

# **State Water Corporation Operational Audit 2011/12**

Report to the Minister

**Water — Compliance Report**  
January 2013



# **State Water Corporation Operational Audit 2011/12**

## **Report to the Minister**

**Water — Compliance Report**  
January 2013

© Independent Pricing and Regulatory Tribunal of New South Wales 2013

This work is copyright. The *Copyright Act 1968* permits fair dealing for study, research, news reporting, criticism and review. Selected passages, tables or diagrams may be reproduced for such purposes provided acknowledgement of the source is included.

ISBN 978-1-922127-57-0      CP74

The Tribunal members for this review are:

Dr Peter J Boxall AO, Chairman

Mr James Cox PSM, Chief Executive Officer and Full Time Member

Mr Simon Draper, Part Time Member

Inquiries regarding this document should be directed to a staff member:

Gary Drysdale      (02) 9290 8477

Narelle Berry      (02) 9113 7722

Josh Tickell      (02) 9113 7761

Independent Pricing and Regulatory Tribunal of New South Wales

PO Box Q290, QVB Post Office NSW 1230

Level 8, 1 Market Street, Sydney NSW 2000

T (02) 9290 8400 F (02) 9290 2061

[www.ipart.nsw.gov.au](http://www.ipart.nsw.gov.au)

# Contents

<b>Executive summary</b>	<b>1</b>
Overview of audit findings	1
IPART's recommendations	2
<b>1 Introduction and scope</b>	<b>4</b>
1.1 Purpose and structure of this report	5
1.2 Audit scope	5
1.3 The audit process	6
<b>2 Overview of audit findings and recommendations</b>	<b>8</b>
2.1 State Water's responsibilities	9
2.2 Asset management	9
2.3 Customers' rights and consultation	11
2.4 Water delivery operations	13
2.5 Performance indicators	14
<b>3 Progress on previous audit recommendations</b>	<b>16</b>
<b>Appendices</b>	<b>19</b>
A Auditor's Report	21
B State Water's Statement of Compliance	129
C Summary of opportunities for improvement	135



## Executive summary

The Independent Pricing and Regulatory Tribunal of New South Wales (IPART) has completed the audit of State Water Corporation (State Water) compliance with the requirements of its 2008 – 2013 operating licence (the licence).

This audit reviewed performance over the period from 1 July 2011 to 30 June 2012. IPART engaged t-cAM Consulting (t-cAM) to assist with the audit. t-cAM carried out the audit according to the IPART Audit Guideline.<sup>1</sup>

### Overview of audit findings

We consider that State Water achieved a very good overall level of compliance with its licence in 2011/12. Of the 52 licence sub-clauses audited, State Water was awarded full compliance for 48 sub-clauses, and high compliance for the remaining 4 sub-clauses.

In summary, this audit found that State Water achieved:

- ▼ **Full compliance** with all responsibilities relating to the Memoranda of Understanding with various government departments.
- ▼ **High to full compliance** with all its requirements relating to asset management.
- ▼ **High to full compliance** with its requirements relating to customers' rights and consultation.
- ▼ **Full compliance** with all requirements related to water delivery operations.
- ▼ **Full compliance** with all requirements related to performance indicators.

---

<sup>1</sup> IPART, *Audit Guideline – Public Water Utilities*, May 2012 – available at [www.ipart.nsw.gov.au](http://www.ipart.nsw.gov.au)

**Table 1** Summary of State Water's 2011/12 compliance

Licence Clause	No of sub-clauses audited	Compliance grade awarded		
		Full	High	Mod
Part 2.3 – Memoranda of understanding	5	5	-	-
Part 3 – Asset management	6	3	3	-
Part 4 – Customers rights and consultation	10	9	1	-
Part 6 – Water delivery operations	8	8	-	-
Part 8 – Performance indicators	23	23	-	-
<b>Total</b>	<b>52</b>	<b>48</b>	<b>4</b>	

**Source:** Summarised from t-cAM, *State Water Corporation Operational Audit 2011/12*, December 2012.

State Water's compliance with each part of the licence is discussed in detail in part 2 of this report. A copy of the auditor's report is in Appendix A.

## IPART's recommendations

There were 4 sub-clauses where the auditor did not award full compliance; these related to asset management and customer consultation. In line with our audit guidelines, the auditor made recommendations to improve compliance in these areas.<sup>2</sup>

Regarding asset management, the auditor recommended that State Water implements a project to determine its corporate service objectives and development of a supporting framework, describing the inter-relationship and alignment of the asset base and their associated levels of service with these services objectives.

State Water is in the final year of its current operating licence. The current licence review has identified asset management as a critical issue. The new licence in 2013 will introduce new asset management requirements, which we consider will address the concerns of the auditor.

In light of this, we wish to provide a recommendation that sits in line with the requirements of the new operating licence. We recommend that:

- 1 State Water develops processes to ensure that asset investments are evaluated against quantifiable corporate objectives.

We expect that State Water can implement this recommendation as part of the introduction of the new asset management system.

<sup>2</sup> Auditors generally make recommendations as to how the utility could improve its compliance with every clause where full compliance was not awarded.



Regarding customer consultation, the auditor recommended that State Water reviews how it deals with and responds to comments and queries from its Fish River Customer Council (FRCC) members to ensure that members feel that they have been fairly heard.

Following the audit, State Water provided evidence that it has procedures in place for responding to FRCC members. We are satisfied that this is not a systemic problem. Instead of a recommendation, we have included an opportunity for improvement in line with the auditor's recommendation.

The auditor identified 19 opportunities for improvement<sup>3</sup> to further enhance State Water's operations. The opportunities are summarised in Appendix C, and discussed in detail in the auditor's report (see Appendix A).

---

<sup>3</sup> These are suggestions by the auditors that may further improve procedures and practices. The utility can decide whether to implement such opportunities, based on its own assessment. We expect the pricing implications of continued improvement and value for money to the customer should be considered in determining whether to implement such opportunities.

## 1 Introduction and scope

The Independent Pricing and Regulatory Tribunal (IPART) has completed the annual operational audit into State Water Corporation's (State Water's) compliance with its obligations outlined in the State Water operating licence.<sup>4</sup>

We are required by legislation to audit State Water's compliance with its operating licence, in accordance with the conditions in the operating licence.<sup>5</sup> We do this by receiving reports, interviewing State Water and undertaking and publishing an annual operational audit report. We also report our findings to the Minister.

This year we adopted a risk-based approach to the audit of State Water's licence for the first time. 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 those clauses that we consider to be a 'high risk' more frequently. Higher risk clauses might include those dealing with asset management and water delivery. Other lower risk clauses, such as those dealing with complaints handling, are audited less frequently.

Adopting the 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.

This approach is consistent with that taken for the other public water utilities audited by IPART. We have decided to adopt risk-based audits for State Water's audits now, as State Water has established sufficient compliance history for a risk-based approach.

The 2011/12 audit is the fourth audit of compliance with State Water's current operating licence which expires on 23 June 2013.

---

<sup>4</sup> The State Water operating licence is granted under the *State Water Corporation Act 2004*, section 11.

<sup>5</sup> *State Water Corporation Act 2004*, section 31.

## 1.1 Purpose and structure of this report

The purpose of this report is to inform the Minister for Primary Industries of State Water's performance against its audited licence obligations for 2011/12. The report also discusses our proposed response to these findings:

- ▼ Chapter 1 explains the scope of the audit review, and the process followed in undertaking the audit
- ▼ Chapter 2 presents a summary of the audit findings and recommendations
- ▼ Chapter 3 summarises the progress by State Water to address and implement recommendations from previous audits.

## 1.2 Audit scope

This audit covers the period from 1 July 2011 to 30 June 2012. The following parts of the licence were included in the audit scope for this year:

- ▼ Memoranda of Understanding: Clause 2.3 - requirements for State Water to maintain agreements with other NSW Government agencies
- ▼ Asset Management: Part 3 – State Water's asset management systems and processes
- ▼ Customers Rights and Consultation: Part 4 –State Water's customer management, stakeholder engagement, and customer service
- ▼ Water Delivery Operations: Part 6 – operation of infrastructure, management of allocated water
- ▼ Performance Indicators: Part 8 – State Water's reporting against performance indicators specified in the licence
- ▼ Recommendations from previous audits.

State Water provided a Statement of Compliance covering all clauses including those that were not subject to audit this year (see Appendix B). State Water identified 3 areas of non-compliance with its licence obligations in its Statement of Compliance. These non-compliances are considered in the relevant sections of this report.

### 1.3 The audit process

We engaged t-cAM Consulting to assist with the 2011/12 audit of State Water. The audit team also included Risk Edge and Elevate Solutions. The audit team was required to undertake the following tasks, in a manner consistent with our *Audit Guideline for Public Water Utilities*.

1. Prepare an information request (questionnaire) for State Water, setting out all required information, prior to the audit interviews.
2. Assess State Water's level of compliance with each of the requirements of the licence set out in IPART's risk-based audit scope. Provide supporting evidence for this assessment, and report compliance according to IPART's compliance scoring methodology.
3. Assess and report on State Water's progress in addressing any key audit recommendations, pertaining to previous audits. Provide supporting evidence for these assessments.
4. Provide drafts of the audit report to IPART, and seek and address comments from State Water and IPART regarding the draft audit findings.
5. Prepare a final report on the findings of the audit.

As part of the audit process, we sought submissions from the public on any matter related to the operating licences prior to the commencement of the audit interviews. We advertised for public submissions in the Sydney Morning Herald, The Daily Telegraph and The Land on 15 August 2012.

We received one submission from Tegra Australia P/L, a concrete and quarry business. Tegra operates a quarry in Jugiong, near to the upper Murrumbidgee River, immediately downstream of Burrinjuck Dam. Tegra raised concerns with State Water's management of Burrinjuck Dam as a flood mitigation storage, and questioned the timing of increased dam discharges.

Tegra's submission is similar in content to its submission to us on the review of the State Water operating licence. The issues raised by Tegra are high level operational and management issues, and were not directly related to compliance with the current operating licence. These issues were not considered during the audit. The submission is instead being considered as part of the review of the operating licence.

Under our Audit 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, particularly if it relates to an area where full compliance of the licence requirement has been awarded.

The utility can decide whether to implement an opportunity, based on their 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 improve it. That is, we want the utility to consider the pricing implications of continued improvement and value for money before implementing further improvement.

We held an inception meeting for the audit on 2 October 2012, with the t-cAM audit team, and State Water, at State Water's office in Sydney. At this meeting, we established the following:

- ▼ a mutual understanding and expectation of the audit requirements
- ▼ the protocols and timescale for the audit.

All parties adhered to the agreed protocols throughout the audit.

The audit commenced at the conclusion of the inception meeting. On the final day of the audit, 5 October 2012, we and the audit team visited State Water operational sites to confirm audit findings. We visited operations at 2 locations in the Fish River Water Supply Scheme, Oberon Dam and the Duckmaloi Water Filtration Plant.

## 2 Overview of audit findings and recommendations

This section summarises the auditor's findings and recommendations for each of the audited clauses and sub-clauses of the licence.

For each of the audited licence clauses we have included a table comparing State Water's performance in audits since its first operational audit in 2006. The sources of data for these tables are the audit reports listed below:

- ▼ 05/06 audit grades – Halcrow – *Operational Audit of State Water Corporation*, May 2007
- ▼ 06-08 audit grades – Halcrow – *2008 Operational Audit of State Water Corporation*, November 2008
- ▼ 08/09 audit grades – Halcrow – *2009 Operational Audit of State Water Corporation*, November 2009
- ▼ 09/10 audit grades – Halcrow – *2010 Operational Audit of State Water Corporation*, November 2010
- ▼ 10/11 audit grades – t-cAM – *State Water Corporation Operational Audit 2010/11*, December 2011
- ▼ 11/12 audit grades – t-cAM – *State Water Corporation Operational Audit 2011/12*, December 2012 (Appendix A of this report).

Compliance gradings in the tables are abbreviated according to the following convention:

- ▼ **Full** = Full Compliance; **High** = High Compliance; **Mod** = Moderate Compliance; **Low** = Low Compliance; **NC** = Non Compliance; **Insuff** = Insufficient information; **-** = No requirement/not audited, **NA**= non-auditable clause

Following the table we discuss any issues arising from the audit or State Water's statement of compliance. We also discuss auditor recommendations in areas where State Water received less than full compliance.

## 2.1 State Water's responsibilities

State Water demonstrated **full compliance** with the clause that was audited in this part of the licence.

Part 2 of the licence outlines State Water's responsibilities and functions. Clause 2.3 (including the 5 sub-clauses 2.3.1 to 2.3.6) is the only auditable clause of this part of the licence. This clause discusses the Memoranda of Understanding (MoU) that State Water is required to establish with NSW Office of Water (NOW), NSW Department of Primary Industries (DPI), and the Office of Environment and Heritage (OEH). The licence specifies the aim of the MoU and what it is to contain.

State Water noted in its Statement of Compliance that it had not fully complied with clause 2.1.1, which requires it to comply with the Licence and all applicable laws.

**Table 2.1 Summary of compliance with the State Water's Responsibilities part of the licence**

Clause	Requirement	Compliance Grading						
		2005/06	2006-08	2008/09	2009/10	2010/11	2011/12	2012/13
2.3	Memoranda of Understanding	Low-Full	High-Full	High-Full	High-Full	Full	Full	

The auditor has not made any recommendations for this part of the licence, as State Water achieved full compliance. The auditor identified 2 opportunities for improvement in this part of the licence, which are summarised in Appendix C.

### Compliance with all applicable laws

The non-compliance identified in the Statement of Compliance relates to a penalty imposed on State Water by the EPA for failure to provide an annual report on an EPA licence. The licence has since been cancelled as the licenced function is no longer required by State Water. State Water has requested that the EPA withdraw the fine.

## 2.2 Asset management

State Water demonstrated **high-full** and **full compliance** respectively for the 2 clauses that were audited in this part of the licence.

Part 3 of the operating licence outlines State Water's obligations relating to asset management. Only clause 3.1 (including the 4 sub clauses 3.1(a) to 3.1(d)) and 3.2 (including the 2 sub-clauses 3.2.1 and 3.2.2) of the licence were audited. Clause 3.2 was audited for the first time, as the licence requirement is for reporting that is carried out once during the licence term.

The auditor found that State Water demonstrated high to full and full compliance respectively for the two clauses. High compliance was awarded to 3 of the 4 of the sub-clauses in clause 3.1, the reasons for which are discussed following the table below.

**Table 2.2 Summary of compliance with the Asset Management part of the licence**

Clause	Requirement	Compliance Grading						
		2005/06	2006-08	2008/09	2009/10	2010/11	2011/12	2012/13
3.1	Asset Management Obligation	-	Full	Full	Full	High	High-Full	
3.2	Reporting on the Asset Management System	-	-	-	-	-	Full	
3.4	Augmentation of Water Management Works	-	Full	Full	Full	Full	-	

The auditor made a recommendation to satisfy future compliance with clause 3.1. The recommendation is discussed in the following section. The auditor also identified 3 opportunities for improvement in this part of the licence, which are summarised in Appendix C.

### Asset management obligation

The auditor made 2 observations relating to compliance with clause 3.1.

First, the auditor considered that while State Water had made considerable progress towards introducing a best practice asset management system, the system was not yet complete with regard to data collection and verification. The auditor noted State Water's continuing efforts in this regard, and made no recommendation.

Secondly, the auditor observed that State Water had not aligned its corporate service objectives with its assets' levels of service. The Operating Licence requires State Water to *manage its assets in a manner consistent with the principles of the NSW Government's Total Asset Management (TAM) Policy and Guidelines*.<sup>6</sup> The auditor considered that State Water did not fully meet its licence requirements, noting that there was no clear link between State Water's corporate service objectives, and its asset base levels of service. In the auditor's opinion this is a requirement of a NSW TAM Asset Strategy.

The auditor considers that this hinders State Water's ability to assure lowest cost service delivery and appropriate management of asset risks.<sup>7</sup>

<sup>6</sup> Clause 3.1(b), State Water Corporation Operating Licence 2008-2013.

<sup>7</sup> Clause 3.1(c) and (d) respectively, State Water Corporation Operating Licence 2008-2013.



The auditor sees this as a critical issue, and awarded high compliance as a result. The auditor recommended that:

- ▼ State Water implements a project to determine its corporate service objectives and development of a supporting framework, describing the inter-relationship and alignment of the asset base and their associated levels of service with these services objectives.

State Water is in the final year of its current operating licence. The current licence review by IPART has identified asset management as a critical issue. The next operating licence will include a requirement for State Water to develop an asset management system in accordance with the soon to be released ISO 55000 asset management standard, which we consider will address the concerns of the auditor.

In light of this, we wish to provide a recommendation that sits in line with the proposed requirements of the new operating licence. We recommend that:

- 1 **State Water develops processes to ensure that asset investments are evaluated against quantifiable corporate objectives.**

We expect that State Water can implement this recommendation as part of the introduction of the new ISO 55000 standard asset management system. The standard requires the development of a strategic plan for asset management which shows the relationship between the asset management objectives and the organisational objectives. This requirement would adequately address both our and the auditor's recommendations.

## 2.3 Customers' rights and consultation

State Water demonstrated **full compliance** with 2 of the 3 audited clauses in this part of the licence, with the remaining clause receiving **high compliance**.

Part 4 of the operating licence describes State Water's obligations for consultation with communities and customers, by means of various committees and councils. This part of the licence also covers items such as customer contracts, customer service charters and the code of practice and procedure on debt management.

State Water noted, in its Statement of Compliance, that it had not fully complied with clause 4.3.4, which required it to review its Customer Service Charter following the previous year's audit report (for 2010/11).

In the 3 audited clauses in this part of the licence, 10 sub-clauses were audited. The auditor found that State Water demonstrated full compliance with 9 of the 10 audited subclauses. The auditor awarded high compliance with clause 4.4.3 related to the Fish River Customer Council.

**Table 2.3 Summary of compliance with the Customers' rights and consultation part of the licence**

Clause	Requirement	Compliance Grading						
		2005/06	2006-08	2008/09	2009/10	2010/11	2011/12	2012/13
4.1	Community Consultative Committee	Full	Full	Full	Full	Full	-	
4.2	Valley based Customer Service Committees (excluding Fish River Customers)	High-Full	High-Full	Full	Full	Full	-	
4.3	Customer Service Charter	Full	Full	Mod-Full	Full	Full	-	
4.4	Fish River Customer Council	Full	Full	Full	Full	Full	High-Full	
4.5	Customer Contracts (Fish River only)	-	Full	Full	Full	Full	Full	
4.6	Code of Practice and Procedure on Debt Management	High-Full	High-Full	Full	Mod-Full	High-Full	Full	

The auditor made a recommendation to satisfy future compliance with clause 4.4.3. The recommendation is discussed in the following section. The auditor also identified 11 opportunities for improvement in this part of the licence, which are summarised in Appendix C.

### Fish River Customer Council

The auditor found that a member of the Fish River Customer Council (FRCC) was dissatisfied with the way State Water explained its decisions and responded to comments. The auditor considered that while State Water has a comprehensive stakeholder consultation process incorporating sound continual improvement feedback principles, the issue raised by the member was pertinent to the compliance with State Water's obligation in the operating licence.

In the auditor's opinion this issue impacted State Water's compliance with its licence obligations under clause 4.4.3, reducing compliance from Full to High for this sub-clause.

In response to this issue, the auditor recommended that:

- ▼ State Water implements a project to review how it deals with, and responds to, comments and queries from its FRCC members to ensure that members feel that they have been fairly heard.

Subsequent to the audit interview and the draft audit report, State Water provided IPART with examples from its meeting minutes for the FRCC relevant to the issue. The examples demonstrate how State Water responded to members of the council following issues being raised or comments made, suggesting that there is a process in place for responding to comments from members.

However, we note that the member's dissatisfaction in this instance requires some review and consideration of the approach to providing feedback to the FRCC members to ensure that it is appropriate. Despite this, we consider that making a recommendation on the issue is not the best approach.

Instead, we have included as an opportunity for improvement that State Water considers formalising and agreeing processes and procedures for providing feedback on issues and comments raised by the FRCC. The OFI has been included in Appendix C.

### Review of Customer Service Charter

Regarding the non-compliance identified in the Statement of Compliance, State Water noted that no recommendations or OFIs were raised with regard to the Customer Service Charter in the 2010/11 audit report. State Water has now programmed the review for the coming year. We make no recommendations but intend to audit this clause in the 2012/13 audit to assess compliance.

## 2.4 Water delivery operations

State Water demonstrated **full compliance** with the 5 audited clauses of this part of the licence.

Part 6 of the operating licence sets out State Water's obligations relating to its water delivery operations. It contains clauses covering water infrastructure operations, management of allocated water, water conservation, supply constraints, water metering, water balances and Fish River water balance and system yield.

Of the 7 clauses in this part of the licence, 5 clauses, consisting of 8 sub-clauses were audited.

State Water noted in its Statement of Compliance that it had not fully complied with licence clause 6.6.1, relating to water balances.

**Table 2.4 Summary of compliance with the water delivery operations part of the licence**

Clause	Requirement	Compliance Grading						
		2005/06	2006-08	2008/09	2009/10	2010/11	2011/12	2012/13
6.1	Water infrastructure operations	-	-	Full	Full	Full	Full	
6.2	Management of allocated water	-	-	Full	Full	Full	Full	
6.3	Water conservation	Full	Full	Full	Full	Full	Full	
6.4	Supply Constraints	Full	Full	Full	Full	Full	Full	
6.5	Water Metering	Mod-Full	Mod-High	Mod-Full	High-Full	Full	-	
6.6	Water Balances	Mod	High	Full	High-Full	Full	-	
6.7	Fish River water balance and system yield	Full	Full	Full	Full	Full	Full	

The auditor made no recommendations or opportunities for improvement in this part.

### Water balances

The non-compliance identified in the Statement of Compliance relates to the failure of State Water to finalise its draft water balances for two valleys within the timeframe stated in the Licence. State Water is required to prepare draft water balances for each river valley by 1 September of the following financial year, and finalise these by 1 December. For the 2010/11 financial year, water balances for 2 river valleys were completed in 2012. State Water noted that this issue was due to staff turnover, and that it has since introduced internal measures to prevent this from happening again. We intend to audit this clause in the 2012/13 audit to assess compliance.

## 2.5 Performance indicators

The auditor found that State Water demonstrated **full compliance** with all 4 clauses in this part of the licence.

Part 8 of the operating licence outlines State Water's obligations relating to maintaining record systems and reporting of its performance indicators which are further detailed in Schedule 1 of the operating licence.

All 4 clauses in this part of the licence were audited, including consideration of the 19 individual performance indicators.

**Table 2.5 Summary of compliance with the performance indicators part of the licence**

Clause	Requirement	Compliance Grading						
		2005/06	2006-08	2008/09	2009/10	2010/11	2011/12	2012/13
8.1	Performance indicators – record systems	Low-Full	Low-Full	Low-Full	Low-Full	Full	Full	
8.2	Performance indicators – Reporting	Full	Full	Full	Full	Full	Full	
8.3	Performance indicators – provide IPART with access to records	Full	Full	Full	Full	Full	Full	
8.4	Performance indicators – make report available to the public	Full	Full	Full	Full	Full	Full	

The auditor identified 3 opportunities for improvement in this part of the licence, which are summarised in Appendix C.

### 3 Progress on previous audit recommendations

Previous audits identified licence areas where:

- ▼ State Water's performance was assessed as less than full compliance.
- ▼ State Water's performance could be improved, even though high grades of compliance were awarded.
- ▼ Issues had been identified outside the scope of the licence obligations, which warranted further review and follow-up.

In some of the past audits, we made recommendations to address these issues. The table below presents State Water's progress towards addressing these recommendations, as identified in previous audits.

**Table 3.1 Summary of progress to address previous recommendations**

Recommendation		Progress
<b>2009/10 audit recommendation</b>		
R1	Ensure that the 'Minor Consumer Agreement – Conditions of Supply', which is in place for 600 minor customers of the Fish River scheme makes an explicit reference to the quality of water to be supplied.	Complete. New contracts are now in place for minor consumers for both raw and drinking water.
<b>2010/11 audit recommendations</b>		
1	Implement a management plan for the FRWS which is consistent with the Framework for Management of Drinking Water Quality (as outlined in the Australian Drinking Water Guidelines).	Not complete. State Water is currently progressing well, and is aiming to have a system in place by December 2013.
2	Undertake a complete review of the drinking water monitoring program for the FRWS. In particular, the statistical robustness and the choice of monitored parameters needs to be improved.	Not complete. State Water will shortly release a tender to manage a water quality monitoring program.
3	Analyse and present data in a format that reflects current practice in reporting data on water quality.	Complete. State Water has prepared historical water quality trend analyses, and developed a dedicated WQ database.
4	Review and revise the maintenance procedures and processes to take full account of the maintenance of water quality in the management of supply interruptions in the FRWS.	Not complete. State Water has developed and tested incident management plan, and is developing maintenance procedures.

Recommendation	Progress
5 Review the procedures that currently permit (if authorised by a team leader/ Manager) the cross connecting non-potable to potable mains in the FRWS to ensure that customers do not receive unfit water or, are otherwise appropriately informed.	Not complete. State Water has reviewed its procedures and is continuing to address this recommendation.
6 Continue to implement its asset management system in accordance with their scheduled program.	Not complete. State Water has made significant progress. Further details are presented in section 2.2 of this report.
7 Make the 'Code of Practice and Procedure on Debt Management' available to the public.	Complete. State Water has fully addressed this recommendation.

**Source:** Summarised from t-cAM, *State Water Corporation Operational Audit 2011/12*, December 2012.

We will continue to monitor and audit any outstanding recommendations until they are completed.





---

## Appendices



## A Auditor's Report





**t-cAM Consulting**

*in association with*



Elevate Solutions Ltd

## **Final Report**

# **State Water Corporation Operational Audit 2011/12**

prepared for the

**Independent Pricing & Regulatory Tribunal**

**December 2012**

t-cAM Consulting in association with  
Risk Edge Pty Ltd and Elevate Solutions Ltd

# Final Report

## State Water Corporation Operational Audit 2011/12

prepared for the  
Independent Pricing & Regulatory Tribunal

December 2012

Rev No.	Date	Title	QA checked by	Authorised by
1	29 Oct 2012	1 <sup>st</sup> Draft	AD, CB	TC
2.1	23 Nov 2012	2 <sup>nd</sup> Draft	AD, CB	TC
3	10 Dec 2012	Penultimate Draft	AD, CB	TC
4	20 Dec 2012	Final Report		TC

t-cAM Consulting, in association with Risk Edge Pty Ltd and Elevate Solutions Ltd, has prepared this report in response to specific instructions from its client, the Independent Pricing and Regulatory Tribunal of NSW. The report is intended for the sole and specific uses established in those instructions. Any other person who uses any information contained in this report does so at their own risk.

© t-cAM Consulting, Risk Edge Pty Ltd, Elevate Solutions Ltd, 2012





# Contents

## Executive Summary

Introduction	iii
Overall Performance	iii
Key Findings and Recommendations by Licence Part	iii

## 1 Introduction

State Water Corporation	1
Regulatory Structure	2
Operating Licence	2
Audit Scope	2
Audit Methodology	2
Audit Team	3
Compliance Assessment Grades	4
Structure of this Report	4

## 2 State Water's Responsibilities – Part 2

Summary of Licence Part Requirements	7
Factors Affecting Compliance	7
State Water's Responsibilities – Compliance	7
Discussion	7
Recommendations	8

## 3 Asset Management – Part 3

Summary of Licence Part Requirements	9
Factors Affecting Compliance	9
Asset Management – Compliance	9
Discussion	10
Recommendations	11

## 4 Customer's Rights and Consultation – Part 4

Summary of Licence Part Requirements	12
Factors Affecting Compliance	12
Customer's Rights and Consultation – Compliance	12
Discussion	13
Recommendations	14

## 5 Water Delivery Operations – Part 6

Summary of Licence Part Requirements	16
Factors Affecting Compliance	16
Water Delivery Operations – Compliance	16
Discussion	16
Recommendations	17

## 6 Performance Indicators – Part 8

Summary of Licence Part Requirements	18
Factors Affecting Compliance	18
Performance Indicators – Compliance	19
Discussion	19
Recommendations	19

## Appendices

<b>1 Glossary and Dictionary</b>	<b>21</b>
<b>2 Recommendations from previous audits</b>	<b>26</b>
<b>3 State Water’s Responsibilities Detailed Audit Findings (Part 2)</b>	<b>37</b>
<b>4 Asset Management Detailed Audit Findings (Part 3)</b>	<b>46</b>
<b>5 Customers’ Rights and Consultation Detailed Audit Findings (Part 4)</b>	<b>51</b>
<b>6 Complaint and Dispute Resolution Detailed Audit Findings (Part 5)</b>	<b>63</b>
<b>7 Water Delivery Operations Detailed Audit Findings (Part 6)</b>	<b>70</b>
<b>8 The Environment Detailed Audit Findings (Part 7)</b>	<b>77</b>
<b>9 Performance Indicators Detailed Audit Findings (Part 8)</b>	<b>81</b>
<b>10 Pricing Detailed Audit Findings (Part 9)</b>	<b>91</b>
<b>11 Historical Performance</b>	<b>92</b>
<b>12 Audit Methodology</b>	<b>94</b>

## Figures

Figure 1-1	State Water’s Areas of Operation	1
Figure 1-2	Structure and Responsibilities of the Audit Team	3
Figure 6-1	Changes to State Water’s operating context for the FRWS	18
Figure A11-1	State Water - Number of Recommendations made in any Licence Year	92

# Executive Summary

## Introduction

t-cAM Consulting, in association with Risk Edge Pty Ltd and Elevate Solutions Ltd (the t-cAM team), conducted a detailed audit of State Water's compliance against the clauses of State Water's Operating Licence specified in the Independent Pricing and Regulatory Tribunal of NSW's (IPART) audit scope for 2011/12 (year ending 30 June 2012).

A Glossary and Dictionary of terms used in this report is provided in Appendix 1.

## Audit Opinion

In providing this audit report and associated findings and opinion:

- the auditor has seen sufficient evidence on which to base its conclusions
- the audit findings accurately reflect the professional opinion of the auditor
- the lead auditor and team members have noted what the IPART Public Water Utilities Audit Guideline (May 2012) and audit deed requires when conducting the audit, determining audit findings, and preparing the report
- the audit findings have not been unduly influenced by the utility and/or any of its associates.

## Overall Performance

State Water has managed its resources in 2011/12 to achieve predominantly **Full Compliance** with its Operating Licence, although some clauses were assigned a **High Compliance**, as discussed below.

## Key Findings and Recommendations by Licence Part

State Water's approach to the audit was professional and the Corporation's performance continued the improving trend in compliance since 2005/06, based on the number of key recommendations made by the auditors in each audit (see Figure A11.1).

Key Findings and Key Recommendations against each Licence part, are set out in the following paragraphs. A number of Opportunities for Improvement (OFI) have also been identified. These OFI do not relate directly to 2011/12 compliance and are discussed in the body of this report.

### Recommendations from 2009/10 audit

There was one outstanding Recommendation from the 2009/10 audit, with regard to revising the Minor Customer Agreement – Conditions of Supply contracts for Fish River customers. State Water has completed revising the contracts. State Water has therefore been rated as in **Full Compliance** with this Recommendation.

## **Recommendations from 2010/11 audit**

There were seven recommendations from the 2010/11 audit. State Water has actioned all recommendations and two have been rated as having progressed to **Full Compliance** and satisfactory progress is being made in the others. There are several OFI documented in Appendix 2 with regard to further progress and close-out.

## **State Water's Responsibilities – Part 2 (MOUs)**

State Water achieved **Full Compliance** in meeting its Licence requirements relating to Memoranda of Understanding in 2011/12.

### ***State Water's Responsibilities – Key Recommendations***

There are no key recommendations relating to this section.

## **Asset Management – Part 3**

In evaluating State Water's progress in implementing its Asset Management System, the auditor revisited the Asset Management criteria in the licence and took account of current industry practice in evaluating Asset Management performance. The criteria applied again generally followed the criteria applied by State Water in its own independently commissioned performance gap analysis conducted in 2010/11.

In 2011/12, State Water made further significant progress in developing a comprehensive, high quality Asset Management System and provided a stated commitment to achieve ISO 55000 compliance within the period of its next licence. However, it was also identified that State Water has not yet defined its Corporate view on the actual services<sup>1</sup> it provides, i.e. a definition or quantification of what is required to meet its Corporate objectives in terms of service delivery that can then be used to define the inter-relationship of the assets and drive the alignment and prioritisation of the function and Levels of Service expected from every asset. The lack of clarity around these Corporate service objectives, and consequent inability to develop a vertical linkage to the Levels of Service of the asset base, hinder the ability of the organisation to assure that risk, effectiveness and cost-benefit analyses are reliable.

When audited against the Licence requirements, State Water demonstrated **High to Full Compliance** in relation to the audited requirements related to Asset Management. High compliance was assigned as implementation of the Asset Management System is not yet sufficiently complete, specifically with regard to progress in data collection and validation and definition of the Corporate service objectives.

We have made a recommendation in this part of the Licence relating to the definition of the Corporate service objectives and development of the supporting framework describing the inter-relationship and alignment of the asset base and their associated Levels of Service with these objectives.

---

<sup>1</sup> The term 'services' or 'Corporate services' is synonymous with the term 'agency services' in the NSW Government's *Total Asset Management (TAM) Policy and Guidelines*, see further detail on page 10 of this report (Section 3 Asset Management – Part 3 – Discussion).

Last year, we noted State Water's ongoing efforts to complete data collection and validation of its Asset base. We have raised an OFI on the need to monitor and report on progress and have proposed targets for Full Compliance (see Appendix 2 - Recommendation Reference Number 6 for 2010/11).

#### ***Asset Management – Key Recommendations***

It is recommended that: State Water implements a project to determine its Corporate service objectives and development of a supporting framework describing the inter-relationship and alignment of the asset base and their associated Levels of Service with these service objectives.

#### **Customer's Rights and Consultation - Part 4**

We considered that State Water exhibited **Full Compliance** for 9 of the 10 audited clauses of this Licence part for 2011/12. While State Water has a comprehensive stakeholder consultation process incorporating sound continuous improvement feedback principles, the response to our questionnaire indicated some dissatisfaction with State Water's responses to customer input and we have documented one Key Recommendation and two OFI's to assist in addressing this issue in the main body of the report. A **High Compliance** rating was given for the relevant clause.

#### ***Customer's Rights and Consultation – Key Recommendations***

It is recommended that: State Water implements a project to review how it deals with, and responds to, comments and queries from its FRCC members to ensure that members feel that they have been fairly heard.

#### **Water Delivery Operations - Part 6**

State Water achieved **Full Compliance** in meeting these Licence requirements. State Water has comprehensive, well rounded and sophisticated management strategies and processes in place and is actively investigating an improved capability that may be argued to be best practice.

#### ***Water Delivery Operations – Key Recommendations***

There are no key recommendations relating to this licence part.

#### **Performance Indicators - Part 8**

We assessed **Full Compliance** for State Water's performance against the clauses of part 8 of the Licence in 2011/12. During discussions IPART, State Water and the auditor identified several indicators that lack clarity in meaning or usefulness and the outcome of those discussions will be separately documented for consideration by IPART in preparation of the new State Water licence.

#### ***Performance Indicators – Key Recommendations***

There are no key recommendations relating to this licence part.

## Comparison with previous performance

State Water's overall performance in 2011/12 continues their sound improvement.

Due to the changed compliance grading system and audit scope implemented in 2011/12, it is difficult to provide an overarching comparison of compliance performance utilising grades, as was provided last year. However, it is still possible to provide some measure of overarching performance, as a compliance grade other than **Full** is usually accompanied by a corresponding Recommendation, see Figure A11-1 in Appendix 11. It should be noted, however, that the Asset Management Recommendation made in this year's report has a cascade effect across a number of Clauses within the Asset Management Part of the licence.



## Regulatory Structure

State Water's water distribution operations are variously regulated by State Government agencies as outlined below:

- The NSW Government has granted an Operating Licence to State Water under the *State Water Corporation Act 2004*.
- The Independent Pricing and Regulatory Tribunal (IPART) recommends the conditions of State Water's Operating Licence to the NSW Government and conducts periodic audits of performance against the Operating Licence.
- The Australian Competition and Consumer Commission (ACCC) has regulatory responsibility for pricing functions in some valleys, in others, this function is IPART's.
- The NSW Office of Water (NoW) regulates water use in NSW. NoW was formerly part of the former Department of Environment, Climate Change and Water (DECCW). Before that, NoW was the Department of Water and Energy (DWE).
- The Dams Safety Committee (DSC) regulates dam safety. Since the DSC is a small organisation, many of its administrative facilities and functions are provided by NoW.

## Operating Licence

State Water's first Operating Licence was issued in 2005 for a period of three years. The current licence was issued in 2008 and applies until 23 June 2013. The Operating Licence specifies the minimum standards of service or performance that must be met by State Water in relation to its operations.

The licence is available from State Water's website: <http://www.statewater.com.au>

Part 11 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.

## Audit Scope

The Operating Licence specifies the audit obligations under Part 11. The audit scope for the t-cAM audit did not include all licence Clauses, as some were addressed by State Water issuing a Statement of Compliance to IPART. Where a Clause was subject to a Statement of Compliance, this is recorded as SC in the '2011/12 Grade' column in the relevant audit record Appendix. Our report also considers any follow up of outstanding recommendations from prior audits where actions were not completed during the previous audit period. These comprise Ministerial Requests for some action by State Water. Details are provided in Appendix 2.

## Audit Methodology

It was a requirement of this assignment that the Operational Audit adopted a methodology consistent with ISO 14011 'Guidelines for Environmental Auditing' and IPART's *Public Water Utilities Audit Guideline (May 2012)*. These guidelines provide a systematic approach to defining the requirements of the audit, planning, interpreting Licence Conditions, collecting



audit evidence, objectively assessing the evidence, and reporting in a clear and accurate manner. It also ensures that the audit has been conducted in accordance with an established and recognised audit protocol. The audit methodology that we have applied is discussed further at Appendix 12.

### Change to our audit process

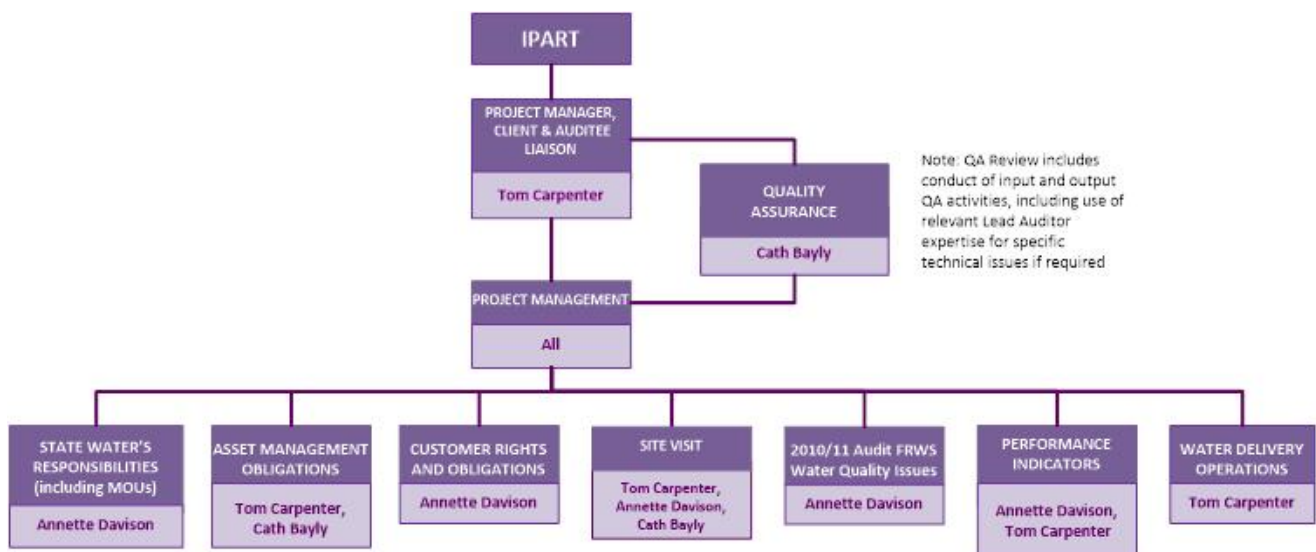
We constantly seek to improve our auditing performance. This year we had our entire audit team sit in on all audit meetings, bringing multiple skill sets to our audit. Previously utilising this approach in other audits, we successfully identified overarching or systemic organisational issues in the utilities that we audited.

This year, we have again also included an international auditor in our team and incorporated a site visit to verify implementation of Licence obligations and documentary evidence.

## Audit Team

The audit team consisted of IPART accredited auditors drawn from **t-cAM Consulting, Risk Edge Pty Ltd and Elevate Solutions Ltd** as shown in Figure 1-2.

Figure 1-2 Structure and Responsibilities of the Audit Team



## Compliance Assessment Grades

The table below sets out the ratings used to grade compliance in this audit. These grades are consistent with compliance grades provided by IPART and range from Full Compliance to Non Compliance.

Term	Meaning
<b>Full Compliance</b>	Sufficient evidence to confirm that the requirements have been fully met.
<b>High Compliance</b>	Sufficient evidence to confirm that the requirements have generally been met apart from <b>very few minor shortcomings</b> which do not compromise the ability of the utility to achieve defined objectives or assure controlled processes, products or outcomes.
<b>Adequate Compliance</b>	Sufficient evidence to confirm that the requirements have generally been met apart from <b>a number of minor shortcomings</b> which do not compromise the ability of the utility to achieve defined objectives or assure controlled processes, products or outcomes.
<b>Non compliant</b>	Sufficient evidence has <b>not</b> 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.
<b>No requirement</b>	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.

## Structure of this Report

This chapter provides some background and information on State Water, the scope of this audit and a discussion of audit methodology. Chapters 2 to 10 discuss compliance for each of the Licence parts assessed.

In the appendices, we have provided:

- A Glossary of abbreviations, terms used and definitions (Appendix 1)
- State Water's responses to issues raised at the 2009/10 and 2011/12 audits (Appendix 2)
- Detailed audit findings for each section of the Licence that we audited (Appendices 3-10)
- An analysis of current performance with that of past audits (Appendix 11)
- Our audit methodology (Appendix 12)

## Licence Part Compliance Reporting

The reporting of compliance for each Licence part is structured as follows:

### (1) Within the body of this report:

<b>Licence requirement</b>	Comment on the objective of the Licence part.
<b>Factors affecting compliance</b>	A synopsis of factors that may have impacted compliance but were not within the control or influence of the utility. These may be ongoing or one-off events. They may have resulted in a discontinuity between historical performance and current performance.
<b>Licence part compliance</b>	Summary of compliance against the Licence part.
<b>Discussion</b>	A discussion of conclusions drawn, key sources of evidence or other information that provides insight into the reasoning for the level of compliance assigned, especially where this relates to more than one Licence clauses.
<b>Recommendations</b>	
– <b>Recommendations</b>	Deal with improvements that relate to compliance with the conditions specified in the Licence part. They may also relate to conditions which, in the auditor's view, threaten future compliance with the licence requirement.
– <b>Opportunities for Improvement</b>	Opportunities for Improvement addressing alternative or improved methodologies, processes or practices that could lead to gains in efficiency or effectiveness in compliance. State Water is expected to give due consideration to these opportunities.

### (2) Within the Table of Detailed Audit Findings for the previous audit Recommendations in Appendix 2

<b>Rec. Ref. No.</b>	The reference number of the Recommendation in the previous Audit Report.
<b>Reference Year</b>	The Audit year the recommendation was made.
<b>Licence Clause</b>	The relevant Licence Clause that the Recommendation addresses.
<b>Recommendation</b>	The wording of the Recommendation
<b>Risk</b>	An indication of the possible consequence (in grade and nature) if the requirements of the clause were not met.
<b>Audit Objective</b>	What the auditor is required to audit.
<b>Evidence</b>	The evidence reviewed

<b>Auditor Commentary</b>	Auditor commentary on progress, where State Water has completed all activities required to meet the Recommendation, Full Compliance is recorded.
---------------------------	--

**(3) Within the Table of Detailed Audit Findings in the Appendices:**

<b>Clause</b>	The number of the clause in the Licence part being audited.
<b>Requirement</b>	The wording of the clause and (where relevant) any specific aspect that was the subject of audit.
<b>Compliance Grade</b>	The auditor's assessment of the level of compliance
<b>Risk</b>	An indication of the possible consequence (in grade and nature) if the requirements of the clause were not met.
<b>Target for Full Compliance</b>	An indication, or target, of the performance or information required for Full Compliance.
<b>Evidence</b>	Evidence assessed
<b>Reasons for Grade</b>	Explanatory notes and reasoning behind the reported level of compliance.

## 2 State Water's Responsibilities – Part 2

### Summary of Licence Part Requirements

Part 2 (Clause 2.3) of the Licence requires State Water to use its best endeavours to maintain Memoranda of Understanding (MOU) with the Directors-General of each of its principal regulators:

- The Department of Water and Energy (now the NSW Office of Water (NOW)), for water management,
- The NSW Department of Primary Industries for fisheries management
- The Department of Environment, Climate Change and Water (now the Office of Environment and Heritage, (OEH)) for environmental management.

### Factors Affecting Compliance

There were no known external issues that may have substantially impacted on State Water's performance with respect to this Licence part.

### State Water's Responsibilities – Compliance

Our audit covered the following clauses:

- Clause 2.3.1:  
Maintain best endeavours to maintain MoUs with the stated bodies.
- Clause 2.3.2:  
Recognise roles and establish partnerships with the stated bodies.
- Clause 2.3.4:  
MoUs to be made available to the public.
- Clause 2.3.5:  
State Water to report on MoUs (performance of and compliance against) to IPART by no later than 1 September each year.
- Clause 2.3.6:  
State Water to make the Clause 2.3.5 report available to the public.

Overall, we assessed State Water to have demonstrated **Full Compliance** with the requirements of this part of the Licence. Full details are at Appendix 3.

### Discussion

This part of the Licence is designed to clarify and explain expectations between State Water and specific government regulatory partners through clearly articulated Memoranda of

Understanding (MoU). The Licence requires certain things to be in place to give effect to the MoU and the MoU are specifically required to at least capture this information, including State Water's good faith implementation of those requirements.

In managing the MoUs, we see the strengths of State Water as not only having diligent staff, but also in being proactive in making the MoUs a useful tool for the organisation, helping to drive change and beneficial outcomes.

State Water has undertaken much work to try and simplify legal and formal requirements through the MoUs and this is clear through the systematisation of agendas and reporting which were reviewed as part of the audit. This approach shows in the overall comprehensiveness and systematisation of agendas and meeting minutes including extending to the implementation of actions on the ground.

The MoU with OEH required finalisation, as an outstanding item from the 2010/11 audit. The MoU with OEH now has an effective date of 1 July 2011 and was finalised between both parties in December 2011. The MoU is available on the State Water website.

## Recommendations

### Recommendations

We have no recommendations for this part of the Licence.

### Opportunities for Improvement

We suggest that State Water consider the following matters:

OFI 2.1	Create a Stakeholder Register	State Water should consider creating a stakeholder register to facilitate: <ul style="list-style-type: none"><li>• Identification of stakeholders.</li><li>• Understanding of stakeholder value drivers.</li><li>• Clear articulation of modes of communication (MoUs, contracts, meetings etc) with key stakeholders.</li></ul>
------------	-------------------------------------	--

It is understood that State Water is about to commence a stakeholder engagement survey and strategy and it should consider capturing information in a register as part of this process.

---

OFI 2.2	Review Formalisation of CEWO Involvement in SLG	The Commonwealth Environmental Water Office currently sits on the SLG as an observer of how the OEH handles its water allocation. In the future, State Water may wish to review with the CEWO whether it wishes to become a formal member of the SLG.
------------	---	---

---

## 3 Asset Management – Part 3

### Summary of Licence Part Requirements

Part 3 of the Licence establishes an asset management framework and requires an audit of this framework to be undertaken during the term of the licence as agreed with IPART. This part also requires State Water to consider demand management strategies by customers when planning augmentation of water management works.

### Factors Affecting Compliance

We consider that no external factors substantially impacted on State Water's ability to comply with the requirements of this Licence part.

### Asset Management – Compliance

Our audit covered the following clauses:

- Clause 3.1.1:  
State Water must ensure that its Assets are managed in a manner consistent with the stated obligations, principles, lowest life cycle cost and business risk.
- Clause 3.2.1:  
At least once in the Licence period State Water must report to IPART on the state of each group of Assets managed by State Water.
- Clause 3.2.2:  
The report under 3.2.1 must describe the Asset Management processes and practices, the assets themselves, their capability to meet their Levels of Service, issues affecting performance and any asset management system quality improvement activities.

We assessed State Water's performance as demonstrating **High to Full Compliance** with the audited requirements of this part of the Licence in 2011/12.

**Full Compliance** was awarded for 3.1.1 (a)

Despite significant progress in developing the asset management system, we awarded **High Compliance** for parts (b), (c) and (d) of clause 3.1.1 because:

- (a) the asset management system is not yet complete with regard to data collection and verification. We recognise the continuing efforts that State Water has devoted to this task and we have made no recommendations on this issue but have raised an OFI with regard to monitoring and reporting progress and provided guidance as to what level of completion the auditor considers adequate for assessment of Full Compliance (see Appendix 2 - Recommendation Reference Number 6 for 2010/11)
- (b) The lack of clarity around Corporate service objectives, and consequent inability to develop a framework for the Levels of Service of the asset base, hinder the ability of the organisation to assure risk, effectiveness and cost-benefit analyses are reliable.

Since we are required to report at the sub-clause level, i.e. for 3.1.1,; on the balance of the results

at the itemised level, we have given State Water a **High Compliance** overall for 3.1.1.

**Full Compliance** was awarded for 3.2.1 and 3.2.2

Supporting commentary for the grading against specific clauses in Part 3, Asset Management, are at Appendix 4.

## Discussion

State Water has a comprehensive plan for the implementation of a robust asset management system across the organisation. It has made considerable strides to introduce a system that is best practice. While significant progress has been made, the asset management system is not yet complete.

The licence requires that State Water must ensure that its Assets are managed in a manner consistent with:

- (a) its obligations in the Licence and all applicable laws, policies and guidelines with which State Water must comply, including the requirements of the NSW Dams Safety Committee;
- (b) the principles of the NSW Government's Strategic Management Framework and the NSW Government's Total Asset Management (TAM) Policy and Guidelines;
- (c) achieving the lowest cost of service delivery across the whole life of the Assets; and
- (d) identifying business risks related to the Assets and managing them to a commercially acceptable level.

While details of the activities undertaken to collect and verify asset data and attributes was provided, no evidence was provided with regard to progress over the audit period in actually collecting and verifying the data.

State Water also advised that they had not yet determined the Corporate service objectives and a recommendation has been raised for this to be dealt with.

This is a critical issue, for while the fact that any particular Asset fulfils its individual Level of Service shows the Asset is performing well, if it cannot be reliably linked to the overarching Corporate service objectives, one cannot assume that the Asset is adequately contributing to whatever the organisation's service objectives are. If this is the case, any risk and decision making with regard to the Asset is open to question. This is addressed in the NSW Government's Total Asset Management (TAM) Policy and Guidelines as follows (key issues identified by ***bold italics***):

### Asset strategy

The Asset Strategy should focus on ***the interrelationship, alignment and prioritisation of assets to support the delivery of agency services***. It should:

- Provide a brief summary of the existing asset base (covering all asset classes) and ***how it supports agency services***
- Identify any significant asset gaps (capacity or functionality/maintenance related) and related service risks, over both short and long term, taking into account key drivers such as changes to population (ageing/demographic) and land-use, legal requirements/policies, technology and community expectations.
  - Explain how proposed expenditure will address these gaps, or why any gaps not addressed by the proposed asset program are considered low priority



- **Assess the risk to service delivery/asset performance if proposed projects are not funded**
- Outline inter-relationships between proposed projects or programs (highlighting projects or disposals involving multiple agencies), and how these support a cohesive, **integrated asset and service strategy**
- Explain how the proposed capital projects and maintenance expenditure (as identified in TAM data tables) are prioritised within projected funding limits, **with reference to priority service levels** (as identified in the agency's Results and Services Plan (RSP) or Statement of Corporate or Business Intent (SCI/SBI)).

This issue impacts compliance with (b), (c) and (d) of Clause 3.1.1.

Opportunities for improvement were identified for data collection and validation progress monitoring and reporting (see relevant discussion in Appendix 2), Chlorine management and in the Reporting on Asset Management Systems.

## Recommendations

### Recommendations

It is recommended that:

State Water implements a project to determine its Corporate service objectives and development of a supporting framework describing the inter-relationship and alignment of the asset base and their associated Levels of Service with these service objectives.

### Opportunities for Improvement

OFI 3.1	Data collection reporting	State Water should monitor and report on its progress with regard to collection and validation of its Asset base data.
OFI 3.2	Chlorine Management	A compliance evaluation should be conducted at the chlorine gas dosing plants addressing the Australian Standard (AS2927: 2001) and any other statutory obligations with respect to chlorine management.
OFI 3.3	Asset Management Systems Reporting	State Water should determine the stakeholders, objectives and uses for this kind of reporting and work towards improving the report to address the needs of a wider range of stakeholders.

## **4 Customer's Rights and Consultation – Part 4**

### **Summary of Requirements**

Part 4 of the Licence specifically deals with the way in which State Water interacts with its customers.

Clause 4.4 requires State Water to regularly consult with the Fish River Customer Council (FRCC) and specifically with the members of the FRCC, which are:

- Lithgow City Council
- Oberon Council
- Delta Electricity
- Sydney Catchment Authority

Clause 4.5 requires State Water to enter into agreements with its customers on the Fish River Water Supply scheme.

Clause 4.6 requires State Water to manage a code of practice and a procedure on debt management.

### **Factors Affecting Compliance**

We consider that no external factors substantially impacted on State Water's ability to comply with the requirements of this Licence part.

### **Customer's Rights and Consultation – Compliance**

Our audit covered the following clauses (with requirements in summary):

- FRCC
  - Clause 4.4.1:  
Regular consultation with the FRCC.
  - Clause 4.4.2:  
Appoint the members of the FRCC, which must include those listed above.
  - Clause 4.4.3:  
Provide the FRCC with the relevant information to allow it to discharge its tasks.
- Customer Contracts (FRCC Only)
  - Clause 4.5.1:  
Use best endeavours to enter into agreements with Fish River customers.
  - Clause 4.5.2:  
Stipulation of the inclusions in the agreements these being:
    - Standard of water quality supplied

- Continuity of water supplied.
- Metering.
- Costs and service expectations.
- Other terms as required.
- Code of Practice and Procedure on Debt Management
  - Clause 4.6.1:  
Maintain a Code of Practice and procedure on debt management.
  - Clause 4.6.2:  
Stipulation on what the Code should contain (provision for deferred payment, contact information).
  - Clause 4.6.3:  
Code to be made available to the public.
  - Clause 4.6.4:  
Quarterly reporting requirements by State Water to IPART.
  - Clause 4.6.5:  
Clause 4.6.4 report to contain information on types of assistance requested by, and provided to, customers.

State Water was awarded one **High Compliance** for this section (Clause 4.4.3), which related to the comments received from one of the FRCC members and which is discussed below. However, we assessed State Water to have demonstrated **Full Compliance** with the remaining audited requirements of this part of the Licence. Compliance and supporting commentary for specific Clauses in this Licence part are shown at Appendix 5.

## Discussion

In arriving at our determination on State Water's performance in managing Customers' Rights and Consultation, we note the following.

### FRCC Management (Clause 4.4)

Part of the audit process involved sending out questionnaires to the FRCC representatives seeking their input on State Water's consultation effectiveness. Three replies were received out of four questionnaires sent out. While most of the comments were positive, it is noted that one of the respondents was dissatisfied with State Water in terms of their being perceived to 'not pay attention' to comments provided to them by that FRCC member. When discussed in the interview, State Water responded that while it takes comments on board, it is not able to address all comments in a way that the FRCC members are comfortable with because of resource allocation and priorities. While State Water has a comprehensive stakeholder consultation process incorporating sound continuous improvement feedback principles, this issue is seen as justifying reducing compliance from Full to High for this clause alone (in accordance with the Audit Guideline Public Water Utilities May 2012) and an appropriate Recommendation has been proposed to help address this issue.

## FRCC Customer Contracts (Clause 4.5)

It was very pleasing to see that State Water has moved expediently and with excellent material in relation to the minor raw and potable water customer contracts. While there are a few water quality and interpretation issues to address (for which OFIs have been awarded), the contracts have been appropriately contextualised, are easy to read and are clear in their application with the water 'product' being supplied by State Water (i.e. raw or potable (drinking) water) being clearly articulated on the front of the contract.

In terms of the four major consumers, the contracts need a complete review (which is acknowledged by State Water) but meet the requirements of the operating licence for now. Various OFIs have been suggested for when State Water conducts a review of the contracts. Examples of OFIs include ensuring that the water quality criteria are properly defined for the end use, monitored and the location of monitoring clearly stipulated in the contract.

## Code of Practice and Procedure on Debt Management (Clause 4.6)

This clause attracted a recommendation in the 2010/2011 audit:

*"Make the 'Code of Practice and Procedure on Debt Management' available to the public."*

State Water has now consolidated all its information relating to debt management and this information is clearly available on its website. State Water has also included information on assistance in payment accounts on customer invoices and the Debt Management Code of Practice is easy to find on State Water's website. However, while a Water Debtor Management Policy is available on State Water's website, it was not easy to locate without detailed searching and an OFI (OFI 4.12) has been provided in this context.

It is pleasing to see that State Water is also reviewing its social media strategy as a means of furthering communication to customers.

## Recommendations

### Recommendations

It is recommended that:

State Water implements a project to review how it deals with, and responds to, comments and queries from its FRCC members to ensure that members feel that they have been fairly heard.

### Opportunities for Improvement

OFI 4.1	FRCC Meeting Minutes	Suggest that rather than leave the water quality sections blank, state that there was nothing to report and in the future, consider reporting on CCP (critical control point) exceedances once CCPs are in place.
OFI 4.2	Fluoridation for Lithgow Villages	If fluoridation occurs at the Duckmaloi WTP, all contracts for supply of drinking water will have to be amended and State Water's current customers will have to be informed first.
OFI 4.3	Oberon Contract Review	When Oberon Council's contract is reviewed, the chlorine residual provided by the FRWS will need to be articulated clearly

		in the Oberon contract in terms of amount and at what handover point.
OFI 4.4	Contract Review Minor Consumers – Register	The register of consumers from the FRWS needs to include a flag to show when the contract is due for renewal. Ensure that rainwater tanks on the customer's property are also recorded to facilitate backflow management.
OFI 4.5	Contract Review Minor Consumers - Interpretation	Ensure that New South Wales Code of Practice, Plumbing and Drainage now refers to the Plumbing Code of Australia.
OFI 4.6	Contract Review Drinking Water Minor Consumers – Interruptions to Supply	The current clause in the contract states that 'State Water advises that if the Consumer requires a continuous supply of water then the Consumer should install a water tank adequate to avoid difficulties due to supply interruptions.' To avoid liability and proof of fitness for purpose issues once Fish River water is put into a customer's tank, it is suggested that the clause is amended to state that State Water will not be responsible for the quality of the water once it is transferred into the customer's tank.
OFI 4.7	Contract Review Major Consumers	When the contracts are next reviewed, it will be helpful to include a diagram in the contract to show exactly where handover points are between the FRWS and the end user and ensure that the water quality expectations are clearly articulated.
OFI 4.8	Communication of Raw Water Provision to Property Owners	Review how information transfer issues are dealt with by State Water to ensure that incoming consumers are fully informed that they have a property for which the water supply is not intended for drinking.
OFI 4.9	Communication of Raw Water Provision to Rental Tenants	Review how State Water deals with rental agencies to ensure that renters understand where they rent properties where the water is not intended for drinking.
OFI 4.10	Water Quality Monitoring of Handover Points	State Water should have appropriate monitoring in place at each of its handover points i.e. where water passes from State Water's control to another party or back into the system from another party, to ensure that it can robustly prove the quality of the water that was handed over or receipted at that time.
OFI 4.11	Visibility of Policies on Website:	State Water could consider including a separate 'policy' section under its corporate publications section of the website to increase visibility of policies.

## 5 Water Delivery Operations – Part 6

### Summary of Licence Part Requirements

This part of the Licence deals with State Water's activities of water management infrastructure operation and delivery of water to customers. It also covers the water conservation, meter compliance and water balances

### Factors Affecting Compliance

There are no substantive factors that have impacted on State Water's performance against Part 6 of the Licence in 2011/12.

### Water Delivery Operations – Compliance

Our audit covered the following clauses (with requirements in summary)

- Clause 6.1  
Water infrastructure operation and maintenance in accordance with obligations.
- Clause 6.2  
Management of Allocated Water – accountability, equity, efficiency and record keeping
- Clause 6.3  
Water conservation – management of losses
- Clause 6.4  
Supply constraints – optimise operations to ensure timely delivery of water
- Clause 6.7  
Fish River Water Balance and System Yield – Plan properly and make the plans known.

We assessed State Water's performance against these clauses as **Full Compliance** for 2011/12. Compliance and supporting commentary for individual Clauses in Part 6 of the Licence, Water Delivery Operations, are at Appendix 7.

### Discussion

State Water has in place a robust system for monitoring river flows and managing supply of water to customers whilst balancing environmental and service requirements. There is a program of continuous improvement in place with the metering program and completion of the pilot program for real time operational modelling utilising telemetry and SCADA in the Murrumbidgee scheme. The auditor notes the cost-benefit of the new system requires appropriate investigation during any business case development for potential further roll-out.

## **Recommendations**

### **Recommendations**

There are no recommendations for this part of the licence

### **Opportunities for Improvement**

We have no Opportunities for Improvement for this part of the Licence

## 6 Performance Indicators – Part 8

### Summary of Licence Part Requirements

Part 8 of the Licence specifically deals with the way in which State Water measures, understands and reports its performance against a range of indicators stipulated in Schedule 1 of the Licence.

### Factors Affecting Compliance

Since the 2010/2011 audit, there have been several changes in State Water's operating context (Figure 6 1) which impact on the water quality criteria and drinking water management indicators for the FRWS. The changes are namely:

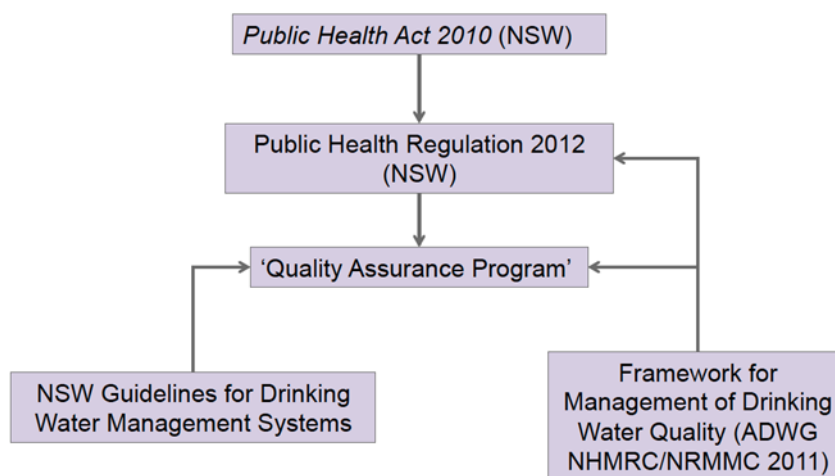
- The *Public Health Act 2010* (PHA) (NSW) and the *Public Health Regulation 2012* (PHR) (NSW) came into force on 1 September 2012.
- The Australian Drinking Water Guidelines (including the Framework for Management of Drinking Water Quality (ADWG NHMRC/NRMMC 2011)) were released on 27 October 2011.

The PHA and the PHR together require drinking water suppliers to have a 'quality assurance plan' (QAP) in place, which is consistent with the Framework for Management of Drinking Water Quality, by 1 September 2014.

The practical implementation of the QAP is as a risk-based drinking water quality management system or DWMS. The requirements for development of a NSW-contextualised DWMS are covered in the NSW Guidelines for Drinking Water Management Systems 2012.

While these factors do not yet impact on State Water's compliance as such, they do impact on the recommendations from 2010/2011 and will be reviewed in the Recommendations chapter. However, the changes in the legislation and the ADWG are being flagged now as they will need to be reviewed for the Operating Licence review by IPART.

**Figure 6-1. Changes to State Water's operating context for the FRWS.**



There are no other external issues that have substantially impacted on State Water's performance with respect to this Licence part.



## Performance Indicators – Compliance

Our audit covered the following clauses (with requirements in summary):

- Clause 8.1  
Maintenance of records systems to allow accurate measurement for:
  - Schedule 1 indicators.
  - National Water Initiative indicators.
  - Service quality and system indicators in any other instrument determined by IPART.
- Clause 8.2  
Reporting requirements to IPART
- Clause 8.3  
Provision of access to IPART to records (physical and electronic) used in producing the report at 8.2
- Clause 8.4  
Make report at 8.2 accessible to the public

Overall, we assessed State Water to have demonstrated **Full Compliance** with the audited requirements of this part of the Licence. Compliance and supporting commentary for specific Clauses in this Licence part are shown in Appendix 9.

## Discussion

During 2011/2012, State Water has again applied diligence to addressing the requirements of this clause, resulting in Full compliance. In the 2010/11 audit, there were several recommendations provided relating to the water quality criteria for the FRWS. The recommendations are being addressed to the satisfaction of the auditor and are covered in more detail in the Chapter dealing with overall Recommendations.

However, the FRWS recommendations from 2010/2011 will still need to be addressed in the 2012/2013 audit for progress until a resolution is made on the FRWS in terms of whether the PHA applies or whether drinking water management is captured in a new Operating Licence.

There are several OFIs and comments to IPART for consideration in the Licence Review in this section and these are dealt with in detail below.

## Recommendations

### Recommendations

There are no recommendations for State Water for this part of the Licence.

### Opportunities for Improvement

OFI 8.1	Formalisation of Calculation Methodology for Daily Minimum Flows (Sched 1 1. Water Delivery Part A (d))	Suggest undertaking a review of the way the calculations are documented as well as the rules for each catchment including standardisation of the graphs to ensure formalisation of the procedure.
OFI 8.2	Sched 1 FRS Indicators 1. Asset Management Part B (d) Form Change	For unplanned supply interruptions, the form currently used needs to have a space to record supply interruption time as well as turn back on time. Forms do not currently give State Water the information on duration of the interruption.
OFI 8.3	Sched 1 FRS Indicators 1. Water Quality Part B (3)	State Water should investigate potential for significant changes in pH due to new cement lining and the consequent impact on chlorine residuals.

## Appendix 1 – Glossary and Dictionary

### Abbreviations/Acronyms

Abbreviation/Acronym	Description
<b>ADWG (2004)</b>	Australian Drinking Water Guidelines (2004), National Health and Medical Research Council and Agriculture and Resource Management Council
<b>ADWG (2011)</b>	2011 amendment to ADWG (2004)
<b>Act</b>	State Water Corporation Act 2004 (NSW).
<b>AEW</b>	Adaptive Environmental Water
<b>AOMS</b>	Assets and Operations Maintenance System
<b>AS</b>	Australian Standard
<b>CAIRO</b>	Computer Aided Improvements to River Operations
<b>CARM</b>	Computer Aided River Management
<b>CCC</b>	Community Consultative Committee
<b>CDSS</b>	Catchment Decision Support System
<b>CIS</b>	Customer Information System
<b>CMA</b>	Catchment Management Authority as listed in Schedule 1 of the <i>Catchment Management Authorities Act</i> 2003
<b>CRM</b>	Customer Relationship Management
<b>CSC</b>	Customer Service Committees
<b>CWP</b>	Cold Water Pollution
<b>DEC</b>	Former Department of Environment and Conservation – now OEH
<b>DECC</b>	Former Department of Environment and Climate Change – now OEH
<b>DECCW</b>	Former Department of Environment, Climate Change and Water – now OEH

<b>Abbreviation/Acronym</b>	<b>Description</b>
<b>DEUS</b>	Former Department of Energy, Utilities and Sustainability – covered part of the former DLWC
<b>DLWC</b>	Former Department of Land and Water Conservation (NSW) then changed to DWE
<b>DIPNR</b>	Former Department of Infrastructure, Planning and Natural Resources (NSW) – now covered by Department of Planning, OEH, NSW Office of Water (NoW) and Department of Industry and Investment NSW
<b>DMP</b>	Drought Management Plan
<b>DPI, DII</b>	Department of Primary Industries, now the Department of Industry and Investment
<b>DSC</b>	Dam Safety Committee constituted under section 7 of the <i>Dam Safety Act 1978</i>
<b>DWE</b>	Department of Water and Energy – now covered by NSW Office of Water (NoW)
<b>EMP</b>	Environmental Management Plan
<b>EPA</b>	Environment Protection Authority (NSW) – Now part of the Office of Environment and Heritage (OEH)
<b>ESD</b>	Ecologically Sustainable Development
<b>EWON</b>	Energy and Water Ombudsman NSW
<b>FRWS</b>	FRWS Water Supply Scheme
<b>GEMP</b>	Government Energy Management Plan
<b>GIS</b>	Geographical Information Systems
<b>GL</b>	Gigalitre (1 thousand megalitres)
<b>State Water, SWC</b>	State Water Corporation
<b>IPART</b>	Independent Pricing and Regulatory Tribunal (NSW)
<b>ISO</b>	International Standards Organisation
<b>IT</b>	Information Technology

<b>Abbreviation/Acronym</b>	<b>Description</b>
<b>iWAS</b>	Internet Water Accounting System
<b>kL</b>	Kilolitre (1 thousand litres)
<b>Km</b>	Kilometre
<b>ML</b>	Megalitre (1 million litres)
<b>MOU</b>	Memorandum of Understanding
<b>MNF</b>	Minimum Night Flows
<b>M&amp;R</b>	Monitoring and Reporting
<b>NATA</b>	National Analytical Testing Authority
<b>NoW</b>	NSW Office of Water.
<b>NPR</b>	National Performance Report (published by the National Water Commission and the parties to the National Water Initiative).
<b>NSW Health</b>	NSW Department of Health
<b>OEH</b>	Office of Environment and Heritage (formerly DECCW, the NSW Environmental Regulator)
<b>pa</b>	Per annum
<b>pH</b>	A measure of the acidity of a solution related to the concentration of hydrogen ions.
<b>QA</b>	Quality Assurance
<b>RERP</b>	Rivers Environmental Restoration Program
<b>RFQ</b>	Request for Scope of Work and Quote (sent by IPART on 5 July 2011)
<b>SCADA</b>	Supervisory Control and Data Acquisition – a computer based system to monitor and control the operation of infrastructure
<b>SEDA</b>	Sustainable Energy Development Authority
<b>SLA</b>	Service Level Agreement

Abbreviation/Acronym	Description
<b>SLG</b>	Strategic Liaison Group
<b>State Water</b>	State Water Corporation
<b>TAM Guidelines</b>	Total Asset Management Guidelines
<b>TAMP</b>	Total Asset Management Plan
<b>WAS</b>	Water Accounting System
<b>WML</b>	Water Management Licence
<b>WRAPP</b>	Waste Reduction and Purchasing Policy
<b>WSAA</b>	Water Services Association <i>of Australia</i>
<b>WSP</b>	Water Sharing Plan
<b>WTP</b>	Water Treatment Plant

## General Terms and Definitions

Term	Meaning
<b>the Act</b>	The State Water Corporation Act 2004 (NSW)
<b>Area of Operations</b>	As specified in Section 15 of the Act and described in Schedule 2 of the Operating Licence.
<b>Audit period</b>	1 July 2011 to 30 June 2012.
<b>Auditor</b>	t-cAM Consulting, supported by Risk Edge Pty Ltd and Elevate Solutions Ltd
<b>Commencement Date of Operating Licence</b>	1 July 2008.
<b>End of Term Review</b>	A review of the Operating Licence to be commenced on or about 1 July 2012.
<b>Function</b>	Means a power, authority or duty.
<b>Minister</b>	The Minister responsible for administering the provisions of the <i>State Water Corporation Act 2004</i> .
<b>Operating Licence or licence</b>	The Licence issued by the Governor of NSW to State Water for the provision of services between 1 July 2008 and 30 June 2013.
<b>Water Management Supply Work Approvals and Licences</b>	A Supply Work Approval or Water Management Licence granted to State Water under the <i>Water Act, 1912</i> (NSW) or <i>Water Management Act 2000</i> (NSW).

## Appendix 2 Recommendations from previous audits

The following table sets out State Water's responses to recommendations and suggested improvement opportunities contained in the 2009/10 and 2010/11 Operational Audits.

Appendix 2 Recommendations for Licence Parts from previous audits - Detailed Audit Findings							
Rec. Ref No.	Reference Year	Operational issue/ (Licence clause where applicable)	Recommendation from Previous Audit	Risk	Audit Objective	Evidence	Auditor Commentary
R1	2009/10 Audit	Licence Clause 4.5	Ensure that the 'Minor Consumer Agreement – Conditions of Supply', which is in place for 600 minor customers of the Fish River scheme makes an explicit reference to the quality of water to be supplied.	<b>High</b> These contracts define the performance requirements of State Water in delivering services to its customers.	Issue clarified and contracts contain relevant reference to water quality Not Completed at 2010/11 Audit. Auditor found Internal distribution of First Draft of revised contract for comment occurred on 19 August 2011: 'Minor Consumer's Agreement for the Fish River Scheme'. While progress is being made, the speed of progress seems somewhat slow. 2011/12 audit should check progress with this recommendation.	See evidence in clause section.	Full Compliance See comments in clause section.
1	2010/11 Audit	Management of the System	Implement a management plan for the FRWS which is consistent with the Framework for Management of Drinking Water Quality (as outlined in the Australian Drinking Water	<b>High</b>	Audit to check progress and implementation of management plan for FRWS. Please note that the Australian Drinking Water Guidelines were amended in October 2011.	Audit interview with State Water nominated staff and managers 03/10/12 in the presence of IPART DOC12-32900 DRINKING WATER QUALITY MANAGEMENT PLAN.DOC HACCP Workshop Report 1	State Water has made good progress in addressing this recommendation and since the last audit, now has a regulatory obligation to produce a risk-based Drinking Water Management System (DWMS) under Section 25 of the <i>Public Health Act 2010</i> (NSW). The DWMS is not required to be in place until 1 September 2014 but State



Appendix 2 Recommendations for Licence Parts from previous audits - Detailed Audit Findings							
Rec. Ref No.	Reference Year	Operational issue/ (Licence clause where applicable)	Recommendation from Previous Audit	Risk	Audit Objective	Evidence	Auditor Commentary
			Guidelines).			<p>September 2011 (report for State Water by Beca Pty Ltd). DOC12-32898 FRWS Incident Management Plan.DOC Clauses 4.4 - Incident Management - Framework.doc OL Clause 4.4 310812 Board Itinerary - Fish River.DOC Onsite visit to FRWS scheme components (Oberon Dam/Duckmaloi WTP) 05/10/12.</p>	<p>Water is aiming to have its DWMS in place by December 2013. It was also pleasing to hear that the last board meeting (30/31 August 2012) was actually held in the FRWS area with visits to:</p> <ul style="list-style-type: none"> <li>• Oberon Dam</li> <li>• Duckmaloi Water Treatment Plant and</li> <li>• Rydal Dam</li> </ul> <p>The aim of the visit was to elevate water quality awareness for the board. The Drinking Water Quality Management Plan (DWQMP) document provided as evidence comprised a table of contents of the Framework elements. However, as discussed in the audit interview, State Water has been concentrating on getting the supporting documents to the DWQMP completed first and then will use the DWQMP skeleton as a road map to reference its documentation, databases etc. The auditors concurred with this approach and noted that procedures supporting the CCPs should be addressed as a priority. Inspection of assets and discussion with the operator at Oberon Dam and the operator at Duckmaloi WTP provided the auditors with confidence that coalface staff have been involved in development of the DWQMP and understand the requirements of protecting water quality. State Water is also putting its operators through vocational certificate</p>

Appendix 2 Recommendations for Licence Parts from previous audits - Detailed Audit Findings							
Rec. Ref No.	Reference Year	Operational issue/ (Licence clause where applicable)	Recommendation from Previous Audit	Risk	Audit Objective	Evidence	Auditor Commentary
							<p>training as well as the NSW Office of Water water treatment training. While some information viewed at the WTP needed revising because of currency issues (as acknowledged by State Water staff), it was pleasing to view, for instance, diagrams showing where water quality samples are taken at the WTP and for what parameters. A water quality incident scenario training event was held for the FRWS earlier this year. This initiative is to be applauded and should be continued on a practical frequency to ensure currency of skills. An incident management framework exists both for the organisation as a whole and for the FRWS specifically.</p> <p><b>OFI Framework Element 2/3 System Understanding; Risk Assessment; CCP Identification:</b> A HACCP workshop was undertaken for the FRWS September 2011 and a report from the consultant who undertook that work was provided as part of the evidence. There are several omissions in the report and/or areas for review that will need to be revised to allow State Water to move forward in a transparent risk-based manner:</p> <ul style="list-style-type: none"> <li>• Even though State Water had a water quality database in place prior to the workshop occurring, water quality trend analysis was not undertaken as evidence to support the risk workshop</li> </ul>

Appendix 2 Recommendations for Licence Parts from previous audits - Detailed Audit Findings							
Rec. Ref No.	Reference Year	Operational issue/ (Licence clause where applicable)	Recommendation from Previous Audit	Risk	Audit Objective	Evidence	Auditor Commentary
							<p>and this aspect should be addressed at the next risk review.</p> <ul style="list-style-type: none"> <li>• A full catchment and system description did not appear to have been undertaken before the workshop and should be addressed at the next risk review.</li> <li>• The flow diagram is inadequate to address all risks as it does not reflect the true catchment to consumer aspects of the FRWS i.e. the FRWS trunk main which forms the handover point between Lithgow and FRWS is missing and the handover point is not discussed in terms of risks to the customer or FRWS from the potential for bi-directional flows between Lithgow's Cook Street reservoir and the FRWS trunk main. The pre-chlorination unit is also missing from the diagram and the flow diagram presented in the HACCP workshop report did not tally with the flow diagram presented in the audit interview.</li> <li>• Some risks appear to have been missed in the risk register (e.g. reservoir integrity measures, cross connection risks, radiological hazards).</li> <li>• Risks were not assessed as maximum and residual risk and are therefore not in compliance with the Framework as recommended in Section 25 of the</li> </ul>

Appendix 2 Recommendations for Licence Parts from previous audits - Detailed Audit Findings							
Rec. Ref No.	Reference Year	Operational issue/ (Licence clause where applicable)	Recommendation from Previous Audit	Risk	Audit Objective	Evidence	Auditor Commentary
							<p><i>Public Health Act 2010 (NSW) and Clause 34 of the Public Health Regulation 2012 (NSW).</i></p> <ul style="list-style-type: none"> <li>CCPs have been identified but will need to be simplified for operational practicality and checked for relevance.</li> </ul> <p><b>OFI CCP Water Quality Exceedance Reporting to Board:</b> As part of maintaining the water quality awareness for the executive team and the board, it is suggested that once in place, that the board:</p> <ul style="list-style-type: none"> <li>Is informed of all the CCPs for the FRWS</li> <li>That CCP exceedances are communicated to the board through a standing agenda item and are assessed as part of the board's risk appetite review.</li> </ul> <p><b>OFI Handover Points in FRWS:</b> Operationally it appears to be understood where the handover points in the FRWS are but these have not yet been formalised and need to be.</p> <p><b>OFI Procedure Development Priority:</b> Procedures supporting the CCPs should be addressed as a priority followed by other procedures and documentation to support the implementation of the DWQMP for the FRWS.</p>
2	2010/11 Audit	Adequacy of drinking water	Undertake a complete review of the drinking	High	Audit to check completion of review of drinking water	Audit interview with State Water nominated staff and	SCADA is to be rolled out for the Fish Scheme to allow for water quality to be trended more

Appendix 2 Recommendations for Licence Parts from previous audits - Detailed Audit Findings							
Rec. Ref No.	Reference Year	Operational issue/ (Licence clause where applicable)	Recommendation from Previous Audit	Risk	Audit Objective	Evidence	Auditor Commentary
		monitoring program	water monitoring program for the FRWS. In particular, the statistical robustness and the choice of monitored parameters needs to be improved.		monitoring program.	managers 03/10/12 in the presence of IPART DOC12-32897 Fish River Water Supply Scheme - Monitoring August 2012.DOC DOC12-32901 FRWS short term options_final draft 5.DOC DOC12-32902 FRWS Short Term Projects.DOC Clause 4 - Health Review WQ Monitoring Program 2-1.pdf Clause 4 - Health Review WQ Monitoring Program 2.pdf Clause 4. - Health Review WQ Monitoring Program.pdf Onsite visit to FRWS scheme components (Oberon Dam/Duckmaloi WTP) 05/10/12.	<p>closely and operational monitoring properly attended to, for appropriate operation and management of the CCPs. Works are also being put in place to deal with some of the risks identified through the HACCP process.</p> <p>A tender for water quality monitoring specifications will be released shortly by State Water. It is anticipated that the successful letting of the tender will lead to State Water being able to input its water quality data into the NSW Health database (currently this is still not happening as State Water's current provider appears unable to manage the labelling and data input requirements.</p> <p>A water quality monitoring program has been developed in consultation with NSW Health in particular, representatives from the Drinking Water Unit and the local public health unit relevant to the operating area of the FRWS. It is acknowledged that the monitoring program should be reviewed on a regular basis to ensure that the location and frequency of monitoring as well as the parameters monitored, still fit with the risk-based requirements of the system. It is also acknowledged that while radiological hazards were not originally addressed in the monitoring program, that this issue is understood by State Water and that a five-yearly program for addressing radiological hazards be instated in the program (noting that this hazard is highly unlikely to be an issue in the source water catchments for this scheme).</p>

Appendix 2 Recommendations for Licence Parts from previous audits - Detailed Audit Findings							
Rec. Ref No.	Reference Year	Operational issue/ (Licence clause where applicable)	Recommendation from Previous Audit	Risk	Audit Objective	Evidence	Auditor Commentary
							<p>See comment above regarding water quality sampling diagram.</p> <p>An email trail was viewed at the time of the audit showing the communication trail with NSW Health relating to this issue and proved via hard copy with evidence provided post the interview. As of 20 September 2012, it appears that the water quality monitoring program still remains to be finalized with NSW Health.</p> <p><b>OFI Water Quality Monitoring Program Finalisation: Ensure that the program is finalized in consultation with NSW Health and that there is proof of finalization (e.g. via NSW Health sign off on the document or similar).</b></p> <p><b>OFI Water Quality Monitoring Program Review: Ensure that the program is reviewed, in consultation with NSW Health, after its first year of implementation to ensure that any issues or deficiencies are identified and addressed. Any changes required, will need to be made in consultation with NSW Health.</b></p>
3	2010/11 Audit	Analysis and presentation of results	Analyse and present data in a format that reflects current practice in reporting data on water quality.	High	Audit to check format of data reporting.	<p>Audit interview with State Water nominated staff and managers 03/10/12 in the presence of IPART</p> <p>Duckmaloi WTP Water Quality Database Excel-based</p> <p>Onsite visit to FRWS scheme components (Oberon Dam/Duckmaloi WTP) 05/10/12.</p>	<p>A water quality database has been in place since 2009. Water quality trends were not reviewed for the risk assessment in 2011 however, historical trend analyses had been completed and were sighted at the interview.</p> <p>The water quality database is located on the common drive at Duckmaloi WTP. Information on common drives is backed up routinely. The database can be accessed from the Sydney office as long as a person has authority to use it. All operatives at Fish River have the ability</p>

Appendix 2 Recommendations for Licence Parts from previous audits - Detailed Audit Findings							
Rec. Ref No.	Reference Year	Operational issue/ (Licence clause where applicable)	Recommendation from Previous Audit	Risk	Audit Objective	Evidence	Auditor Commentary
							<p>to input data. State Water has included 'conditional formatting' within the database to flag any data that fall outside set limits or that may constitute an erroneous data entry.</p> <p>Monthly planning meetings are held at which water quality trends are reviewed. See also comments above from the site visit.</p> <p><b>OFI Water Quality Trend Analysis: Ensure that at the next risk review, that water quality trends are analysed and used to help inform the risk assessment process.</b></p> <p><b>See also OFIs above relating to presentation of CCP and water quality exceedances to the board.</b></p>
4	2010/11 Audit	Unplanned supply interruptions	Review and revise the maintenance procedures and processes to take full account of the maintenance of water quality in the management of supply interruptions in the FRWS.	High	Audit to check progress of review	Audit interview with State Water nominated staff and managers 03/10/12 in the presence of IPART	<p>Pipe break maintenance procedures are being developed based on Victorian guidance and personnel will be trained once developed.</p> <p>Incident Management Plan has also been developed and scenario training undertaken (see comments above). However, State Water will need to ensure integration of the organisation-wide and FRWS specific incident management frameworks to ensure that drinking water quality is properly addressed during a cross-connection scenario.</p> <p><b>OFI Competency Training: Ensure that competency training is implemented to ensure that personnel not only understand the training, but can also competently implement the requirements of the procedure.</b></p>

Appendix 2 Recommendations for Licence Parts from previous audits - Detailed Audit Findings							
Rec. Ref No.	Reference Year	Operational issue/ (Licence clause where applicable)	Recommendation from Previous Audit	Risk	Audit Objective	Evidence	Auditor Commentary
							<b>OFI Integration of Incident Management Frameworks:</b> State Water will need to ensure integration of the organisation-wide and FRWS specific incident management frameworks to ensure that drinking water quality is adequately addressed during a cross-connection scenario.
5	2010/11 Audit	Cross connections and water quality	Review the procedures that currently permit (if authorised by a team leader/Manager) the cross connecting non-potable to potable mains in the FRWS to ensure that customers do not receive unfit water or, are otherwise appropriately informed.	High	Audit to check progress of review	Audit interview with State Water nominated staff and managers 03/10/12 in the presence of IPART Onsite visit to FRWS scheme components (Oberon Dam/Duckmaloi WTP) 05/10/12.	HACCP Workshop 1 September 2011 Note that planned cross connections were not addressed in the HACCP workshop – nor were radiological hazards or reservoir pest management integrity measures. See comments and OFI above regarding competency training. <b>OFI Cross Connection Risks:</b> Ensure that cross connection between the raw water and the treated water stages is properly addressed in future risk reviews. As part of the assessment, State Water's current controls, including competency training for staff, will need to be taken into account to gain an understanding of State Water's residual risk in this area.
6	2010/11 Audit	licence clause 3.1 (Asset Management obligation)	Continue to implement its asset management system in accordance with their scheduled program.	Medium/ High depending on specific issue or gap.	Audit to check the implementation of asset management system is complete.	Audit interview with State Water nominated staff and managers 02/10/12 in the presence of IPART Asset Management Slides - IPART Audit - Presentation.ppt Clause 3.1 - Progress under last year recommendation.xls Other documents and	State Water has made significant progress in implementing its Asset Management improvement program. It is also progressing with its data integration and validation activities which are based on sound industry accepted processes, however 'hard' evidence or estimates of progress on this particular issue from a total or overarching perspective was not provided. This issue is considered by the auditor to still be in-



Appendix 2 Recommendations for Licence Parts from previous audits - Detailed Audit Findings							
Rec. Ref No.	Reference Year	Operational issue/ (Licence clause where applicable)	Recommendation from Previous Audit	Risk	Audit Objective	Evidence	Auditor Commentary
						evidence as per Clause 3.1	<p>progress rather than completed. And an OFI is proposed to ensure this is reported:</p> <p><b>OFI: Data collection reporting: State Water should monitor and report on its progress with regard to collection and validation of its Asset base data.</b></p> <p>Further, In 2010/11 the audit comment was: 'Currently only 50% of mechanical and electrical assets have had basic asset data collected and validated. Data collection for dam sites for constructing and validating detailed asset registers, supporting data and criticality ratings is only 25% complete.' State Water did not provide an update on their progress.</p> <p>In considering this issue, the auditor's opinion is that some target for full compliance should be set, however in deciding on a target that would justify Full compliance, there are five issues – On the one hand (1) accuracy/reliability of decision making and (2) accuracy/reliability of risk assessments and on the other hand are (3) the cost and time to 100% complete the task (4) materiality and (5) the fact that there will always be some 'error' due to renewal/ replacement/ new/ retired/ changed condition assets.</p> <p>Given materiality from a dam safety perspective, the auditor considers that 95% of the data collection and validation for dam</p>

Appendix 2 Recommendations for Licence Parts from previous audits - Detailed Audit Findings							
Rec. Ref No.	Reference Year	Operational issue/ (Licence clause where applicable)	Recommendation from Previous Audit	Risk	Audit Objective	Evidence	Auditor Commentary
							sites would be acceptable and for the mechanical and electrical assets – 80% would be acceptable for an assessment result of Full Compliance.
7	2010/11 Audit	licence clause 4.6 (Customers' rights and consultation)	Make the 'Code of Practice and Procedure on Debt Management' available to the public.	Low	Audit to check document has been made publically available.	See evidence in clause section	Full Compliance See comments in clause 4.6 section.

## Appendix 3 State Water's Responsibilities Detailed Audit Findings (Part 2)

Appendix 3 State Water's Responsibilities Detailed Audit Findings (Part 2)						
Clause	Requirement	2011/12 Grade	Risk	Target for Full Compliance	Evidence	Reasons for grade
1.8	<b>Availability of the Licence</b>					
	State Water must make the Licence available to the public.	SC				
2.1	<b>Responsibility of State Water under the Licence and other laws</b>					
2.1.1	State Water must comply with the Licence and all applicable laws.	SC				
2.3	<b>Memorandum of Understanding</b>					
2.3.1	State Water must use its best endeavours to maintain a Memorandum of Understanding (MoU) with each of the Directors-General of DWE, DPI and DECC for the term of the Licence.	Full	Low Risk. Arrangements between State Water and other regulators.	State Water has used its best endeavours to maintain a Memorandum of Understanding (MoU) with each of the Directors-General of DWE, DPI and DECC for the term of the Licence.  Follow up to ensure audit comments assigned to State Water regarding this clause have been acted upon  <i>Note: Following departmental restructures, the responsibilities of the</i>	Audit interview with State Water nominated staff and managers 02/10/12 in the presence of IPART  Copies of respective MOU's, meeting minutes and correspondence as noted against each MoU itemised below.	<b>Overarching Comments:</b>  State Water has undertaken much work to try and simplify legal and formal requirements through the MoUs and this is clear through the systematisation of agendas and reporting which were reviewed as part of the audit.  MoUs have helped to foster engagement with the partners in the MoUs and facilitate implementation of on ground actions.  In 2011-2012, State Water has taken a more proactive approach to implementing the requirements of the MoUs through the SLGs.  Interviewee's included State Water representatives on each of the SLGs.  State Water has devoted dedicated resources to SLGs and MoU implementation in 2011-2012. This approach

Appendix 3 State Water's Responsibilities Detailed Audit Findings (Part 2)						
Clause	Requirement	2011/12 Grade	Risk	Target for Full Compliance	Evidence	Reasons for grade
				<i>organisations relevant to the MoU's reside with NoW, Industry and Investment NSW (I&amp;I NSW) and the Office of Environment and Heritage (OEH).</i>		shows in the overall comprehensiveness and systematisation of agendas and meeting minutes including extending to the implementation of actions on the ground.  As a general comment, a Compliance Manual is in place but there is no Stakeholder Register as such.  State Water has streamlined MoUs and reporting requirements in general.  <b>OFI: It would help to have a stakeholder register in place in which stakeholders are identified and modes of communication noted. SW is about to commence a stakeholder engagement survey and strategy and should consider tabulating information as part of this process.</b>
	(a) MoU with OEH [DECC];	Full		<i>2010/2011 audit comment: "...the review of the MoU with OEH has been agreed by both parties."</i>  <i>SR 2.4: OEH MoU: The current definition of IPART in the Definitions and Interpretation section (page 4) is incorrect and should be Independent Pricing and Regulatory Tribunal, not the Independent Regulatory and Pricing Tribunal as currently written.</i>	Audit interview with State Water nominated staff and managers 02/10/12 in the presence of IPART  Memorandum of Understanding between the Office of Environment and Heritage, Department of Premier and Cabinet and State Water Corporation 1 July 2011  DOC11-25764 111122 - Agenda - Strategic Liaison Group - State Water - Office of Environment and Heritage.DOC  DOC11-26089 Strategic ~ State Water and Office of Environment and Heritage Meeting Tuesday 22 November 2011 MINUTES.DOC  DOC12-15567 1200307 - Agenda	Review of the agendas and meeting minutes are consistent with the approach outlined above in terms of streamlining agendas and reporting.  It was clear when reviewing the minutes and in the interviews that the actions are carried through to implementation and are achieving some real outcomes for State Water.  The MoU, has an effective date of 1 July 2011 and was finalised between both parties in December 2012. The MoU is available on the State Water website.  While the OEH MoU is scheduled for review in 2015, this date is post the expiry of the current operating licence. However, as noted in Section 7 of the MoU, the SLG is to consider a review of the MoU by 31 December 2012. The naming of IPART will be reviewed and changed at that time as per SR 2.4 from 2010/2011.

Appendix 3 State Water's Responsibilities Detailed Audit Findings (Part 2)						
Clause	Requirement	2011/12 Grade	Risk	Target for Full Compliance	Evidence	Reasons for grade
					<p>- Strategic Liaison Group - State Water - Office of Environment and ~ 7 March 2012.DOC</p> <p>DOC12-15571 State Water and NSW Office of Environment and Heritage Strategic Liaison Group ~ Meeting 7 March 2012.DOC</p> <p>DOC12-16137 Strategic ~ State Water and Office of Environment and Heritage Meeting Tuesday 7 March 2012 MINUTES.DOC</p> <p>DOC12-23998 120620 - Agenda - Strategic Liaison Group - State Water - Office of Environment and ~ 20 June 2012.DOC</p> <p>DOC12-24303 200612 Strategic Liaison Group State ~ of Environment and Heritage Meeting Wednesday 20 June MINUTES.DOC</p> <p>2011-12 State Water Report to IPART under the Operating Licence 1 September 2012</p>	<p>The SLG met on three occasions as per the MoU and the minutes and agendas of the meetings were reviewed. SLG meetings were held:</p> <ul style="list-style-type: none"> <li>• 22 November 2011</li> <li>• 7 March 2012</li> <li>• 20 June 2012</li> </ul> <p>As well as general overarching outcomes of increased partnership with OEH, two specific outcomes from the MoU are agreements as follows:</p> <ul style="list-style-type: none"> <li>• State Water has undertaken hydrological modelling of the Murrumbidgee River Mundarlo Bridge to identify environmental flow impacts mapping the areas impacted by flows.</li> <li>• Refurbishment of Yanga Regulator which will be part funded by Commonwealth Government, OEH and State Water.</li> </ul> <p>Outcomes relating to the OEH MoU are covered at Part 2, commencing page 18.</p> <p><b>OFI Review Formalisation of CEWO Involvement:</b> <b>The Commonwealth Environmental Water Office currently sits on the SLG as an observer of how the OEH handles its water allocation. In the future, State Water may wish to review with the CEWO whether it wishes to become a formal member of the SLG.</b></p>
	(b) MoU with DII [DPI];	Full			<p>Audit interview with State Water nominated staff and managers 02/10/12 in the presence of IPART</p> <p>Memorandum of</p>	<p>State Water has now clarified arrangements with DPI to allow for a more clear contractual and commercial understanding of requirements for fish management projects required of State Water. Examples include fishway monitoring and</p>

Appendix 3 State Water's Responsibilities Detailed Audit Findings (Part 2)						
Clause	Requirement	2011/12 Grade	Risk	Target for Full Compliance	Evidence	Reasons for grade
					<p>Understanding between Department of Primary Industries and State Water Corporation 2011 (on State Water website)</p> <p>Memorandum of Understanding between Industry and Investment NSW and State Water Corporation 16 June 2011 (for 2011-2012 compliance audit, effective date of 1 July 2010)</p> <p>DOC11-25749 111214 Strategic Liaison Group State Water Department of Primary Industries - 14 December 2011 Minutes.DOC</p> <p>DOC11-30061 111118 Strategic Liaison Group State Water Department of Primary Industries - 14 November 2011 Agenda.DOC</p> <p>DOC12-15760 1200308 - Agenda - Strategic Liaison Group - State Water - Department of Primary ~ 8 March 2012.DOC</p> <p>DOC12-16526 Strategic ~ State Water and Department of Primary Industries Meeting Tuesday 8 March 2012</p>	<p>unregulated weir removals, which DPI has the expertise to undertake.</p> <p>Putting in place the contractual arrangement has helped to remove a conflict of interest or potential conflict of interest issue with the regulator. Regulatory approval of conditions goes to a separate section for sign off. The interagency agreement between State Water and Fisheries was sighted and the regulatory delineation confirmed.</p> <p>The version of the current MoU on the State Water website does not have a specific date on it although in its submission the auditor was told by State Water that State Water and the Department of Primary Industries reviewed the existing MoU during 2011-12 with a new MoU having been signed (witnessed), and is effective from 1 July 2012 (date not witnessed). The new MOU is scheduled to be reviewed by 30 June 2015, post the date of expiry of the current Licence.</p> <p>Meetings of the SLG were held:</p> <ul style="list-style-type: none"> <li>• 14 November 2011 (by teleconference) – noting that date on agenda was 18 November 2011.</li> <li>• 14 December 2011</li> <li>• 8 March 2012</li> <li>• 20 June 2012</li> </ul> <p>Outcomes relating to the DPI MoU are covered at Part 2, commencing page 8.</p>

Appendix 3 State Water's Responsibilities Detailed Audit Findings (Part 2)						
Clause	Requirement	2011/12 Grade	Risk	Target for Full Compliance	Evidence	Reasons for grade
					MINUTES.DOC DOC12-23998 120620 - Agenda - Strategic Liaison Group - State Water - Office of Environment and ~ 20 June 2012.DOC DOC12-30065 111214 Strategic Liaison Group State Water Department of Primary Industries - 14 December 2011 Agenda.DOC 2011-12 State Water Report to IPART under the Operating Licence 1 September 2012	
	(c) MoU with NoW [DWE].	Full		SR2.1: <i>Compliance with the terms of MOU: We note that the MoU with NoW requires the SLG to have at least quarterly meetings (section 6(d), page 11) but only 3 were held in the audit period. This aspect will need to be addressed for the 2011/12 year.</i>	Audit interview with State Water nominated staff and managers 02/10/12 in the presence of IPART Memorandum of Understanding between Department of Water and Energy and State Water Corporation June 2009 DOC11-13254 Strategic Liaison Group Meeting #9 - AGENDA Monday, 4 July 2011.DOC DOC11-13419 Strategic Liaison Group Meeting #9 - MINUTES Monday, 4 July 2011.DOC DOC11-18688 Strategic Liaison Group Meeting #10 - AGENDA Tuesday 6 September 2011.DOC DOC11-19263 Strategic Liaison Group Meeting #10 - MINUTES	Note that Clause 6 of the MoU requires SLG meetings to be held at least every 4 months, 3 meetings were in the period (noting that March 2012 meeting was deferred): <ul style="list-style-type: none"> <li>• 4 July 2011</li> <li>• 6 September 2011</li> <li>• 31 October 2011</li> </ul> Outcomes relating to the NOW MoU are covered at Part 2, commencing page 4.

Appendix 3 State Water's Responsibilities Detailed Audit Findings (Part 2)						
Clause	Requirement	2011/12 Grade	Risk	Target for Full Compliance	Evidence	Reasons for grade
					Tuesday, 6 September 2011.DOC DOC11-23080 Strategic Liaison Group Meeting #11 - AGENDA Monday 31 October 2011.DOC DOC11-24975 Strategic Liaison Group Meeting #11 Monday 31 October 2011 MINUTES.DOC 2011-12 State Water Report to IPART under the Operating Licence 1 September 2012	
<b>2.3.2</b>	The purpose of the MoUs is to form the basis for cooperative relationships between the parties to the MoU, in particular:	<b>Full</b>	Low Risk. Arrangements between State Water and other regulators.	Senior State Water staff must demonstrate that the purpose of the MoUs is to form the basis for cooperative relationships between the parties to the MoU, in particular:	As above.	See general comments at 2.3.1.
<b>2.3.2 (a)</b>	the MoU with NoW [DWE] is to: (i) recognise the roles of NoW [DWE] in regulating water access, use and management and State Water in releasing water and managing assets; and (ii) address the co-ordination of Functions and associated responsibilities between DWE and State Water in undertaking their respective roles;	<b>Full</b>	As above	the MoU with NoW [DWE] has the features set out in the obligation.	Audit interview with State Water nominated staff and managers 02/10/12 in the presence of IPART Memorandum of Understanding between Department of Water and Energy and State Water Corporation June 2009	See comments at 2.3.1. Role of NOW in regulating water access, use and management (Section 4.1). Role of State Water in releasing water and managing assets (Section 4.2). The co-ordination of functions (Sections 4.3 to 4.13, Section 6 and Schedule 1).
<b>2.3.2 (b)</b>	the MoU with DII [DPI] is to: (i) recognise the role of DPI as the agency responsible for fisheries	<b>Full</b>	As above	the MoU with DII [DPI] has the features set out in the obligation.	Audit interview with State Water nominated staff and managers 02/10/12 in the presence of	Role of DPI as the agency responsible for fisheries management in the State (Section 4.1). Impact of State Water's operations on the aquatic



Appendix 3 State Water's Responsibilities Detailed Audit Findings (Part 2)						
Clause	Requirement	2011/12 Grade	Risk	Target for Full Compliance	Evidence	Reasons for grade
	management in the State; and (ii) address the impact of State Water's operations and information sharing arrangements on the aquatic habitat and fish passage;				IPART Memorandum of Understanding between Industry and Investment NSW and State Water Corporation 16 June 2011 (for 2011-2012 compliance audit, effective date of 1 July 2010)	habitat and fish passage (Section 4.2). Information sharing with respect to aquatic habitat and fish passage (Section 4.3).
<b>2.3.2 (c)</b>	the MoU with OEH [DECC] is to: (i) recognise the role of DECC as the agency responsible for environmental protection and conservation of natural and cultural heritage; and (ii) address the impact of State Water's operations and information sharing arrangements on river health and water quality		As above	the MoU with OEH [DECC] has the features set out in the obligation.	Audit interview with State Water nominated staff and managers 02/10/12 in the presence of IPART Memorandum of Understanding between the Office of Environment and Heritage, Department of Premier and Cabinet and State Water Corporation 1 July 2011	Role of the Office of Environment and Heritage (Section 4.1). Impact of State Water's operations and information sharing arrangements on river health and water quality (Section 4.2).
<b>2.3.3</b>	Clause 2.3.1 does not limit the persons or regulatory agencies with whom State Water may enter into a MoU.	<b>NR</b>				
<b>2.3.4</b>	State Water must make available to the public the MoUs referred to in clause 2.3.1.	<b>Full</b>	As above	State Water has made available to the public the MoUs referred to in clause 2.3.1.	Audit interview with State Water nominated staff and managers 02/10/12 in the presence of IPART State Water's website: <a href="http://www.statewater.com.au/About+us/Publications/Corporate+Publications">http://www.statewater.com.au/About+us/Publications/Corporate+Publications</a>	The MoUs were witnessed on the State Water website 21 September 2012 and further checked 02 October 2012: <a href="http://www.statewater.com.au/About+us/Publications/Corporate+Publications">http://www.statewater.com.au/About+us/Publications/Corporate+Publications</a>

Appendix 3 State Water's Responsibilities Detailed Audit Findings (Part 2)						
Clause	Requirement	2011/12 Grade	Risk	Target for Full Compliance	Evidence	Reasons for grade
2.3.5	State Water must, by no later than 1 September each year, report to IPART on its performance against, and compliance with, the MoUs referred to in clause 2.3.1 for the preceding financial year, including such relevant information as may be required by IPART to be included in the report.	Full	Low risk. Arrangements with other regulators overseen by IPART.	State Water has, by no later than 1 September 2011, reported to IPART on its performance against, and compliance with, the MoUs referred to in clause 2.3.1 for the 2010/11 financial year, including such relevant information as may be required by IPART to be included in the report.	Audit interview with State Water nominated staff and managers 02/10/12 in the presence of IPART Email from State Water (from Internal Audit and Compliance Manager) to IPART (Compliance Mailbox) with report Confirmation email received by auditor from IPART confirming receipt of report. DOC12-31951 Email to IPART - SW annual report - Performance against the Operating Licence.pdf  2011-12 State Water Report to IPART under the Operating Licence 1 September 2012	Note that IPART gave an extension to the submission of the report (from 1 September to 3 September 2012 (as per the IPART email)) to ensure that IPART's upload site was ready for receipt of the report and the fact that the submission date fell on a Saturday. State Water is reviewing its social media strategy and is currently developing a Facebook page.  Note that outcomes relating to the MoUs are covered at Part 2, pages 3 to 18 of the 2011-12 State Water Report to IPART under the Operating Licence 1 September 2012.
	(a) Reporting on MoU with OEH;	Full			As above	
	(b) Reporting on MoU with DII;	Full			As above	
	(c) Reporting on MoU with NoW.	Full			As above	
2.3.6	State Water must make available to the public the report referred to in clause 2.3.5.	Full	Low risk. Arrangements with other regulators overseen by IPART.	State Water must demonstrate that it has made available to the public the report referred to in clause 2.3.5.	Audit interview with State Water nominated staff and managers 02/10/12 in the presence of IPART State Water's website: <a href="http://www.statewater.com.au/About+us/Publications/Corporate+Publications">http://www.statewater.com.au/About+us/Publications/Corporate+Publications</a>  2011-12 State Water Report to	The report was witnessed on the State Water website 21 September 2012 and further checked 02 October 2012:  <a href="http://www.statewater.com.au/About+us/Publications/Corporate+Publications">http://www.statewater.com.au/About+us/Publications/Corporate+Publications</a>

Appendix 3 State Water's Responsibilities Detailed Audit Findings (Part 2)						
Clause	Requirement	2011/12 Grade	Risk	Target for Full Compliance	Evidence	Reasons for grade
					IPART under the Operating Licence 1 September 2012	
<b>2.4</b>	<b>Functions of State Water arising from other legislation</b>					
<b>2.4.1</b>	<i>Note: refer to licence, clause confers extensive list of powers as documented there.</i>	<b>NR</b>				

## Appendix 4 Asset Management Detailed Audit Findings (Part 3)

Appendix 4 Asset Management Detailed Audit Findings (Part 3)						
Clause	Requirement	2011/12 Grade	Risk	Target for Full Compliance	Evidence	Reasons for grade
<b>3.1</b>	<b>Asset Management Obligation</b>					
<b>3.1</b>	State Water must ensure that its Assets are managed in a manner consistent with:	<b>High</b>	High Risk. A sound asset management framework reduces unnecessary risks and costs and ensures continued service delivery.	Assets are managed in a manner consistent with:	<p>Audit interview with State Water nominated staff and managers 02/10/12 and teleconference 12/10/12 in the presence of IPART</p> <p>Clause 3.1 - Asset Lifecycle example and FASP memo.pdf</p> <p>Clause 3.1 - Asset Lifecycle example and FASP_Project Charter.pdf</p> <p>OL Clause 3.1 -101126 Board Management Workshop - Runsheet 25 Nov 2011 lpm.doc</p> <p>OL Clause 3.1 - Risk - State Water Risk Matrix.pdf</p> <p>Asset Management Slides - IPART Audit - Presentation.ppt</p> <p>Clause 3.1 - Asset Lifecycle example and FASP memo.pdf</p> <p>Clause 3.1 - Asset Lifecycle example and FASP_Project Charter.pdf</p> <p>Clause 3.1 - Breakdown of asset component.xls</p> <p>Clause 3.1 - Breakdown of asset component2.xls</p> <p>Clause 3.1 - Breakdown of asset components.doc</p> <p>Clause 3.1 - Data</p>	<p>State Water has continued to implement its comprehensive plan for Asset Management implementation across the organisation based on the July 2010 gap analysis report that identified and prioritised the key projects it needed to implement to be provided and has also identified its intention to work towards compliance with the ISO 55000 series of Asset Management standards.</p> <p>The targeted work program to achieve best appropriate practice in Asset management is 'appropriate'.</p> <p>While a qualitative statement of progress with regard to populating Maintenance Managed Item (MMI)/components was provided, there was no evidence allowing quantification of overarching progress or completion provided.</p> <p>State Water are also continuing to undertake a site by site asset criticality assessment started in Sept the year before last for individual site audits incorporating an asset register validation. Objective is full asset base data collection. There was no evidence provided allowing quantification of overarching progress or completion provided (see relevant Recommendation 6 for 2010/11 in Appendix 2)</p> <p>During interview it was identified that State Water had not yet defined its Corporate services or approach for quantifying, evaluating and managing its related <u>integrated</u> levels of service obligations (though it was clear that day to day management of individual</p>

Appendix 4 Asset Management Detailed Audit Findings (Part 3)						
Clause	Requirement	2011/12 Grade	Risk	Target for Full Compliance	Evidence	Reasons for grade
					Storagefortelemetry.doc Clause 3.1 - FASP Process.doc Clause 3.1 - Keepit Rapid.pdf Clause 3.1 - Maintenance KPIs and 8acklog.xls Clause 3.1 - Policy Procedure on abnormal increase.doc Clause 3.1 - Progress under last year recommendation.xls Clause 3.1 - RCM Model.doc	obligations, where known (such as with Dam Safety), are being managed). The relative importance and integrated or systematic management and prioritisation of assets are lacking. This understanding is a fundamental part of Asset Management and needs to be addressed.  <b>Recommendation:</b> <b>State Water implement a project to determine its Corporate service objectives and development of a supporting framework describing the inter-relationship and alignment of the asset base and their associated Levels of Service with these service objectives.</b>
	(a) its obligations in this Licence, and all applicable laws, policies and guidelines with which State Water must comply, including the requirements of the NSW Dams Safety Committee;	Full	As above	(a) its obligations in this Licence, and all applicable laws, policies and guidelines with which State Water must comply, including the requirements of the NSW Dams Safety Committee;	Audit interview with State Water nominated staff and managers 02/10/12 in the presence of IPART  DOC10-9000 State Water - Unregulated River Structures - Total Asset Management Plan (TAMP) 2008.DOC DOC10-9002 SWC Capital Investment Strategy (September 2009).DOC DOC10-9003 SWC Asset Management Framework (June 2009).DOC DOC10-9006 SWC Total Asset Management Plan (TAMP) November 2009 - including appendices [pdf].pdf DOC11-13300 Revised Risk Management Framework June 2012.DOC	With one exception, the collective evidence provided indicated appropriate processes and practices exist or are being developed/improved to ensure compliance with this clause.  The site visit confirmed the documentary evidence provided. Minor issues with regard to OH&S (such as providing securing chains for gas cylinders in the dam outlet tower) were noted on the day, but were more appropriately dealt with under internal OH&S processes and these were referred to.  Chlorine management:  While there were some concerns with regard to the physical building layout for chlorine gas management, evidence was provided that capital programs were underway to address these issues.  While requested, evidence of a compliance checklist and evaluation against the Australian Standard for chlorine management (AS2927: 2001) was not provided. It is noted that this Standard addresses capital, operational and maintenance management of chlorine gas installations and evidence of critical review

Appendix 4 Asset Management Detailed Audit Findings (Part 3)						
Clause	Requirement	2011/12 Grade	Risk	Target for Full Compliance	Evidence	Reasons for grade
						<p>against compliance guidelines and Standards is a fundamental risk management and assurance activity. Emergency boxes at site entrances did not contain any site plans for responders identifying the location of chemicals and other key site features, the location of breathing apparatus should be reviewed for usefulness in an emergency and at the main dam visited, (a) the windsock while useful w.r.t. conditions at the building itself, was essentially useless for approach purposes, as it was sheltered from the prevailing wind by the dam/embankment wall (a second sock is suggested rather than relocation) (b) redundant and reconfigured pipework on the downstream side of the chlorinator had not been removed or re-labelled (as appropriate) .</p> <p><b>OFI: A compliance evaluation should be conducted at the chlorine gas dosing plants addressing the Australian Standard (AS2927:2001) and any other statutory obligations with respect to chlorine management.</b></p>
	(b) the principles of the NSW Government's Strategic Management Framework and the NSW Government's Total Asset Management (TAM) Policy and Guidelines;	<b>High</b>	As above	(b) the principles of the NSW Government's Strategic Management Framework and the NSW Government's Total Asset Management (TAM) Policy and Guidelines;	Audit interview with State Water nominated staff and managers 02/10/12 and teleconference 12/10/12 in the presence of IPART	<p>The auditor reviewed the SAMPs/TAMPs produced by State Water. While the documents themselves are in conformance with the requirements of the NSW Government's Strategic Management Framework and TAM Policy and Guidelines in terms of reflecting required outputs, the gaps in input data completeness and validation are currently unconfirmed.</p> <p>The lack of a clear Corporate services specification and linking and integration of assets and their associated Levels of Service, as noted above, is a gap that requires addressing as per the Recommendation at 3.1. Refer to Relevant Chapter Discussion for further details.</p>
	(c) achieving the lowest cost of service delivery across the whole life of the Assets; and	<b>High</b>	As above	(c) achieving the lowest cost of service delivery across the whole life of the	Audit interview with State Water nominated staff and managers 02/10/12 and teleconference 12/10/12 in the presence of	<p>Rating is based on provided information on capital program and risk assessment processes and the business case methodology and example provided but also recognises that in order to fully address both</p>

Appendix 4 Asset Management Detailed Audit Findings (Part 3)						
Clause	Requirement	2011/12 Grade	Risk	Target for Full Compliance	Evidence	Reasons for grade
				Assets; and	IPART	efficiency and effectiveness, a clear understanding and specification of asset Levels of Service within the context of Corporate service objectives is required.
	(d) identifying business risks related to the Assets and managing them to a commercially acceptable level.	High	As above	(d) identifying business risks related to the Assets and managing them to a commercially acceptable level.	Audit interview with State Water nominated staff and managers 02/10/12 and teleconference 12/10/12 in the presence of IPART DOC11-13300 Revised Risk Management Framework June 2012.DOC	The risk management approach is sophisticated and application is being rolled out to all assets. However until it incorporates full verification of asset base data and a full understanding of the Corporate services and related level of service obligations, a true picture of the business risk being faced will not be available. There is, however, a clear and sound approach being applied to known obligations.
3.2	Reporting on Asset Management Systems				Clause 3.2 - Example of contract and notification of HEPS.pdf	
3.2.1	At least once during the Licence, at a time agreed with IPART, State Water must report to IPART on the state of each group of Assets managed by State Water.	Full		Provision of the State Water State of the Assets Report by the date requested by IPART	Audit interview with State Water nominated staff and managers 02/10/12 in the presence of IPART DOC12-31242 Asset Management Systems Report to IPART - 2011-12.pdf	Report provided. Delivery to IPART confirmed with IPART
3.2.2	The report under clause 3.2.1 must include the following information: (a) a description of the processes, practices, systems and plans State Water uses in managing the Assets; (b) a description of each group of Assets; (c) an assessment of the expected capability of the Assets to deliver the services required to be delivered by State Water and meet the existing	Full			Audit interview with State Water nominated staff and managers 02/10/12 in the presence of IPART DOC12-31242 Asset Management Systems Report to IPART - 2011-12.pdf Refer to evidence against Clause (and Subclauses of) 3.1	This is State Water's first State of the Assets report and it addresses the required information. <b>OFl: State Water should determine the stakeholders, objectives and uses for this kind of reporting and work towards improving the report to address the needs of a wider range of stakeholders.</b>

Appendix 4 Asset Management Detailed Audit Findings (Part 3)						
Clause	Requirement	2011/12 Grade	Risk	Target for Full Compliance	Evidence	Reasons for grade
	<p>obligations of State Water, consistent with the Licence and all applicable laws with which State Water must comply;</p> <p>(d) an assessment of the major issues or constraints on current and future performance of the Assets;</p> <p>(e) the strategies and expected costs of future investments in the Assets;</p> <p>(f) progress in implementing any recommended improvements in processes, practices, systems and plans for the management of the Assets; and</p> <p>(g) such other information reasonably required by IPART.</p>					
<b>3.3</b>	<b>Auditing the Asset Management System</b>	<b>NR</b>				
<b>3.4</b>	<b>Augmentation of Water Management Works</b>					
	When considering any augmentation of a Water Management Work, State Water must consider any additional scope for cost effective demand management strategies by Customers.	<b>SC</b>				



## Appendix 5 Customers' Rights and Consultation Detailed Audit Findings (Part 4)

Appendix 5 Customers' Rights and Consultation Detailed Audit Findings (Part 4)						
Clause	Requirement	2011/12 Grade	Risk	Target for Full Compliance	Evidence	Reasons for grade
<b>4.1</b>	<b>Community Consultative Committee</b>					
<b>4.1.1</b>	State Water must regularly consult with the state-wide community consultative committee established under clause 4.1.1 of the Previous Licence (the CCC) to enable community involvement in issues relevant to the performance of State Water's obligations under the Licence, except in relation to the FRWS.	SC				
<b>4.1.2</b>	State Water must appoint the members of the CCC consistently with the Licence. The membership of the CCC must include a representative from at least each of the following: (a) Customers (excluding FRWS customers); (b) environment groups; (c) basic water right holders; (d) regional business and consumer groups; (e) Catchment Management Authorities; and (f) local government.	SC				
<b>4.1.3</b>	The term of a member of the CCC will expire two years after his or her	SC				

Appendix 5 Customers' Rights and Consultation Detailed Audit Findings (Part 4)						
Clause	Requirement	2011/12 Grade	Risk	Target for Full Compliance	Evidence	Reasons for grade
	appointment. A member will be eligible for re-appointment for one further consecutive term.					
4.1.4	State Water must provide the CCC with information within its possession or under its control necessary to enable the CCC to discharge the tasks assigned to it, other than information or documents over which State Water or another person claims confidentiality or privilege.	SC				
4.2	Valley Based Customer Service Committees (excluding FRWS customers)					
4.2.1	State Water must continue to consult regularly with valley based customer service committees established under clause 4.2.1 of the Previous Licence (together the CSCs) to enable Customer involvement in issues relevant to the performance of State Water's obligations to Customers under the Licence or the customer service charter referred to in clause 4.3. For the purposes of this clause 4.2, Customer does not include a FRWS Customer. The membership of the CSCs must also include representative of DECC [now DECCW] or its nominee to represent the public interest in the provision of water for environmental purposes and representatives from Unregulated River water users,	SC				

Appendix 5 Customers' Rights and Consultation Detailed Audit Findings (Part 4)						
Clause	Requirement	2011/12 Grade	Risk	Target for Full Compliance	Evidence	Reasons for grade
	Ground Water users and the relevant Catchment Management Authority.					
4.2.2	State Water must provide the CSCs with information within its possession or under its control to enable the CSC to discharge the tasks assigned to that CSC, other than information or documents over which State Water or another person claims confidentiality or privilege.	SC				
4.3	<b>Customer Service Charter (excluding FRWS)</b>					
4.3.1	State Water must, in consultation with the CSCs, continue to have in place a customer service charter ("Charter").	SC				
4.3.2	The Charter must set out the mutual responsibilities or obligations of State Water and its Customers (excluding FRWS customers) consistent with the Licence, the Act, the <i>Water Management Act 2000</i> and the <i>Water Act 1912</i> .	SC				
4.3.3	State Water must make the Charter available to the public.	SC				
4.3.4	Following the release of the Annual Audit Report, State Water must, in consultation with the members of the CSCs, review, and if necessary update, the Charter in light of the Annual Audit Report.	SC				

Appendix 5 Customers' Rights and Consultation Detailed Audit Findings (Part 4)						
Clause	Requirement	2011/12 Grade	Risk	Target for Full Compliance	Evidence	Reasons for grade
4.3.5	State Water must by no later than 1 September each year, for the preceding financial year, report to IPART on its overall performance against its obligations under the Charter and where appropriate State Water is also to report on its performance against its obligations under the Charter in relation to each Valley.	SC				
4.3.6	State Water must make available to the public a copy of the report referred to in clause 4.3.5.	SC				
4.4	FRWS Customer Council					
4.4.1	State Water must regularly consult with the FRWS Customer Council to enable FRWS Customer involvement in issues relevant to the performance of State Water of its obligations to FRWS customers under this Licence and any Customer Contract.	Full	Moderate Risk. Without well administered consultation processes, the input from stakeholders is seriously diminished	State Water has regularly consulted with the FRWS Customer Council to enable FRWS Customer involvement in issues relevant to the performance of State Water of its obligations to FRWS customers under this Licence and any Customer Contract.	Audit interview with State Water nominated staff and managers 03/10/12 in the presence of IPART CC Business Papers No 1 9-8-2011.docm CC Business Papers No 1 14-8-2012.doc CC Business Papers No 2 11-10-2011.doc CC Business Papers No 3 13-12-2011.docm CC Business Papers No 4 14-2-2012.doc CC Business Papers No 5 10-4-2012.doc CC Business Papers No 6 19-6-2012.doc CC Minutes No 1 9 August	State Water consults with the FRCC, largely through meetings, which are held on a two-monthly basis or via other routes as necessary. For instance, State Water also involved its major customers in the HACCP workshop for the FRWS. While, State Water did not attend the Lithgow City Council risk assessment workshop for its system (which was held after the FRWS HACCP workshop), State Water noted in the interview that through the development of its Drinking Water Quality Management Plan and the Incident Management Plan, that risks to the FRWS and its customers, will be addressed. A State Water representative attended the Oberon Council risk workshop and State Water is currently working with Oberon Council to review catchment management for water feeding into the Oberon Dam.  Business Papers and meeting minutes for the FRCC were sighted. It was noted that while water quality

Appendix 5 Customers' Rights and Consultation Detailed Audit Findings (Part 4)						
Clause	Requirement	2011/12 Grade	Risk	Target for Full Compliance	Evidence	Reasons for grade
					<p>2011.doc</p> <p>CC Minutes No 1 14 August 2012.doc</p> <p>CC Minutes No 2 11 October 2011.doc</p> <p>CC Minutes No 3 13 December 2011.doc</p> <p>CC Minutes No 4 14 February 2012.doc</p> <p>CC Minutes No 5 10 April 2012.doc</p> <p>CC Minutes No 6 19 June 2012.doc</p>	<p>for the FRWS did not get its own agenda item, it is covered under the 'Operations' section.</p> <p>In the meeting minutes, 2-11/12, there is nothing reported within the water quality reporting section – at the interview this omission was stated to be because there was nothing to report i.e. there were no exceptions.</p> <p>Fluoridation – Lithgow has requested (via telephone between State Water and Lithgow) that State Water fluoridates water supplied to the Lithgow villages. State Water will need to obtain a formal response from NSW Health to show that it has been directed to fluoridate.</p> <p><b>OFI FRCC Meeting Minutes: Suggest that rather than leave the water quality sections blank, state that there was nothing to report and in the future, consider reporting on CCP (critical control point) exceedances once CCPs are in place.</b></p> <p><b>OFI Fluoridation for Lithgow Villages: If fluoridation occurs at the Duckmaloi WTP, all contracts for supply of drinking water will have to be amended and State Water's current customers will have to be informed first.</b></p>
4.4.2	State Water must appoint the members of the FRWS Customer Council consistently with the Licence. The membership of the FRWS Customer Council must include one representative from each of the following: (a) Lithgow City Council; (b) Oberon Council;	Full	As above	State Water has appointed the members of the FRWS Customer Council consistently with the Licence. The membership of the FRWS Customer Council included one representative from each	See evidence at 4.4.1.	As noted in the FRCC meeting minutes, there are representatives from each of four major consumers on the FRCC.

Appendix 5 Customers' Rights and Consultation Detailed Audit Findings (Part 4)						
Clause	Requirement	2011/12 Grade	Risk	Target for Full Compliance	Evidence	Reasons for grade
	(c) Delta Electricity; and (d) Sydney Catchment Authority			of the groups mentioned in the licence obligation.		
4.4.3	State Water must provide the FRWS Customer Council with information within its possession or under its control necessary to enable the FRWS 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.	High	Moderate Risk. Without adequate information, the input from stakeholders is seriously diminished.	State Water has provided the FRWS Customer Council with information within its possession or under its control necessary to enable the FRWS 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.	See evidence at 4.4.1.	<p>Part of the audit process involved sending out questionnaires to the FRCC representatives seeking their input on State Water's consultation effectiveness. Three replies were received out of four questionnaires sent out. While most of the comments were positive, it is noted that one of the respondents was dissatisfied with State Water in terms of their not paying attention to comments provided to them by that FRCC member. When discussed in the interview, State Water responded that while it takes comments on board, it is not able to address all comments in a way that the FRCC members are comfortable with because of resource allocation and priorities. Despite the comprehensive consultation process in place, this issue/response is seen as reducing compliance from Full to High for this clause (in accordance with the Audit Guideline Public Water Utilities May 2012), as it is State Water's responsibility to at least explain in sufficient detail to Council members why their input has not resulted in changes. Saying this, we note that the FRWS is made up of members from technically competent organisations. An OFI has been awarded to help address this issue.</p> <p><b>Recommendation: Responding to FRCC Member Comments: State Water implement a project to review how it deals with, and responds to, comments and queries from its FRCC members to ensure that members feel that they have been fairly heard.</b></p>

Appendix 5 Customers' Rights and Consultation Detailed Audit Findings (Part 4)						
Clause	Requirement	2011/12 Grade	Risk	Target for Full Compliance	Evidence	Reasons for grade
<b>4.5</b>	<b>Customer Contracts (FRWS customers only)</b>					
<b>4.5.1</b>	State Water must use its best endeavours to enter into agreements with its FRWS Customers during the term of the Licence, in relation to the arrangements to apply to the supply of water by the operation of the FRWS.	<b>Full</b>	Moderate Risk. Contracts are important tools to address the power imbalance between a water utility and customers.	State Water has used its best endeavours to enter into agreements with its FRWS Customers during the term of the Licence, in relation to the arrangements to apply to the supply of water by the operation of the FRWS.  This requirement covers both large customers (Lithgow and Oberon Councils) and small customers directly connected to the FRWS scheme.,	Audit interview with State Water nominated staff and managers 02/10/12 in the presence of IPART  DOC12-14114 Fish River Water Supply Scheme - Agreement for the Supply of Water - Minor Consumer ~ Drinking Water.DOC  DOC12-14115 Fish River Water Supply Scheme - Agreement for the Supply of Water - Minor Consumer ~ Raw Water.DOC  DOC12-32664 Lithgow Council customer contract.pdf  DOC12-32669 Oberon Council customer contract.pdf  DOC12-32671 Delta Electricity customer contract.pdf  DOC12-32672 Sydney Catchment Authority customer contract.pdf  Clause 4. 5 - Fish River - customer contract changes.doc	The existing (FRWS 4 major consumers) and new contracts were reviewed for this audit clause. New contracts are in place for the minor consumers for both raw and drinking water. It was pleasing to see that the new contracts now include information on water quality however, there are a few matters which will need to be addressed by State Water to avoid potential issues in the future. These matters have been articulated below as OFIs and will not affect compliance. The contracts clearly state that the water either is or isn't fit for drinking depending on the type of contract (i.e. raw or potable).  State Water has a register in place (viewed on screen at the audit), which is being updated as new information comes in, on whom the contract is with.  Risks associated with transfer of property to new residents have been recognised. A notification requirement is included in the new contract when property is transferred at (Clause 18).  The new licence, which State Water will hold for the allocation for the FRWS, will probably trigger a review of the contracts for the major consumers as well as the HACCP risk workshop. State Water is looking at reviewing these contracts in the next 12 months.  State Water is addressing the minor consumer contracts as a priority including communicating first via a flyer and then via a plan to ring all the people on contracts to ensure that they know that they are receiving non-potable water.  <b>OFI Oberon Contract Review: When Oberon</b>

Appendix 5 Customers' Rights and Consultation Detailed Audit Findings (Part 4)						
Clause	Requirement	2011/12 Grade	Risk	Target for Full Compliance	Evidence	Reasons for grade
						<p>Council's contract is reviewed, the chlorine residual provided by the FRWS will need to be articulated clearly in the Oberon contract in terms of amount and at what handover point.</p> <p>OFI Contract Review Minor Consumers – Register: The register of consumers from the FRWS needs to include a flag to show when the contract is due for renewal. Ensure that rainwater tanks on the customer's property are also recorded to facilitate backflow management.</p> <p>OFI Contract Review Minor Consumers - Interpretation: Ensure that New South Wales Code of Practice, Plumbing and Drainage now refer to the Plumbing Code of Australia.</p> <p>OFI Contract Review Drinking Water Minor Consumers – Interruptions to Supply: The current clause in the contract states that 'State Water advises that if the Consumer requires a continuous supply of water then the Consumer should install a water tank adequate to avoid difficulties due to supply interruptions.' To avoid liability and proof of fitness for purpose issues once Fish River water is put into a customer's tank, it is suggested that the clause is amended to state that State Water will not be responsible for the quality of the water once it is transferred into the customer's tank.</p> <p>OFI Contract Review Major Consumers: When the contracts are next reviewed, it will be helpful to include a diagram in the contract to show exactly where handover points are between the FRWS and the end user and ensure that the water quality expectations are clearly articulated.</p> <p>OFI Communication of Raw Water Provision to</p>



Appendix 5 Customers' Rights and Consultation Detailed Audit Findings (Part 4)						
Clause	Requirement	2011/12 Grade	Risk	Target for Full Compliance	Evidence	Reasons for grade
						<p><b>Property Owners: Review how information transfer issues are dealt with by State Water to ensure that incoming consumers are fully informed that they have a property for which the water supply is not intended for drinking.</b></p> <p><b>OFI Communication of Raw Water Provision to Rental Tenants: Review how State Water deals with rental agencies to ensure that renters understand where they rent properties where the water is not intended for drinking.</b></p> <p><b>OFI Water Quality Monitoring of Handover Points: State Water should have appropriate monitoring in place at each of its handover points i.e. where water passes from State Water's control to another party or back into the system from another party, to ensure that it can robustly prove the quality of the water that was handed over or receipted at that time.</b></p>
<b>4.5.2</b>	<p>The terms of the arrangements must, as a minimum, include:</p> <ul style="list-style-type: none"> <li>(a) the standard of the quality of water supplied;</li> <li>(b) the continuity of water supplied (i.e. interruption, disconnection and reconnection to supply);</li> <li>(c) the metering arrangements;</li> <li>(d) the costs to be paid by FRWS customers for the supply of water and other services to them; and</li> <li>(e) any other terms agreed between State Water and its</li> </ul>	<b>Full</b>	<p>Moderate Risk.</p> <p>Contracts are important tools to address the power imbalance between a water utility and customers.</p>	<p>The terms of the arrangements in clause 4.5.1 have, as a minimum, included the matters set out in the obligation.</p> <p>Report on progress in addressing recommendation R 5.1 in the 2009/2010 audit report which states:</p> <p>"State Water clarify the intent of clause 4.5.2 of the Operating Licence with IPART".</p> <p>This arose because there</p>	<p>Audit interview with State Water nominated staff and managers 02/10/12 in the presence of IPART</p> <p>DOC12-14114 Fish River Water Supply Scheme - Agreement for the Supply of Water - Minor Consumer ~ Drinking Water.DOC</p> <p>DOC12-14115 Fish River Water Supply Scheme - Agreement for the Supply of Water - Minor Consumer ~ Raw Water.DOC</p> <p>DOC12-32664 Lithgow Council customer contract.pdf</p> <p>DOC12-32669 Oberon Council</p>	<p>The contracts contain the information required under this clause.</p>

Appendix 5 Customers' Rights and Consultation Detailed Audit Findings (Part 4)						
Clause	Requirement	2011/12 Grade	Risk	Target for Full Compliance	Evidence	Reasons for grade
	FRWS customers.			was no reference to water quality in the terms of supply to FRWS small customers.	customer contract.pdf DOC12-32671 Delta Electricity customer contract.pdf DOC12-32672 Sydney Catchment Authority customer contract.pdf	
<b>4.6</b>	<b>Code of Practice and Procedure on Debt Management</b>					
<b>4.6.1</b>	State Water must maintain a code of practice and procedure on debt management ("Code").	<b>Full</b>	Moderate Risk. The code sets out customers rights relating to debt management.	State Water has maintained a code of practice and procedure on debt management ("Code").	Audit interview with State Water nominated staff and managers 02/10/12 in the presence of IPART <a href="http://www.statewater.com.au/Customer+service/debt-management-code-of-practice">http://www.statewater.com.au/Customer+service/debt-management-code-of-practice</a>	Note that this clause also relates to Recommendation 7 from 2010/2011. State Water has now consolidated all its information relating to debt management and this information is clearly on its website.
<b>4.6.2</b>	The Code must: (a) provide for deferred payment or payment by instalment options; and (b) require that State Water provide a point of contact, notified on bills, for customers in financial hardship.	<b>Full</b>	As above	The Code: (a) provided for deferred payment or payment by instalment options; and (b) required that State Water provide a point of contact, notified on bills, for customers in financial hardship.	Audit interview with State Water nominated staff and managers 02/10/12 in the presence of IPART <a href="http://www.statewater.com.au/Customer+service/debt-management-code-of-practice">http://www.statewater.com.au/Customer+service/debt-management-code-of-practice</a> DOC12-32688 Customer s invoice - Example.pdf	State Water has included information on assistance in paying accounts, including deferred payments, under the heading <b>Assisting you to pay your water account</b> on its website. The invoice provided as an example also includes the information required in the clause.
<b>4.6.3</b>	A copy of the Code must be made available to the public.	<b>Full</b>	As above	A copy of the Code has been made available to the public. The 2010/11 auditor made recommendations based on the findings of the audit relating to this	Audit interview with State Water nominated staff and managers 02/10/12 in the presence of IPART <a href="http://www.statewater.com.au/Customer+service/debt-">http://www.statewater.com.au/Customer+service/debt-</a>	The Debt Management Code of Practice is easy to find on the State Water website (see also comment at 4.6.1 relating to Recommendation 7). However, while a Water Debtor Management Policy is available on State Water's website, it was not easy to locate without detailed searching.

Appendix 5 Customers' Rights and Consultation Detailed Audit Findings (Part 4)						
Clause	Requirement	2011/12 Grade	Risk	Target for Full Compliance	Evidence	Reasons for grade
				clause. The 2011/12 audit should check that State Water has acted on recommendation 7 of the 2010/11 audit.	<a href="#">management-code-of-practice</a> Water Debtor Management Policy State Water Policy: SW2007-P0121	<p>The Finance and Communication teams are working together to ensure that a section on the Code is included in the next customer newsletter as well as posting on Twitter. News on the Code will also be included on State Water's Facebook page when created.</p> <p>State Water is also planning on looking at its social media strategy for increasing efficacy in communication.</p> <p>Regarding translation, State Water referred to the ABS Census of 2001 for the most common languages used in Australia other than English and identified the following:</p> <ul style="list-style-type: none"> <li>• Arabic</li> <li>• Chinese (assume Mandarin)</li> <li>• Italian</li> <li>• Greek</li> <li>• Vietnamese</li> <li>• Spanish</li> <li>• Tagalog (Filipino)</li> <li>• Macedonian</li> <li>• Korean and</li> <li>• Hindi.</li> </ul> <p>To ensure that it has the correct translation of the following sentence – "For translation services please call the NSW Community Relation Commission (02) 8255 6767." – State Water is still waiting to validate the translation. This approach is considered acceptable and the recommendation can be considered addressed.</p> <p>State Water is also conducting a stakeholder survey which will help to address this clause in the future.</p>

Appendix 5 Customers' Rights and Consultation Detailed Audit Findings (Part 4)						
Clause	Requirement	2011/12 Grade	Risk	Target for Full Compliance	Evidence	Reasons for grade
						<b>OFI Visibility of Policies on Website: As a suggestion, State Water could consider including a separate 'policy' section under its corporate publications section of the website to increase visibility of policies.</b>
<b>4.6.4</b>	State Water must report to IPART and the Minister quarterly, no later than one month following the end of each quarter, commencing 1 July 2008, on:  (a) the number of requests by Customers for assistance with paying Bulk Water bills under the Code, including which valleys they are located in; and  (b) the number of Customers in receipt of assistance with paying Bulk Water bills under the Code, including which valleys they are located in.	<b>Full</b>	Low Risk. Process overseen by IPART.	State Water reported to IPART and the Minister quarterly, no later than one month following the end of each quarter, commencing 1 July 2010, on the matters set out in the licence obligation.  This clause was graded as Moderate Compliance in the 2009/10 audit because State Water failed to provide one of these reports to the Minister and failed to provide any reports to IPART.	Audit interview with State Water nominated staff and managers 02/10/12 in the presence of IPART  DOC12-32700 Hardship Letter - IPART July 2012.pdf DOC12-32701 Hardship Letter - IPART April 2012.pdf DOC12-32702 Hardship Letter - Minister April 2012.pdf DOC12-32703 Hardship Letter - Minister December 2011.pdf DOC12-32704 Hardship Letter - IPART December 2011.pdf DOC12-32705 Hardship Letter - Minister October 2011.pdf DOC12-32706 Hardship Letter - Minister July 2012.pdf DOC12-32707 Hardship Letter - IPART October 2011.pdf	Letters were viewed and the information required by the clause was included and provided.
<b>4.6.5</b>	The report referred to in clause 4.6.4 must detail the types of assistance under the Code that have been requested by, and provided to, Customers.	<b>Full</b>	As above.	The report referred to in clause 4.6.4 detailed the types of assistance under the Code that have been requested by, and provided to, Customers.	See above at 4.6.3.	See above at 4.6.3.

## Appendix 6 Complaint and Dispute Resolution Detailed Audit Findings (Part 5)

Appendix 6 Complaint and Dispute Resolution Detailed Audit Findings (Part 5)						
Clause	Requirement	2011/12 Grade	Risk	Target for Full Compliance	Evidence	Reasons for grade
5.1	<b>Internal Complaints Resolution Process</b>					
5.1.1	State Water must have in place internal complaints handling procedures for receiving, responding to and resolving complaints by Customers and the community against State Water.	SC				
5.1.2	The internal Complaints handling procedures of State Water must be based on the Australian Standard <i>AS ISO 10002-2006 Customer satisfaction – Guidelines for complaints handling in organisations</i>	SC				
5.1.3	State Water must make information concerning its internal complaint handling procedures available to the public.	SC				
5.1.4	By no later than 1 September each year, State Water must report to IPART on an exception basis, for the immediately preceding financial year on the following details concerning Complaints made against State Water which are handled by its internal complaint handling procedures:	SC				

Appendix 6 Complaint and Dispute Resolution Detailed Audit Findings (Part 5)						
Clause	Requirement	2011/12 Grade	Risk	Target for Full Compliance	Evidence	Reasons for grade
	the total number of Complaints; the number of Complaints received by the category of Complaint; the number and type of Complaints resolved or not resolved in sufficient detail and using sufficient classifications to enable IPART to gain a reasonable understanding of how and how well those Complaints were resolved, or why the Complaint was not resolved, as the case may be; and any problems of a systemic nature arising from Complaints.					
5.1.5	State Water must make a copy of the report referred to in clause 5.1.4 available to the public within one month of providing it to IPART.	SC				
5.2	<b>External Dispute Resolution Scheme</b>					
5.2.1	State Water must continue to have in place a dispute resolution scheme (the Scheme) incorporating a Dispute Resolution Body or be a member of an industry based dispute resolution scheme incorporating a Dispute Resolution Body (an Industry Scheme) to resolve disputes between State Water and its Customers.  <i>NOTE: The Dispute Resolution Body that forms part of the Industry Scheme of which State Water is a</i>	SC				

Appendix 6 Complaint and Dispute Resolution Detailed Audit Findings (Part 5)						
Clause	Requirement	2011/12 Grade	Risk	Target for Full Compliance	Evidence	Reasons for grade
	<i>member at the Commencement Date of the Licence is EWON – the Energy and Water Industry Ombudsman of New South Wales.</i>					
5.2.2	The Scheme established by State Water or an Industry Scheme of which State Water is a member is subject to the Minister’s approval.	SC				
5.2.3	The Dispute Resolution Body (whether under the Scheme or an Industry Scheme) is to hear disputes and Complaints made by Customers in relation to:  (a) Water Delivery; (b) Customer Accounts; (c) State Water’s responsibilities in relation to the communication of water availability and access notifications; and (d) the exercise by State Water of the Functions conferred under clause 2.4 of the Licence.	SC				
5.2.4	The Scheme or Industry Scheme must comply with the minimum standards, so far as applicable, specified in <i>AS4608-2004 – Dispute management systems</i>	SC				
5.2.5	The Scheme must have the following features:  (a) the decision-making process of the Dispute Resolution Body and administration of the	SC				

Appendix 6 Complaint and Dispute Resolution Detailed Audit Findings (Part 5)						
Clause	Requirement	2011/12 Grade	Risk	Target for Full Compliance	Evidence	Reasons for grade
	<p>Scheme is to be independent from State Water;</p> <p>(b) State Water agrees to abide by the decisions of the Dispute Resolution Body in relation to disputes referred to it for resolution;</p> <p>(c) the Scheme must adopt informal proceedings which discourage an adversarial approach;</p> <p>(d) decisions of the Dispute Resolution Body should observe the principles of procedural fairness, be based upon the information before it, and apply that information to specific criteria;</p> <p>(e) the Scheme is to operate efficiently by:</p> <p>(i) keeping track of disputes referred to it,</p> <p>(ii) ensuring complaints are dealt with by the appropriate process,</p> <p>(iii) the Dispute Resolution Body regularly reviewing the operation of the Scheme; and</p> <p>(f) the Scheme is to be provided by State Water to Customers free of charge.</p>					
5.2.6	State Water must prepare a	SC				



Appendix 6 Complaint and Dispute Resolution Detailed Audit Findings (Part 5)						
Clause	Requirement	2011/12 Grade	Risk	Target for Full Compliance	Evidence	Reasons for grade
	pamphlet that explains how the Scheme or Industry Scheme operates and how it can be accessed. State Water must make this pamphlet available to the public.					
5.2.7	<p>State Water must report to IPART by no later than 1 September each year, for the preceding financial year, on the Scheme or Industry Scheme based on information available to State Water and information reasonably able to be obtained from the Dispute Resolution Body. Where considered appropriate by State Water and the Dispute Resolution Body, confidentiality arrangements are to be made so as not to disclose the Customer's identity in such reports. The report must take into account any issues raised by the Dispute Resolution Body and must contain the following information:</p> <ul style="list-style-type: none"> <li>(a) the number and types of Complaints received by the Dispute Resolution Body, classified in accordance with the Dispute Resolution Body's reporting arrangements;</li> <li>(b) information on any determinations made by the Dispute Resolution Body; and</li> <li>(c) any other relevant information required by IPART to be</li> </ul>	SC				

<b>Appendix 6 Complaint and Dispute Resolution Detailed Audit Findings (Part 5)</b>						
<b>Clause</b>	<b>Requirement</b>	<b>2011/12 Grade</b>	<b>Risk</b>	<b>Target for Full Compliance</b>	<b>Evidence</b>	<b>Reasons for grade</b>
	included in the report					
<b>5.2.8</b>	State Water must make the report referred to in clause 5.2.7 available to the public.	<b>SC</b>				
<b>5.3</b>	<b>Complaints to other bodies</b>					
<b>5.3.1</b>	<p>State Water must report to IPART by no later than 1 September each year, for the preceding financial year, on complaints made against State Water to a court or tribunal such as the Land and Environment Court or Consumer Trader and Tenancy Tribunal (based on information reasonably obtained from these bodies and State Water itself as a party to the complaint), and the report to IPART shall contain the following information:</p> <ul style="list-style-type: none"> <li>(a) the number and types of complaints received by such other bodies;</li> <li>(b) the outcome of the complaints;</li> <li>(c) how the complaints were resolved;</li> <li>(d) any problems of a systemic nature arising from the complaints; and</li> <li>(e) any other relevant information required by IPART to be included in the report.</li> </ul>	<b>SC</b>				
<b>5.3.2</b>	State Water must report to IPART by no later than 1 September each year,	<b>SC</b>				

Appendix 6 Complaint and Dispute Resolution Detailed Audit Findings (Part 5)						
Clause	Requirement	2011/12 Grade	Risk	Target for Full Compliance	Evidence	Reasons for grade
	<p>for the preceding financial year, on any civil actions brought against State Water in a court (based on information available from the courts and State Water itself as a party to the civil action) where the civil action claims loss, damage or other relief against State Water, and the report to IPART shall contain the following information:</p> <ul style="list-style-type: none"> <li>(a) the number and types of civil actions commenced;</li> <li>(b) the outcome of the civil actions;</li> <li>(c) how the civil actions were resolved;</li> <li>(d) any problems of a systemic nature arising from the civil actions; and</li> <li>(e) any other relevant information required by IPART to be included in the report.</li> </ul>					

## Appendix 7 Water Delivery Operations Detailed Audit Findings (Part 6)

Appendix 7 Water Delivery Operations Detailed Audit Findings (Part 6)						
Clause	Requirement	2011/12 Grade	Risk	Target for Full Compliance	Evidence	Reasons for grade
<b>6.1</b>	<b>Water Infrastructure Operations</b>					
<b>6.1.1</b>	State Water must operate its Assets in accordance with any relevant Water Management Work Approval or Water Sharing Plan that may be issued by DWE [NoW].	<b>Full</b>	High Risk. There are potential environmental and customer service issues if State Water operations are inconsistent with Work approvals and Water sharing plans.	State Water operated its Assets in accordance with any relevant Water Management Work Approval or Water Sharing Plan that may be issued by DWE [NoW].	Audit interview with State Water nominated staff and managers 02/10/12 in the presence of IPART 2011-12 Operating Licence Performance Report.pdf	Conformance with Work Approvals is independently audited by NoW. This audit confirmed that State Water is complying with its obligations to NOW in terms of agreeing work approvals, submitting to audit and actioning recommendations.
<b>6.1.2</b>	When operating its Assets State Water must: (a) ensure that releases of water are consistent with any Works Approval; (b) operate its Assets efficiently and effectively; (c) undertake periodic maintenance rehabilitation and replacement work; (d) undertake enhancement and development projects; and (e) implement flood planning and other operations instigated by	<b>Full</b>	High Risk. Asset operations should be consistent with sound asset management principles and valley based control processes.	When operating its Assets, State Water has met the requirements set out in the licence obligation.	Audit interview with State Water nominated staff and managers 02/10/12 in the presence of IPART 2011-12 Operating Licence Performance Report.pdf se 6.1.2 - D0C1214523 Macquarie-Cudgegong Customer Service Committee - Minutes -14 December 2011 - Paragraph 6.La.doc Clause 6.1.2 - CARM Benefits Statement.doc	There is an overlap between this clause and asset management particularly in points (b), (c) and (d). The auditor considers the evidence demonstrates compliance and found no issues that require addressing over and above those related issues identified during the audit of Clause 3.1.

Appendix 7 Water Delivery Operations Detailed Audit Findings (Part 6)						
Clause	Requirement	2011/12 Grade	Risk	Target for Full Compliance	Evidence	Reasons for grade
	the Dam Safety Committee.					
<b>6.2</b>	<b>Management of Allocated Water</b>					
<b>6.2</b>	<p>State Water:</p> <p>(a) is accountable for the management and delivery of water allocated to Customers;</p> <p>(b) must manage water orders with a view to ensuring Customer access to water and the equitable delivery of water when physical supply constraints occur, or are likely to occur;</p> <p>(c) must process Temporary Water Transfers within a Valley promptly and efficiently; and</p> <p>(d) must monitor and maintain a water allocation account for each Water Licence issued to each Customer.</p>	<b>Full</b>	High Risk. Water managed by State Water is owned by the customers. Operations and administration should reflect this.	State Water met the requirements set out in the licence obligation.	<p>Audit interview with State Water nominated staff and managers 02/10/12 in the presence of IPART</p> <p>2011-12 Operating Licence Performance Report.pdf</p> <p>DOC12-28672 IPART trades audit 2011-12.XLS</p>	<p>a) State Water has sophisticated monitoring and performance management methodologies to manage and deliver water to Customers and demonstrated their use and application. Currently investigating upgrades to management system.</p> <p>b) Over release management. State Water has a Water Accounting System for tracking account status for each customer. Management of the resource and customer accounts is linked to the flow and distribution management models.</p> <p>c) Review of customer transfer requests indicated satisfactory performance.</p> <p>d) Water allocation accounts are kept for each customer.</p> <p>The auditor found the evidence provided demonstrated systems seem sound and appropriate to meet requirement.</p>
<b>6.3</b>	<b>Water Conservation</b>					
<b>6.3</b>	State Water must take such steps as are reasonably practicable to conserve water and to minimise losses that result from its operations.	<b>Full</b>	Moderate Risk. Importance of resource conservation	State Water has taken such steps as are reasonably practicable to conserve water and to minimise losses that result from its operations.	<p>Audit interview with State Water nominated staff and managers 02/10/12 in the presence of IPART</p> <p>2011-12 Operating Licence Performance Report.pdf</p>	<p>Water conservation is generally achieved through the management of over-releases and scheduled releases from the dams.</p> <p>The systems, processes and practices in place seem sound and appropriate.</p> <p>Alternative management systems are in the process of being evaluated for roll-out to more fully integrate rainfall-runoff predictions and flow monitoring telemetry and SCADA systems.</p> <p>State Water attempts to minimise evaporation losses by retaining water in the deeper and upstream</p>

Appendix 7 Water Delivery Operations Detailed Audit Findings (Part 6)						
Clause	Requirement	2011/12 Grade	Risk	Target for Full Compliance	Evidence	Reasons for grade
						storages.
<b>6.4</b>	<b>Supply Constraints</b>					
<b>6.4</b>	State Water must endeavour to manage its water release Functions under clause 1.1(b) and other operations to ensure the timely availability of water taking into account physical supply constraints.	<b>Full</b>	Moderate Risk.  Mainly an issue when supply is full and State Water may be constrained in meeting many water orders.	State Water has endeavoured to manage its water release Functions under clause 1.1(b) and other operations to ensure the timely availability of water taking into account physical supply constraints.	Audit interview with State Water nominated staff and managers 02/10/12 in the presence of IPART  2011-12 Operating Licence Performance Report.pdf	The CAIRO system has been the main tool used to ensure timely availability of water taking into account physical supply constraints.  The CARM real time operation modelling system has been successfully field tested in the Murrumbidgee and demonstrated improvements are available, however State Water advised no decision with regard to any further role out has been made. If further rollout is considered, it will be managed through their project approval processes. This issue may need future consideration under Clause 3.1 with regard to efficiency and effectiveness.  State water's systems for managing water realises are sophisticated and technically professional.
<b>6.5</b>	<b>Water Metering</b>					
<b>6.5.1</b>	State Water must read Customer meters and audit the compliance of meters against Commonwealth or State metering standard adopted by the Government.	<b>SC</b>				
<b>6.5.2</b>	State Water must report to IPART by no later than 1 September each year on what action it has undertaken over the preceding financial year to address the issue of metering accuracy (for example, the number or percentage of Customer meters State Water has audited or calibrated) and its findings in carrying out this action.	<b>SC</b>				
<b>6.5.3</b>	State Water will, by no later than	<b>SC</b>				

<b>Appendix 7 Water Delivery Operations Detailed Audit Findings (Part 6)</b>						
<b>Clause</b>	<b>Requirement</b>	<b>2011/12 Grade</b>	<b>Risk</b>	<b>Target for Full Compliance</b>	<b>Evidence</b>	<b>Reasons for grade</b>
	31 March 2009, submit to IPART, for IPART's approval, proposed performance measures with respect to State Water's performance in ensuring compliance with metering conditions as imposed by Water Management Works Approvals.					
<b>6.5.4</b>	State Water must comply for the term of the Licence with the performance measures approved by IPART under clause 6.5.3 with respect to State Water's performance in ensuring metering accuracy.	<b>SC</b>				
<b>6.5.5</b>	State Water must maintain record systems that are sufficient to enable it to measure accurately its performance against the performance measures approved under clause 6.5.3.	<b>SC</b>				
<b>6.5.6</b>	State Water must report to IPART by no later than 1 September each year on its performance against the performance measures approved under clause 6.5.3 for the preceding financial year, including analysis of any systemic problems.	<b>SC</b>				
<b>6.5.7</b>	As part of its report, State Water must provide IPART with physical and electronic access to the records kept by State Water that enable it to prepare the report under clause 6.5.6.	<b>SC</b>				
<b>6.5.8</b>	State Water must make a copy of the	<b>SC</b>				

Appendix 7 Water Delivery Operations Detailed Audit Findings (Part 6)						
Clause	Requirement	2011/12 Grade	Risk	Target for Full Compliance	Evidence	Reasons for grade
	report referred to in clause 6.5.6 available to the public.					
<b>6.6</b>	<b>Water Balances</b>					
<b>6.6.1</b>	State Water must prepare by no later than 1 September each year, draft annual water balances, and by 1 December each year, final water balances, each in the form of the template at Table 5-1 of the final report by Sinclair Knight Merz "State Water Operating Licence - Water Balance Template" dated 30 March 2005 and in accordance with that report.  <i>Note: A copy of this report can be found on IPART's website at <a href="http://www.ipart.nsw.gov.au">www.ipart.nsw.gov.au</a></i>	<b>SC</b>				
<b>6.6.2</b>		<b>SC</b>				
<b>6.6.3</b>		<b>SC</b>				
<b>6.7</b>	<b>FRWS Water Balance and System Yield</b>				Audit interview with State Water nominated staff and managers 02/10/12 in the presence of IPART	
<b>6.7.1</b>	In relation to the FRWS, State Water must:	<b>Full</b>	Moderate Risk. FRWS supplies domestic and industrial consumers	In relation to the FRWS, State Water:	Audit interview with State Water nominated staff and managers 02/10/12 in the presence of IPART  2011-12 Operating Licence Performance Report.pdf Clause 6.7 - FRWS major consultancy part five of six.doc	



Appendix 7 Water Delivery Operations Detailed Audit Findings (Part 6)						
Clause	Requirement	2011/12 Grade	Risk	Target for Full Compliance	Evidence	Reasons for grade
	<p>(a) prepare by no later than 1 September each year, draft annual water balances for the FRWS, and by 1 December each year, final water balances, each in the form of the template at Table 4-2 of the final report by Sinclair Knight Merz "Outcomes of consultation on performance standards and indicators for the FRWS Water Supply Scheme" dated 11 March 2005 and in accordance with that report; and</p> <p><i>Note: A copy of this report can be found on IPART's website at <a href="http://www.ipart.nsw.gov.au">www.ipart.nsw.gov.au</a></i></p>	Full		<p>(a) prepared by no later than 1 September 2011, draft annual water balances for the FRWS, and by 1 December 2011, final water balances, each in the form of the template defined in the licence obligation.</p>	<p>Audit interview with State Water nominated staff and managers 02/10/12 in the presence of IPART</p> <p>2011-12 Operating Licence Performance Report.pdf</p> <p>Clause 6.7 - FRWS major consultancy part five of six.doc</p> <p><a href="http://www.statewater.com.au/Water+delivery/Water+balance+reporting">http://www.statewater.com.au/Water+delivery/Water+balance+reporting</a></p>	<p>The draft water balance for the Fish River Scheme is provided on the Website as well as past final water balances.</p>
	<p>(b) report to IPART, at least once during the term of the Licence, on system yield at a specified level of reliability of supply to be determined by State Water in consultation with the FRWS Customer Council.</p> <p>For the purpose of this clause 6.7, "system yield" is the average annual volume of water that can be supplied by the water supply system, subject to system inflows, an adopted set of operational rules (including the release of environmental water) and a typical demand pattern, without violating a given level of service standard. "Reliability of supply" is</p>	NR		<p>(b) reported to IPART, at least once during the term of the Licence, on system yield at a specified level of reliability of supply to be determined by State Water in consultation with the FRWS Customer Council.</p>	<p>Audit interview with State Water nominated staff and managers 02/10/12 in the presence of IPART</p> <p>2011-12 Operating Licence Performance Report.pdf</p> <p>Clause 6.7 - FRWS major consultancy part five of six.doc</p>	<p>Looking at a system based model, developing in partnership with customers. Would help to improve security of supply. Study to go to tender?</p>

Appendix 7 Water Delivery Operations Detailed Audit Findings (Part 6)						
Clause	Requirement	2011/12 Grade	Risk	Target for Full Compliance	Evidence	Reasons for grade
	the proportion of time that a supply system is expected to be able to meet demand, often expressed as the probability that restrictions of any given severity will not be imposed in a given year or month.					
6.7.2	State Water may, in preparing the annual water balance referred to in clause 6.7.1(a), deviate from the template referred to in that clause provided that State Water has obtained the prior written approval of IPART to do so.	Full	Low Risk. Report is overseen by IPART	If, in preparing the annual water balance referred to in clause 6.7.1(a), State Water deviated from the template referred to in that clause, it had obtained the prior written approval of IPART to do so.	Audit interview with State Water nominated staff and managers 02/10/12 in the presence of IPART  2011-12 Operating Licence Performance Report.pdf	No deviation
6.7.3	State Water must make the annual water balance referred to in clause 6.7.1(a) available to the public.	Full	Low Risk. Report is overseen by IPART	State Water made the annual water balance referred to in clause 6.7.1(a) available to the public.	Audit interview with State Water nominated staff and managers 02/10/12 in the presence of IPART  2011-12 Operating Licence Performance Report.pdf <a href="http://www.statewater.com.au/Water+delivery/Water+balance+reporting">http://www.statewater.com.au/Water+delivery/Water+balance+reporting</a>	Reported on the website.

## Appendix 8 The Environment Detailed Audit Findings (Part 7)

Appendix 8 The Environment Detailed Audit Findings (Part 7)						
Clause	Requirement	2011/12 Grade	Risk	Target for Full Compliance	Evidence	Reasons for grade
<b>7</b>	<b>The Environment</b>					
<b>7.1</b>	<b>Environment Management Plan</b>					
<b>7.1.1</b>	At least once during the term of the Licence, prior to 30 November 2010, State Water must review and update its document entitled Environment Management Plan 2006-2011 (the Environment Management Plan)  <i>Note: The Environment Management Plan was developed during the term of the Previous Licence and remains in force until 2011. The latest version was last updated in June 2007.</i>	SC				
<b>7.1.2</b>	In undertaking this review State Water must consult with: (a) DECC; (b) DWE; (c) DPI; (d) IPART; and (e) peak environmental non-government organisations; for the purpose of considering the views of those organisations consulted, including whether they seek amendments to the Environment Management Plan.	SC				

<b>Appendix 8 The Environment Detailed Audit Findings (Part 7)</b>						
<b>Clause</b>	<b>Requirement</b>	<b>2011/12 Grade</b>	<b>Risk</b>	<b>Target for Full Compliance</b>	<b>Evidence</b>	<b>Reasons for grade</b>
<b>7.1.3</b>	State Water must engage in Public Consultation when conducting this review.	<b>SC</b>				
<b>7.1.4</b>	The Environment Management Plan may be developed for all of State Water's operations (including the FRWS) or alternatively State Water may develop separate plans for the FRWS and the rest of its operations, in which case the provisions of this clause 7 will apply to each Environment Management Plan prepared.	<b>SC</b>				
<b>7.1.5</b>	<p>The EMP must:</p> <ul style="list-style-type: none"> <li>(a) include details of State Water's program for addressing its environmental impacts and achieving environmental improvements, including (but not limited to): <ul style="list-style-type: none"> <li>(i) management and mitigation of riverbank and bed erosion;</li> <li>(ii) management and mitigation of water quality issues associated with storage and release (including mitigation of thermal impacts);</li> <li>(iii) management and mitigation of barriers to fish passage;</li> <li>(iv) an algal management</li> </ul> </li> </ul>	<b>SC</b>				

<b>Appendix 8 The Environment Detailed Audit Findings (Part 7)</b>						
<b>Clause</b>	<b>Requirement</b>	<b>2011/12 Grade</b>	<b>Risk</b>	<b>Target for Full Compliance</b>	<b>Evidence</b>	<b>Reasons for grade</b>
	strategy; (v) energy management and consumption; and (vi) waste management and minimization. (b) adopt Ecologically Sustainable Development principles; (c) be integrated into State Water's business plans; (d) include indicators to measure the environmental impact of State Water's Asset operations and maintenance; and (e) incorporate environmental improvement targets and timetables for State Water to achieve those targets over the term of the Environment Management Plan.					
<b>7.1.6</b>	The Environment Management Plan must be provided to IPART on its completion and made available to the public.	<b>SC</b>				
<b>7.1.7</b>	State Water must, by no later than 1 September each year, or an alternative later date specified by IPART, for the preceding financial year, report to IPART on its environmental performance including its performance against or compliance with: (a) its Environment Management Plan;	<b>SC</b>				

Appendix 8 The Environment Detailed Audit Findings (Part 7)						
Clause	Requirement	2011/12 Grade	Risk	Target for Full Compliance	Evidence	Reasons for grade
	(b) any environmental provisions of each Water Management Plan and the State Water Management Outcomes Plan issued under the <i>Water Management Act 2000</i> where applicable to State Water; (c) any environmental regulatory requirements applicable to State Water, including those under the water management work approval(s) issued under the <i>Water Management Act 2000</i> and the <i>Fisheries Management Act 1994</i> ; and (d) the environmental provisions of any MoUs referred to in clause 2.3 including any performance standards and indicators established under these MoUs.					
7.1.8	State Water must make available to the public the report referred to in clause 7.1.7	SC				

## Appendix 9 Performance Indicators Detailed Audit Findings (Part 8)

Appendix 9 Performance Indicators Detailed Audit Findings (Part 8)						
Clause	Requirement	2011/12 Grade	Risk	Target for Full Compliance	Evidence	Reasons for grade
<b>8.1</b>	State Water must maintain record systems that are sufficient to enable it to measure accurately its performance against: (a) the performance indicators set out in Schedule 1. (b) any system performance indicators specified in any instruments that give effect to the National Water Initiative; and (c) any service quality and system indicators in any other instrument determined by IPART.	<b>Full</b>	Moderate Risk. Record management is an important element of performance measurement.	State Water has maintained record systems that are sufficient to enable it to measure accurately its performance against the indicators set out in the licence obligation. State Water is to demonstrate the methodology and validation processes for reporting this data and provide qualitative and/or quantitative commentary on data accuracy and/or confidence levels.	Audit interview with State Water nominated staff and managers 03/10/12 in the presence of IPART Email from State Water (from Internal Audit and Compliance Manager) to IPART (Compliance Mailbox) with report Confirmation email received by auditor from IPART confirming receipt of report. DOC12-31951 Email to IPART - SW annual report - Performance against the Operating Licence.pdf 2011-12 State Water Report to IPART under the Operating Licence 1 September 2012	Note that IPART gave an extension to the submission of the report (from 1 September to 3 September 2012 (as per the IPART email)) to ensure that IPART's upload site was ready for receipt of the report and the fact that the submission date fell on a Saturday.
<b>Sched 1</b>			Moderate Risk. Indicators have been chosen as important indicators of State Water's performance			
<b>Part A</b>	<b>1. Water Delivery</b>	<b>Full</b>				
<b>(a)</b>	percentage of Customers contacted within one working day of a non-	<b>Full</b>	As above	What is the percentage of Customers contacted	Audit interview with State Water nominated staff and managers	State Water's HelpDesk has a checklist for a

Appendix 9 Performance Indicators Detailed Audit Findings (Part 8)						
Clause	Requirement	2011/12 Grade	Risk	Target for Full Compliance	Evidence	Reasons for grade
	<p>complying water order being placed;</p> <p><i>Note: A “non-complying water order” is an order which does not comply with licence conditions or which contains insufficient information for State Water to supply water</i></p>			<p>within one working day of a non-complying water order being placed?</p>	<p>03/10/12 in the presence of IPART DOC12-27001 IPART Schedule 1 - Performance Indicators - 2011-2012.XLS DOC12-28671 IPART Non complying orders 2011 - 12.pdf 2011-12 State Water Report to IPART under the Operating Licence 1 September 2012</p>	<p>‘complying order’ and therefore staff members are familiar with what a non-complying order entails.</p> <p>Following entry of data into the ticketing system, data are tallied before they are put into reports. State Water also tallies results on a monthly basis and takes these results to the CSCs. The ticketing system was viewed at the audit to confirm information received. Only authorised people are allowed to access the CRM ticketing system.</p> <p>99% of customers (of the 737 non-complying orders placed) were contacted within 1 working day – calculations were checked. Comments were also provided on p45 of the 2011-12 State Water Report to IPART under the Operating Licence 1 September 2012.</p>
(b)	<p>percentage of complying water orders identified as being delivered outside of <math>\pm 1</math> day of the scheduled day of delivery, as measured by customer complaints;</p> <p><i>Note: A “complying water order” is an order which complies with the conditions of a water licence and which contains sufficient information for State Water to supply water and “scheduled day of delivery” is per period of the required notice specified in works approvals, licences or entitlements.</i></p>	Full	As above	<p>What is the percentage of complying water orders identified as being delivered outside of <math>\pm 1</math> day of the scheduled day of delivery, as measured by customer complaints?;</p>	<p>Audit interview with State Water nominated staff and managers 03/10/12 in the presence of IPART DOC12-28599 raw_orders_2011.12.XLS DOC12-28603 Customer Complaints.pdf 2011-12 State Water Report to IPART under the Operating Licence 1 September 2012</p>	<p>0.001% (of 86,844) complying orders was delivered outside of + - 1 day of the scheduled day of delivery as measured by customer complaints.</p> <p>Ticket 35494 90AL803007 was tracked through from the pdf provided through the ticketing system. The auditors viewed the progress taken to address the issue (for the Upper Namoi) and verified that the information provided matched that in the database.</p> <p>Ticket 40145 90AL803098 was also checked as it was a ‘Water Order Not Delivered’. Review through system showed that the wrong volume had been entered at 0.8 ML rather than 8 ML.</p>
(c)	percentage of water orders	Full	As above	What is the percentage of	Audit interview with State Water	Water delivery officers are responsible for



Appendix 9 Performance Indicators Detailed Audit Findings (Part 8)						
Clause	Requirement	2011/12 Grade	Risk	Target for Full Compliance	Evidence	Reasons for grade
	rescheduled in consultation with Customers within one working day of a known storage or delivery delay";  <i>Note: This indicator should be calculated as a percentage of the total number of water orders rescheduled due to a known shortage or delivery delay</i>			water orders rescheduled in consultation with Customers within one working day of a known storage or delivery delay?	nominated staff and managers 03/10/12 in the presence of IPART DOC12/28546 – Water Orders Re-scheduled with Customer +-day (viewed on screen, day of audit)	inputting data to the CRM. Reports are then generated from the CRM for reporting purposes. The evidence viewed showed that of the 21 complying orders re-scheduled due to a known shortage or delivery delay, 52% were re-scheduled in consultation with the customer within one working day as stated by State Water's evidence.
(d)	percentage of time that daily minimum flow targets are met;  <i>Note: "Daily minimum flow targets" are those specified in relevant Water Management Plans or by the Minister for Natural Resources or by the Ministerial Corporation; and</i>	Full	As above	What is the percentage of time that daily minimum flow targets are met?  The 2009/10 audit identified some definitional issues with this indicator. Recommendation R 9.1 relates to this matter.	Audit interview with State Water nominated staff and managers 03/10/12 in the presence of IPART DOC12-29457 Hunter Monthly Environmental Flow Report June 2012.pdf DOC12-29458 Paterson Monthly Environmental Flow Report June 2012.pdf DOC12-29934 Chaffey minimum releases 2011 2012.XLS DOC12-29935 EOS flow 2011 2012.XLS DOC12-29936 Gwydir minimum flow 2011 2012.XLS DOC12-29937 Pindari transparent release 2011 2012.XLS DOC12-30765 Lachlan End of system flows - 2011 - 2012.XLS DOC12-30894 End of System Flow - Murrumbidgee.XLS	It was noted that while the calculations and the outcomes look correct, it was difficult for the auditor or a new staff member to verify how calculations had been conducted without having a clear methodology to refer to.  Targets were met.  <b>OFI Formalisation of Calculation Methodology for Daily Minimum Flows: Suggest review of the way the calculations are documented as well as the rules for each catchment including standardisation of the graphs.</b>
(e)	percentage of complying intra-valley transfers processed within four	Full	As above	What is the percentage of complying intra-valley	Audit interview with State Water nominated staff and managers	1,958 complying intra-valley transfers were conducted and 99% of these were processed

Appendix 9 Performance Indicators Detailed Audit Findings (Part 8)						
Clause	Requirement	2011/12 Grade	Risk	Target for Full Compliance	Evidence	Reasons for grade
	working days of State Water's receipt of correctly completed application form and fee. <i>Note: "intra-valley transfer" means the transfer of allocated water from one licence to another licence within a Valley and includes transfers under the Water Management Act 2000 and the Water Act 1912</i>			transfers processed within four working days of State Water's receipt of correctly completed application form and fee?	03/10/12 in the presence of IPART DOC12-28672 IPART trades audit 2011-12.XLS	within 4 working days.
	<b>2. Policing Functions</b>	<b>Full</b>				
<b>(a)</b>	Liaise with DWE to determine the volume of water taken in excess of access licence conditions under the <i>Water Management Act 2000</i> (in mega litres (ML)) and number of licences and licence breaches involved; and report to IPART the data so determined;	<b>Full</b>	As above	After liaising with NoW to determine the volume of water taken in excess of access licence conditions under the <i>Water Management Act 2000</i> (in mega litres (ML)) and number of licences and licence breaches involved; what is the data so determined?;	Audit interview with State Water nominated staff and managers 03/10/12 in the presence of IPART IPART report DOC12-28879 Regulated Water Balances 2011 -2012.XLS	Source data captured in the WAS and can be traced back. Data are saved as an Excel file into the SWMS folder for evidence.  NOW is the primary enforcer of compliance issues. Where NOW does not take action, it may give that responsibility to State Water to take action under its conferred powers. So far, NOW has taken action on all issues noted (where appropriate) and so no evidence could be checked where State Water had followed up on actions not initially taken by NOW.
<b>(b)</b>	value of penalties imposed by State Water for taking of water in excess of licence conditions under the <i>Water Management Act 2000</i> or the <i>Water Act 1912</i> ;	<b>Full</b>	As above	What is the value of penalties imposed by State Water for taking of water in excess of licence conditions under the <i>Water Management Act 2000</i> or the <i>Water Act 1912</i> ;	Audit interview with State Water nominated staff and managers 03/10/12 in the presence of IPART	No penalties imposed by State Water in the 2011-2012 water year.
<b>(c)</b>	volume of penalties imposed by State Water for taking water in excess of access licence conditions	<b>Full</b>	As above	What is the volume of penalties imposed by State Water for taking	Audit interview with State Water nominated staff and managers 03/10/12 in the presence of IPART	No penalties imposed by State Water in the 2011-12 water year.

Appendix 9 Performance Indicators Detailed Audit Findings (Part 8)						
Clause	Requirement	2011/12 Grade	Risk	Target for Full Compliance	Evidence	Reasons for grade
	under the <i>Water Management Act 2000</i> (ML);			water in excess of access licence conditions under the <i>Water Management Act 2000</i> (ML)?;		
(d)	number of water supply works audited for compliance with metering conditions and the proportion of those works that comply with metering conditions;	Full	As above	What is the number of water supply works audited for compliance with metering conditions and the proportion of those works that comply with metering conditions?;	Audit interview with State Water nominated staff and managers 03/10/12 in the presence of IPART DOC12-19494 Water Metering Performance Indicator - Letter from IPART - April 2012.pdf	No further comment. Letter self explanatory
(e)	number of "alleged breach reports" forwarded to the Department of Water and Energy;	Full	As above	What is the number of "alleged breach reports" forwarded to the NoW (formerly the Department of Water and Energy)?;	Audit interview with State Water nominated staff and managers 03/10/12 in the presence of IPART DOC12-27121 Alleged Breach Notifications 2011-2012.XLS	Alleged Breach Notifications have to be recorded in a separate Excel log as State Water currently does not have a database that can easily capture this information.  Information is stored by State Water in SWIM. NOW logs these data into its CARM system.
(f)	number of licences and entitlements suspended under the <i>Water Management Act 2000</i> or the <i>Water Act 1912</i> ; and	Full	As above	What is the number of licences and entitlements suspended under the <i>Water Management Act 2000</i> or the <i>Water Act 1912</i> ?; and	Audit interview with State Water nominated staff and managers 03/10/12 in the presence of IPART DOC12-27986 Water access license suspension register March 2012.XLS	Checked that 11 licences were suspended. WAS was interrogated to check status of licence suspensions. All items reported proved to be correct on inspection by the auditors.
(g)	number of approvals suspended under the <i>Water Management Act 2000</i> .	Full	As above	What is the number of approvals suspended under the <i>Water Management Act 2000</i> ?	Audit interview with State Water nominated staff and managers 03/10/12 in the presence of IPART	There were no works approvals suspended by State Water for the audit period.
Sched 1	FRWS Indicators					
Part B	1. Asset Management	Full				

Appendix 9 Performance Indicators Detailed Audit Findings (Part 8)						
Clause	Requirement	2011/12 Grade	Risk	Target for Full Compliance	Evidence	Reasons for grade
(a)	the average response time for unplanned supply interruptions	Full	As above	What is the average response time for unplanned supply interruptions?	Audit interview with State Water nominated staff and managers 03/10/12 in the presence of IPART DOC12 32875 Average Outage Calculations 2011-12.XLS	Evidence documented the calculation of average response time for supply interruptions. Given the limited number of outages, and the potential for wide variance in response times due to the distance and location/accessibility issues – it would be worthwhile to record a documented list rather than this indicator. Refer to OFI at (d) below.
(b)	number of planned water supply interruptions	Full	As above	What is the number of planned water supply interruptions?	Audit interview with State Water nominated staff and managers 03/10/12 in the presence of IPART DOC12-31400 water interruptions.DOC	The document provided gave the number of interruptions as well as descriptions pertaining to the interruptions.
(c)	number of unplanned water supply interruptions	Full	As above	What is the number of unplanned water supply interruptions?	Audit interview with State Water nominated staff and managers 03/10/12 in the presence of IPART DOC12-32860 FRWS - Pipeline Break Reporting Forms 2011-12.pdf	Note that on the reporting forms, the supervisor has not signed each of the forms as currently required but this issue has been recognised by State Water as not now necessary and is being changed via the incident management process. Also, coordinates for all breaks will now be recorded and used to do trend analysis for replacement programs.
(d)	average duration of planned water supply interruptions;	Full	As above	What is the average duration of planned water supply interruptions?	Audit interview with State Water nominated staff and managers 03/10/12 in the presence of IPART DOC12-31400 water interruptions.DOC Scanned reporting forms relating to interruptions (DOC12-32860 FRWS - Pipeline Break Reporting Forms 2011-12.pdf).	Note that on the reporting forms, the supervisor has not signed each of the forms as currently required but this issue has been recognised by State Water as not now necessary and is being changed via the incident management process. Also, coordinates for all breaks will now be recorded and used to do trend analysis for replacement programs. “26 Mar 12 Commence shutdown of Stage 1 (pm) and change over to “back feeding” from Lithgow Water Supply to the Lithgow Villages” Email train was viewed to show communication

Appendix 9 Performance Indicators Detailed Audit Findings (Part 8)						
Clause	Requirement	2011/12 Grade	Risk	Target for Full Compliance	Evidence	Reasons for grade
						<p>between State Water and all relevant stakeholders, as to progress of works.</p> <p><b>OFI Form Change: Form needs to have a space to record supply interruption time as well as turn back on time. Forms do not currently give State Water the information on how long the interruption has occurred.</b></p>
(e)	average duration of unplanned water supply interruptions.	Full	As above	<p>What is the average duration of unplanned water supply interruptions?</p> <p>The 2009/10 audit identified some definitional issues with this group of indicators. Recommendation R 9.2 relates to this matter.</p> <p><i>Note: An “unplanned water supply interruption” is an interruption to water supply to a Customer where the Customer has not received at least 24 hours notice of the interruption from State Water. It also includes situations where the duration of a planned interruption exceeds that which was originally notified to the Customer – in which circumstances, the length of the entire interruption is counted as an unplanned supply</i></p>	<p>Audit interview with State Water nominated staff and managers 03/10/12 in the presence of IPART</p> <p>DOC12-31400 water interruptions.DOC</p>	<p>While the average duration of interruption was properly reported and was 68 hours, the relevance of the indicator was questioned.</p>

Appendix 9 Performance Indicators Detailed Audit Findings (Part 8)						
Clause	Requirement	2011/12 Grade	Risk	Target for Full Compliance	Evidence	Reasons for grade
				<i>interruption. A "planned water supply interruption" is an interruption to water supply where the Customer has received at least 24 hours notice of the interruption and the duration of the interruption does not exceed that which was originally notified to the Customer.</i>		
	<b>2. Water Delivery</b>	<b>Full</b>				
	percentage of time that daily minimum flow targets are met.	<b>Full</b>	As above	What is the percentage of time that daily minimum flow targets are met?  <i>Note: "Daily minimum flow targets" are those specified in relevant Water Management Plans or by the Minister or by the Ministerial Corporation or as advised in writing by DWE</i>	Audit interview with State Water nominated staff and managers 03/10/12 in the presence of IPART DOC12-30768 Duckmaloi & Oberon end of system Flows 2011 - 2012.XLS	The percentage of time that Duckmaloi Weir and Oberon Dam respectively met their daily minimum flow targets was 99.7% and 100%.
	<b>3. Water Quality</b>	<b>Full</b>				
	Percentage of treated water samples that comply with <i>Australian Drinking Water Guidelines</i> (2004) at the FRWS's water sampling locations for e-coli, colour, turbidity, iron, manganese, aluminium and pH.	<b>Full</b>	As above	What is the percentage of treated water samples that comply with <i>Australian Drinking Water Guidelines</i> (2004) at the FRWS's water sampling locations for <i>E. coli</i> , colour, turbidity, iron, manganese, aluminium	Audit interview with State Water nominated staff and managers 03/10/12 in the presence of IPART Excel database viewed at time of audit.	All parameters required to be monitored by the Operating Licence were monitored and reported on and were all 100%.  'Wider scope' issues relating to this clause, which were brought up at the 2010-2011 audit, were dealt with in the Recommendations' section.  Water quality data are input into State Water's

Appendix 9 Performance Indicators Detailed Audit Findings (Part 8)						
Clause	Requirement	2011/12 Grade	Risk	Target for Full Compliance	Evidence	Reasons for grade
				and pH. <i>Note: The guideline value for turbidity is to be the value for public health rather than the aesthetic value (i.e. % of samples above 1 Nephelometric Turbidity Unit) and the "FRWS's water sampling locations" are those identified in the letter from State Water to IPART dated 29 April 2005</i>		water quality database once received from Hunter Water.  State Water will also input the FRWS water quality data into the NSW Health database in the future.  State Water has also developed a comprehensive water quality monitoring program, including the FRWS, which has been discussed in partnership with NSW Health. The plan is being implemented.  <b>OFl: State Water should investigate potential for significant changes in pH due to new cement lining and the consequent impact on chlorine residuals.</b>
8.2	State Water must report to IPART, by no later than 1 September each year on its performance against the performance indicators specified under clauses 8.1(a), (b) and (c) for the preceding financial year, including analysis of any systemic problems.	Full	Low Risk. Report is overseen by IPART	State Water has reported to IPART, by no later than 1 September 2011 on its performance against the performance indicators specified under clauses 8.1(a), (b) and (c) for the 2010/11 financial year, including analysis of any systemic problems.	Audit interview with State Water nominated staff and managers 03/10/12 in the presence of IPART Email from State Water (from Internal Audit and Compliance Manager) to IPART (Compliance Mailbox) with report Confirmation email received by auditor from IPART confirming receipt of report. DOC12-31951 Email to IPART - SW annual report - Performance against the Operating Licence.pdf 2011-12 State Water Report to IPART under the Operating Licence 1 September 2012	Opportunity 21 from 2009-10 audit – procedure still not finalised but has been adopted in practice and therefore considered by the audit team to have been addressed.  Note that IPART gave an extension to the submission of the report (from 1 September to 3 September 2012 (as per the IPART email)) to ensure that IPART's upload site was ready for receipt of the report and the fact that the submission date fell on a Saturday.
8.3	As part of its report, State Water must provide IPART with physical and electronic access to the records kept by State Water that enable it to	Full	Low Risk. Activity is overseen by IPART	As part of its report, State Water has provided IPART with physical and electronic access to the	Audit interview with State Water nominated staff and managers 03/10/12 in the presence of IPART Email from State Water (from Internal	See comment at 8.2.  Documents uploaded to the file sharing site and presented at the interview form the basis of

Appendix 9 Performance Indicators Detailed Audit Findings (Part 8)						
Clause	Requirement	2011/12 Grade	Risk	Target for Full Compliance	Evidence	Reasons for grade
	prepare the report under clause 8.2.			records kept by State Water that enable it to prepare the report under clause 8.2.	Audit and Compliance Manager) to IPART (Compliance Mailbox) with report Confirmation email received by auditor from IPART confirming receipt of report. DOC12-31951 Email to IPART - SW annual report - Performance against the Operating Licence.pdf 2011-12 State Water Report to IPART under the Operating Licence 1 September 2012	compliance with this clause.
8.4	State Water must make a copy of the report referred to in clause 8.2 available to the public.	Full	Low Risk. Activity is overseen by IPART	State Water has made a copy of the report referred to in clause 8.2 available to the public.	Audit interview with State Water nominated staff and managers 03/10/12 in the presence of IPART 2011-12 State Water Report to IPART under the Operating Licence 1 September 2012 <a href="http://www.statewater.com.au/About+us/Publications">http://www.statewater.com.au/About+us/Publications</a>	Report was viewed on State Water's website. Checked 21/09/12.



## Appendix 10 Pricing Detailed Audit Findings (Part 9)

Appendix 10 Pricing Detailed Audit Findings (Part 9)						
Clause	Requirement	2011/12 Grade	Risk	Target for Full Compliance	Evidence	Reasons for grade
9	State Water must apply the level of fees, charges and other amounts payable for its services subject to the terms of this Licence, the Act and the maximum prices and methodologies for State Water's monopoly services as determined from time to time by IPART or any other pricing authority vested with the power to determine water process for State Water.	SC				

## Appendix 11 Historical Performance

We have reviewed State Water's performance in meeting its licence obligations over the period 2005/06 to 2011/12.

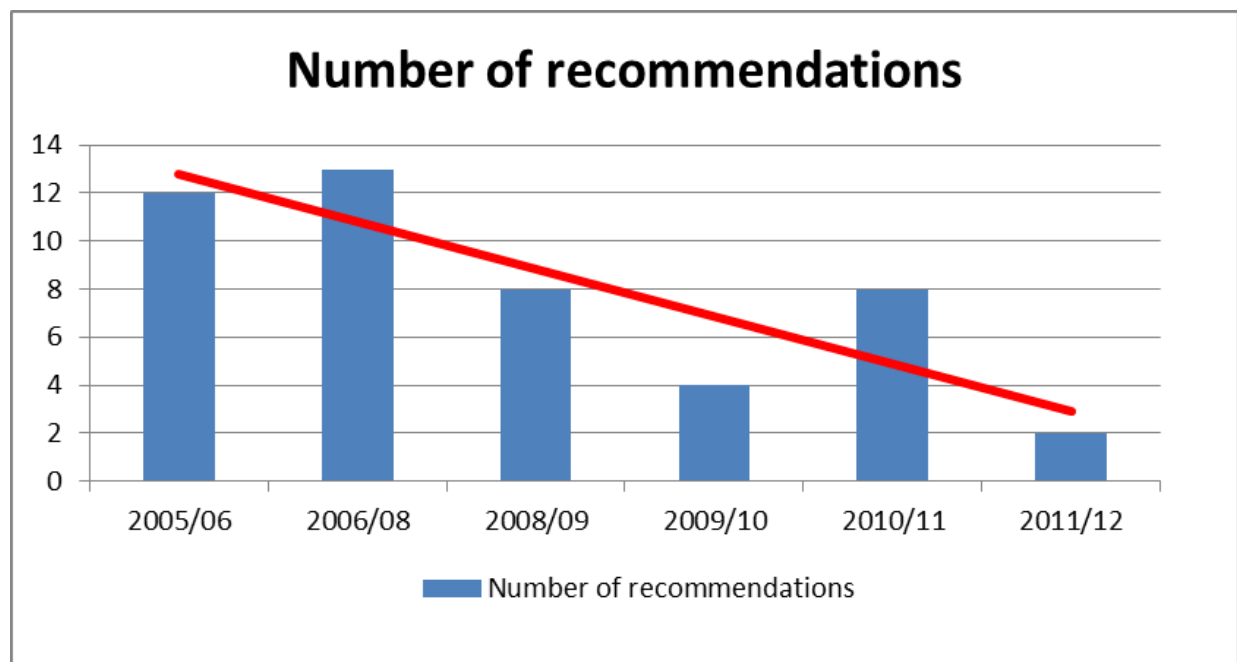
State Water was formed in 2004 through the corporatization of certain operational areas of the then Department of Energy, Utilities and Sustainability. The new State Water Corporation was granted an Operating Licence in 2005. This licence was revised in 2008.

IPART reviewed prices for bulk water in 2005, around the same time that State Water was corporatised. The public submissions to that review revealed that many State Water customers had concerns about transparency and efficiency shortcomings by the then Department (DIPNR) and the newly formed State Water. The original licence was drafted to address many of these concerns. IPART also conducted a second pricing determination that was released in 2010.

Broadly, the challenge for State Water has been to develop systems, processes and procedures to ensure that it consistently met its licence requirements. In some cases this has meant significant change from the long-held Departmental practices of the past, necessitating the development of new internal policies. In other cases, while past practice was not inconsistent with licence requirements, systems were not in place to ensure that these requirements were consistently met.

We considered the number of Key Recommendations made as a measure of performance. This measure is illustrated in Figure A11-1 below.

Figure A11-1 State Water - Number of Recommendations made in any Licence Year



In reading the above graph, it is important to note that the 2011/12 audit is the sixth audit of State Water. There was only one audit report for the period 2006/08 (and consequently only one set of recommendations).

A key issue that needs to be borne in mind in considering this graph as a measure of overarching performance is the relative risk of both the Clauses under question, and the actual issue(s) generating the gaps in compliance against the Clauses.

Further, 2011/12 was the first year of use of the risk based IPART audit scoping procedure and, therefore, less Clauses were subject to this audit than previously. This procedure is used to focus the independent audits on important or high risk issues. It has been in place for the other operating licence compliance audits for several years and proved useful in managing risk and resources to optimise effectiveness and efficiency.

While it does, therefore, not provide great precision, the above graph clearly illustrates the improvements in aggregate performance that State Water has achieved, especially over the period 2008/09 to 2011/12. In particular, the graph shows a decline in the number of recommendations arising from these audits.

We consider that this improvement is due, in large part, to State Water developing and fine-tuning its procedures to ensure that licence requirements are comprehensively and consistently met.

## Appendix 12 Audit Methodology

It was an IPART requirement that the conduct of the audit of the utility's compliance with the relevant Part, Section or Clause of its Licence, involve the following activities:

- a) conduct of a **detailed examination** of those activities of the utility that are regulated by the Operating Licence, subject to IPART's risk-based audit scope, where applicable.
- b) Conduct of a site visit/inspection of assets, including interviewing relevant field and operations personnel, to **confirm audit findings** based on the auditor's office based audit interview and evidence review processes.
- c) Seek **feedback from stakeholders** involved in any consultation processes conducted by the utility in accordance with relevant licence obligations.
- d) assessment of the **level of compliance** achieved by the utility against each of the requirements of the Operating Licence, set out in IPART's risk-based audit scope, providing detailed supporting evidence for this assessment and reporting compliance according to IPART's defined compliance scoring methodology.
- e) assessment and reporting on progress by the utility in addressing any **comments or requirements made by the relevant portfolio Minister** pertaining to previous audits, providing supporting evidence for these assessments.
- f) for each section of the Operating Licence that is to be audited, **identify factors (if any) that have affected the utility's performance** for the audit period (1 July 2011 to 30 June 2012). This includes verifying the calculation of performance indicators associated with relevant requirements of the operating licences and undertaking an assessment of any underlying trends in performance arising from these indicators. Make recommendations or identify opportunities for improvement to IPART on how the utility can improve its performance in the future, based on the audit assessment.
- g) provide a **formal briefing** to the Tribunal, if required, comprising an overview of the utility's overall performance against the requirements of the Operating Licence and the key findings of the audit.
- h) prepare a **full report** on the findings of the assignment, including a summary of the utility's overall performance against the audited obligations of the Operating Licence and detail of its compliance with each audited obligation of the Operating Licence.

The auditor is responsible for assessing and interpreting the audit requirements in the relevant Operating Licence and the Act, and ensuring that the audit process satisfies all statutory requirements subject to the detailed audit scope.

IPART advertised the audit processes and sought submissions from the public. The auditor was required to take account of any public submissions received and the views of relevant regulators (Department of Environment, Climate Change and Water, NSW Industry and Investment and the NoW) and other stakeholders including environment, social welfare and public interest groups.

## **Audit Methodology**

The methodology adopted for this audit is described in the following paragraphs.

### **Audit Preparation**

To meet the specific requirements of IPART, the operational audit was undertaken adopting IPART's audit Guidelines for Public Water Utilities and a methodology consistent with ISO 14011 'Guidelines for Environmental Auditing'. These guidelines provide a systematic approach to defining the requirements of the audit, planning, interpreting Licence Conditions, collecting audit evidence, objectively assessing the evidence, and reporting in a clear and accurate manner. It also ensures that the audit has been conducted in accordance with an established and recognised audit protocol.

### ***Draft Audit Plan***

A draft audit plan was prepared to ensure that the audit requirements were met and this plan was confirmed with IPART and State Water.

### ***Audit Questionnaires***

Specific audit questionnaires were developed for all clauses to be audited for the 2011/12 year. It was agreed by IPART, State Water and the auditors, that the audit questionnaires would indicate the evidence that might be required, and that State Water would make every endeavour to provide this evidence in sufficient time to allow the auditors to inform themselves with respect to State Water's performance prior to interview.

The questionnaires sought to determine compliance with the Licence requirements, identify any factors that may have impacted on performance (and the likely magnitude of that impact) and the systems in place to deliver or pursue '*best appropriate practice*' performance.

### ***Inception Meetings***

Following the preparation and confirmation of the audit plan, an inception meeting was held with IPART and State Water. This meeting, which included State Water representatives, IPART representatives and the auditors, was held on 2 September, 2012.

The primary objective of this latter meeting was to develop working relationships, mutual understandings and expectations relating to the requirements and process of the audit. The meetings also provided an opportunity for State Water to present an overview of compliance and progress since the previous audit period.

### **Conduct of the Audit**

Audit protocols were agreed and confirmed between the auditors, IPART and State Water at the State Water inception meeting to ensure an open and efficient flow of information and to resolve any identified or potential audit issues.

### ***Audit Interviews***

Nominated auditors (see Figure 1.2) led interviews over 2 - 5 October 2012. The interviews permitted the auditors to explore factors or issues not readily addressed in the written response to the auditors' questionnaires, or in the evidence previously provided by State

Water. The provision of the written responses and evidence prior to the interviews maximised the benefit of the interview process by allowing the auditors to better target key factors and issues not fully or readily addressed in the provided information.

### ***Site Visit***

A site visit was organised that targeted selected assets and field personnel that would allow for confirmation of practices and processes outlined in the audit evidence and interviews.

### ***Draft cycles***

Two formal drafts of the report were prepared. The 1<sup>st</sup> draft review cycle provided State Water with the opportunity to identify any gaps that might be closed with provision of additional evidence and subsequent interviews and to permit correction of any errors of fact so the audit opinion would be accurately informed. The 2<sup>nd</sup> draft review cycle provided general editing and report integrity checks to be conducted.

## B | State Water's Statement of Compliance





**Statement of compliance  
For 2011/12**

**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 2011-12 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 following applicable laws:
  - a) *State Water Corporation Act 2004*,
  - b) *Water Management Act 2000*,
  - c) *Water Act 1912*,
  - d) *Protection of the Environment Operations Act 1997*,
  - e) *Independent Pricing and Regulatory Tribunal Act 1992*,
  - f) *Environmental Planning and Assessment Act 1979*,
  - g) *State Owned Corporations Act 1989*,
  - h) *Dams Safety Act 1978*,
  - i) *Fisheries Management Act 1994*,
  - j) *Public Health Act 1991*,
  - k) *Fluoridation of Public Water Supplies Act 1957* and
  - l) *Water Act 2007 (Cth)*.
3. Schedule A provides information on all obligations with which State Water did not comply during 2011-12.
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.

**DATE:** 13 September 2012



Signed  
Name: Tony Wright  
Designation: Chairman

**DATE:** 13 September 2012



Signed  
Name: Brett Tucker  
Designation: Chief Executive Officer



CLAUSE	OBLIGATION	NON COMPLIANCE DETAIL
2.1.1	<p>State Water must comply with the Licence and all applicable laws.</p> <p>Note: State Water has obligations under a number of laws including:</p> <ul style="list-style-type: none"> <li>(a) <i>State Water Corporation Act 2004;</i></li> <li>(b) <i>Water Management Act 2000;</i></li> <li>(c) <i>Water Act 1912;</i></li> <li>(d) <i>Protection of the Environment Operations Act 1997;</i></li> <li>(e) <i>Independent Pricing and Regulatory Tribunal Act 1992;</i></li> <li>(f) <i>Environmental Planning and Assessment Act 1979;</i></li> <li>(g) <i>State Owned Corporations Act 1989;</i></li> <li>(h) <i>Dams Safety Act 1978;</i></li> <li>(i) <i>Fisheries Management Act 1994;</i></li> <li>(j) <i>Public Health Act 1991;</i></li> <li>(k) <i>Fluoridation of Public Water Supplies Act 1957; and</i></li> <li>(l) <i>Water Act 2007 (Cth).</i></li> </ul>	<p>As a result of a failure by State Water to provide EPA with an annual report concerning the use of a licence (which permitted the use of herbicide) within the required timeframe, the EPA imposed a penalty of \$1 500 on State Water. A request by State Water for the fine to be withdrawn is being considered by EPA. The licence is no longer required by State Water and has been cancelled.</p>
4.3.4	<p>"Following the release of the Annual Audit Report, State Water must, in consultation with the members of the CSCs, review, and if necessary update, the Charter in light of the Annual Audit Report."</p>	<p>The Charter was updated in 2010-11 in consultation with the CSCs. No subsequent review was undertaken in 2011-12. This oversight is attributed to the extremely busy CSC agendas this year with regards to the CSC re-elections and flooding events.</p> <p>It is to be noted that there was no recommendation or opportunity for improvement raised by IPART during the 2010-11 audit.</p> <p>The review of the CSC Charter has been included the CSC annual timetable to ensure future compliance with Clause 4.3.4.</p>



CLAUSE	OBLIGATION	NON COMPLIANCE DETAIL
6.6.1	"State Water must prepare by no later than 1 September each year, draft annual water balances, and by 1 December each year, final water balances, each in the form of the template at Table 5-1 of the final report by Sinclair Knight Merz entitled "State Water Operating Licence – Water Balance Template" dated 30 March 2005 and in accordance with the requirements of that report."	<p>Final water balances for the Murrumbidgee and Murray regions were finalised in 2012. This is an oversight linked to staff turnover.</p> <p>Internal measures have been put in place (recruitment and training) to prevent this issue from happening again in the future.</p>



## C Summary of opportunities for improvement

The auditor has identified a number of potential opportunities where State Water's compliance with the licence could be enhanced, or its practices and procedures could be improved. This appendix summarises these opportunities for improvement.

We have decided not to include one of the auditor's opportunities for improvement on asset management reporting. State Water is only required to report on their asset management system once per licence period, and so this auditor-suggested opportunity for improvement is not able to be implemented.

State Water should consider the prudence and efficiency of implementing these opportunities for improvement.

State Water is not required to report to us on opportunities for improvement. However if State Water chooses to provide a status update report to us by 31 March 2013, we will use this to assist us in developing the scope of the operational audit for that year. We will also provide this report to the auditor as audit evidence.

If provided, the status report should set out the actions and timelines for implementation, where State Water has found that the benefits outweigh the cost of adopting an opportunity for improvement.

### Opportunities for Improvement from Auditor

- 1. Create a stakeholder register (Licence Part 2)** – State Water should create a stakeholder register to facilitate identification of stakeholders, understanding of stakeholder value drivers, and clearly articulate modes of communication.
- 2. Review formalisation of Commonwealth Environment Water Office (CEWO) involvement in Strategic Liaison Group (SLG) (Licence Part 2)** – The CEWO currently sits on the SLG as an observer of how NSW Office of Environment and Heritage handles its water allocation. In the future, State Water may wish to review with the CEWO whether it wishes to become a formal member of the SLG.
- 3. Data collection reporting (Licence Part 3)** - State Water should monitor and report on its progress with regard to collection and validation of its asset base data.

4. **Chlorine Management (Licence Part 3)** - A compliance evaluation should be conducted at the chlorine gas dosing plants addressing the Australian Standard (AS2927:2001) and any other statutory obligations with respect to chlorine management.
5. **Fish River Customer Council meeting minutes (Licence Part 4)** - Suggest that rather than leave the water quality sections blank, state that there was nothing to report and in the future, consider reporting on CCP (critical control point) exceedances once CCPs are in place.
6. **Fluoridation of Lithgow Villages (Licence Part 4)** - If fluoridation occurs at the Duckmaloi WTP, all contracts for supply of drinking water will have to be amended and State Water's current customers will have to be informed first.
7. **Oberon Contract Review (Licence Part 4)** - When Oberon Council's contract is reviewed, the chlorine residual provided by the FRWS will need to be articulated clearly in the Oberon contract in terms of amount and at what handover point.
8. **Contract review minor consumers - register (Licence Part 4)** - The register of consumers from the FRWS needs to include a flag to show when the contract is due for renewal. Ensure that rainwater tanks on the customer's property are also recorded to facilitate backflow management.
9. **Contract review minor consumers - interpretation (Licence Part 4)** - Ensure that customer contracts are updated to replace "New South Wales Code of Practice, Plumbing and Drainage" to the Plumbing Code of Australia.
10. **Contract review drinking water minor consumers - interruptions to supply (Licence Part 4)** - The current clause in the contract states that "*State Water advises that if the Consumer requires a continuous supply of water then the Consumer should install a water tank adequate to avoid difficulties due to supply interruptions*". It is suggested that the clause is amended to say that State Water is not responsible for the quality of the water once it is transferred into the customer's tank.
11. **Contract review major consumers (Licence Part 4)** - When the contracts are next reviewed, it will be helpful to include a diagram in the contract to show exactly where handover points are between the FRWS and the end user and ensure that the water quality expectations are clearly articulated.
12. **Communication of raw water provision to property owners who are customers of the Fish River scheme** - Review how State Water deals with information transfer issues to ensure that incoming customers are fully informed that they have a property for which the water supply is not intended for drinking.
13. **Communication of raw water provision to rental tenants who are customers of the Fish River scheme** - review how State Water deal with rental agencies to ensure that renters understand when they rent properties where the water is not intended for drinking.

- 14. Water quality monitoring of handover points in the Fish River scheme –** State Water should have appropriate monitoring in place at each of its handover points, ie, where water passes from State Water's control to another party, or back into the system from another party, to ensure that it can robustly prove the quality of the water that was handed over or receipted at the time.
- 15. Visibility of policies on website (Licence Part 4) –** State Water could consider including a separate 'policy' section under its corporate publications section of the website to increase visibility of policies.
- 16. Formalisation of calculation methodology for daily minimum flows (Licence Schedule 1 Part A, 1(d)) –** Suggest undertaking a review of the way the calculations are documented as well as the rules for each catchment including standardisation of the graphs to ensure formalisation of the procedure.
- 17. Review of Fish River supply interruption record sheet (Licence Schedule 1 Part B, 1(d)) –** For unplanned supply interruptions, the form currently used needs to have a space to record supply interruption time as well as turn back on time. Forms do not currently give State Water the information on duration of the interruption.
- 18. Review of Fish River Water Quality Management - (Licence Schedule 1 Part B, 3) –** State Water should investigate potential for significant changes in pH due to new cement lining and the consequent impact on chlorine residuals.

#### Opportunities for Improvement from IPART

In relation to the issue raised by the auditor about the Fish River Customer Council, we have included an opportunity for improvement instead of a recommendation.

- 19. Responding to FRCC member comments –** Review how State Water deals with and responds to comments and queries from its FRCC members to ensure that members feel that they have been fairly heard.

