

Appendices

A Compliance grades

Compliance grades for public utilities

| Grades of compliance | Description | | |
|----------------------|--|--|--|
| Full Compliance | Sufficient evidence to confirm that the requirements have been fully met. | | |
| High Compliance | Sufficient evidence to confirm that the requirements have generally been met apart from very few minor shortcomings which do not compromise the ability of the utility to achieve defined objectives or assure controlled processes, products or outcomes. | | |
| Adequate Compliance | Sufficient evidence to confirm that the requirements have generally been met apart from a number of minor shortcomings which do not compromise the ability of the utility to achieve defined objectives or assure controlled processes, products or outcomes | | |
| Non compliant | Sufficient evidence has not been provided to confirm that all major requirements are being met and the deficiency adversely impacts the ability of the utility to achieve defined objectives or assure controlled processes, products or outcomes. | | |
| No Requirement | The requirement to comply with the licence condition does not occur within the audit period or there is no requirement for the utility to meet this assessment criterion. | | |

Source: IPART, Audit Guideline - Public Water Utilities, July 2014.



State Water Corporation – 2013-2014 Audit scope

| Requirement | Meaning |
|---------------|--|
| Audit/ review | Clause to be audited/reviewed for 2013-2014. |
| SC | Clause where IPART will rely on the utilities statement of compliance. As below, all clauses require a Statement of Compliance unless there is a designation No requirement. |
| NR | No requirement (for audit or statement of compliance). |

Auditors should note any directions shown as comments column.

This scope is based on the audit schedule determined for the operating licence 2008 -2013 Trim Record Number D14/15803.

Statement of Compliance

By 1 September each year, the utility is required to provide a Statement of Compliance (SC) signed by the Managing Director and a Board Member for all licence clauses (no matter whether they are scheduled to be audited or not in that year). Where non compliances are reported this may lead to a late variation to the audit scope to enable a matter to be reviewed if considered warranted.

Development and implementation of new management systems.

Where a system is required to be developed and/or implemented by a date outside of the audit period, we have requested the utility provide a verbal update on progress during the audit interviews. The purpose of this update is to inform IPART and the auditor of progress that has been made in developing an effective management system by the due date set out in the licence.

The auditor is requested to provide a summary of this update and whether in the auditor's view sufficient progress has been made to meet the future licence requirement. For State Water's licence this applies to the development of a certified AMS and EMS by 30 June 2018. This opinion should be provided in the cover letter to the audit report.

Table 1 – Audit scope 2013-2014 State Water Corporation

| Licence Clause | Operating Licence Obligations | Requirements 2013/14 | Comments |
|-------------------|--|-------------------------|----------|
| | | | |
| 1.3 | Availability of Licence | | |
| 1.3.1 | State Water must make this Licence available free of charge: a) on its website for downloading by any person; and b) to the public on request. | Audit | |
| 1.4 | Conferred functions | | |
| 1.4.1 | This Licence confers on State Water the functions specified in Schedule A to this Licence. | NR | |
| 1.4.2 | State Water must exercise any functions conferred on it under this Licence consistently with the Water Management Act 2000 (NSW), the Water Act 1912 (NSW), the New South Wales – Queensland Border Rivers Act 1947 (NSW), any other relevant law and any relevant Water Management Plan. | NR | |
| 1.4.3 | By 1 October 2013, State Water must publish a statement setting out any agreed roles and responsibilities regarding the functions conferred on it under clause 1.4.1 and Schedule A, as agreed with the NSW Office of Water, the Ministerial Corporation or any other relevant government departments or agencies. | Audit | |
| | [Note: this obligation could be fulfilled by publishing those parts of any agreements (including memoranda of understanding) entered into by State Water and other government departments or agencies with which it shares the functions, which document roles and responsibilities regarding conferred functions.] | | |
| 1.4.4 | State Water must make the statement described in clause 1.4.3 available free of charge: a) on its website for downloading by any person; and b) to the public on request. | Audit | |
| 2 | Water quality | | |
| 2.1 | Bulk Water supplied to Local Water Utilities for Drinking Water purposes | | |

| Licence Clause | Operating Licence Obligations | Requirements 2013/14 | Comments |
|-------------------|--|-------------------------|----------|
| | Note: The purpose of clause 2.1 is to ensure that there are mechanisms in place for State Water to share information which it currently collects with interested Local Water Utilities, where that information could usefully inform a Local Water Utility's Drinking Water quality assurance program. | | |
| 2.1.1 | State Water must maintain a register of all Local Water Utilities: a) for which State Water maintains a Water Allocation Account; and b) to which State Water delivers water that will be used for the purposes of Drinking Water (Local Water Utility Customers). c) The register must include contact details for each Local Water Utility Customer, and the Valley and approximate location from which each Local Water. | Audit | |
| 2.1.2 | By 1 October 2013, State Water must develop and implement a procedure for providing information when requested by any Local Water Utility to inform that utility's Drinking Water quality assurance program (LWU Information Request Procedure). | Audit | |
| 2.1.3 | State Water's LWU Information Request Procedure under clause 2.1.2 above must: describe how a Local Water Utility is to request information; a) describe how State Water will respond to the request in a timely manner; and b) define any fees or charges that will be charged by State Water to recover reasonable costs incurred for responding to an information request, how these will be calculated, and how they are to be paid. | Audit | |
| 2.1.4 | State Water must make details of the LWU Information Request Procedure free of charge: a) on its website for downloading by any person; and b) to the public on request. | Audit | |
| 3 | Water quantity | | |

| Licence Clause | Operating Licence Obligations | Requirements 2013/14 | Comments |
|-------------------|--|----------------------|----------|
| 3.1 | Delivery of water to Customers | | |
| 3.1.1 | State Water must take all reasonable steps to process all Water Orders promptly and efficiently. | Audit | |
| | [Note: Where a Customer places an incomplete or incorrect Water Order, State Water could fulfil this obligation by notifying that Customer promptly and efficiently of the error, and how to rectify it]. | | |
| 3.1.2 | State Water must take all reasonable steps to manage Water Orders so as to ensure the timely Delivery of water to its Customers. | Audit | |
| 3.1.3 | State Water must maintain a Water Allocation Account for each access licence issued under the Water Management Act 2000 (NSW) and each licence issued under the Water Act 1912(NSW) held by a Customer. | Audit | |
| 3.1.4 | State Water must take all reasonable steps to conserve water and minimise water losses that result from undertaking its operations under this Licence. | Audit | |
| 3.2 | Advance notification of changes to flow release patterns | | |
| 3.2.1 | State Water must maintain an effective system to provide advance notification of any significant changes to flow release patterns from its Water Management Works, to Customers and other stakeholders that have registered to be notified of such changes. | Audit | |
| 3.3 | Water balance reporting | | |
| 3.3.1 | State Water must prepare water balance reports for each of the Valleys in which it operates, in accordance with the Reporting Manual. | Audit | |
| 4 | Assets | | |
| 4.1 | Asset Management System | | |
| Licence Clause | Operating Licence Obligations | Requirements 2013/14 | Comments |
|-------------------|--|----------------------|---|
| 4.1.1 | By 30 June 2018, State Water must develop a Management System that is consistent with: a. the International Standard ISO 55001: 2013 Asset Management – Management systems - Requirements; or b. another asset management standard agreed to by IPART, (Asset Management System). | NR | A verbal update on progress in developing and implementing this system is required. For further details see note at the beginning of this document. |
| 4.1.2 | In the case of an Asset Management System which is developed under the International Standard ISO 55001: 2013 Asset Management – Management systems – Requirements, State Water must ensure that: a. by 30 June 2018, the Asset Management System is certified by an appropriately qualified third party to be consistent with the International standard ISO 55001:2013: Asset Management – Management systems - Requirements; and b. once the Asset Management System is certified under clause 4.1.2(a) above, the certification is maintained during the remaining term of this Licence. | Review | A verbal update on progress in developing and implementing AMS is required. For further details see note at the beginning of this document. |
| 4.1.3 | State Water must ensure that, by 30 June 2018, the Asset Management System is fully implemented and that all relevant activities are carried out in accordance with the system. | NR | |
| 4.1.4 | Until the Asset Management System has been developed in accordance with clause 4.1.1 and certified in accordance with clause 4.1.2 (if applicable), State Water must: a. maintain programs to manage risks to its assets and to maintain the appropriate levels of service of those assets; and b. ensure that all its activities are carried out in accordance with those programs. | Audit | |
| 4.1.5 | Once the Asset Management System is certified in accordance with clause 4.1.2 (if applicable), State Water must notify IPART of any significant changes that it proposes to make to the Asset Management System in accordance with the Reporting Manual. | NR | |
| 4.2 | Water metering | | |

| Licence Clause | Operating Licence Obligations | Requirements 2013/14 | Comments |
|-------------------|--|----------------------|----------|
| | Note: This clause 4.2 enables State Water to perform the metering functions set out in this clause for the purposes of section 22A(1) of the Act, subject to the terms and conditions of this Licence. | | |
| 4.2.1 | State Water must read each of its Customers' meters. | Audit | |
| 4.2.2 | Where provided for in any agreement between State Water and the Minister or the NSW Office of Water, State Water must: | Audit | |
| | a. read Metering Equipment (if applicable); or | | |
| | b. determine water extraction for groundwater and Unregulated River licence holders. | | |
| 4.2.3 | State Water may operate, replace, repair, maintain, remove, connect, disconnect or modify Metering Equipment installed under a government-funded meter program. | SC | |
| 5 | Customers | | |
| 5.1 | Valley-based customer service committees (excluding Fish River Water Scheme Customers) | | |
| 5.1.1 | State Water must regularly consult with Valley-based customer service committees (CSCs) to enable Customer involvement in issues relevant to the performance of State Water's obligations to Customers under this Licence or the customer service charter referred to in clause 5.2 of this Licence. | SC | |
| 5.1.2 | For each CSC, State Water must invite at least 1 representative from each of the groups or bodies identified in paragraphs (a) to (e) below to be a member of that CSC: | SC | |
| | a. Customers which are Unregulated River water users; | | |
| | b. Customers which are groundwater users; | | |
| | c. the NSW environmental water entitlement holder; | | |
| | d. the Commonwealth Environmental Water Holder; and | | |
| | e. the relevant Catchment Management Authority; | | |
| | For the purposes of this clause 5.1.2, Customer does not include a Fish River Water Scheme Customer. | | |

| Licence Clause | Operating Licence Obligations | Requirements 2013/14 | Comments |
|-------------------|---|-------------------------|----------|
| 5.1.3 | State Water must provide the CSCs with adequate information within its possession or under its control to enable the CSC to discharge the tasks assigned to it, other than information or documents over which State Water or another person claims confidentiality or legal professional privilege and subject to any limitations on disclosure of the information at law. | SC | |
| 5.2 | Customer Service Charter (excluding Fish River Water Scheme Customers) | | |
| 5.2.1 | State Water must, in consultation with the CSCs, establish and maintain a customer service charter (Customer Service Charter). | SC | |
| 5.2.2 | The Customer Service Charter must set out the mutual responsibilities and obligations of State Water and its Customers (excluding Fish River Water Scheme Customers) consistently with this Licence, the Act, the Water Management Act 2000 (NSW), the Water Act 1912 (NSW) and any other applicable law. | SC | |
| 5.2.3 | State Water must make the Customer Service Charter available free of charge: | SC | |
| | a. on its website for downloading by any person; and | | |
| | b. to the public on request. | | |
| 5.3 | Fish River Customer Council | | |
| 5.3.1 | State Water must regularly consult with a Fish River Customer Council to enable Fish River Water Scheme Customer involvement in issues relevant to the performance of State Water in its obligations to Fish River Water Scheme Customers under this Licence and any Fish River Customer Contract. | SC | |

| Licence Clause | Operating Licence Obligations | Requirements 2013/14 | Comments |
|-------------------|---|-------------------------|----------|
| 5.3.2 | State Water must invite at least 1 representative from each of the entities identified in paragraphs (a) to (d) below to be a member of the Fish River Customer Council: | SC | |
| | a. Lithgow City Council; | | |
| | b. Oberon Council; | | |
| | c. Delta Electricity, a statutory State owned corporation constituted under the Energy Services Corporations Act 1995 (NSW); and | | |
| | d. Sydney Catchment Authority, a statutory corporation constituted under the Sydney Water Catchment Management Act 1998 (NSW), (Fish River Customer Council). | | |
| 5.3.3 | State Water must provide the Fish River Customer Council with adequate information within its possession or under its control so as to enable the Fish River Customer Council to discharge the tasks assigned to it, other than information or documents over which State Water or another person claims confidentiality or privilege and subject to any limitations on disclosure of the information at law. | SC | |
| 5.4 | Fish River Customer Contracts | | |
| 5.4.1 | State Water must enter into and maintain an agreement with each of its Fish River Water Scheme Customers during the term of this Licence, for the water supply arrangements for the Fish River Water Supply Scheme. | SC | |
| 5.4.2 | The terms of the agreements must, as a minimum, include provisions on: a. the standard of the quality of water to be supplied by State Water; b. the continuity of water to be supplied by State Water (that is, provisions relating to interruption, disconnection and reconnection to supply); c. the metering arrangements; d. the costs to be paid by Fish River Water Scheme Customers for the supply of water and other services to them; and e. any other terms agreed between State Water and its Fish River Water Scheme Customers. | SC | |
| 5.5 | Code of practice on payment difficulties | | |

| Licence Clause | Operating Licence Obligations | Requirements 2013/14 | Comments |
|-------------------|---|-------------------------|----------|
| 5.5.1 | State Water must develop, maintain and fully implement a code of practice (the Code) relating to Customers having payment difficulties, which must: | Audit | |
| | a. provide for deferred payment or payment by instalment for Customers who are required to pay Bills and who are experiencing payment difficulties; and | | |
| | b. identify the circumstances under which State Water may suspend water access licences, and an overview of the process that must be followed prior to suspension. | | |
| 5.5.2 | State Water must set out details of the Code in the Customer Service Charter. | SC | |
| 5.5.3 | State Water must provide information on the Code free of charge: | SC | |
| | a. to Customers, at least once annually with their Bills; | | |
| | b. on its website for downloading by any person; and | | |
| | c. to the public on request. | | |
| 5.6 | Internal Complaints Handling Procedure | | |
| 5.6.1 | State Water must maintain a procedure for receiving, responding to and resolving Complaints, which is consistent with the Australian Standard AS ISO 10002-2006: Customer satisfaction - Guidelines for complaints handling in organizations (ISO 10002:2004, MOD) (Internal Complaints Handling Procedure). | Audit | |
| 5.6.2 | State Water must ensure that the Internal Complaints Handling Procedure is fully implemented and that all relevant activities are carried out in accordance with the procedure. | Audit | |
| 5.6.3 | State Water must provide information on the Internal Complaints Handling Procedure which explains how to make a Complaint and how the Internal Complaints Handling Procedure works free of charge: | SC | |
| | a. to Customers, at least once annually with their Bills; | | |
| | b. on its website for downloading by any person; and | | |
| | c. to the public on request. | | |

| Licence Clause | Operating Licence Obligations | Requirements 2013/14 | Comments |
|-------------------|---|----------------------|--|
| 5.7 | External dispute resolution scheme | | |
| 5.7.1 | State Water must be a member of the Energy and Water Ombudsman NSW for the resolution of disputes between State Water and its Customers. | SC | |
| 5.7.2 | State Water must provide free of charge information that explains the operation of the dispute resolution service provided by the Energy and Water Ombudsman NSW (including any rights to have a Complaint or dispute referred to the Energy and Water Ombudsman NSW and how the dispute resolution service can be accessed): a. to Customers, at least once annually | Audit | |
| | with their Bills; b. on its website for downloading by any person; and | | |
| | c. to the public on request. | | |
| 6 | Environmental management | | |
| 6.1 | Environmental management | | |
| 6.1.1 | By 30 June 2018, State Water must develop a Management System which is consistent with the Australian Standard AS/NZS ISO 14001:2004: Environmental Management Systems - Requirements with guidance for use (Environmental Management System). | NR | |
| 6.1.2 | State Water must ensure that: | NR | |
| | a. by 30 June 2018, the Environmental Management System is certified by an appropriately qualified third party to be consistent with the Australian Standard AS/NZS ISO 14001:2004: Environmental Management Systems - Requirements with guidance for use; and b. once the Environmental Management System is certified under clause | | |
| | 6.1.2(a), the certification is maintained during the remaining term of this Licence. | | |
| 6.1.3 | State Water must ensure that by 30 June 2018, the Environmental Management System is fully implemented and that all relevant activities are carried out in accordance with the system. | Review | A verbal update on progress in developing and implementing an EMS is required. For further details see note at the beginning of this document. |

| Licence Clause | Operating Licence Obligations | Requirements 2013/14 | Comments |
|-------------------|---|----------------------|----------|
| 6.1.4 | Until the Environmental Management System has been developed and certified in accordance with clauses 6.1.1 and 6.1.2, State Water must: | Audit | |
| | a. maintain programs to manage risks to the environment from carrying out its activities; and | | |
| | b. ensure that all its activities are carried out in accordance with those programs. | | |
| 6.1.5 | Once the Environmental Management System is certified in accordance with clause 6.1.2, State Water must notify IPART of any significant changes that it proposes to make to the Environmental Management System in accordance with the Reporting Manual. | NR | |
| 7 | Performance monitoring | | |
| 7.1 | Operational Audits | · | |
| 7.1.1 | IPART may undertake, or may appoint an Auditor to undertake, an audit on State Water's compliance with: | NR | |
| | a. this Licence; | | |
| | b. the Reporting Manual; and | | |
| | c. any matters required by the Minister, (Operational Audit). | | |
| 7.1.2 | State Water must provide IPART or any Auditor with all information in its possession, or under its custody or control, which is necessary to conduct the Operational Audit, including whatever information is reasonably requested by IPART or an Auditor. | NR | |
| 7.1.3 | State Water must provide the information requested under clause 7.1.2 within a reasonable time of it being requested. | NR | |

| Licence Clause | Operating Licence Obligations | Requirements 2013/14 | Comments |
|-------------------|---|----------------------|----------|
| 7.1.4 | For the purposes of any Operational Audit or verifying a report on an Operational Audit, State Water must, within a reasonable time of being required by IPART or an Auditor, permit IPART or the Auditor to: | NR | |
| | a. have access to any works, premises or offices occupied by State Water; | | |
| | b. carry out inspections, measurements and tests on, or in relation to, any such works, premises or offices; | | |
| | c. take on to any such premises, works or offices any person or equipment necessary for the purposes of performing the Operational Audit or verifying any report on the Operational Audit; | | |
| | d. inspect and make copies of, and take extracts from, any books and records of State Water that are maintained in relation to the performance of State Water's obligations under this Licence (including under the Reporting Manual); and | | |
| | e. discuss matters relevant to the Operational Audit or any report on the Operational Audit with State Water, including any of State Water's officers and employees. | | |
| 7.2 | Reporting | | |
| 7.2.1 | State Water must comply with its reporting obligations set out in this Licence and in the Reporting Manual, which include: | SC | |
| | a. reporting to IPART in accordance with the Reporting Manual and this Licence, and | | |
| | b. making reports and other information publicly available, | | |
| | in the manner set out in the Reporting Manual. | | |
| 7.2.2 | State Water must maintain sufficient record systems that enable it to report accurately in accordance with this Licence and the Reporting Manual (including its performance against the performance indicators specified in the Reporting Manual). | SC | |
| 7.2.3 | In the case of any ambiguity in the interpretation or application of any performance indicators specified in the Reporting Manual, IPART's interpretation or assessment of the indicators will prevail. | NR | |

| Licence Clause | Operating Licence Obligations | Requirements 2013/14 | Comments | |
|-------------------|---|----------------------|----------|--|
| 7.2.4 | State Water must maintain sufficient record systems to enable it to measure accurately its performance against any system performance indicators specified in any instruments that give effect to the National Water Initiative. | SC | | |
| 7.3 | Provision of information | | | |
| 7.3.1 | If IPART requests that State Water provide information relating to the performance of its obligations under clause 7.2, State Water must provide the information requested within a reasonable time of IPART's request, including providing IPART with physical and electronic access to the records required to be kept under clause 7.2.2. | NR | | |
| 7.3.2 | State Water must provide IPART with such information as is reasonably required to enable IPART to conduct any review or investigation of State Water's obligations under this Licence. | NR | | |
| 7.3.3 | If State Water contracts out any of its activities to third parties (including a subsidiary) it must take all reasonable steps to ensure that, if required by IPART or an Auditor, any such third parties provide information and do the things specified in this clause 7 as if that third party were State Water. | NR | | |
| 7.3.4 | If IPART or an Auditor requests information under this clause 7 which is confidential, the information must be provided to IPART or the Auditor, subject to IPART or the Auditor entering into reasonable arrangements to ensure that the confidential information is not disclosed to third parties, without the consent of State Water. | NR | | |
| 8 | End of term review | | | |
| 8.1 | End of Term Review | | | |
| 8.1.1 | In or around the first quarter of 2017, a review of this Licence will commence to investigate: a. whether this Licence is fulfilling its objectives; and | NR | | |
| | b. any issues which have arisen during the term of this Licence, which may affect the effectiveness of this Licence, | | | |
| | (End of Term Review). | | _ | |

| Licence Clause | Operating Licence Obligations | Requirements 2013/14 | Comments |
|-------------------|--|----------------------|----------|
| 8.1.2 | State Water must provide to the person undertaking the End of Term Review such information as is reasonably required to enable the person to undertake the End of Term Review. | NR | |

Table 2 - Recommendations / Outstanding items from previous audits

State Water has no outstanding audit recommendations from previous years.

| Table 3 Past field verification site visits | 5 TO | r State | water |
|---|------|---------|-------|
|---|------|---------|-------|

| Audit Year | Location | Facility |
|------------|--|-----------------------|
| 2013/14 | TBA by IPART prior to the audit interviews | |
| 2012/13 | Dubbo | Burrendong Dam |
| | Macquarie River near Dubbo | Metering sites |
| 2011/12 | Fish River | Water Supply |
| | Duckmaloi | Water Treatment Plant |
| 2010/11 | Nil | |

C Operational audit report 2013/14 – State Water

Operational Audit of State Water Corporation

3604-66

Prepared for Independent Pricing and Regulatory Tribunal

November 2014







Contact Information Document Information

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| 515 St Paul's Terrace Locked Bag 4006 Fortitude Valley Qld 4006 | File Reference | Compliance_Report _State_Water_Operational_Audit_2013- 14 v3.0.docx |
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Document Control

| Version | Date | Description of Revision | Prepared By | Prepared (Signature) | Reviewed By | Reviewed (Signature) |
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| 1.0 | 10 October 2014 | Draft for comment | S. Walker | SW | S Walker | SW |
| | | | A. Hughes | AH | | |
| | | | J. Panic | JP | | |
| 2.0 | 4 November 2014 | Revised draft report | S. Walker | SW | S Walker | SW |
| | | | A. Hughes | AH | | |
| | | | J. Panic | JP | | |
| 3.0 | 24 November 2014 | Final report | S. Walker | SW | S Walker | SW |
| | | | A. Hughes | AH | A Hughes | AH |
| | | | J. Panic | JP | | |

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Executive Summary

Introduction

Cardno in association with SLR Consulting has conducted a detailed audit of State Water's compliance against nominated clauses of its Operating Licence for the 2013-14 year (ending 30 June 2014 on behalf of the Independent Pricing and Regulatory Tribunal of NSW (IPART). This report documents the findings of our audit.

Audit Opinion

In forming our audit opinion we confirm that:

- We have seen sufficient evidence on which to base our conclusions
- Our audit findings accurately reflect our professional opinion
- ▶ We have noted the requirements of the *Audit Guideline Public Water Utilities*, IPART, July 2014 when conducting the audit, determining audit findings and preparing the report
- > The audit findings have not been unduly influenced by State Water and/or any of its associates.

Overall Performance

State Water has managed its resources in 2013-14 to achieve the following compliance levels in relation to its Operating Licence, as shown in Table 1.

Table 1 Summary of Compliance

| Description | Compliance - Overall |
|-----------------------------------|---|
| Licence and Licence authorisation | Full compliance |
| Water quality | High Compliance |
| Water quantity | High Compliance |
| Assets | Full Compliance |
| Customers | High Compliance |
| Environmental management | Full Compliance |
| | Licence and Licence authorisation Water quality Water quantity Assets Customers |

Findings and Recommendations by Licence Clause

Overall, State Water performed well against the audited clauses. This is the first year of 2013-2018 Operating Licence and there were a number of changes from the previous Operating Licence. We have made recommendations in relation to water quality and customers.

Licence and Licence authorisation

State Water achieved Full Compliance in meeting its Licence requirements for Licence and Licence authorisation.



State Water has published the Conferred functions statement as required and has made this Statement and its Licence readily available to its customers.

Recommendations – Licence and Licence authorisation

There are no recommendations relating to this Clause.

Water quality

State Water has achieved High Compliance in meeting its licence requirements for the provision of bulk water to Local Water Utilities (LWUs) for drinking water purposes. This is a new obligation in the licence. We considered that State Water had substantially met the requirements of this clause. However there were a few very minor administrative shortcomings noted.

Recommendations – Water quality

WQual–2014/1 State Water should contact the 22 LWUs that have not responded to their request to confirm or amend the contact details in the register of Local Water Utilities (LWUs).

WQual-2014/2 State Water should prepare a documented procedure for maintaining the register of Local Water Utilities (LWUs).

WQual-2014/3 The Water Quality Information Request Procedure should be updated to describe how any fees or charges are to be paid.

Water quantity

State Water has achieved High Compliance in meeting its Licence Requirements. We considered that State Water had substantially met the requirements of this clause. However there was a very minor shortcoming noted.

State Water reported one non-compliance in its Statement of Compliance for 2013/14. This related to an incident that occurred during a power failure at Copeton Dam in November 2013. Corrective action has been taken to ensure that this incident is not repeated in any of the hydro plants connected to State Water's dams. As a result no recommendation is made in relation to this non-compliance.

State Water has demonstrated a commitment to improved water management in river systems as evidenced by the Water Efficiency projects worked on in the Murrumbidgee Valley during the year including Computer Aided River Management (CARM), Metering and Old Man Creek water efficiency project.

Recommendations – Water quantity

There are no recommendations relating to this Clause.

Assets

State Water has achieved Full Compliance in meeting its Licence requirements for Assets.

State Water has developed and implemented comprehensive risk management processes and procedures for its assets which are integrated into the organisation's corporate risk management framework. These processes meet the Dam Safety Committee's requirements and address the ten asset related risks identified in State Water's Corporate Risk Register.

Recommendations – Assets

There are no recommendations relating to this Clause.

Customers

State Water has achieved High Compliance in meeting the audited Licence requirements for Customers.

November 2014

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State Water has an appropriate procedure in place for complaints handling, however, there were two instances in the small sample of records that we trailed where State Water had not correctly followed this procedure.

Recommendations – Customers

Customers-2014/1 We recommend that State Water undertake the actions identified by it to increase awareness of its Complaints Handling Procedure and continually monitor implementation of the procedure.

The actions referred to were identified by State Water during the audit process and are set out in Appendix E. These actions include:

- Re-appoint the Education Officer as a dedicated resource for complaints management
- Discuss outcomes of ticket audit from last year's complaints with CIOs at their next meeting
- Plan specific training for other Business Units
- Undertake more detailed and complete audits and checks of complaints during 2014/15 with reporting monthly to Manager of Customer Operations.

Environmental management

State Water has achieved full compliance in relation to the environmental management clauses of the Operating Licence.

An Environmental Management Plan (EMP) exists and is the foundation for the approach to environmental management across the organisation. The programs in place to implement the EMP are being effectively maintained; are appropriate for managing the environmental risks associated with the organisation's activities; and effectively monitor the environmental impacts of operations.

Recommendations – Environmental management

There are no recommendations relating to this Clause.

Abbreviations and Acronyms

| Abbreviation/Acronym | Description |
|----------------------|--|
| Act | State Water Corporation Act, 2004 (NSW). |
| ANCOLD | Australian National Committee on Large Dams |
| AS | Australian Standard |
| ASAE | Australian Standard on Assurance Engagements |
| AWD | Available Water Determination |
| CAIRO | Computer Aided Improved River Operations |
| CARM | Computer Aided River Management |
| CAR | Corrective Action Request |
| CEMP | Construction Environmental Management Plan |
| CIO | Customer Information Officer |
| DR | Debt Recovery |
| DSC | Dam Safety Committee (NSW) |
| DSEP | Dam Safety Emergency Plan |
| EPA | Environment Protection Authority (NSW) |
| EWON | Energy and Water Ombudsman NSW |
| EMP | Environmental Management Plan |
| EMS | Environmental Management System |
| EWN | Early Warning Network |
| FMMS | Facilities Maintenance Management System |
| GIS | Geographical Information System |
| GL | Gigalitre (1 million litres) |
| IPART | Independent Pricing and Regulatory Tribunal (NSW) |
| iSMART | Integrated Surveillance, Monitoring, Automation and Remote Telemetry |
| ISO | International Standards Organisation |
| ISO 14001 | International Standard - Environmental Management System |
| ISO 55001 | International Standard – Asset management System |
| IT | Information Technology |
| iWAS | Internet Water Accounting System |
| kL | kilolitre (1 thousand litres) |
| km | kilometre |
| KPI | Key Performance Indicator |
| LAS | Licensing Administration System |
| LWU | Local Water Utility |
| ML | Megalitre (1 million litres) |
| MOU | Memorandum of Understanding |
| NOW | NSW Office of Water.(within the Department of Primary Industries) |
| NSW Health | NSW Department of Health |
| ра | Per annum |
| PMBOK | Project Management Body of Knowledge |
| PRA | Portfolio Risk Assessment |
| QA | Quality Assurance |

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| Abbreviation/Acronym | Description |
|----------------------|--|
| SCA | Sydney Catchment Authority |
| SCADA | Supervisory Control and Data Acquisition |
| ТАМ | Total Asset Management |
| WAS | Water Accounting System |



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1 Introduction

1.1 Objectives

The objective of this audit is to provide an independent assessment of State Water's compliance with the relevant obligations under its Operating Licence for the period 1 July 2013 to 30 June 2014.

1.2 Audit Method

1.2.1 <u>Audit Scope</u>

IPART operates a risk-based approach to licence auditing. This approach matches the frequency of audit of each clause in the Licence to the level of risk (likelihood and consequence) of a potential breach of that clause.

For this operational audit of State Water, the scope of the audit and the licence clauses to be assessed were pre-determined by IPART and provided in the audit Request for Quote (Reference 13/178).

This report details State Water's compliance with those clauses nominated by IPART as requiring independent auditing in 2013-14. The clauses subject to this audit are summarised in Table 1-1.

| Licence Section | Description | Clauses |
|--------------------|-----------------------------------|---|
| 1 | Licence and Licence authorisation | 1.3.1, 1.4.3, 1.4.4 |
| 2 | Water quality | 2.1.1, 2.1.2, 2.1.3, 2.1.4 |
| 3 | Water quantity | 3.1.1, 3.1.2, 3.1.3, 3.1.4, 3.2.1, 3.3.1 |
| 4 | Assets | 4.1.4, 4.2.1, 4.2.2, |
| 5 | Customers | 5.5.1, 5.6.1, 5.6.2, 5.7.2 |
| 6 | Environmental management | 6.1.4 |

 Table 1-1
 Auditable Clauses for the 2013-14 Operational Audit of State Water Corporation

The audit included a thorough audit questionnaire and desk top review of information provided by State Water; a focused interview program; and a complementary site inspection program including Burrendong Dam floating curtain and the Marebone Weir fishway.

1.2.2 <u>Audit Standard</u>

Our methodology is documented by a Local Work Instruction which is consistent with the Cardno Quality Management System. This Local Work Instruction has been prepared in accordance with the requirements of the following auditing standards:

- ASAE 3100, Standard on Assurance Engagements Compliance Engagements
- ASAE 3000, Assurance Engagements Other than Audit or Reviews of Historical Financial Information.

For the environmental management audit we adopted the following standard:

▶ ISO 19011:2011 Guidelines for quality and/or environmental management systems auditing.

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1.2.3 <u>Audit Steps</u>

The steps involved in the audit process followed the requirements of the *Audit Guideline - Public Water Utilities, IPART, July 2014.* The steps included:

- A start-up meeting with IPART on the 6 August 2014
- Issue of an audit questionnaire to State Water on the 8 August 2014
- Receipt of the questionnaire response from State Water on the 1 September2014. The response was accompanied by a Statement of Compliance from State Water
- On-site interviews of relevant State Water staff from the 17 and 19 September 2014
- A site visit was undertaken on the 18 September 2014 to Burrendong Dam and Marebone Weir. These sites were selected as being relevant to the audit scope
- A draft audit report was issued to State Water and IPART on the 10 October 2014
- A revised draft report which addressed comments from State Water and IPART was issued on the 4 November 2014
- Issue of a final report on the 24 November 2014.

1.2.4 <u>Audit Team</u>

The audit team included:

- Stephen Walker who undertook the audit of Licence and Licence authorisation, Water quantity, Assets and Customers. Stephen is approved as a lead auditor for these categories on IPART's panel of approved auditors and technical professionals.
- Aneurin Hughes who undertook the audit of Water quality, Water quantity and Assets. Aneurin is approved as a lead auditor for these categories on IPART's panel of approved auditors and technical professionals
- Jon Panic who undertook the audit of Environmental management. Jon is approved as a lead auditor for this category on IPART's panel of approved auditors and technical professionals.

1.2.5 <u>Audit Grades</u>

The table below describes the ratings used to assess compliance in this audit. These terms are consistent with compliance grades provided by IPART and range from 'Full Compliance' to 'Non Compliance'.

| Grades of compliance | Description | |
|----------------------|---|--|
| Full Compliance | Sufficient evidence to confirm that the requirements have been fully met. | |
| High Compliance | Sufficient evidence to confirm that the requirements have generally been met apart from very few minor shortcomings which do not compromise the ability of the utility to achieve defined objectives or assure controlled processes, products or outcomes. | |
| Adequate Compliance | Sufficient evidence to confirm that the requirements have generally been met apart from a number of minor shortcomings which do not compromise the ability of the utilit to achieve defined objectives or assure controlled processes, products or outcomes | |
| Non compliant | Sufficient evidence has not been provided to confirm that all major requirements are being met and the deficiency adversely impacts the ability of the utility to achieve defined objectives or assure controlled processes, products or outcomes. | |
| No Requirement | The requirement to comply with the licence condition does not occur within the audit period or there is no requirement for the utility to meet this assessment criterion. | |



1.3 Regulatory Regime

State Water's operations are regulated by various State Government agencies as outlined below:

- The NSW Government, which grants State Water's Operating Licence under the State Water Corporation Act 2004
- The Independent Pricing and Regulatory Tribunal (IPART), which recommends the conditions of State Water's Operating Licence to the NSW Government, conducts periodic audits of performance against the Operating Licence and establishes State Water's prices for providing services

The current Operating Licence was issued in 2013 and applies until 30 June 2018.

A copy of the Licence is available from State Water's website:

https://www.statewater.com.au/_Documents/Publications/2013%20-%202018%20State%20Water%20Operating%20Licence.PDF

Clause 7 of the Licence provides that IPART (or its appointee) may undertake an operational audit of State Water's performance against the requirements of the Licence each year.

The performance of State Water for 2013-14 was audited against the specific requirements of the Licence identified by IPART in its audit scope.

1.4 Quality Assurance Process

Cardno has developed and maintains a quality system which is applied to the conception, planning, investigation, design, documentation, tender evaluation, procurement and contract administration phases of a project. The quality system is based on the requirements of *AS/NZS ISO9001 Quality Systems - Model for Quality Assurance in Design, Development, Production, Installation and Servicing.* The Quality System, as described in the Company's Quality Manual and Procedures, has been designed to control the work and confirm the effectiveness of the planning and management of each project in meeting its obligations to clients. Cardno is third party accredited to ISO 9001/2008.

As part of its Quality Management system Cardno has developed a *Practice Note – Regulatory Audits* which is aligned with ASAE 3000. For this audit the project team followed the procedures set out in Cardno's Quality Management System and in particular the *Practice Note – Regulatory Audits*.

SLR Consulting Australia, the employer for Jon Panic, has full certification to the Quality Assurance requirements of AS *AS/NZS ISO9001 Quality Systems - Model for Quality Assurance in Design, Development, Production, Installation and Servicing* (SAI Global Limited Licence No 3236).

2 Licence and Licence authorisation

2.1 Summary of Findings

The 2013/14 audit scope for the Licence and Licence authorisation category of State Water's Operating Licence includes two administrative clauses; the first requiring State Water to make the Operating Licence available and the second requiring State Water to publish and make available a statement relating to functions conferred upon it.

These clauses were audited primarily through State Water demonstrating that the relevant documents had been published and were available as required.

Clause 1.3 – Full compliance

This clause requires State Water to make the Operating Licence available. This clause was audited through testing the availability of the Licence on State Water's website, and reviewing with State Water staff the processes it has in place to provide the Licence to the public on request. We found that State Water makes the Licence available through these two means, as required.

Clause 1.4 – Full compliance

The two sub-clauses audited for 2013/14 require State Water to publish and make available a statement relating to functions conferred upon it. State Water demonstrated that it had published the statement by 1 October 2013, as required. We reviewed the content of the Statement and found that it included the content required under the sub-clause. We found that the Statement is available on State Water's website and to the public.

Supporting commentary for specific clauses is provided in Appendix A.

2.2 Recommendations

There are no recommendations in relation to Licence and Licence authorisation.

2.3 Opportunities for Improvement

No opportunities for improvement have been identified.

2.4 Previous Recommendations

There were no recommendations in the 2013 Audit Report in relation to Licence and Licence authorisation.

3 Water quality

3.1 Summary of Findings

Clause 2.1 – High Compliance

The 2013/14 audit scope for the Water quality category of State Water's Operating Licence includes the one clause in the Licence which relates to providing bulk water to Local Water Utilities (LWUs) for drinking water purposes. All four sub-clauses of this clause were within scope and cover a register for LWUs and processes for providing information from State Water to LWUs.

The sub-clauses were audited through a review of State Water's processes for maintaining the register of LWUs and processes for providing information to LWUs. The process review was complemented by interviews with State Water staff responsible for managing this aspect of the business. Finally, documents including the register of LWUs and procedure for providing information to LWUs were reviewed.

State Water has achieved High Compliance in meeting its licence requirements for the provision of bulk water to Local Water Utilities for drinking water purposes. This is a new obligation in the licence. We considered that State Water had substantially met the requirements of this clause. However there were a few very minor administrative shortcomings noted. These included:

- The register of LWUs was not considered up to date as 22 of the 42 LWUs contacted had not responded (as required in the letter sent by State Water to LWUs). State Water had not followed up the LWUs for a response (confirmation or otherwise of contact details)
- No documented procedure exists to maintain the LWU contact register
- > The LWU procedure does not state how any fees or charges are to be paid

Supporting commentary for specific clauses is provided in Appendix B.

3.2 Recommendations

WQual-2014/1 State Water should contact the 22 LWUs that have not responded to their request to confirm or amend the contact details in the register of Local Water Utilities (LWUs).

WQual-2014/2 State Water should prepare a documented procedure for maintaining the register of Local Water Utilities (LWUs).

WQual-2014/3 The Water Quality Information Request Procedure should be updated to describe how any fees or charges are to be paid.

3.3 Opportunities for Improvement

The following opportunity for improvement has been identified:

State Water could consider providing an indicative cost in the procedure and stating that the LWU will be advised if the cost is likely to exceed this figure.

3.4 Previous Recommendations

There are no previous recommendations relating to water quality as it was not included in the 2008-13 Operating Licence.

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4 Water Quantity

4.1 Summary of Findings

Clause 3.1 – Full compliance

The 2013/14 audit scope comprises all three sub-clauses relating to delivery of water to customers. These clauses require State Water to process Water Orders promptly and efficiently, manage Water Orders to ensure their timely delivery, maintain a Water Allocation Account for each licence holder and to take reasonable steps to minimise water losses from its operations.

The clauses were audited through a review of State Water's processes and practices for taking water orders, making deliveries and maintaining Water Allocation Accounts. The process review was complemented by interviews with State Water staff responsible for managing these aspects of the business as well as live demonstration of relevant systems, in particular, State Water's water ordering and accounting systems (iWAS and WAS) and the water delivery system (CAIRO). We also reviewed Water Order and operating records from these systems.

We found that State Water had taken reasonable steps to process Water Orders, deliver these orders, and record these transactions in Water Allocation Accounts. We found that State Water has demonstrated a commitment to improved water management in river systems as evidenced by the Water Efficiency projects worked on in the Murrumbidgee Valley during the year including CARM (Computer Aided River Management), Metering and Old Man Creek water efficiency project. On this basis, we have awarded Full Compliance for this clause.

Clause 3.2 – High compliance

This clause requires that State Water maintain an effective system for providing advance warning of significant changes to flow release patters from its operations. State Water has achieved High Compliance in meeting its Licence Requirements for this licence category. We considered that State Water had substantially met the requirements of this clause. However, State Water reported one non-compliance in its Statement of Compliance for 2013/14. This related to an incident that occurred during a power failure at Copeton Dam in November 2013. Corrective action, involving improved monitoring of all hydro plants and provision of hydro plant operating information to operators, has been taken to ensure that this incident is not repeated in any of the hydro plants connected to State Water's dams. As appropriate corrective action has already been taken no recommendation is made in relation to this non-compliance.

Clause 3.3 – Full compliance

This clause requires that State Water prepares a water balance report for each of the Valleys in which it operates. We reviewed the water balance reports prepared for each valley against the requirements of the Reporting Manual and found that they met the requirements of the Manual. These water balance reports are published on State Water's website. On this basis, we awarded Full Compliance for this clause.

Supporting commentary for specific clauses is provided in Appendix C.

4.2 Recommendations

There are no recommendations relating to water quantity.

4.3 Opportunities for Improvement

The following opportunities for improvement have been identified:

State Water should consider adopting a KPI such as water loss per 100km of river channel as well as percentage water loss.

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LWU's should be encouraged to register for notifications as some of the notifiable events may affect raw water quality. This could be achieved as part of the process for maintaining the register of LWUs (Subclause 2.1.1). We understand that a number of LWUs are already registered.

4.4 **Previous Recommendations**

There are no previous recommendations relating to water quantity.

5 Assets

5.1 Summary of Findings

Clause 4.1 – Full compliance

The 2013/14 audit scope for the Assets category of State Water's Operating Licence comprises sub-clause 4.1.4 which requires State Water to maintain programs to manage risks to its assets and to maintain the appropriate levels of service of those assets until such time as an Asset Management System has been developed and certified against ISO55001:2013.

This clause was audited through a review of State Water's processes and practices for managing the risk associated with its assets and reading meters, supported by interviews with State Water's asset management and customer operations staff. Documents relating to managing asset risk and maintaining service delivery were also reviewed.

We found that State Water has developed and implemented comprehensive risk management processes and procedures for its assets which are integrated into the organisation's corporate risk management framework. These processes meet the Dam Safety Committee's requirements and address the ten asset related risks identified in State Water's Corporate Risk Register.

Clause 4.2 – Full compliance

The sub-clauses of the Water metering clause included within the audit scope relate to State Water's obligation to read each of its customer's meters and to read meters were provided for in an agreement with another agency.

The clauses were audited through a review of State Water's meter reading practices including scheduling, resourcing, data capture and health and safety. This review of practices was complemented by interviews with State Water's staff responsible for customer metering and review of metering records for 2013/14. On this basis, we found that State Water had met the requirements of the clause.

Supporting commentary for specific clauses is provided in Appendix D.

5.2 Recommendations

There are no recommendations relating to assets.

5.3 Opportunities for Improvement

The following opportunity for improvement has been identified:

Consideration should be given to presenting a risk profile of State Water's assets. This has been presented at the asset class level. Presentation of a simplified, user-friendly profile may be useful in communicating information to a non-technical audience.

5.4 Previous Recommendations

There are no previous recommendations relating to assets.

6 Customers

6.1 Summary of Findings

Clause 5.5 – Full compliance

The 2013/14 audit scope under this clause comprises the sub-clause that requires State Water to develop, maintain and implement a Code of Practice relating to customers having payment difficulties.

This clause was audited through a review of the Code to determine that it met the content requirements set out in the clause; we confirmed that the Code met these content requirements. We then reviewed State Water's business processes for implementing and reviewing the Code and we interviewed staff responsible for this area of the business. We also observed a live demonstration of the Ticket system which is used for tracking customer contacts.

We found that State Water had achieved Full Compliance with the requirements of the clause.

Clause 5.6 – High compliance

The 2013/14 audit scope under this clause comprises two sub-clause that require State Water to maintain a procedure for receiving, responding to and resolving complaints that is consistent with the relevant Australian Standard; and to ensure that this procedure is fully implemented and that all relevant activities are carried out in accordance with the procedure.

This clause was audited through a review of the procedure to determine that it met the requirements of the relevant Australian Standard; we confirmed that the Code met these content requirements. We then reviewed State Water's business processes for implementing and reviewing the procedure and we interviewed staff responsible for this area of the business. We also observed a live demonstration of the Ticket system which is used for tracking customer contacts.

We also trailed a sample of customer complaints to test that they had been handled in accordance with State Water's procedures. We identified two instances in the small sample of records that we trailed where State Water had not correctly followed this procedure. Due to these instances of the procedure not being followed, we have awarded a grade of High Compliance for this clause.

Clause 5.7 – Full compliance

The 2013/14 audit scope for this clause comprises one sub-clause which requires State Water to provide information to its customers by various means on the dispute resolution service provided by the Energy and Water Ombudsman (EWON) NSW.

State Water provided to us a copy of the material relating to EWON that it provided to its customers via their bills in early 2014. We also identified and tested where this information relating to EWON was available on State Water's website. Finally, we interviewed State Water's staff to assess the processes in place to provide this information to the public on request. We found that State Water had made the information relating to EWON available by these means, as required by the Licence, and we therefore awarded Full Compliance for this clause.

Supporting commentary for specific clauses is provided in Appendix E.

6.2 Recommendations

The following recommendation has been identified:

Customers-2014/1 We recommend that State Water undertake the actions identified by it to increase awareness of its Complaints Handling Procedure and continually monitor implementation of the procedure.

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The actions referred to were identified by State Water during the audit process and are set out in Appendix E. These actions include:

- Re-appoint the Education Officer as a dedicated resource for complaints management
- Discuss outcomes of ticket audit from last year's complaints with CIOs at their next meeting
- Plan specific training for other Business Units,
- Undertake more detailed and complete audits and checks of complaints during 2014/15 with reporting monthly to Manager of Customer Operations.

6.3 Opportunities for Improvement

The following opportunities for improvement have been identified:

We consider that it would be beneficial for State Water to provide more detail in the Code of Practice on the 'reminder process' as the current wording of the Code is mostly abstract in this area.

6.4 **Previous Recommendations**

There are no previous recommendations relating to Customers.



7 Environmental Management

7.1 Summary of Findings

Clause 6.1 – Full Compliance

The 2013/14 audit scope for the Environmental Management category of State Water's Operating Licence comprises two sub-clauses that require State Water to maintain and implement environmental management programs to manage risk until such time as an Environmental Management System (EMS) has been developed and certified.

The auditor carried out interviews with members of the environmental management team and viewed a range of documentation to determine whether the programs in place were effectively managing the organisation's environmental risks. The auditor also undertook site visits to two State Water Sites (Lake Burrendong and Marebone Weir) to verify the documented evidence in the field, including installation of a fish ladder at Marebone Weir and implementation of environmental controls at the Lake Burrendong (Spillway).

State Water has in place, and is implementing, an Environmental Management Plan (EMP), that was found to be effective in managing the organisation's environmental risks, and as a result was assessed as having demonstrated Full Compliance with the requirements of this clause. Supporting commentary for specific clauses is provided in Appendix F.

7.2 Recommendations

There are no recommendations relating to Environmental Management.

7.3 Opportunities for Improvement

The following opportunities for improvement have been identified:

- Formalise the range of requirements that are currently in place informally as part of the move towards a certified EMS. For example:
 - The team member responsible for approving the Construction Environmental Management Plan (CEMP) must, where practical, be part of the audit team; and
 - Audit program review (scope, purpose etc)
 - Staff environmental training requirements
- Introductory environmental audit training should be considered as a requirement for at least one member of State Water's audit teams.

7.4 Previous Recommendations

There are no previous recommendations relating to environmental management as it was not included in the scope of the 2012/2013 Operating Licence Audit.

APPENDIX A DETAILED AUDIT FINDINGS, LICENCE AND LICENCE AUTHORISATION (LICENCE CLAUSE 1)



Table A.1 Detailed audit findings clause 1.3.1

| Sub- clause | Requirement | Compliance Grade |
|----------------|--|------------------|
| 1.3.1 | State Water must make this Licence available free of charge: a) on its website for downloading by any person; and b) to the public on request. | Full compliance |
| Risk | Target for full compliance | |

| State Water's customers and stakeholders are not informed of its licence obligations | The Licence is available free of charge on State Water's website and to the public on request. |
|---|--|
|---|--|

Evidence sighted

- Operating Licence on State Water's website: <u>http://www.statewater.com.au/About%20us/Publications/Corporate%20Publications</u>
- Customer contact details on State Water's website: <u>http://www.statewater.com.au/Customer%20service</u>

Summary of reason for grade

State Water has made its licence available on its website for downloading and has appropriate arrangements in place to supply the Licence to the public if requested.

Discussion and notes

We confirm that State Water's 2013-18 operating Licence is freely available on its website at the following location: <u>http://www.statewater.com.au/About%20us/Publications/Corporate%20Publications</u>

State Water has in place appropriate customer contact arrangements to allow it to respond to requests, such as possible requests for a copy of its Operating Licence. The primary means of contact is through the customer helpdesk which can be contacted on 1300 662 077 between 8.30am and 4pm, Monday to Friday. The contact number and opening hours are published on State Water's website. State Water stated that if a customer requested a copy of the Operating Licence, the request would be directed to the Governance team for action.

We consider that State Water has appropriate processes in place to make the Operating Licence available to the public.

Recommendations

There are no recommendations in relation to this sub-clause

Opportunities for Improvement

No opportunities for improvement have been identified in relation to this sub-clause



Table A.2Detailed audit findings clause 1.4.3

| Sub- clause | Requirement | Compliance Grade |
|----------------|---|------------------|
| 1.4.3 | By 1 October 2013, State Water must publish a statement setting out any agreed roles and responsibilities regarding the functions conferred on it under clause 1.4.1 and Schedule A, as agreed with the NSW Office of Water, the Ministerial Corporation | Full compliance |
| | or any other relevant government departments or agencies. | |
| | [Note: this obligation could be fulfilled by publishing those parts of any agreements (including memoranda of understanding) entered into by State Water and other government departments or agencies with which it shares the functions, which document roles and responsibilities regarding conferred functions.] | |
| Risk | Target for full compliance | |
| ~ | | |

State Water's customers and stakeholders are not aware of its roles and responsibilities relating to conferred functions

Evidence sighted

- Conferred functions statement on State Water's website: <u>http://www.statewater.com.au/About%20us/Publications/Corporate%20Publications</u>
- Email from State Water to IPART dated 1 October 2013 informing it of the publication of the Conferred functions statement

Summary of reason for grade

State Water has published in the timeframe required its Conferred functions statement setting out its roles and responsibilities in relation to the conferred functions in Schedule A of its licence.

Discussion and notes

State Water advised that its Conferred functions statement was prepared in accordance with the licence requirement and published on its website on 1 October 2013. State Water provide an email sent to IPART dated 1 October 2013 advising IPART that it had published the Statement to verify that it had met the timing requirement. We are satisfied that State Water has published the Statement on time.

We reviewed the Conferred functions statement and found that it addresses the areas under the Water Management Act 2000 (items a - i) and the Water Act 1912 (item a) required to be considered, as detailed in Schedule A to the Operating Licence. State Water advised that it had engaged a legal advisor to assist in drafting the statement. The structure of the Statement is a table defining the roles and responsibilities for each function, supported by a number of annexures that clarify the relationship between State Water and the NSW Office of Water. State Water advised that the most important supporting documents are:

- The Compliance Protocol
- The Groundwater Usage Service Agreement
- The MoU with NSW Office of Water
- The Service Level Agreement.

Based on our review we consider that State Water has meet the requirements in relation setting out its roles and responsibilities in relation to the conferred functions in Schedule A of its Operating Licence.

Recommendations

There are no recommendations in relation to this sub-clause

Opportunities for Improvement

No opportunities for improvement have been identified in relation to this sub-clause



| Table A.3 | Detailed au | udit findings clause 1.4.4 | |
|-----------------------|--|---|--------------------------|
| Sub- clause | Requirement | | Compliance Grade |
| 1.4.4 | free of charge: a) on its we | st make the statement described in clause 1.4.3 available ebsite for downloading by any person; and ublic on request. | Full compliance |
| Risk | | Target for full compliance | |
| and stake aware of | ter's customers eholders are not its roles and pilities relating to | The Conferred functions statement is available free of charge of and to the public on request. | on State Water's website |

conferred functions Evidence sighted

- Conferred functions statement on State Water's website: <u>http://www.statewater.com.au/About%20us/Publications/Corporate%20Publications</u>
- Customer contact details on State Water's website: <u>http://www.statewater.com.au/Customer%20service</u>

Summary of reason for grade

State Water has made its Conferred functions statement available on its website for downloading and has appropriate arrangements in place to supply the statement to the public if requested

Discussion and notes

We confirm that State Water's Conferred functions statement is freely available on its website at the following location: <u>http://www.statewater.com.au/About%20us/Publications/Corporate%20Publications.</u>

State Water has in place appropriate customer contact arrangements to allow it to respond to requests, such as possible requests for a copy of the Conferred functions statement. The primary means of contact is through the customer helpdesk which can be contacted on 1300 662 077 between 8.30am and 4pm, Monday to Friday. The contact number and opening hours are published ion State Water's website. State Water stated that if a customer requested a copy of the Statement, the request would be directed to the Governance team for action.

From our review we consider that State Water has complied with the requirement for making the Conferred functions statement available on its website and providing the statement free of charge to the public.

Recommendations

There are no recommendations in relation to this sub-clause

Opportunities for Improvement

No opportunities for improvement have been identified in relation to this sub-clause
APPENDIX B DETAILED AUDIT FINDINGS, WATER QUALITY) (LICENCE CLAUSE 2)





Table B.1 Detailed audit findings clause 2.1.1

| Sub- clause | Requirement | Compliance Grade |
|----------------|--|------------------|
| 2.1.1 | State Water must maintain a register of all Local Water Utilities: a) for which State Water maintains a Water Allocation Account; and b) to which State Water delivers water that will be used for the purposes of Drinking Water (Local Water Utility Customers). c) The register must include contact details for each Local Water Utility Customer, and the Valley and approximate location from which each Local Water Utility Customer extracts water. | High Compliance |
| Diala | Toronal for faill a suppliance | |

| к | ISK | |
|---|-----|--|
| | | |

Target for full compliance

State Water may not be able to readily contact a LWU in the event of a water quality issue arising

A comprehensive listing is available of Local Water Utilities (LWUs), contact details, valley and approximate location from which each LWU extracts water.

r Evidence exists that the listing is being maintained and up-to-date.

Evidence sighted

- Doc13 29697 spreadsheet Local Water Utilities Contact Details
- Doc 1428056 Letter to Tamworth Regional Council 13 Dec 2013
- Email from State Water dated 1 October with a listing of LWUs that had not responded

Summary of reason for grade

The register of LWUs was not considered up to date as 22 of the 42 LWUs contacted had not responded (as required in the letter) and State Water had not followed up the LWUs for a response (confirmation or otherwise of contact details)

No documented procedure exists to maintain the LWU contact register.

Discussion and notes

State Water has a register of LWUs which was originally based on contact details for LWUs that have a water allocation account. We queried why some townships were not included on the listing. Reasons provided included that the township was on an unregulated river (e.g. Darling River) or that it had a groundwater source or the source was groundwater (e.g. Dubbo)

A letter has been sent to each utility for them to identify the preferred contact point. A sample letter was provided. which stated:

The contact details we have for your local utility are identified below. Could you please check that these details are correct and email with confirmation or otherwise provide the relevant contact details.

We were advised that not all LWUs had responded and it was assumed that in these instances the LWU may have been satisfied with the contact listed on the letter. In response to our query State Water provided a listing of LWUs that had not responded; this indicated that 22 of the 42 LWUs contacted had not responded.

We noted that the spreadsheet included the Jerilderee Aquatic Club Inc. Possibly this organisation may not be using the water for drinking water purposes. This should be clarified when a response is received from them.

We questioned State Water on the process for maintaining the register and were advised that they may again contact the LWUs within a "couple of years". Currently no documented process exists for maintaining the register.

In summary, our review found that there were a few minor administrative shortcomings in relation to compliance with this clause. State Water had not followed up LWUs to confirm contact details and did not have a procedure in place to maintain the LWU contact register.

Recommendations

- WQual-2014/1 State Water should contact the 22 LWUs that have not responded to their request to confirm or amend the contact details in the register of Local Water Utilities (LWUs)
- WQual-2014/2 State Water should prepare a documented procedure for maintaining the register of Local Water Utilities (LWUs)

Opportunities for Improvement

No opportunities for improvement have been identified in relation to this sub-clause, apart from the recommended actions.

November 2014

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Table B.2 Detailed audit findings clause 2.1.2

| Sub- clause | Requirement | | Compliance Grade |
|---|-------------------------------------|--|------------------|
| 2.1.2 | providing informati | , State Water must develop and implement a procedure for on when requested by any Local Water Utility to inform that | Full Compliance |
| | utility's Drinking W Procedure). | ater quality assurance program (LWU Information Request | |
| Risk | | Target for full compliance | |
| A LWU may not be fully aware of the water quality characteristics of its raw water and may not address this issue in its Drinking | | A documented procedure exists and was developed by 1 Oct | ober 2013. |

Evidence sighted

Plan

- Doc13/29728 Water Quality Information Request Procedure
- Email dated 1 Oct 13 from State Water to IPART re Conferred Functions Statement and LWU Information Request

Summary of reason for grade

Water Quality Management

State Water has developed and implemented the procedure for providing information to Local Water Utilities by the required date.

Discussion and notes

State Water has prepared a procedure for Utilities to request information. The process involves the LWU either accessing the website or contacting the State Water enquiry telephone number 1300 662 077. The documented procedure includes a listing of information required by the service desk.

An email advising IPART that a procedure had been developed was sent from State Water on the 1 October 2013

State Water advised that any notifications in relation to blue-green algae are directed through the Regional Algal Coordination program.

We consider that State Water has developed and implemented a procedure to provide information to LWUs.

Recommendations

There are no recommendations in relation to this sub-clause.

Opportunities for Improvement



Table B.3Detailed audit findings clause 2.1.3

| Sub- clause | Requirement | | Compliance Grade |
|----------------|--|---|-----------------------|
| 2.1.3 | State Water's LWU Information Request Procedure under clause 2.1.2 above must: describe how a Local Water Utility is to request information; a) describe how State Water will respond to the request in a timely manner; | | High Compliance |
| | reasonable costs | any fees or charges that will be charged by State Water to recover incurred for responding to an information request, how these will d how they are to be paid. | |
| Risk | | Target for full compliance | |
| AIWUr | may not be fully | A documented procedure exists which describes how State Wa | ter will respond to a |

A LWU may not be fully aware of the water quality characteristics of its raw water and may not address this issue in its Drinking Water Quality Management Plan

A documented procedure exists which describes how State Water will respond to a request and the basis of fees payable and how they are to be paid.

Evidence sighted

Doc13/29728 Water Quality Information Request Procedure

Summary of reason for grade

A LWU Information Request procedure has been prepared to meet the requirements of the clause however the procedure has a minor shortcoming in that it does not state how any fees or charges are to be paid.

Discussion and notes

State Water has prepared a procedure for Utilities to request information. The process involves the LWU either accessing the website or contacting the State Water enquiry telephone number 1300 662 077. A documented procedure includes a listing of information required by the service desk.

State Water stated that no request for information has been received during the year.

Currently the procedure states that the cost will be commensurate with the hourly rate of the staff working on the task and the cost of retrieving the water quality data will be advised to the customer. We were advised that most queries would take less than 2-3 hours. There is no mention of how any fees or charges are to be paid.

In summary, we found that the LWU Information Request procedure had been prepared but the procedure included a minor administrative shortcoming in that it did not mention how any fees or charges are to be paid.

Recommendations

WQual-2014/3 The Water Quality Information Request Procedure should be updated to describe how any fees or charges are to be paid.

Opportunities for Improvement

State Water could consider providing an indicative cost in the procedure and stating that the LWU will be advised if the cost is likely to exceed this figure.



Table B.4 Detailed audit findings clause 2.1.4 Sub-Requirement **Compliance Grade** clause 2.1.4 State Water must make details of the LWU Information Request Procedure free of **Full Compliance** charge: on its website for downloading by any person; and a) b) to the public on request. Risk

Target for full compliance

| LWUs are not aware of how | The Conferred functions statement is available free of charge on State Water's website |
|--|--|
| to request information from State Water | and to the public on request. |

Evidence sighted

- http://www.statewater.com.au/Customer%20service/Water%20guality%20data%20procedure
- http://www.statewater.com.au/Customer%20service

Summary of reason for grade

State Water has made the LWU Information Request Procedure available on its website for downloading and has appropriate arrangements in place to supply the statement to the public if requested.

Discussion and notes

We were able to locate the website which describes the water quality monitoring program and provides a link to the procedure. The procedure includes a State Water enquiry telephone number 1300 662 077.

As indicated on its website, State Water has established a customer helpdesk to assist with all general, billing and water account enquiries. Customers can call on 1300 662 077 between 8.30am and 4pm, Monday to Friday.

If a customer wishes to receive a soft or hard copy of the procedure, the request is re directed to the Water Operations team for action.

State Water stated that no request for information has been received during the year.

We consider that State Water has complied with the requirements of this sub-clause, based on the evidence provided.

Recommendations

There are no recommendations in relation to this sub-clause.

Opportunities for Improvement

APPENDIX C DETAILED AUDIT FINDINGS, WATER QUANTITY (LICENCE CLAUSE 3)





Table C.1 Detailed audit findings clause 3.1.1

| Sub- clause | Requirement | | Compliance Grade |
|--|--|------------------|------------------|
| 3.1.1 | 3.1.1 State Water must take all reasonable steps to process all Water Orders promptly and efficiently. [Note: Where a Customer places an incomplete or incorrect Water Order, State Water could fulfil this obligation by notifying that Customer promptly and efficiently of the error, and how to rectify it]. | | Full compliance |
| | | | |
| Risk | Target for full compliance | | |
| Customers do not receive All reasonable steps are taken by State Water to process Water water deliveries in a timely | | Orders promptly. | |

manner

Evidence sighted

- Live demonstration of Ticket System including trailing of a number of Water Order records
- Live demonstration of iWAS (Internet Water Accounting System) system
- State Water Procedure: Doc 12/39857 Water Ordering Procedure
- Spreadsheet Doc14 23106 IPART Non-complying orders 2013-14

Summary of reason for grade

State Water has appropriate systems and processes in place to ensure that Water Orders are promptly processed. The relevant processes include the customer service centre and staff that process Orders received by telephone, fax and email. The relevant systems include the Ticket System and the Water Accounting System.

Discussion and notes

State Water provides its customers with a range of methods to enter water orders. These include:

- By telephone to the enquiry number 1300 662 077
- By fax to Fax to 1300 871 447.
- By email to the relevant regional email address (North, Central and South)
- Online through iWAS.

The means of making water orders is set out on State Water's website at this location: http://www.statewater.com.au/Customer%20service/water-ordering-trading-pricing/Water%20Ordering.

Orders received by telephone fax and email are recorded by Customer Information Officers into the Ticket system. The Ticket System records the order details and assigns the order a unique reference number which allows the processing of the order to be tracked. The order details are then transferred into the Water Accounting System (WAS). We discuss this system in more detail in our discussion relating to Clause 3.1.1. We consider that when the Order has been recorded in the Water Accounting System it has been processed for the purposes of this audit clause.

State Water has an internal KPI of processing water orders received by telephone, fax or email within 3 hours. It also endeavours to send a confirmation email to all customers when an order is processed. State Water demonstrated the Ticket System at audit. We trailed a number of current Water Order records in the Ticket System into WAS to see that the details recorded in each system were consistent. We found for one record (70AL602113) that the Order in WAS was for deliveries across 5 days whereas the Ticket record was for deliveries across 7 days. State Water's Customer Information Officer who processed the order advised that this was due to this record being received and processed that day and therefore an amendment to the order had not been reflected in the Ticket System. We accept that there are operational reasons why there will be differences between WAS and the Ticket system from time to time. We did not identify any issues with the records reviewed.

Water Orders must be complying to be processed. What constitutes a complying order is set out on State Water's website and on the Customer Order Form. Criteria for complying orders include that the order is linked to a works approval licence number, that the customer has sufficient allocation in their bank account and that there is sufficient lead time for the order to be delivered to the customer taking into account the nature of the delivery system. Customer service staff have access to a Water Order Checklist to assist in identifying whether orders are compliant or not. We reviewed this Checklist at audit and the Procedure relating to use of this Checklist. Customer service staff also have access to a customer service 'knowledge centre' on the intranet which provides additional guidance on processing orders.

Where orders are made via iWAS, the order is made directly into the Water Accounting System and therefore processed immediately. WAS has inbuilt assurance functionality to make sure that orders are properly made, e.g. checking lead time and that the customer has sufficient allocation in their account. State Water advised that around just over half of all orders by number and volume are made into the iWAS system and it expects this proportion to increase over time as more customers become familiar with it.



Subclause Requirement

Compliance Grade

From our review of the evidence provided we consider that State Water has appropriate systems and processes in place to process all Water Orders promptly and efficiently.

Recommendations

There are no recommendations in relation to this sub-clause.

Opportunities for Improvement



Table C.2Detailed audit findings clause 3.1.2

| Sub- clause | Requirement | Compliance Grade |
|----------------|--|------------------|
| 3.1.2 | State Water must take all reasonable steps to manage Water Orders so as to ensure the timely Delivery of water to its Customers. | Full compliance |
| | | |
| Risk | Target for full compliance | |

| Customers do not receive water deliveries in a timely | All reasonable steps are taken by State Water to ensure the timely delivery of Water Orders |
|---|--|
| manner | |

Evidence sighted

- State Water Procedure: Doc12/39857 Water Ordering Procedure
- State Water Procedure: Doc14/21973 Southern Daily Operations Procedure
- State Water Procedure: Doc14/23167 Customer Complaints 2013-14

Summary of reason for grade

State Water has in place appropriate systems and processes to help ensure timely delivery of Water Orders. The relevant systems include the Water Accounting System and CAIRO system delivery model.

Discussion and notes

We have described in the section above relating to sub-clause 3.1.1 how State Water receives and processes properly made Water Orders. The processed Water Orders are stored in the Water Accounting System (WAS). The Water Accounting System has in built checks so that orders can only be made within achievable delivery timeframes that relate to the travel times through the system to the customer. We saw that the guideline achievable delivery time differs between customers reflecting their different locations. This is an important check to make sure that processed Orders are deliverable by State Water in a timely manner.

There is however some flexibility in the guideline delivery times. Where a customer requests a delivery in a shorter period than the guideline timeframe, State Water endeavours to meet the Order. The customer contact staff liaise with the Customer Delivery Manager to identify whether an order outside of the guidelines may be able to be made.

The Orders in the Water Accounting System are loaded into the Computer Aided Improved River Operations (CAIRO) model. The CAIRO model performs a water balance over each reach in the delivery system to determine the volume of water required to be released from storages to meet downstream deliveries. The model incorporates readings from gauging stages within the delivery system and on major tributaries. Where inflow through a tributary is being received then release from a storage may be avoided. We also discussed CAIRO and the more advanced system (CARMS) being trialled by State Water under sub-clause 3.1.4.

We requested State Water to identify complaints made by its customers in 2013/14 for deliveries being made outside of the scheduled delivery day to demonstrate that its systems for water delivery are performing adequately. State Water responded that in 2013/14 it received 8 complaints for water deliveries being outside of the scheduled delivery window, corresponding to 0.007% of all orders by number, as detailed in its 1 September Report.

We consider that WAS and CAIRO systems, and the actions of the customer service staff and water delivery staff, reflect that State Water is taking reasonable steps to ensure the timely delivery of Water Orders. This is also demonstrated by the relatively low number of complaints received by State Water in 2013/14 for orders being outside the delivery window.

Recommendations

There are no recommendations in relation to this sub-clause.

Opportunities for Improvement



Table C.3Detailed audit findings clause 3.1.3

| Sub- clause | Requirement | | Compliance Grade |
|---|---|--|------------------|
| 3.1.3 State Water must maintain a Water Allocation Account for each access licence issued under the Water Management Act 2000 (NSW) and each licence issued | | Full compliance | |
| | under the Water Act 1912(NSW) held by a Customer. | | |
| Risk | | Target for full compliance | |
| Licence holder available water (allocations) are not able to be tracked | | There is a Water Allocation Account for each licence holder. | |

Evidence sighted

- Live demonstration of the Water Accounting System
- State Water Procedure: Doc 12/37580 Meter Reading Procedure
- State Water Procedure: Doc 12/39857 Water ordering procedure
- Spreadsheet Doc 13 2518 Monthly regulated and groundwater balances 2013-14
- Spreadsheet Doc 14 23096 IPART trade targets 2013-2014 audit report
- Doc14 23167 Customer Complaints 2013-14
- Available Water Determination Order for the Macquarie and Cudgegong Regulated rivers Water Source 2013-14
- Example water account statements (2No.) Docs 14 27830 and 14 27831
- Spreadsheet Doc 14 27933

Summary of reason for grade

State Water maintains a Water Allocation Account for each of its customers using its Water Accounting System

Discussion and notes

The New South Wales Office of Water maintains the Licensing Administration System (LAS) which records the details of all of licence holders under the Water Management Act 2000 and the Water Act 1912. As well as licence holder details, the LAS holds details on each licence. The details in LAS are exported to State Water's Water Accounting System on a regular basis to ensure alignment between the information held in each system.

The Office of Water is responsible for making Available Water Determinations (AWDs) for each supply system based on storage levels and inflows. AWD are made from time to time throughout the year when inflows to the system are received. The Office of Water make official AWD orders to State Water. State Water then credits customer accounts with allocations reflecting the determined volume of water available in the system. The allocation is recorded in WAS.

When customers make Orders as described in our discussion of sub-clauses 3.1.1 and 3.1.2, the customer's water allocation account is immediately debited. The Water Accounting System also prevents Orders being made where the customer does not have sufficient allocation in their account.

State Water advised that it uses a number of processes to monitor and maintain water allocation accounts including:

Credits

- Available water determination (AWDs). Customer accounts are credited with AWDs upon receipt of an official AWD order from the NOW.
- Trades In. Allocation assignments (trades) are credited to customers' accounts upon receipt of a completed trade form along with the correct payment.
- There are also valley specific rules that govern how much water is credited to customer accounts.

<u>Debits</u>

- Water Orders,
- Usage,
- trade out,
- Account rules that govern how much water is available for use,
- Also penalties that can be applied as per operating licence.

<u>Limits & Rules</u>

- Carryover,
- usage,
- account,
- available water,



Subclause Requirement Compliance Grade

- dealing rules,

- valley specific rules.

State Water provided to us examples of customer Water Account Statements for the period of 01/07/13 to 30/06/14. We also witnessed the Water Accounting System live at our audit.

State Water services many customers with multiple Water Access Licences. The provided evidence contains two customers who own Access Licences in different water sources. We reviewed the functionality in the system to view and edit customer details. State Water also demonstrated queries on the allocation account water balance for a number of customers. We also observed that the system is able to generate an account statement for a given financial year.

There are a number of checks and balances in place for the data recorded in the Water Accounting System relating to customer Allocation Accounts including:

- Reconciliation between Water Allocation Account data against quarterly billing data.
- Customer feedback including complaints
- Verification of updated meter reads against historic meter readings
- Monitoring and reporting of Allocation Account information to the Office of Water.

We consider, based on the systems and processes reviewed, including live demonstration of the Water Accounting System, the records we reviewed and the additional verification of the Water Accounting System, that State Water is complying with its Licence requirement to maintain a Water Allocation Account for each customer.

Recommendations

There are no recommendations in relation to this sub-clause.

Opportunities for Improvement



Table C.4Detailed audit findings clause 3.1.4

| Sub- clause | Sub- clause Requirement | |
|----------------|--|-----------------|
| 3.1.4 | State Water must take all reasonable steps to conserve water and minimise water losses that result from undertaking its operations under this Licence. | Full Compliance |
| | | |

Risk

Target for full compliance

Excessive water losses Evidence that reasonable steps are being undertaken to minimise water losses water management

Evidence sighted

- Spreadsheet Doc12 31295 Water delivery Operational Surplus Performance Indicator 2013-14.xls
- http://www.statewater.com.au/current%20projects/Water%20efficiency%20projects
- Presentation on Computer Aided River Management (CARM)

Summary of reason for grade

State Water has demonstrated a commitment to improved water management in river systems using new technology.

Discussion and notes

State Water has established a KPI for the volume of surplus water – which is water that flows out of the system in addition to customer and environmental needs. The target is set at 5% for each valley and across the state. In 2013/14 State Water achieved a surplus of 4%.

Our view is that the KPI may give a false impression of water loss. The percentage loss in a valley may increase because the total water flow has decreased rather than the actual loss increase (it may well have decreased). A KPI such as volume loss per 100km of river channel may be a more useful indicator.

A number of Water Efficiency projects were worked on in the Murrumbidgee Valley during the year including CARM (Computer Aided River Management), Metering and Old Man Creek water efficiency project.

State Water presented information on the CARM project which is being implemented in the Murrumbidgee Valley. It is expected that final acceptance of the system will occur in July 2015. The Computer Aided River Management system (CARMs) is a model of management for a natural river system being developed by State Water, which aims to "deliver the right flows at the right location at the right time" which will:

- Reduce operational surplus and improve reliability of deliveries
- Ensure accurate delivery of environmental flows.

It is considered by State Water that current operations are suboptimal. There is a significant reliance on judgement and experience in assessing daily releases with the current tool being a spreadsheet, Computer Aided Improved River Operations (CAIRO). Limited ability exists to use real time and forecast data (flows, rainfall, demands).

Operational benefits are claimed to include:

- Automatic determination of optimal releases
- Flexible river operations
- Optimised several times daily
- Uses real time measurements, forecasts and demands
- Effects of rainfall on tributary inflows are accurately quantified
- Reliable quantification of river losses and gains
- River flows and levels available at any location along the river (virtual gauge)
- Improved prediction of supplementary flows (start and end).

Environmental benefits are stated to be:

- · Piggyback of environmental releases on other releases and inflows
- Shepherding of environmental releases
- Accounting of environmental water deliveries.

State Water proposes to extend CARMS to other valleys but this will require a rigorous business case to justify investment during the next price path.

The Murrumbidgee metering project includes upgrading the irrigator meters which will be owned by State Water. The new telemetry meters will provide real time, accurate measurements and better monitoring of customer usage against water orders. We were advised that the meters would be operational by late September 2014. A major benefit will be savings through better water management of water losses from unauthorised extraction and inaccurate metering.



Subclause Requirement

Compliance Grade

The Old Man Creek project is currently under construction. It involves constructing a new weir on a by-pass adjoining to the existing Beavers Weir. The new weir will be fitted with gates for better regulated water flow and a fishway to help fish migration up the river. The infrastructure improvements are expected to improve flow control into Old Man Creek from the Murrumbidgee River. It is anticipated that savings up to 2.2GL/year are anticipated.

From the evidence provided we consider that State Water is taking reasonable steps to conserve water and minimise water losses.

Recommendations

There are no recommendations in relation to this sub-clause.

Opportunities for Improvement

State Water should consider adopting a KPI such as water loss per 100km of river channel as well as percentage water loss.



Table C.5 Detailed audit findings clause 3.2.1

| Sub- clause | Requirement | Compliance Grade |
|----------------|---|------------------|
| 3.2.1 | State Water must maintain an effective system to provide advance notification of any significant changes to flow release patterns from its Water Management Works, | High Compliance |
| | to Customers and other stakeholders that have registered to be notified of such changes. | |
| Risk | Target for full compliance | · · · · · · |

Failure to notify downstream An effective system to provide advance notification exists. stakeholders could result in undesirable impacts on their infrastructure or stock

Evidence sighted

- Doc12/33829 Early Warning Network Procedure-Burrinjuck Dam Notification, Oct 2012
- EWN Statistics Report members device and home location by State
- http://www.statewater.com.au/EWN/EWN-alerts

Summary of reason for grade

State Water has set up an effective Early Warning network. The non-compliance event in November 2013 has resulted in the compliance grade being reduced from Full Compliance to High Compliance.

Discussion and notes

State Water maintains an Early Warning Network (EWN) system to notify registered users of changes in flow patterns and other events. The system commenced in January 2012 and currently it has 774 members enrolled. These members may require alerts in one valley or multiple valleys. Warnings are relayed via SMS, email or automated voice message and could relate to:

- Dam safety alerts
- Flood notifications
- High regulated release
- Algal alerts.

State Water has prepared a procedure for the issuing of the EWN from each dam that identifies when a EWN will be released. An example of a procedure for Burrinjuck Dam was provided.

State Water's website <u>http://www.statewater.com.au/EWN/EWN-alerts</u> provides details of the notifications that have occurred over the past two years.

We noted that State Water reported one non-compliance in its Statement of Compliance for 2013/14. This related to an incident that occurred during a power failure at Copeton Dam in November 2013. The AGL Hydro plants started up without notifying the State Water Operations team State Water did not become aware of the increased flow for a 20 hour period. State Water has reported that it has connected all hydro plants to its iSMART monitoring system to provide operators with notification of plant operation to help ensure that this incident is not repeated. iSMART (Integrated Surveillance, Monitoring, Automation and Remote Telemetry) provides remote operation and monitoring of storage outlet works, weirs and regulators. iSMART provides a business-wide, integrated and centralised approach to managing assets by providing real-time control and data for water delivery, surveillance and asset management.

We consider that State Water has set up an effective system for providing advance notification of any significant changes in flow release patterns. The non-compliance in relation to the hydro plant at Copeton Dam in November 2013 has been addressed and the preventive action applied to all hydro plants associated within State Water's dams.

Recommendations

There are no recommendations in relation to this sub-clause.

Opportunities for Improvement

LWU's should be encouraged to register for notifications as some of the notifiable events may affect raw water quality. This could be achieved as part of the process for maintaining the register of LWUs (Sub-clause 2.1.1). We understand that a number of LWUs are already registered.

November 2014

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Table C.6 Detailed audit findings clause 3.3.1

| Sub- clause | Requirement | | Compliance Grade |
|----------------------|-------------|--|-------------------------|
| 3.3.1 | | repare water balance reports for each of the Valleys in which it ance with the Reporting Manual. | Full Compliance |
| Risk | | Target for full compliance | |
| Non-compliance would | | Water balance reports are prepared consistently for each valle | y by the required date. |

Non-compliance would suggest to stakeholders that State Water was not an effective water manager

Evidence sighted

- http://www.statewater.com.au/Water%20delivery/Water%20balance%20reporting
- Namoi Compliance Report Procedure
- Example of a performance report to the Board dated 29 August 2014

Summary of reason for grade

State Water has prepared the water balance reports consistently for each valley and by the required date.

Discussion and notes

State Water prepares a water balance for each valley as part of the Annual Licence Reporting process, as set out in the Reporting Manual.

The water balances for 2012-13 were completed and are available on State Water's website http://www.statewater.com.au/Water%20delivery/Water%20balance%20reporting

Water balances for 2013-14 are still being prepared and will be available by December 2014 as per the Reporting Manual.

We discussed how the volumes were calculated; data sources include customer meters and river gauging stations. In some instances (e.g. water diverted under riparian rights) assumptions have to be made on usage but the volumes are not material. The reports are prepared in a consistent format and apply a consistent approach to quantifying flows.

We noted that the State Water Corporation Reporting Manual, July 2013 includes an additional requirement that the water balance reports include an annual account of the percentage time that planned environmental water delivery requirements were met. During the interview State Water provided an example of how this indicator was now being reported and provided an example of a performance report to the Board dated 29 August 2014 which included volumes of water released for environmental purposes.

We queried State Water as to whether this was recorded in 2013/14 and they provided the following advice:

In order to meet our 1 December 2014 obligation, State Water gathered in CAIRO during the year the relevant data that will allow us to provide an annual account of the percentage of time that planned environmental water delivery requirements were met.

From the evidence provided we are satisfied that State Water is able to prepare water balance reports for each valley as per the Reporting Manual.

Recommendations

There are no recommendations in relation to this sub-clause.

Opportunities for Improvement

APPENDIX D DETAILED AUDIT FINDINGS – ASSETS (LICENCE CLAUSE 4)





Table D.1 Detailed audit findings clause 4.1.4

| Sub- clause | Requirement | Compliance Grade |
|----------------|---|------------------|
| 4.1.4 | Until the Asset Management System has been developed in accordance with clause4.1.1 and certified in accordance with clause4.1.2 (if applicable), State Water must: | Full Compliance |
| | a. maintain programs to manage risks to its assets and to maintain the appropriate levels of service of those assets; and | |
| | b. ensure that all its activities are carried out in accordance with those programs. | |
| Risk | Target for full compliance | |

A comprehensive risk management program exists which is being implemented in

Failure to manage assets could result in reduced service levels, higher lifecycle costs and possibly asset failure resulting in major financial loss and fatalities downstream of the asset.

Evidence sighted

- Powerpoint presentation Assets
- Risk Management Framework, March 2013
- Incident management Framework 1.2, July 2014
- Asset Management Framework, June 2013
- Fish River Water Supply Incident Management Plan, Ver1.2, May 2014
- Portfolio Risk Assessment, Review of 18 Major Dams 2012, Cover Report, Jan 2014

accordance with the program.

- Security Response Plan Analysis, May 2014
- State Water Procedure SWC Doc 12/33867 Maintenance Audit Procedure
- Maintenance Audit Lostock Dam, 3 & 4 June 2014
- Split Rock Dam Comprehensive (5-Yearly) Surveillance Inspection Report, Feb 2014
- Burrendong Dam, Intermediate Surveillance Report, March 2014
- Lostock Dam, Intermediate Surveillance Report, June 2013
- Chaffey Dam Surveillance Survey Report, July 2014
- Piezometer and Uplift Pressure Flushing Manual, June 2014
- Dam Safety Surveillance Manual, Updated 2013
- Euston Weir and Lock 15, Intermediate Surveillance Report, march 2014
- Burrendong Dam, Dam Safety Management Plan V1.0 Interim, Feb 2014
- 2013/2014 Surveillance Inspection Program of Major Dams and Storages by Dam Safety Group
- 2013/2014 Program of Biennial Safety Surveillance Inspections of major Weirs by Dam Safety Group
- SWC Doc 12/33867 Maintenance Audit Procedure
- Rydal Dam Emergency Exercise 2013, Post Exercise Report
- Risk Cost and MEERA Replacement Costs of State Water Assets Scheduled for Replacement Before 2043
- Lostock Dam Piezometer Reading pro-forma
- Lostock Dam Visual inspection and Storage Report pro-forma
- Burrendong Dam Visual Inspection and Storage Report pro-forma
- Risk & Resilience Panel, Minutes of Meeting 9 Dec 2013
- Tickit Incident Report Wyangala Dam safety Upgrade Gantry Crane Collision, IMF-000577

Summary of reason for grade

State Water has developed and implemented comprehensive risk management processes and procedures for its assets which are integrated into the organisation's corporate risk management framework.

Discussion and notes

Under its Corporate Risk Management Framework State Water maintains a Corporate Risk Register which includes strategic and operational risks. Previously the Corporate Risk Register had been at a very high level but was revised



Subclause Requirement

Compliance Grade

in 2011-12 to be integrated into the water business. A key element of the Corporate Risk Management Framework is the governance framework which includes a Risk and Resilience Panel consisting of subject matter experts. Responsibility and accountability for management of particular risks is assigned to the relevant executive manager.

State Water has identified the following risks to assets within its Corporate Risk Register:

- 1. Extreme weather events (excluding Flood) impacting on asset integrity
- 2. Major asset failure including during extreme weather events due to climate change
- 3. Failure to manage Dam Safety Compliance

4. Asset failure resulting in widespread, long term environmental damage or loss of heritage significance downstream

- 5. State Water Assets are not maintained to the standards required/expected by stakeholders (Dam Safety Committee- etc.).
- 6. Inappropriate operation or malfunctioning of State Water Assets
- 7. Contractors failing to deliver assets or services to required standards
- 8. Risk of asset failure or liability due to loss of funding for major periodic maintenance of assets
- 9. Unauthorised access to State Water infrastructure assets or other facility

10. Potable water quality does not meet public health guidelines or stakeholder requirements and expectations

State Water has, and maintains, an Asset Management Framework, established in alignment with NSW Treasury Total Asset Management (TAM) guidelines. The framework defines roles and responsibilities for Asset Management. It outlines how assets are managed in alignment with State Water's Statement of Corporate Intent, Operating Licence and Corporate Plan.

State Water's Asset Management Framework also includes the requirement for Thematic Plans. These plans identify the risks and controls for a given business or theme activity and have been developed by subject matter experts within State Water. Risk management is a key element in the development and prioritisation of asset management strategies. The approach adopted by State Water is consistent with the risk-based decision making promoted within ISO 55001.

An effective dam safety program is required to address risks 1 to 4. The majority of State Water's dams are rated to have an "Extreme" or "High A" consequence of failure. These dams form a large and important part of State Water's asset base. State Water's dam safety activities are guided by the NSW Dam Safety Committee (DSC) and the Australian National Committee on Large Dams (ANCOLD). State Water applies similar principles, at an appropriate level, to its weirs. State Water provided an overview of the various elements of its dam safety program.

State Water has a highly experienced dam safety group. We discussed the risk associated in retaining the expertise. State Water was aware of the risks and indicated that it was difficult to attract suitable young engineering candidates. We consider that the merger with SCA may assist the organisation maintain the core of expertise in this highly important area.

Key elements of this program included:

- the Portfolio Risk Assessment (PRA)which was undertaken in 2012 which identifies and prioritises failure risks associated with the dams. The PRA forms the basis for State Water's prioritised dam safety upgrade program.
- Surveillance. State Water was able to demonstrate that it has a thorough routine (daily/weekly), annual and 5 yearly comprehensive dam surveillance program. A schedule of 2013/14 inspections undertaken was provided along with sample reports. State Water advised that they were investigating and implementing a reduced routine inspection program where the dam standing water levels were low. Surveillance frequencies are increased in response to events such as flooding. An example of special inspections (Brewster Dam erosion) was also provided.
- Operations and Maintenance. State Water has Operation and Maintenance manuals in place for its dams and major weirs. Sample manuals were provided. State Water has an ongoing program of review and revision of its O&M manuals. State Water has a thorough maintenance program in operation for its dams, weirs and other assets. Routine and corrective maintenance is managed through FMMS. We were provided with a demonstration of the system during the audit. We were advised that approximately 75% of planned maintenance jobs for 2013/2014 were testing and inspection tasks. Corrective maintenance is identified through the surveillance programs and regular maintenance audits. The maintenance audits are undertaken in parallel with the 5 year comprehensive dam surveillance inspections and are undertaken on a rolling program. In 2013/14 maintenance audits were carried out on Copeton, Pindari, Blowering, Split Rock, Glennies Creek and Lostock Dams. We were able to track that FMMS included the actions consistent with the recommendations of the Lostock Dam Maintenance Audit. A guideline was provided along with a sample report on the Lostock Dam maintenance audit. The importance that State Water places on the maintenance of surveillance equipment (piezometers etc.) was highlighted. These activities address Risks 5 and 6 as well as making a major contribution to the dam safety program.



| Sub- clause | Requirement Compliance Grade | |
|----------------|---|--|
| • | Dam Safety Emergency Plans (DSEPs) are in place to ensure that State Water is able to effectively respond | |
| | to any incidents. Emergency/ incident response is discussed further in later paragraphs. | |

- Education & Training (surveillance courses and accreditations). State Water outlined the training programs they have in place in relation to dam safety to maintain and required competency levels within the organisation.
- A number of dam safety capital works (investigation, planning, design, construction) were progressed during 2013/14. These related to Menindee Lakes, Keepit, Chaffey, Burrendong, Wyangala and Hume Dams. The objective of these projects is to reduce asset failure risks to levels acceptable to DSC.

A wide range of documents were provided as evidence to support the presentation.

State Water outlined a number of asset security activities that had been undertaken in 2013/14 including security upgrades and 11 security surveys. This addresses Risk 9. A document, *Security Response Plan Analysis, May 2014* was provided as evidence. This document was a gap analysis to provide an outline and structure for the Security Response Plan.

A presentation on the Project Delivery System was provided. The system is based on the Project Management Body of Knowledge (PMBOK). Project risk management (time, cost, quality) is a key element of the process and addresses Risk 7. The State Water presentation highlighted the following:

The successful delivery of projects and the associated management of 'corporate risk' is built on the strict adherence to the following project delivery fundamentals:

- Collective ownership of program and project decisions
- Clear and defined program and project phases
- Key review points during the program and project
- Rapid and effective prioritisation and issue resolution
- Ongoing consistent communication and reporting.

State Water has established an Incident Management Framework to enable it to effectively respond to any potential incidents (e.g. asset failure, flooding or water quality etc.) and minimise the consequence of a risk event. This framework details the system of measures State Water will implement and maintain in readiness to effectively manage incidents. State Water's incident management includes measures for planning and preparedness, response and recovery within an assurance and continuous improvement process. State Water provided examples.

In relation to Risk 10 (water quality) State Water provided a copy of its Fish River Water Supply Incident Management Plan. The document includes a risk assessment of the likely risk and their consequences. Plans and procedures are included to minimise the impact of the risks and to return the organisation to normal operations as soon as possible after an incident. Measures are included for:

- water quality incidents related to the operation of the water treatment plant
- operational incidents particularly impacting on water supply pipelines
- environmental incidents particularly relating to chlorination facilities

It was indicated that a major challenge would be setting levels of service. A few attempts had been made in the past in developing explicit service standards. Documenting service levels in a meaningful way for the types of assets managed by State Water (e.g. dams and weirs) would be more difficult than, for instance, a water reticulation system. This issue was being addressed in the development of the ISO compliant Asset Management System.

From the evidence provided we are satisfied that State Water has developed and implemented comprehensive risk management processes.

Recommendations

There are no recommendations in relation to this sub-clause.

Opportunities for Improvement

Consideration should be given to presenting a risk profile of State Water's assets. This has been presented at the asset class level. Presentation of a simplified, user-friendly profile may be useful in communicating information to a non-technical audience.

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Table D.2 Detailed audit findings clause 4.2.1

| Vater must read each of its Customers' meters. | Full compliance |
|--|----------------------------|
| Target for full compliance | |
| | Target for full compliance |

State Water reads all of its customers' meters.

Customer usage is not Stat properly accounted for. Customer usage is critical for billing and to maintain Water Allocation Accounts

Evidence sighted

- Live demonstration of the Water Accounting System
- Meter Reading procedure: DOC12 37580
- Regulated meter reading 2013/14: DOC14 27667
- Conducting Assessments of Use procedure: DOC11 23181
- Last meter read report:: DOC14 28129
- Negative balance report: DOC13 25180
- Unreconciled orders report: DOC14/28124

Summary of reason for grade

State Water has demonstrated that it has read its customers' meters in 2013/14.

Discussion and notes

There are around 5,400 meters that record usage of State Water's customers. Customers meters are a mix of both customer owned and State Water owned. The State Water owned meters have been installed primarily in the Murray and Murrumbidgee valleys. The meter fleet is a mix of designs.

State Water has in place a procedure for meter reading (DOC12 37580) which was provided to us prior to the audit. The procedure covers procedure for reading the meter, data entry, record keeping and other matters. State Water's meter reading program is based around the quarterly billing cycle and a frequency guide for meter reads is outlined in the meter reading procedure. Frequently used meters are read quarterly, inactive meters may be read only once per year. During the peak of the irrigation season, meters for high usage customer may be read monthly.

Meter readings are generally undertaken by State Water's Customer Field Officers. The procedure requires that a Job Safety Analysis be undertaken for each meter reading site visit. There may be occasions where a customer's meter is not read because the site is not safe. In these instances, the meter may be read at a later date or an estimate of usage may be made. We do not consider that this circumstance represents a failure to meet the licence condition to read all of its customers' meters as State Water has a duty of care to protect the wellbeing of its employees. Any differences due to readings being estimated in these instances will be corrected the next time the meter is read.

State Water advised that it completed 22,253 readings of Regulated meters in 2013/14. This equates to an average of 4.1 readings per meter. State Water provide to us, and we reviewed, a spreadsheet detailing all of the meter reads undertaken by it during 2013/14. We reviewed this spreadsheet and did not identify any anomalies in the data. State Water also provided reports on negative allocation account balances and unreconciled orders. These reports are examples of the assurance undertaken by State Water around its meter reading.

We requested State Water to outline how it accounts for uncertainty in its meter reads. State Water responded that it recognises measurement uncertainty for water metering, and that the uncertainty interval is impacted by factors such as signal conversion, temperature, test duration, equipment test and display resolutions, equipment procedures, relationship of test conditions and operational location. State Water noted that it had insitu calibration of flowmeters due to uncertainty over the outcomes. Where flowmeters are not working, State Water uses an approved procedure for estimating water usage.

We requested State Water to outline how it verifies meter readings. State Water responded that it has multiple means for verifying meter reads including:

- In-built checks within the Water Accounting System to ensure data is entered correctly including date errors, dis-continuous read errors and each assessment must include an incident recorded along with a comment.
- Customer Field Officers also run a series of reports at the end of each quarter and at the end of the year, these include:

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| Sub- clause | Requ | uirement | Compliance Grade |
|----------------|------|--------------------------|------------------|
| | - | Last meter read date | |
| | - | Negative account balance | |

- Unreconciled orders
- The WAS Administrator then does final checks in all water sources to make sure that there are no unreconciled water orders, each meter has a read and all negative accounts have been reported.

We consider that based on the procedure reviewed, the demonstration of the Water Accounting System and the meter reading records provided that State Water has met the requirements of this clause.

Recommendations

There are no recommendations in relation to this sub-clause.

Opportunities for Improvement



Table D.3 Detailed audit findings clause 4.2.2

| Sub- clause | Requir | ement | Compliance Grade |
|----------------|--|---|------------------|
| 4.2.2 | Where provided for in any agreement between State Water and the Minister or the NSW Office of Water, State Water must: a. read Metering Equipment (if applicable); or | | Full compliance |
| | b. holders | determine water extraction for groundwater and Unregulated River licence. | |
| Risk | | Target for full compliance | |

| That extraction and usage for locations covered under any agreement is not properly accounted for | State Water reads the Metering Equipment and determines extraction from groundwater and Unregulated Rivers for the locations covered in any agreement between State Water and the Minister or the NSW Office of Water. |
|--|--|
|--|--|

Evidence sighted

- Service level Agreement 2007/08. Unregulated Water Monitoring Barwon- Darling
- Spreadsheet Doc 14 27684. Barwon-Darling Meters Usage 2013-2014
- Spreadsheet DOC14 27810 Groundwater Meter reads 01-09-2013 to 30-06-201
- Sample Total Usage Reports. Docs 14 27737 and 27738

Summary of reason for grade

State Water has read metering equipment and determined extraction as required under its two agreements.

Discussion and notes

State Water advised that it has two agreements in place with the NSW Office of Water for the reading of meters: one for groundwater sources and one for the Unregulated Barwon Darling system. The ground water agreement is negotiated each year with NOW with changes made, particularly to the Schedules in terms of additional sites and water sources and any changes to the number of physical reads. The ground water agreement includes a meter reading schedule that lists all water sources required to be included for monitoring, lists all Extraction sites that are required to be read in each water source and the frequency and timing of each meter read for each Extraction site.

Reading of meters under these agreements generally follows the same procedures as outlined under sub-clause 4.2.1. Readings under the Agreements are undertaken by Customer Field Officers. For 2013/14, State Water advised that it has read 14,198 ground water meters as per the agreement with NOW.

The agreement for reading meters in the Unregulated Barwon Darling system was put in place in 2007/08 and has not changed since this time. We reviewed this agreement at audit. State Water advised that this agreement is based on a list of metering sites that are monitored using Time and Event meters. These meters record pump run times and estimate usage based on estimated flow rates for the pump. Meters under this agreement are read two times per year by State Water.

State Water provided to us spreadsheets with raw meter reading data collected under these agreements in 2013/14.

We consider that State Water has complied with the requirements of this sub-clause based on the evidence provided.

Recommendations

There are no recommendations in relation to this sub-clause.

Opportunities for Improvement

APPENDIX E DETAILED AUDIT FINDINGS – CUSTOMERS (LICENCE CLAUSE 5)





Table E.1 Detailed audit findings clause 5.5.1

| Sub- clause | Requirement | Compliance Grade | |
|---|--|---|-----------------|
| 5.5.1 State Water must develop, maintain and fully implement a code of practic Code) relating to Customers having payment difficulties, which must: | | | Full compliance |
| | | deferred payment or payment by instalment for Customers who Bills and who are experiencing payment difficulties; and | |
| | b. identify the circumstances under which State Water may suspend water access licences, and an overview of the process that must be followed prior to suspension. | | |
| Risk | | Target for full compliance | |
| Customers are not adequately informed of their rights and responsibilities and the assistance available to them. | | Code of practice has been developed and implemented | |

Evidence sighted

- State Water Procedure Doc11/27435. Water Debtor management Procedure
- Spreadsheet Doc14 23057 Licence Suspension Register
- Doc 14 27736 Debt Management Code of Practice which is also available on State Water's website at: <u>http://www.statewater.com.au/Customer%20service/debt-management-code-of-practice</u>

Summary of reason for grade

State Water has developed, maintained a code of practice relating to customers having payment difficulties that allows customers to defer payments or pay by instalment and identifies the circumstances under which State Water may suspend a water access licence and the procedure that it will follow in doing so.

Discussion and notes

State Water advised that it first implemented the Code of Practice on Payment Difficulties three years ago. The Code is reviewed every 12 months and was last reviewed 12 months ago. We were provided with a copy of the Code and note that the text of the Code is provided on State Water's website.

We confirm that the Code provides for deferred payment and payment by instalments where customers are experiencing payment difficulties. The Code allows for:

- An extension of three months or less
- A payment arrangement to pay the account in regular instalments over a period of three months
- A payment arrangement over a period longer than three months in some circumstances.

The Code also sets out the circumstances under which State Water may suspend a water access licence and an overview of the process that will be followed. These circumstances are where a customer has not paid it's bill following completion of a reminder process and where the customer has not contacted State Water for assistance. We note that the 'reminder process' is only vaguely referenced, there is no mention of the activities involved in the process or the period of time this may take. We believe that there is an opportunity for State Water to improve its process by considering providing more detail in its Code regarding what constitutes the reminder process.

We consider that the above observations demonstrate that State Water has met the Licence requirement to develop and maintain a Code of Practice in accordance with the requirements of the sub-clause. The sub-clause requires that State Water provide an overview of the process it follows prior to suspending a customer account. The Code states that States Water will undertake a 'reminder process' before suspending a customer's bill. We consider that it would be beneficial for State Water to provide more detail in the Code on the 'reminder process' as the current wording of the Code is mostly abstract in this area.

To demonstrate that it has implemented the Code of Practice, State Water provided its debtor management procedure. We reviewed the Procedure and found that it supports the Code in that it provides detail on how State Water staff are to process account deferrals, arrange instalment plans and suspend licences. The Procedure also details the 'reminder process' which includes the following:

- a reminder notice after original charge is due
- a final notice after the reminder notice
- a letter of intent to suspend



Sub- Requirement C

Compliance Grade

- a registered secondd letter of intent to suspend
- a recommendation to compliance to suspend.

Where a payment arrangement is agreed, State Water sends the customer a letter setting out the details of the arrangement in writing. The customer is required to sign and return acknowledgement of the letter. State Water keeps records of the payment arrangements in its billing system, Proclaim.

After the 'reminder process' is followed and the customer has still not paid its bill, State Water progresses the licence for suspension through its internal procedures. This takes the form of the Credit Supervisor recommending the licence for suspension. The suspension process is completed by the Compliance Officer and requires approval from the Executive Manager Finance and Business Services.

At audit we interviewed State Water staff managing the Code of Practice activities relating to payment arrangements and licence suspension and found them to be fully aware of the Code requirements and how the Code is implemented in State Water's systems. We were also provided with a register of licence suspensions for the 2013/14 period. There were 28 suspensions still recorded as open at the end of 2013/14.

Based on our interviews with State Water staff, the demonstration of its systems and our review of relevant records, we consider that State Water has met the requirement to fully implement the Code of Practice.

Recommendations

There are no recommendations in relation to this sub-clause.

Opportunities for Improvement

We consider that it would be beneficial for State Water to provide more detail in the Code on the 'reminder process' as the current wording of the Code is mostly abstract in this area.



Table E.2 Detailed audit findings clause 5.6.1

| Sub- clause | Requirement | Compliance Grade | |
|--|---|--|----------------------|
| 5.6.1 | 6.1 State Water must maintain a procedure for receiving, responding to and resolving Complaints, which is consistent with the Australian Standard AS ISO 10002-2006: Customer satisfaction – Guidelines for complaints handling in organizations (ISO 10002:2004, MOD) (Internal Complaints Handling Procedure). | | Full compliance |
| | | | |
| Risk | | Target for full compliance | |
| Customer complaints are not adequately addressed | | A procedure is in place for complaint handling that is consisten | t with AS ISO 10002. |

Evidence sighted

- Complaints Handling Policy (SW2006-P0104)
- State Water Procedure DOC11 23232 Complaints Handling Procedure

Summary of reason for grade

State Water maintains a procedure for complaints handling that we found to be consistent with AS ISO 10002-2006.

Discussion and notes

State Water publishes on its website its Complaints Handling Policy (SW2006-P0104) which establishes the principles by which State Water will manage complaints. This Policy refers to the Complaints Handling Procedure which the policy states "support(s) the implementation of this policy". The policy was issued on 23/04/2013 and the next review date is recorded as 23/04/2016.

State Water provided to us a copy of its Complaints Handling Procedure for review. We found that the Procedure covers receiving, responding to and resolving complaints, as required by the Licence.

We reviewed the Procedure and found that is consistent with AS ISO 10002. In particular, the Procedure includes:

- Roles and responsibilities
- Resources (e.g. business systems)
- Flowcharts for receipt, tracking and resolving complaints
- Details on how the procedure will be continually improved.

The Complaint Handling procedure includes the following escalation procedures:

- Complaint captured and acknowledged and resolved within 1 day if possible, then
- Un-actioned after two working days a reminder sent to the Business Unit Officer (BUO)
- After three working days, notification sent to the BUO's Supervisor
- After four working days, notification sent to the Executive Manager
- All outstanding complaints at the end of each week will be automatically reported to each Manager.

State Water uses the following criteria to determine if the complaint is resolved:

- Complainant is satisfied with the resolution offered, or
- If dissatisfied, the Executive Manager has to be completely satisfied that all avenues for resolution have been exhausted. The Executive Manager may then ask that the ticket is closed and offer that the complainant may take their issue to EWON.

Based on our review of the procedure against the standard, we consider the State Water has met the requirements of this clause.

Recommendations

There are no recommendations in relation to this sub-clause

Opportunities for Improvement

No opportunities for improvement have been identified in relation to this sub-clause

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Table E.3 Detailed audit findings clause 5.6.2 Sub-clause Requirement Compliance Grade 5.6.2 State Water must ensure that the Internal Complaints Handling Procedure is fully implemented and that all relevant activities are carried out in accordance with the procedure. High Compliance Risk Target for full compliance Customer complaints are not adequately The complaints procedure is fully implemented

Customer complaints are not adequately addressed

Evidence sighted

- Customer complaints received 2013/14: DOC14 23167
- Example of customer contact: DOC14 28093
- Demonstration of Ticket System (provided during the audit)
- Access to Customer Contacts database (provided during the audit)
- Access to intranet sites:
 - <u>http://corporate.statewater.local/CustomerOperations/news/Training-Guides-Fact-Sheets-and-Resources</u>
 - http://corporate.statewater.local/CustomerOperations/news/Complaints%20Handling%20and%20EWON
- Example of a training record re complaint handling: DOC14 28144. listing of Business Unit officers with delegated responsibility to manage customer complaints within a business unit
- Water Order Checklist
- Staff email dated 13/02/14. Education: Would you know what to do if you received a customer complaint? : DOC14 4299
- Email re Training DOC14 27773 : Complaints handling with attachment (Powerpoint) How to handle customer complaints – A guide for business Unit officers
- Presentation to Business Units: DOC14 1162 How to handle customer complaints A guide for business Unit officers
- CIO Team meeting minutes: Example: DOC13 24451
- DOC13 24456 Spreadsheet Corporate KPIs Monthly Report Template 2013-14
- DOC14 30505 Customer Information Officer Water Order Checklist
- DOC14 31145 Clause 5.6 Internal Complaints Handling procedure Follow up on examples
- DOC14 31237 Ticket 80917 Metering complaint

Summary of reason for grade

We identified in a sample of complaints reviewed that State Water had not followed the procedure in two instances. We consider that the impact on customers to be minor.

Discussion and notes

State Water records all customer contacts in it's Ticket System. The customer contract is assigned a unique tracking number and categorised depending on the nature of the customer's enquiry. Follow up actions and resolution of the contact is also recorded in the Ticket System.

In accordance with the AS ISO 10002 standards, State Water defines a complaint as being "an expression of dissatisfaction made to State Water regarding our products and services or performance, where there is a direct or implied expectation for a response or resolution". We note that is inevitably some subjectivity in the application of this definition and we have observed different approaches across Australian utilities. However, we are satisfied that State Water staff apply this definition in accordance with the standard.

Customer Information Officers (CIOs) are responsible for implementing most of the procedure. State Water stated that while the CIOs are not trained specifically in the Procedure, they are aware of how the contents of the procedure and how to implement the procedure through the following:

- Induction and familiarisation upon commencement
- Intranet resources and available to staff and also sent by email
- Notices placed around offices
- Presentations to different Business Units on the Complaints Handling procedures (Finance, Major Projects and Maintenance and Services)
- Specific resources available for CIOs such as procedure summary cards
- Discussion at Team meetings with frontline staff.



| Sub-clause | Requirement | Compliance Grade |
|------------|-------------|------------------|
| | | |

State Water provided to us evidence to support the above means of communicating and implementing the Procedure. This evidence included emails to staff, live demonstration of the intranet resources and various training materials.

We requested State Water to demonstrate how it continually improves its complaint handling procedure. State Water replied that it undertakes the following activities to monitor the implementation of its procedure and identify areas for improvement:

- Internal audits of a sample of complaint tickets to assess the extent to which the procedure has been followed.
- Survey of customer for whom a complaint was resolved. State Water surveyed five customers in 2013/14.

Departures from the procedures are recorded and reported and corrective actions are put in place.

To test the implementation of the complaints procedure, we trailed a sample of complaints recorded in the Ticket System at audit.

We found that for one complaint (94411) that the Ticket had been closed without any evidence that the customer's issue had been resolved. Following the audit, State Water advised that they had confirmed that the issue had been resolved but acknowledged that this was not evident in its systems.

For another complaint (67410), it was found that State Water had not followed its procedure with respect to the actions and timeframes to be taken to resolve complaints.

State Water stated that despite the two issues identified in our small sample that it considers that it undertakes 'everything possible to resolve customer complaints'. We do not consider that the issues identified reflect any systemic issues with State Water's complaints handling procedure. We also consider that the issues are minor in the extent that they impact on customers.

State Water advised during the audit process that it will undertake the following actions to improve the implementation of the procedure:

- 1. Re-appoint the Education Officer as a dedicated resource for complaints management
- 2. Discuss outcomes of ticket audit from last year's complaints with CIOs at their next meeting
- 3. Plan specific training for other Business Units,
- 4. (Undertake) More detailed and complete audits and checks of complaints during 2014/15 with reporting monthly to Manager of Customer Operations.

We consider that the above actions are appropriate to address the issues identified.

Recommendations

Customers-2014/1 We recommend that State Water undertake the actions identified by it to increase awareness of its Complaints Handling Procedure and continually monitor implementation of the procedure. These actions include:

- Re-appoint the Education Officer as a dedicated resource for complaints management
- Discuss outcomes of ticket audit from last year's complaints with CIOs at their next meeting
- Plan specific training for other Business Units
- Undertake more detailed and complete audits and checks of complaints during 2014/15 with reporting monthly to Manager of Customer Operations.

Opportunities for Improvement



Table E.4Detailed audit findings clause 5.7.2

| Sub- clause | Requ | lirement | Compliance Grade |
|---|---|--|------------------|
| 5.7.2 | State Water must provide free of charge information that explains the operation of the dispute resolution service provided by the Energy and Water Ombudsman NSW (including any rights to have a Complaint or dispute referred to the Energy and Water Ombudsman NSW and how the dispute resolution service can be accessed): | | Full compliance |
| | a. | to Customers, at least once annually with their Bills; | |
| | b. on its website for downloading by any person; and | | |
| | C. | to the public on request. | |
| Risk | | Target for full compliance | |
| Customers do not receive appropriate support to | | | ergy and Water |

Evidence sighted

disputes

resolve complaints or

- Newsletter to Customers January 2014: DOC14 1384
- http://www.statewater.com.au/Customer%20service/Feedback-and-Complaints-Handling-Policy

Ombudsman NSW.

Summary of reason for grade

The evidence provided by State Water demonstrates that it provides sufficient information to customers about the Energy and Water Ombudsman.

Discussion and notes

State Water provided to us a copy of its January 2014 Customer Newsletter that State Water stated that it sent to its customers with their bills for the corresponding billing cycle. We observed that this newsletter includes information on the dispute resolution service provided by the Energy and Water Ombudsman NSW.

Information regarding the Energy and Water Ombudsman NSW is also available on State Water's website at this location: <u>http://www.statewater.com.au/Customer%20service/Feedback-and-Complaints-Handling-Policy</u> and in its Complaints Handling Policy which is available for download from its website.

State Water has in place appropriate customer contact arrangements to allow it to respond to requests, such as possible requests for information on the dispute resolution service provided by the Energy and Water Ombudsman NSW. The primary means of contact is through the customer helpdesk which can be contacted on 1300 662 077 between 8.30am and 4pm, Monday to Friday. The contact number and opening hours are published ion State Water's website.

Based on the evidence provided we consider that State Water has met the requirements of this sub-clause.

Recommendations

There are no recommendations in relation to this sub-clause.

Opportunities for Improvement

APPENDIX F DETAILED AUDIT FINDINGS –

DETAILED AUDIT FINDINGS – ENVIRONMENTAL MANAGEMENT (LICENCE CLAUSE 6)





Table F.1 Detailed audit findings clause 6.1.4

| Sub- clause | Requirement | Compliance Grade |
|----------------|--|------------------|
| 6.1.4 | Until the Environmental Management System has been developed and certified in accordance with clauses 6.1.1 and 6.1.2, State Water must: | Full compliance |
| | a. maintain programs to manage risks to the environment from carrying out its activities; and | |
| | b. ensure that all its activities are carried out in accordance with those programs. | |

Risk

Target for full compliance

Failure to manage environmental risks could result in significant harm to the environment; damage to assets, and possibly negative impacts to downstream catchments and water users.

Evidence sighted

- Environmental Management Plan
- Risk Management Framework
- Risk Register Review Agenda 3 June 2014
- Risk Register with updates from Review workshop
- Compliance Tracking Program
- Compliance Tracking Reports:
 - Annual (2013/2014)
 - Q1 October 2013
 - Q2 November 2013
 - Q3 March 2013
 - Q4 July 2014
- "Tickit" corrective action management system
- Incident report "Fish River Pipe Break" dated 24 March 2014
- Environmental Audit Program
- Environmental Auditing Procedure
- Audit report for Mollee Weir and Fishlock dated 24 July 2013
 - Notification of Audit to Project Manager (15 July 2013)
 - Environmental audit report (24 July 2013)
 - Contractor's close out report
 - CARS spreadsheet that included all CA's raised in the audit
 - Notification from SWC to contractor advising of acceptable close out of actions (21 August 2013)
- Audit report for Burrendong Dam CWO Curtain dated 5 February 2014. Also viewed for this project:
 - Notification of Audit to Project Manager
 - Environmental audit report
 - Contractor's close out report
 - CARS spreadsheet that included all CA's raised in the audit
 - Notification from SWC to contractor advising of acceptable close out of actions
- Audit Program DOC118239
- Internal Environment Report dated 26 February 2014
- Environmental Management Training presentation
- Burrendong Dam Spillway works
- Marebone Weir Fish Ladder
- Incident report ("Tickit") for Fish River pipe breakage, 24 March 2014.



Compliance Grade

Subclause Requirement

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- Environmental Management Training Presentation slides
- Environmental Policy
- Position description for Asset Field Officer for Fish River Water Supply
- Employee Planning and Review 2014/2015 Work Plan for a Senior Project Officer
- Maintenance works on Lake Burrendong Dam (Spillway)
- Marebone Weir Fish Passage

Summary of reason for grade

State Water has in place an overarching Environmental Management Plan to manage risks from carrying out its activities.

The objectives of that management plan are tracked in a compliance management system and progress against these objectives (and other compliance requirements) is effectively monitored and reported on.

Compliance tracking currently shows that State Water is carrying out its activities generally in accordance with the Environmental Management Plan.

Discussion and notes

State Water has in place an overarching Environmental Management Plan that sets out the programs and actions and performance measures for managing environmental risks associated with carrying out its activities.

A Compliance Tracking Program tracks the organisations compliance with the objectives of the EMP and provides quarterly and annual reports on the status for each requirement. Reports were seen for 2013/2014 as well as quarterly reports:

- Q1 October 2013
- Q2 November 2013
- Q3 March 2014
- Q4 July 2014

A Risk Management Framework has been established, and is regularly reviewed. The framework is State Water's system for managing risk and achieving *"the efficient delivery of strategic and operational objectives within the context of uncertainty."* Evidence of the review of the risk register was provided (workshop held 3 June 2014 and attended by the Executive Team and other staff members from across the business).

Corrective actions have traditionally been recorded in a Corrective Action Requests (CARs) spreadsheet. The system is currently being moved across to a fully automated system ("Tickit") which will improve the ability of the organisation to track escalating actions and for Managers to monitor outstanding items within their teams. The system will also be used for scheduling compliance requirements (e.g. project audits, annual management plan reviews).

The environmental impacts of construction and maintenance activities undertaken by third party contractors are managed by the development and implementation of Construction Environmental Management Plans (CEMPs). The plans include an audit component which is managed by the environment team at State Water. State Water employs an informal system for structuring their audit teams that pairs an experience team member with an inexperienced team member, to allow the more junior member to learn from the senior member to improve organisational knowledge. However, these requirements were not documented, and there is no requirement for the senior member to have had any audit training. The system also includes an attempt to ensure the State Water staff member responsible for approving the CEMP is part of the audit team to ensure some level of familiarity with the project.

An Environmental Audit Program is in place and is reviewed quarterly. During this review the Environment team reviews progress against the audit program and determines the projects to be audited during the next quarter.

The environmental audit process is structured in the following way:

- Notification of audit to contractor Project Manager
- Undertaking of audit
- Reporting on audit, including corrective action
- Audit close out

Documented evidence for each of the stages in the audit process was viewed for the following audits:

- Mollee Weir and Fishlock (July 2013)
- Burrendong Dam Curtain (February 2014).

November 2014

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Subclause Requirement

Compliance Grade

An internal training presentation (Environmental Management) has been rolled out to approximately 160 staff throughout the organisation.

Environmental requirements for staff are also built into position descriptions, including:

- Undertake operational day to day requirement in accordance with corporate and shared personal values, technical, safety, environment, policy and procedure requirements; and
- Demonstrate compliance with legal obligations, adopted standards, internal policies and State Water's values including those for safety and environment.

Employee planning and review (work plans) show that discussion of environmental values is built into employee review processes.

Maintenance activities being undertaken by a contractor on the Lake Burrendong Dam Spillway were observed to be undertaken in a way that effectively managed environmental risks. Examples of environmental management and mitigation measures in place observed by the auditor included:

- Works on each gate of the spillway were fully and separately encapsulated to ensure no pollution of surrounding waterways
- Fuel storage above the gate (site office) was fully bunded
- Spill kit located above the gate (site office) was stocked and not used as a litter bin
- Good housekeeping across the site (site office and laydown below the gate).

A fish ladder was observed in place at Marebone Weir as part of the organisation's commitment to meet their (Environmental Management Plan)objective of improved fish passage at State Water barriers.

Based on the evidence sighted, we consider that State Water has met the requirements of this sub-clause.

Recommendations

There are no recommendations in relation to this sub-clause.

Opportunities for Improvement

- Formalise the range of requirements that are currently in place informally as part of the move towards a certified EMS. For example:
 - \circ The team member responsible for approving the CEMP must, where practical, be part of the audit team; and
 - Audit program review (scope, purpose etc)
 - Staff environmental training requirements.
- Introductory environmental audit training should be considered as a requirement for at least one member of State Water's audit teams.

D State Water's statement of compliance

Statement of compliance

For 2013/14 Submitted by State Water Corporation

To: The Chief Executive Officer Independent Pricing and Regulatory Tribunal of NSW PO Box Q290 QVB Post Office NSW 1230

State Water reports as follows:

- 1. This statement documents compliance during 2013-14 with all obligations to which State Water is subject by virtue of its operating licence.
- 2. This report has been prepared by State Water with all due care and skill to the best of our knowledge of conditions to which it is subject under the State Water Corporation Act.
- 3. Schedule A provides information on all obligations with which State Water Corporation did not comply during 2013-14.
- 4. Other than the information provided in Schedule A, State Water has complied with all conditions to which it is subject.
- 5. This compliance report has been approved by the Chief Executive Officer and the Chairman of the Board of Directors of State Water Corporation.

DATE: 29 ANGUST 2014

Name: David Harris Designation: CEO, State Water Corporation

DATE:

Faking care of

Name: Terry Charlton Designation: Chairman of the Board, State Water Corporation

Schedule A Non Compliances

| Obligations breached | Description |
|--|---|
| Clause 3.2.1: State Water must maintain an effective system to provide advance notification of any significant changes to flow release patterns from its Water Management Works, to Customers and | State Water noted a non-compliance in November 2013 in relation to an incident that occurred following a power failure at Copeton Dam. |
| other stakeholders that have registered to be notified of such changes. | AGL Hydro plant started up without notifying the Water Operations team. |
| | The high regulated set point of 4,500 ML/day was exceeded when AGL started releasing 1,500 ML/day through the Hydro Plant on top of the 3,300 ML/day regulated flow. |
| | SWC did not become aware of the increased flow for a 20 hour period. This resulted in flows being released from the storage above the EWN notification level. |
| | Corrective actions have been taken to ensure this does not happen again with all Hydro Plants being connect to State Water's iSMART system as part of the upgrade program. It will allow the Water Operations team to be notified of plants starting and stopping and provide warning to staff to react. |