

State Water Corporation Operating Licence

End of Term Review

Water Licensing — Report to the Minister May 2013



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Summary

The Independent Pricing and Regulatory Tribunal (IPART) has conducted an end of term review (review) of the current State Water Corporation's (State Water) operating licence (licence). We have consulted interested stakeholders extensively and undertaken a cost benefit analysis of our recommended changes.

We have recommended the following changes to State Water's licence:

- removal of the requirement for a Community Consultative Committee
- ▼ removal of the requirement to maintain MoUs with certain NSW Government agencies
- removal of the requirement to audit customer owned water meters
- removal of requirements related to the operation of the Fish River Water Supply System that duplicate the *Public Health Act* 2010 (NSW)
- introduction of systems standards approach for asset management
- introduction of systems standards approach for environmental management
- ▼ new requirement to invite the Commonwealth Environment Water Holder to be a member of relevant Customer Service Committees
- ▼ reduction in the number of conferred functions, and a new requirement to publish details of any agreements on the use of conferred functions
- moving reporting requirements from the licence into a reporting manual
- reduction in the number of performance indicators
- introduction of requirements relating to drinking water quality management for local water utilities
- ▼ introduction of a requirement to notify customers of major changes to dam releases
- ▼ introduction of a requirement for State Water to read unregulated river and groundwater meters, and manage any meters installed under government programs, and
- other minor changes to remove unnecessary and duplicate obligations, and to improve the efficiency of the licence.

Our recommended regulatory approach is similar to the approach used for Sydney Water Corporation, Sydney Catchment Authority and Hunter Water Corporation.

Finally, we also make a recommendation arising from the review that is not included in the recommended licence:

 that a review of current responsibilities related to flood mitigation and management be conducted.

Licence term

The current State Water licence expires on 23 June 2013. Licences granted to major water utilities are reviewed and must be subsequently renewed after a maximum period of 5 years. To allow the new licence to align with financial year reporting and auditing periods, the existing licence will be renewed for the period between 24 June and 30 June 2013. The new licence will operate from 1 July 2013 to 30 June 2018.

1 | IPART's approach and process for this review

State Water is a State Owned Corporation wholly owned by the NSW Government. Its primary role is to provide, maintain, manage and operate major infrastructure to deliver bulk water to over 6,000 licensed water users on the state's regulated rivers. State Water also maintains and operates the Fish River Water Supply Scheme to provide bulk and drinking water to Oberon and Lithgow Councils, Delta Electricity, and other customers.

These roles and responsibilities, as well as State Water's objectives, are prescribed by the State Owned Corporations Act 1989 (NSW), the State Water Corporation Act 2004 (NSW) (the Act) and the operating licence issued to State Water under Part 2 of the Act.

1.1 Objective of the review

The primary objective of the end of term review is for IPART to recommend to the relevant Minister (currently the Minister for Primary Industries - the Minister) the conditions which may be included in the new licence. In reviewing State Water's licence, we considered whether to maintain or amend the terms of the current licence to improve State Water's operational efficiency and regulation. We also considered gaps in the current licence, and updated functions conferred on State Water by the Minister.

1.2 Scope of the review

State Water's current licence requires that an end of term review be undertaken:

- to determine whether the licence is fulfilling its objectives
- ▼ in relation to any matter required to be reviewed by the licence, and
- ▼ to determine the terms of any renewal of the licence.

Our review has considered all aspects of State Water's operations.

1.3 Our approach to the review

The current licence requires that we engage in public consultation, and report to the Minister our findings and any recommendations arising. The Minister may accept or reject our recommendations, before endorsing a new licence for approval by the Governor and subsequent gazettal.

Table 1.1 lists the steps we took in the review.

Table 1.1 Steps in the State Water operating licence review

Action	Timing
Issues paper released	July 2012
Public submissions	July-September 2012
Review of stakeholder submissions	September 2012
Draft CBA of licence conditions prepared	September-December 2012
Draft licence and reporting manual prepared	September 2012 – January 2013
Public release of draft licence packagea	January 2013
Public forum and submissions	March 2013
Review of stakeholder submissions	March 2013
Final draft licence package prepared	April 2013
Final stakeholder consultation	April 2013
Final licence package prepared	May 2013

a The draft licence package included the draft operating licence, draft reporting manual, and draft CBA report.

1.3.1 Issues paper

The issues paper raised a range of issues and questions. The paper also summarised our preliminary views on changes to the licence required to address the issues raised in the paper. The proposed changes included¹:

- introduction of a systems standard approach to asset and environmental management areas in the licence, using a particular framework to follow to achieve identified outcomes
- ▼ introduction of a reporting manual to consolidate and coordinate reporting requirements under the licence
- minor changes to the licence to make it clearer and more effective (eg, removal and consolidation of duplicative licence requirements and legislative references and a plain English review).

IPART, Review of the Operating Licence for State Water Corporation – Issues Paper, July 2012, pp 45, 65, 78, 77.

1.3.2 Public submissions on issues paper

We received 7 submissions in response to the issues paper from:

- ▼ State Water
- ▼ NSW Irrigators' Council
- Murray Irrigation Limited
- ▼ Tegra Australia Pty Ltd
- ▼ Harden Shire Council
- Department of Primary Industries (Fisheries NSW).
- NSW Office of Water.

Stakeholders provided useful feedback on the issues presented, and were generally supportive of the proposed direction for the new licence.

1.3.3 **Draft licence package**

We prepared a draft Cost Benefit Analysis (CBA) report on the proposed changes to the licence after considering the submissions on the issues paper. We then prepared a draft licence and draft reporting manual based on the outcomes of the CBA. These formed the draft licence package which we distributed publically for comment2.

The draft licence included new obligations related to the provision of bulk water to Local Water Utilities who subsequently treat the water to provide drinking water to their customers. This issue had not been discussed previously in the issues paper, but was raised by stakeholders during the review process.

IPART, Review of the Operating Licence for State Water - Draft Licence Package, February 2013.

1.3.4 Public forum and submissions on draft licence package

We invited stakeholders to a public forum in Sydney to discuss the draft licence package³. Both IPART and State Water presented positions on the content of the draft package, and answered the questions raised by stakeholders.

Following the forum we received 11 submissions in response to the draft package from:

- ▼ State Water
- ▼ NSW Irrigator's Council
- ▼ Murrumbidgee Irrigation Limited
- ▼ Tumut Shire Council
- ▼ Department of Primary Industries (Fisheries NSW)
- ▼ NSW Office of Environment and Heritage
- ▼ Nature Conservation Council of NSW
- ▼ Commonwealth Environment Water Office
- ▼ NSW Health
- ▼ NSW Office of Water
- Local Government Shires Association (LGSA).

Again the stakeholders provided useful feedback on the content of the package. There was concern from the NSW Irrigators' Council⁴ and other stakeholders regarding the benefits of asset and environmental management systems, and about the removal of certain obligations on IPART.

1.3.5 Final licence package

We revised the CBA report, licence and reporting manual after considering the submissions on the draft package. We also consulted further with State Water and the NSW Office of Water on issues related to metering and other conferred functions. IPART's Tribunal endorsed the final package on 8 May 2013.

³ IPART, Review of the Operating Licence for State Water – Transcript of Public Hearing, 5 March 2013.

⁴ NSW Irrigators' Council submission on Issues Paper, pp 10, 14.

1.4 Structure of this report

The rest of this report is structured as follows:

- ▼ Chapter 2 discusses our guiding principles in developing the new licence.
- ▼ Chapter 3 discusses the changes to the licence we considered during our review, in the following sections:
 - major obligations that were removed from the existing licence
 - major obligations that were updated or changed in the existing licence
 - major new obligations not in the existing licence
 - other minor changes to the licence
- ▼ Chapter 4 discusses other issues considered during the review, but not included in the licence.
- ▼ Appendix A presents the recommended operating licence.
- ▼ Appendix B presents the recommended reporting manual.
- ▼ Appendix C presents the cost-benefit analysis report.

2 | Guiding principles for developing the new licence

The licence should be outcome focused and provide a net benefit to society. That is, the licence conditions should direct State Water to achieve the desired outcomes without imposing unnecessary compliance and administrative costs. This approach is consistent with the evolution of good regulatory practice for public water utilities.

In conducting the review, we have adapted the NSW Office of Better Regulation Principles of Better Regulation⁵ to assist us in determining what obligations should be included in the new licence. Each of our guiding principles is described below.

Positive cost-benefit

We consider that the licence should include obligations with a positive costbenefit.

We investigated the costs and benefits of different licence obligations during the review. We considered the cost of compliance, and the needs of stakeholders, the environment and the public. The CBA report provides further details.

Non-prescriptive approach

We consider that the licence should encourage State Water to develop sensible and efficient business processes, and should avoid being prescriptive where possible.

We consider that State Water is well placed to consider the concerns of its stakeholders, and make decisions on how best to operate its business. By using a systems-based approach to regulation, we can provide a framework in which State Water must operate, but allow it to decide how best to achieve its objectives.

⁵ NSW Better Regulation Office, Guide to Better Regulation, November 2009, p 7.

Avoid regulatory duplication

We consider that the licence should not duplicate existing legislative or other requirements imposed by other government agencies.

State Water is already required to comply with the external instruments, and repeating these obligations in the licence is redundant. Duplication can also cause confusion as to who the appropriate regulatory authority is, and adds an additional layer of compliance which may not have been intended.

Rather, we consider that a licence should complement and be consistent with other regulatory requirements imposed on State Water.

We aimed to remove any regulatory duplication where it did not provide any additional guidance or auditable benefit. We have included notes in the recommended licence, referencing external requirements where they relate to the requirements of the licence. We consider this provides the necessary information while minimising the obligations on State Water.

Avoid obligations on external parties

We consider that the licence is a regulatory tool that describes the requirements for the operations and management of State Water, and should not place obligations on external parties.

These obligations are not themselves audited, and do not serve any regulatory purpose other than to provide information.

Relevant reporting and performance monitoring

We consider that the licence should require State Water to provide useful and effective reporting on their performance against licence obligations.

IPART monitors State Water's compliance with the licence through regular reporting and auditing. In reviewing the licence and preparing the reporting manual, we reviewed all the existing reporting that State Water is required to provide to IPART and the public. We consider that State Water should only be required to report where that reporting is directly related to a licence obligation.

We also consider that State Water should only report where that reporting is considered useful by IPART or another stakeholder.

3 Changes to the licence

This chapter presents a summary of the changes considered during the licence review. These changes are broken into the following categories:

- major obligations that were removed from the existing licence
- ▼ major obligations that were updated or changed in the existing licence
- major new obligations not present in the existing licence
- ▼ other minor changes to the licence.

The recommendations from this chapter are incorporated into the recommended licence and reporting manual in Appendices A and B.

3.1 Major obligations removed from the licence

Our review aimed to remove any unnecessary obligations from the licence in order to reduce the burden of compliance on State Water. In general, obligations were removed where they did not meet the principles described in Chapter 2, or were otherwise considered ineffective. This section describes the obligations removed, and our reasons for doing so.

Community Consultative Committee

The current licence requires State Water to maintain a state-wide Community Consultative Committee (CCC) to allow stakeholder input on major issues. State Water submitted that the committee did not provide benefits, as the members of the committee were often single-interest groups with specific concerns. This type of group did not lend itself towards consultative discussion of major issues. State Water further submitted that it effectively engages with stakeholders through Customer Service Councils (CSCs) that are specific to each river valley.⁶

We proposed that this requirement be removed. The majority of stakeholders agreed with this proposal, with the exception of the NSW Local Government Shires Association (LGSA). LGSA was concerned that removal of the CCC would remove avenues for input by representative groups at a strategic level.⁷

⁶ State Water submission on Issues Paper, p 18.

⁷ LGSA submission on draft package.

As the CSCs only represent State Water's customers, we needed to ensure that stakeholders who are not State Water customers, but are affected by their operations, continue to have other avenues for input into major issues. Such groups may include recreational users who may use State Water managed lakes and rivers, business owners near lakes and rivers, and local councils managing lands next to lakes and rivers. We consider that the obligations for stakeholder involvement in the development and implementation of the Asset Management System and Environmental Management System will be sufficient.

We recommend removal of the requirement for State Water to maintain the CCC.

Memoranda of Understanding

The current licence requires State Water to use its best endeavours to maintain a Memorandum of Understanding (MoU) with each of the Directors-General of the Department of Water and Energy (now the NSW Office of Water), the Department of Primary Industries (DPI) and the Department of Environment and Climate Change (now the Office of Environment and Heritage - OEH). The purpose of each MoU is to form the basis for the co-operative relationship between State Water and the respective agency.

State Water raised concerns in its submissions that the MoU obligations create an inherent inequity in its relationships with the respective departments. example, State Water's adherence to the MoUs is reported on and audited whilst the same does not occur for the MoU partners. State Water is concerned that this asymmetric obligation will limit the future usefulness of the MoUs.8

We proposed that this requirement be removed, noting that this would not prevent State Water from retaining the MoUs with these agencies.9 There was concern from NSW Fisheries, which considered that the obligation provided certainty to agencies that agreements would remain.¹⁰

State Water confirmed that it intends to maintain the MoUs with these agencies.8 We consider that it is in State Water's best interests to maintain a relationship with those agencies it regularly deals with, and that this relationship should be based on mutual need, and not compliance.

We recommend removing the requirement for State Water to maintain MoUs.

⁸ State Water submissions on Issues Paper, p 22, and draft package, p 16.

⁹ IPART, Review of the Operating Licence for State Water Corporation – Issues Paper, July 2012, p 80.

¹⁰ Fisheries NSW submission on draft package, p 2.

Water metering

The current licence requires State Water to audit the compliance of its customers meters against any Commonwealth or State metering standard adopted by the Government.

During the term of the current licence, State Water audited 81% of its customers' meters, and found that 0.2% (approximately 6 meters out of 3700 audited) complied with current metering standards.¹¹ We considered at the time that further auditing was wasteful and would not likely change the level of compliance, and so wrote to State Water to inform it that further auditing was unnecessary.¹²

A number of non-compliant meters have since been replaced under a pilot Government funded replacement program, which may be rolled out to other valleys in the future. We have no evidence that there has been any change to the level of compliance of the remaining customer-owned meters.

We recommend removal of the requirement for State Water to audit customer's meters.

Fish River Water Supply Scheme drinking water quality

The existing licence requires State Water to report the results of drinking water quality monitoring in the Fish River Water Supply Scheme, as agreed with IPART. This requirement infers some oversight of drinking water quality management by IPART.

NSW Health is the primary regulator responsible for the management of drinking water quality in NSW. Drinking water suppliers are bound by the *Public Health Act 2010* (NSW), and *Public Health Regulation 2012* (NSW). These instruments require drinking water providers to develop and adhere to a quality assurance program based on the Australian Drinking Water Guidelines Framework for Management of Drinking Water Quality (ADWG Framework). This includes the Fish River Scheme, operated by State Water.

The majority of submissions on this issue, including that of State Water, preferred regulation by NSW Health under the *Public Health Act* 2010 (NSW).¹³ We consulted further with NSW Health and State Water to ensure this was a suitable arrangement.

We recommend against including requirements in the licence related to drinking water quality from the Fish River Scheme. We recommend that all other requirements related to the operation of the scheme are retained.

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¹¹ State Water, 2010-2011 Report to IPART under the Operating Licence, 1 September 2011, p 40.

¹² IPART, letter to State Water regarding water metering performance indicators, 11 April 2011.

¹³ State Water submissions on Issues Paper, p 12.

3.2 Major updated or changed obligations

During the review, we considered whether any existing obligations could be changed or updated to better meet the guiding principles described in Chapter 2. This section describes the obligations removed, and our reasons for doing so.

Asset management

The existing licence requires State Water to manage its assets in accordance with the NSW Government's Strategic Management Framework, and the principles of the NSW Government's Total Asset Management System. The licence also includes a general obligation duplicating all other external asset management obligations on State Water.

We proposed that we change the licence to require State Water to develop and implement an asset management system consistent with the ISO 55000 suite of standards.14

This is a similar approach to that recommended in recent operating licence reviews of other State owned water utilities, where our final recommendations have tended to move away from prescriptive licence conditions in favour of asset management systems standards.

Effective asset management systems based in ISO 55000 take into consideration all activities that have an impact on the management of assets by identifying the objectives of the asset management activities and then prioritising them according to risk. As such, an asset management system approach provides a framework for integrating and prioritising the various asset management objectives of State Water's regulatory obligations.

We consider a systems approach to be much more comprehensive than the prescriptive approach outlined in the current operating licence. A systems approach does not rely on the licence to list all the issues at the risk of missing or alternatively overstating the importance of an aspect of the business's asset management. Further, a systems approach generally includes continual improvement processes, encouraging refinement over the term of the licence.

State Water would need to engage with relevant stakeholders on asset management issues to identify objectives, targets and an appropriate monitoring regime to be compliant with the standard. IPART will audit this obligation to ensure that State Water's asset management system is effective. IPART's audit guidelines require us to seek public comment prior to conducting audits.

We recommend that the licence require State Water to develop and implement an asset management system consistent with the ISO 55000 suite of standards.

¹⁴ IPART, Review of the Operating Licence for State Water Corporation – Issues Paper, July 2012, p 45.

Environmental Management

The current operating licence deals with the various objectives for environmental management, by requiring State Water to manage its environmental impacts with prescriptive obligations outlined in an environmental management plan. recent years, regulatory instruments have increasingly evolved from prescriptive specifications to more adaptive and preventive systems standards, as highlighted in the previous section.

Stakeholder submissions on environmental management were mixed. Customers such as the NSW Irrigators' Council¹⁵ and Murray Irrigation¹⁶ generally supported the adoption of a systems based approach, but were concerned this would increase prices with no discernible benefits. Government and regulatory stakeholders raised concerns that certain environmental issues may be overlooked if they weren't specified in the licence.¹⁷

As with the asset management system, State Water would need to engage with relevant stakeholders to be compliant with the standard. Again, IPART will audit this obligation to ensure that State Water's asset management system is effective. This concerns regarding specific approach addresses the environmental issues raised in the submissions.

We recommend that we change the licence to require State Water to develop and implement an environmental management system consistent with the ISO/AS/NZS 14000 suite of standards.

Customer Service Committees

State Water is currently required to maintain and consult with Customer Service Committees (CSCs) in each river valley to allow customers to have input on major issues. The licence requires that a representative of NSW OEH sit on the committee to represent the interests of the environment. The Commonwealth Environment Water Holder (CEWH) is fast becoming the largest entitlement holder of State Water's customers, but is currently not directly represented on CSCs. CEWH is an observer on the CSCs in the Murray Darling basin, and representation is made through the OEH representative.

 $^{^{15}\,\,}$ NSW Irrigators' Council submission on issues paper, p 14.

¹⁶ Murray Irrigation submission on issues paper, p 4.

¹⁷ Fisheries NSW submission on draft package, p 1.

We proposed that the licence requirement be changed to include CEWH as a member of the CSCs, to reflect its increased importance as a customer.¹⁸ Some stakeholder submissions disagreed with this proposal.¹⁹ They considered that CEWH was already adequately represented, as currently OEH act as the conduit of information, and CEWH does not directly interact with State Water as a customer. We consider that CEWH is an important stakeholder regardless of their arrangement with OEH.

We recommend that CEWH should be invited to participate in CSCs where relevant. We recommend OEH maintains its representation as it deals with a range of environmental issues.

Conferred functions

State Water has numerous functions conferred on it by the operating licence and other instruments of delegation. Unlike other functions of State Water, the conferred functions are regulatory powers. These functions are about what State Water regulates rather than how it is regulated.

The majority of functions conferred on State Water are policing functions related to water extraction and use under the Water Management Act. Many of these conferred powers are non-exclusive and shared with the NSW Office of Water. The arrangement between State Water and the NSW Office of Water for the exercise of these powers is set out in a compliance protocol, a document which is not publicly available.

NSW Office of Water and customer stakeholders noted that there was confusion as to who the relevant authority was for certain functions, and that this was detrimental to maintaining good regulatory practice.²⁰ We undertook significant consultation on this issue with State Water and NSW Office of Water to determine the best outcome.

We have revised the list of conferred functions in consultation with State Water and NSW Office of Water, and removed any that were considered unnecessary or inappropriate for State Water to hold. This has reduced the number of conferred functions by around half.

We have generally conferred the functions without any conditions on their use, and expect that State Water and NSW Office of Water will develop an agreement as to the conditions of use. We have included a licence obligation that requires State Water to publish details of any agreements relating to the use of conferred functions. We consider this will clarify the issue for all stakeholders.

¹⁸ IPART, Review of the Operating Licence for State Water Corporation - Issues Paper, July 2012,

¹⁹ NSW Irrigators' Council submission on final package, p 7.

²⁰ NSW Office of Water submission on final package, p 2.

State Water's ability to meet its licence requirements now relies on NSW Office of Water promptly exercising some of the removed functions. We expect that where there is a risk of this occurring, this will be noted in the agreement between the 2 parties. We consider that this would allow State Water to remain compliant with its licence.

We recommend functions be conferred on State Water according to the recommended licence. We recommend State Water be required to publish details of any agreement regarding the use of these functions.

Reporting Manual

The current licence has many reporting obligations. These reporting obligations can only be changed by an amendment to the licence requiring approval from the Minister and the Governor of NSW. This has meant that reporting requirements could not be easily adapted in response to changes in the operating environment.

Moving the reporting requirements to a reporting manual in line with other major water utility licences means requirements can be updated quickly and easily, in light of changing circumstances. This is because the reporting manual can be updated by IPART, through consultation, without approval from the Minister and the Governor. This streamlines the licence, and provides clarity between licence obligations and performance reporting against those obligations.

We recommend moving all reporting requirements to a separate Reporting Manual.

Performance indicators

The current licence includes 19 performance indicators that State Water must report to IPART each year. We reviewed these indicators for relevance, usefulness and effectiveness as part of the overall licence review.

We developed a set of criteria to aid us in determining which existing performance indicators should be retained, and which new indicators, if any, should be added.

Our review determined that of the 19 existing indicators, only 4 should be retained. No new indicators were identified. These 4 indicators relate to customer service and customer satisfaction regarding State Water's water delivery operations.²¹

We recommend the performance indicators provided in the recommended Reporting Manual be adopted.

²¹ IPART, Fact Sheet – State Water's Performance Indicators, February 2013.

3.3 Major new obligations in the licence

Our review identified a number of new and emerging issues that could be considered for inclusion in the licence. This section describes the new obligations we recommend.

Water quality management for Local Water Utilities

Local Water Utilities (LWUs) must prepare a drinking water quality assurance program in accordance with the Public Health Act 2010 (NSW). When preparing a quality assurance program a LWU must consider its systems from catchment to consumer. State Water dams are the main source of water for 68 LWUs in NSW, and as such are a part of the LWUs water supply systems.

We consider that a LWU could develop a more robust and effective quality assurance program if State Water were to have some involvement in the process. This could result in better understanding of the system and its risks, and more effective controls to manage these risks. We consulted with stakeholders on this issue and considered a number of options.

We recommend that State Water be required to

- ▼ identify and maintain a register of all LWU customers
- develop a procedure to allow LWUs to request information to inform their quality assurance programs.

We consider that these requirements provide a good first step in recognising the role that State Water plays in LWU drinking water quality. The obligations allow a LWU to seek information where it thinks this would provide value, and places little administrative burden on State Water.

Advance notification of changes to flow releases

State Water currently operates and maintains an Early Warning Network, an optin notification system, which notifies subscribers of dam safety issues, flood and high release notifications, and other specific issues in certain areas.

We consider that this system provides significant value to stakeholders, and addresses a number of concerns raised during the review.

Including a requirement in the licence to maintain this system highlights the importance of the Early Warning Network system, and provides IPART with regulatory oversight on a significant stakeholder issue. We consider that the current system fully complies with our recommended requirement, and as such no additional costs would be incurred by State Water.

We recommend including a new requirement that State Water maintain its system to provide notification of major changes to flow releases.

Water metering – ground water and unregulated rivers

Both State Water²² and NSW Office of Water²³ raised the issue of State Water's role in water metering during the review. State Water is progressively taking on new responsibilities for groundwater and unregulated river extraction metering, in addition to its existing responsibility for regulated river extraction metering. Both parties sought clarification of these new responsibilities through operating licence obligations.

We found it difficult to determine what requirements the licence should include at this time. State Water's role is not well understood, with negotiations continuing with NSW Office of Water to better define this. There is also a lack of clarity around how these functions will be transferred to State Water.

After consultation with both parties, we recommend that the licence include obligations for State Water to read groundwater and unregulated river meters where there is an agreement with NSW Office of Water or the Minister to do so. We consider this obligation gives State Water the power to carry out the necessary functions, without limiting its role as it changes in the coming years. Further specific requirements can be included in any agreements with NSW Office of Water or the Minister.

3.4 Minor changes to the licence

Table 3.1 Minor changes to the licence

Issue	Existing obligation	Recommended obligation
Obligations on IPART	IPART is required to carry out a mid-term review, end- of-term review, and operational audits.	None. We recommend removing obligations on IPART from the licence. IPART still intends to carry out all necessary compliance activities as required by the Act.
Duplicate requirements	State Water is required to comply with other legislation including: - the Act - Dams Safety Act - Water Sharing Plans - Works approvals	None. We recommend not including any duplicate obligations in the licence.

²² State Water submission on draft package, p 13.

²³ NSW Office of Water submission on draft package, pp 3-5.

Issue	Existing obligation	Recommended obligation
Demand management strategies	State Water must consider demand management strategies when augmenting Water Management Works.	None. This is a specific requirement related to asset management. We recommend not including prescriptive requirements, and expect all relevant issues, including demand management, to be included in the Asset Management System.
Water balances	State Water must prepare water balances in accordance with a template provided in 2005 with its first operating licence.	We have changed the requirement to require State Water to prepare consistent water balances for each valley. We consider that the current format and breakdown of the water balances meets the new requirement.
Fish River system yield	State Water must prepare a system yield calculation for the Fish River water supply scheme.	None. Such calculations should be prepared by water resource managers such as NSW Office of Water, rather than water service providers, such as State Water.
Pricing	State Water must apply fees, charges, and other amounts payable in accordance with any pricing determinations.	None. This is a redundant clause as pricing determinations are applicable independently of the licence.
External dispute resolution scheme	State Water must be a member of an external dispute resolution scheme, which must include a list of prescriptive features.	State Water must be a member of Energy and Water Industry Ombudsman NSW (EWON). Specific requirements are unnecessary.
General language and clarity changes	Whole of licence	We have re-drafted some clauses which we found to be unclear, or that could be simplified.
Reporting obligations	State Water must report on a number of areas of performance.	We have reviewed the reporting requirements, and removed some reporting that we considered unnecessary, such as detailed complaints reporting, and State of Assets reporting.

4 Issues considered but not included in the licence

We identified many issues of concern during the review. We considered that some of these issues, while significant, were not suitable for inclusion in the licence. This section outlines those issues which we consider relevant, but do not relate to any licence obligations.

Flood Management

We investigated State Water's role in flood management during the review, and considered whether obligations related to flood management should be included in the licence.

It was not easy to identify the gaps and overlap in the responsibilities for State Water's flood management functions, due to the complexity of the current regulatory framework for flood mitigation and management in NSW, and the various regulatory instruments and agencies which oversee these functions.

In the recently released State Infrastructure Strategy, Infrastructure NSW noted that:

...an underlying problem inhibiting effective flood management in NSW is the lack of clear governance. Current arrangements spread responsibility for flood management across multiple Government agencies and local councils.²⁴

In response to this issue, Infrastructure NSW recommended that the Government immediately conduct a review of current responsibilities with a view to ensuring a single entity has clear accountability for flood management within the State Government.

We propose to remove the existing obligations specifically relating to flood operations (which duplicate other regulatory requirements) and refrain from recommending any new conditions relating to flood mitigation or management in the operating licence until a complete review has been completed. Further, we consider that if the Government decides in future that the operating licence has a role in regulating State Water's flood management and mitigation activities, the licence could be amended to include appropriate conditions.

²⁴ Infrastructure NSW, The State Infrastructure Strategy 2012 – 2032, p 163.

We recommend that there needs to be a complete and coordinated review of flood mitigation and management responsibilities in NSW.

Quality Management System

State Water currently operates in a complex business environment, collecting and sharing data with other agencies and organisations. As the NSW Office of Water and State Water work closely together, we considered investigating that State Water develop a Quality Management System (QMS) with the aim of ensuring the data and information transferred between the agencies is appropriately managed to maintain integrity.

We also considered that by requiring State Water to develop a QMS there will be benefits to customers and other stakeholders. The potential benefits of implementing a certified quality management system are wide-ranging and can include efficiency and productivity gains, better levels of service and reduced risk of system failure. The proper integration of quality management into a business also represents good business practice.

State Water's submission on this issue stated that it does not currently see any significant issue with regards to quality. It is concerned that the significant cost associated with the implementation of a QMS will not offset the small anticipated improvement in operating licence compliance.25

State Water submitted that the costs of implementing and maintaining a QMS will lead to a material increase in prices without a noticeable improvement to service delivery to customers. Consequently, State Water does not support including a QMS obligation in the operating licence.

State Water was not able to estimate the level of work required to bring existing systems and processes in line with the requirements of a QMS. The CBA report estimated that it would cost up to \$2.4m for State Water to develop, certify and implement a QMS. Due to the relatively high potential cost and general lack of information regarding State Water's requirements and capacity to develop and implement a QMS, we do not support the proposal to include a QMS requirement in State Water's operating licence at this time.

Notification of Water Quality Incidents

We considered further obligations requiring State Water to notify utilities of any incidents that could affect drinking water quality, in addition to our previously recommended obligations related to Local Water Utilities (LWUs). discussion with State Water and other stakeholders, we decided not to include further requirements.

²⁵ State Water submission on Issues Paper, p 21.

We consider that retaining the requirement for State Water to notify Local Water Utilities of any such incidents may have adverse outcomes. State Water already has systems in place to notify its customers of the 2 most significant water quality issues, that is blue-green algae and major changes in river flows. Additionally, requiring State Water to notify LWUs directly could undermine existing notification protocols in place with NSW Health and the NSW Environmental Protection Authority.

Customer agreements

The licence requires State Water to maintain a Customer Service Charter, setting out the mutual responsibilities and obligations of State Water and its customers. This includes issues such as water ordering, communication, and availability of information. Regarding water delivery, State Water is required to maintain a water allocation account. Beyond this, State Water has no agreements in place with its customers relating to service delivery.

One State Water customer, a major regulated river water user, submitted during the review that State Water should enter into formalised agreements with its larger customers, which would include expected levels of service related to the timing of water delivery and water quality. This would assist these customers in managing risks to their businesses posed by water supply issues.

We wish to bring this issue to the Ministers attention, but consider that it is beyond the scope of the licence review.

Appendices

A Recommended operating licence

State Water Corporation Operating Licence 2013-2018

Water Licensing – Operating Licence 2013- 2018

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Licence and Licence authorisation

1.1 **Purpose of this Licence**

- 1.1.1 This Licence is granted to enable and require State Water to carry out its functions within its Area of Operations on the terms and conditions set out in this Licence. This Licence sets out the terms and conditions under which State Water is to:
 - a) meet the objectives and other requirements imposed on it in the Act and other applicable law;
 - b) provide, construct, operate, manage and maintain efficient, coordinated and commercially viable systems and services to capture, store and release water;
 - c) comply with the performance standards specified in this Licence;
 - d) comply with the reporting obligations set out in the Reporting Manual;
 - e) be subject to Operational Audits; and
 - f) where conferred on State Water by this Licence, undertake specified functions of:
 - the Minister administering the Water Management Act 2000 (NSW) and the Water Act 1912 (NSW); and
 - ii) the Ministerial Corporation under any Act or law.
- 1.1.2 To the extent permitted by any applicable law, this Licence authorises State Water to carry out its functions:
 - a) outside the State; and
 - b) within the area of operations of:
 - i) Sydney Water Corporation;
 - ii) Sydney Catchment Authority;
 - iii) Hunter Water Corporation; or

iv) a Water Supply Authority,

subject to State Water obtaining the written agreement of the relevant body.

1.2 **Duration of this Licence**

1.2.1 The term of this Licence is 5 years from the Commencement Date.

> [Note: This Licence starts on 1 July 2013, which means that it will end on 30 *June 2018.*]

1.3 **Availability of Licence**

- 1.3.1 State Water must make this Licence available free of charge:
 - a) on its website for downloading by any person; and
 - b) to the public on request.

1.4 **Conferred functions**

- 1.4.1 This Licence confers on State Water the functions specified in Schedule A to this Licence.
- 1.4.2 State Water must exercise any functions conferred on it under this Licence consistently with the Water Management Act 2000 (NSW), the Water Act 1912 (NSW), the New South Wales - Queensland Border Rivers Act 1947 (NSW), any other relevant law and any relevant Water Management Plan.
- 1.4.3 By 1 October 2013, State Water must publish a statement setting out any agreed roles and responsibilities regarding the functions conferred on it under clause 1.4.1 and Schedule A, as agreed with the NSW Office of Water, the Ministerial Corporation or any other relevant government departments or agencies.

[Note: this obligation could be fulfilled by publishing those parts of any agreements (including memoranda of understanding) entered into by State Water and other government departments or agencies with which it shares the functions, which document roles and responsibilities regarding conferred functions.]

1.4.4 State Water must make the statement described in clause 1.4.3 available free of charge:

- a) on its website for downloading by any person; and
- b) to the public on request.

2 Water quality

2.1 Bulk Water supplied to Local Water Utilities for Drinking Water purposes

- 2.1.1 State Water must maintain a register of all Local Water Utilities:
 - a) for which State Water maintains a Water Allocation Account; and
 - b) to which State Water delivers water that will be used for the purposes of Drinking Water (Local Water Utility Customers).

The register must include contact details for each Local Water Utility Customer, and the Valley and approximate location from which each Local Water Utility Customer extracts water.

- 2.1.2 By 1 October 2013, State Water must develop and implement a procedure for providing information when requested by any Local Water Utility to inform that utility's Drinking Water quality assurance program (LWU Information Request Procedure).
- 2.1.3 State Water's LWU Information Request Procedure under clause 2.1.2 above must:
 - a) describe how a Local Water Utility is to request information;
 - b) describe how State Water will respond to the request in a timely manner; and
 - c) define any fees or charges that will be charged by State Water to recover reasonable costs incurred for responding to an information request, how these will be calculated, and how they are to be paid.
- 2.1.4 State Water must make details of the LWU Information Request Procedure free of charge:
 - a) on its website for downloading by any person; and
 - b) to the public on request.

[Note: The purpose of clause 2.1 is to ensure that there are mechanisms in place for State Water to share information which it currently collects with interested Local Water Utilities, where that information could usefully inform a Local

Water Utility's Drinking Water quality assurance program.]

3 | Water quantity

3.1 Delivery of water to Customers

3.1.1 State Water must take all reasonable steps to process all Water Orders promptly and efficiently.

[Note: Where a Customer places an incomplete or incorrect Water Order, State Water could fulfil this obligation by notifying that Customer promptly and efficiently of the error, and how to rectify it.]

- 3.1.2 State Water must take all reasonable steps to manage Water Orders so as to ensure the timely Delivery of water to its Customers.
- 3.1.3 State Water must maintain a Water Allocation Account for each access licence issued under the *Water Management Act* 2000 (NSW) and each licence issued under the *Water Act* 1912(NSW) held by a Customer.
- 3.1.4 State Water must take all reasonable steps to conserve water and minimise water losses that result from undertaking its operations under this Licence.

[Note: The obligations imposed on State Water by this clause 3.1 are subject to the requirements of any water sharing plans or water management work approvals.]

3.2 Advance notification of changes to flow release patterns

3.2.1 State Water must maintain an effective system to provide advance notification of any significant changes to flow release patterns from its Water Management Works, to Customers and other stakeholders that have registered to be notified of such changes.

3.3 Water balance reporting

3.3.1 State Water must prepare water balance reports for each of the Valleys in which it operates, in accordance with the Reporting Manual.

Assets

4.1 **Asset Management System**

- 4.1.1 By 30 June 2018, State Water must develop a Management System that is consistent with:
 - a) the International Standard ISO 55001: 2013 Asset Management -Management systems - Requirements; or
 - b) another asset management standard agreed to by IPART,

(Asset Management System).

- 4.1.2 In the case of an Asset Management System which is developed under the International Standard ISO 55001: 2013 Asset Management -*Management systems – Requirements,* State Water must ensure that:
 - a) by 30 June 2018, the Asset Management System is certified by an appropriately qualified third party to be consistent with the International standard ISO 55001:2013: Asset Management -Management systems - Requirements; and
 - b) once the Asset Management System is certified under clause 4.1.2(a) above, the certification is maintained during the remaining term of this Licence.
- 4.1.3 State Water must ensure that, by 30 June 2018, the Asset Management System is fully implemented and that all relevant activities are carried out in accordance with the system.
- 4.1.4 Until the Asset Management System has been developed in accordance with clause 4.1.1 and certified in accordance with clause 4.1.2 (if applicable), State Water must:
 - a) maintain programs to manage risks to its assets and to maintain the appropriate levels of service of those assets; and
 - b) ensure that all its activities are carried out in accordance with those programs.
- 4.1.5 Once the Asset Management System is certified in accordance with clause 4.1.2 (if applicable), State Water must notify IPART of any significant changes that it proposes to make to the Asset Management System in accordance with the Reporting Manual.

4.2 Water metering

- 4.2.1 State Water must read each of its Customers' meters.
- 4.2.2 Where provided for in any agreement between State Water and the Minister or the NSW Office of Water, State Water must:
 - a) read Metering Equipment (if applicable); or
 - b) determine water extraction

for groundwater and Unregulated River licence holders.

4.2.3 State Water may operate, replace, repair, maintain, remove, connect, disconnect or modify Metering Equipment installed under a government-funded meter program.

> [Note: This clause 4.2 enables State Water to perform the metering functions set out in this clause for the purposes of section 22A(1) of the Act, subject to the terms and conditions of this Licence.]

Customers

- 5.1 Valley-based customer service committees (excluding Fish **River Water Scheme Customers)**
- 5.1.1 State Water must regularly consult with Valley-based customer service committees (CSCs) to enable Customer involvement in issues relevant to the performance of State Water's obligations to Customers under this Licence or the customer service charter referred to in clause 5.2 of this Licence.
- 5.1.2 For each CSC, State Water must invite at least 1 representative from each of the groups or bodies identified in paragraphs (a) to (e) below to be a member of that CSC:
 - a) Customers which are Unregulated River water users;
 - b) Customers which are groundwater users;
 - c) the NSW environmental water entitlement holder;
 - d) the Commonwealth Environmental Water Holder; and
 - e) the relevant Catchment Management Authority;

For the purposes of this clause 5.1.2, Customer does not include a Fish River Water Scheme Customer.

State Water must provide the CSCs with adequate information within its 5.1.3 possession or under its control to enable the CSC to discharge the tasks assigned to it, other than information or documents over which State Water or another person claims confidentiality or legal professional privilege and subject to any limitations on disclosure of the information at law.

5.2 **Customer Service Charter (excluding Fish River Water Scheme Customers**)

- 5.2.1 State Water must, in consultation with the CSCs, establish and maintain a customer service charter (Customer Service Charter).
- 5.2.2 The Customer Service Charter must set out the mutual responsibilities and obligations of State Water and its Customers (excluding Fish River Water Scheme Customers) consistently with this Licence, the Act, the Water Management Act 2000 (NSW), the Water Act 1912 (NSW) and any other applicable law.
- 5.2.3 State Water must make the Customer Service Charter available free of charge:
 - a) on its website for downloading by any person; and
 - b) to the public on request.

5.3 **Fish River Customer Council**

- 5.3.1 State Water must regularly consult with a Fish River Customer Council to enable Fish River Water Scheme Customer involvement in issues relevant to the performance of State Water in its obligations to Fish River Water Scheme Customers under this Licence and any Fish River Customer Contract.
- 5.3.2 State Water must invite at least 1 representative from each of the entities identified in paragraphs (a) to (d) below to be a member of the Fish River **Customer Council:**
 - a) Lithgow City Council;
 - b) Oberon Council;
 - c) Delta Electricity, a statutory State owned corporation constituted under the Energy Services Corporations Act 1995 (NSW); and
 - d) Sydney Catchment Authority, a statutory corporation constituted under the Sydney Water Catchment Management Act 1998 (NSW),

(Fish River Customer Council).

5.3.3 State Water must provide the Fish River Customer Council with adequate information within its possession or under its control so as to enable the Fish River Customer Council to discharge the tasks assigned to it, other than information or documents over which State Water or another person claims confidentiality or privilege and subject to any limitations on disclosure of the information at law.

5.4 **Fish River Customer Contracts**

- 5.4.1 State Water must enter into and maintain an agreement with each of its Fish River Water Scheme Customers during the term of this Licence, for the water supply arrangements for the Fish River Water Supply Scheme.
- 5.4.2 The terms of the agreements must, as a minimum, include provisions on:
 - a) the standard of the quality of water to be supplied by State Water;
 - b) the continuity of water to be supplied by State Water (that is, provisions relating to interruption, disconnection and reconnection to supply);
 - c) the metering arrangements;
 - d) the costs to be paid by Fish River Water Scheme Customers for the supply of water and other services to them; and
 - e) any other terms agreed between State Water and its Fish River Water Scheme Customers.

5.5 Code of practice on payment difficulties

- 5.5.1 State Water must develop, maintain and fully implement a code of practice (the Code) relating to Customers having payment difficulties, which must:
 - a) provide for deferred payment or payment by instalment for Customers who are required to pay Bills and who are experiencing payment difficulties; and
 - b) identify the circumstances under which State Water may suspend water access licences, and an overview of the process that must be followed prior to suspension.
- State Water must set out details of the Code in the Customer Service 5.5.2 Charter.
- 5.5.3 State Water must provide information on the Code free of charge:
 - a) to Customers, at least once annually with their Bills;
 - b) on its website for downloading by any person; and
 - c) to the public on request.

5.6 **Internal Complaints Handling Procedure**

- 5.6.1 State Water must maintain a procedure for receiving, responding to and resolving Complaints, which is consistent with the Australian Standard AS ISO 10002-2006: Customer satisfaction - Guidelines for complaints handling in organizations (ISO 10002:2004, MOD) (Internal Complaints Handling Procedure).
- 5.6.2 State Water must ensure that the Internal Complaints Handling Procedure is fully implemented and that all relevant activities are carried out in accordance with the procedure.
- 5.6.3 State Water must provide information on the Internal Complaints Handling Procedure which explains how to make a Complaint and how the Internal Complaints Handling Procedure works free of charge:
 - a) to Customers, at least once annually with their Bills;
 - b) on its website for downloading by any person; and
 - c) to the public on request.

5.7 **External dispute resolution scheme**

- 5.7.1 State Water must be a member of the Energy and Water Ombudsman NSW for the resolution of disputes between State Water and its Customers.
- 5.7.2 State Water must provide free of charge information that explains the operation of the dispute resolution service provided by the Energy and Water Ombudsman NSW (including any rights to have a Complaint or dispute referred to the Energy and Water Ombudsman NSW and how the dispute resolution service can be accessed):
 - a) to Customers, at least once annually with their Bills;
 - b) on its website for downloading by any person; and
 - c) to the public on request.

6 | Environmental management

6.1 **Environmental management**

- 6.1.1 By 30 June 2018, State Water must develop a Management System which is consistent with the Australian Standard AS/NZS ISO 14001:2004: Environmental Management Systems - Requirements with guidance for use (Environmental Management System).
- 6.1.2 State Water must ensure that:
 - a) by 30 June 2018, the Environmental Management System is certified by an appropriately qualified third party to be consistent with the Australian Standard AS/NZS ISO 14001:2004: Environmental Management Systems - Requirements with guidance for use; and
 - b) once the Environmental Management System is certified under clause 6.1.2(a), the certification is maintained during the remaining term of this Licence.
- 6.1.3 State Water must ensure that by 30 June 2018, the Environmental Management System is fully implemented and that all relevant activities are carried out in accordance with the system.
- 6.1.4 Until the Environmental Management System has been developed and certified in accordance with clauses 6.1.1 and 6.1.2, State Water must:
 - a) maintain programs to manage risks to the environment from carrying out its activities; and
 - b) ensure that all its activities are carried out in accordance with those programs.
- Once the Environmental Management System is certified in accordance 6.1.5 with clause 6.1.2, State Water must notify IPART of any significant changes that it proposes to make to the Environmental Management System in accordance with the Reporting Manual.

7 | Performance monitoring

7.1 **Operational Audits**

- 7.1.1 IPART may undertake, or may appoint an Auditor to undertake, an audit on State Water's compliance with:
 - a) this Licence;
 - b) the Reporting Manual; and
 - c) any matters required by the Minister,

(Operational Audit).

- 7.1.2 State Water must provide IPART or any Auditor with all information in its possession, or under its custody or control, which is necessary to conduct the Operational Audit, including whatever information is reasonably requested by IPART or an Auditor.
- 7.1.3 State Water must provide the information requested under clause 7.1.2 within a reasonable time of it being requested.
- 7.1.4 For the purposes of any Operational Audit or verifying a report on an Operational Audit, State Water must, within a reasonable time of being required by IPART or an Auditor, permit IPART or the Auditor to:
 - a) have access to any works, premises or offices occupied by State Water;
 - b) carry out inspections, measurements and tests on, or in relation to, any such works, premises or offices;
 - take on to any such premises, works or offices any person or equipment necessary for the purposes of performing the Operational Audit or verifying any report on the Operational Audit;
 - d) inspect and make copies of, and take extracts from, any books and records of State Water that are maintained in relation to the performance of State Water's obligations under this Licence (including under the Reporting Manual); and

discuss matters relevant to the Operational Audit or any report on the Operational Audit with State Water, including any of State Water's officers and employees.

7.2 Reporting

- 7.2.1 State Water must comply with its reporting obligations set out in this Licence and in the Reporting Manual, which include:
 - a) reporting to IPART in accordance with the Reporting Manual and this Licence, and
 - b) making reports and other information publicly available,

in the manner set out in the Reporting Manual.

- 7.2.2 State Water must maintain sufficient record systems that enable it to report accurately in accordance with this Licence and the Reporting Manual (including its performance against the performance indicators specified in the Reporting Manual).
- 7.2.3 In the case of any ambiguity in the interpretation or application of any performance indicators specified in the Reporting Manual, IPART's interpretation or assessment of the indicators will prevail.
- 7.2.4 State Water must maintain sufficient record systems to enable it to measure accurately its performance against any system performance indicators specified in any instruments that give effect to the National Water Initiative.

7.3 **Provision of information**

- 7.3.1 If IPART requests that State Water provide information relating to the performance of its obligations under clause 7.2, State Water must provide the information requested within a reasonable time of IPART's request, including providing IPART with physical and electronic access to the records required to be kept under clause 7.2.2.
- 7.3.2 State Water must provide IPART with such information as is reasonably required to enable IPART to conduct any review or investigation of State Water's obligations under this Licence.
- 7.3.3 If State Water contracts out any of its activities to third parties (including a subsidiary) it must take all reasonable steps to ensure that, if required by IPART or an Auditor, any such third parties provide information and do the things specified in this clause 7 as if that third party were State Water.

7.3.4 If IPART or an Auditor requests information under this clause 7 which is confidential, the information must be provided to IPART or the Auditor, subject to IPART or the Auditor entering into reasonable arrangements to ensure that the confidential information is not disclosed to third parties, without the consent of State Water.

End of term review

8.1 **End of Term Review**

- 8.1.1 In or around the first quarter of 2017, a review of this Licence will commence to investigate:
 - a) whether this Licence is fulfilling its objectives; and
 - b) any issues which have arisen during the term of this Licence, which may affect the effectiveness of this Licence,

(End of Term Review).

State Water must provide to the person undertaking the End of Term 8.1.2 Review such information as is reasonably required to enable the person to undertake the End of Term Review.

9 Notices

Any notice or other communication given under this Licence must be made in writing addressed to the intended recipient at the address shown below or the last address notified by the recipient.

State Water	IPART
The Chief Executive Officer	The Chief Executive Officer
State Water Corporation	Independent Pricing and Regulatory Tribunal
PO Box 1018	PO Box Q290
Dubbo NSW 2830	QVB Post Office NSW 1230

10 Definitions and interpretation

10.1 Definitions

In this Licence:

Act means the *State Water Corporation Act* 2004 (NSW).

Area of Operations has the meaning given in the Act.

Asset Management System has the meaning given in clause 4.1.1.

Auditor means a person appointed by IPART to undertake an Operational Audit.

Bill means a bill sent by State Water to a Customer for the provision of services supplied by State Water.

Border Rivers means "Carrier Rivers" as defined in New South Wales - Queensland Border Rivers Act 1947 (NSW).

Border Rivers Commission means the commission constituted under the New South Wales - Queensland Border Rivers Act 1947 (NSW).

Bulk Water means water delivered to meet the needs of the environment and State Water's Customers.

Catchment Management Authority means those authorities listed in Schedule 1 of the Catchment Management Authorities Act 2003 (NSW).

Commencement Date is the date by law on which this Licence commences.

[Note: The date on which a Licence commences is ordinarily specified in the NSW Government Gazette when the Governor grants or renews this Licence under the Act.]

Complaint means an expression of dissatisfaction made by a Customer to State Water in relation to its services or its complaints-handling process, where a response or resolution is explicitly or implicitly expected.

CSC has the meaning given in clause 5.1.1.

Code has the meaning given in clause 5.5.1.

Customer means any person:

- a) authorised under the *Water Management Act* 2000 (NSW) or the *Water Act* 1912 (NSW) to take and use water and to whom State Water makes available water by the operation of any of its Water Management Works; or
- **b)** to whom State Water provides a service and includes Fish River Water Scheme Customers and environmental water entitlement holders.

Customer Service Charter has the meaning given in clause 5.2.1.

Delivery means the water management service provided by State Water to satisfy Water Orders, customer contracts including Fish River Customer Contracts, and environmental requirements, subject to any physical supply constraints. This incorporates the operation of State Water's Water Management Works, and State Water's internal procedures, including the management of Water Allocation Accounts.

Drinking Water means water intended, or likely to be used, primarily for human consumption but which has other personal, domestic or household uses such as bathing and showering.

Energy and Water Ombudsman NSW means the NSW industry complaints scheme for the energy and water industry of that name and any successor to that scheme.

Environmental Management System has the meaning given in clause 6.1.1.

Fish River Customer Contract means any agreement entered into between State Water and a Fish River Water Scheme Customer in accordance with clause 5.4.

Fish River Customer Council has the meaning given in clause 5.3.

Fish River Water Supply Scheme means the Fish River water supply scheme as defined in the Act.

Fish River Water Scheme Customer means any person to whom State Water makes available water by the operation of the Fish River Water Supply Scheme.

Hunter Water Corporation has the meaning given to it under the *Hunter Water Act* 1991 (NSW).

Internal Complaints Handling Procedure has the meaning given in clause 5.6.1.

IPART means the Independent Pricing and Regulatory Tribunal of New South Wales constituted by the IPART Act.

IPART Act means the *Independent Pricing and Regulatory Tribunal Act* 1992 (NSW).

Licence means this operating Licence granted under section 11 of the Act to State Water or any renewal of it, as in force at the relevant time.

Local Water Utility has the meaning given to that term in the *Water Management* Act 2000 (NSW).

Local Water Utility Customer has the meaning given in clause 2.1.1.

LWU Information Request Procedure has the meaning given in clause 2.1.2.

Management System means a set of procedures to be followed by State Water to develop and implement its policies and objectives and to manage any of its activities, products, functions or services, and includes organisational structure, planning activities, responsibilities, practices, processes and resources.

Metering Equipment has the meaning given in the Act.

Minister means, unless the contrary intention appears, the Minister administering the Act.

[Note: As at the Commencement Date, the Minister administering the Act is the Minister for Primary Industries jointly with the Minister for Regional *Infrastructure and Services.*]

NSW Health means the Water Unit of the Ministry of Health.

Operational Audit has the meaning given in clause 7.1.1.

Reporting Manual means the document titled "State Water Corporation Reporting Manual" dated July 2013, which is prepared by IPART and is available on IPART's website at www.ipart.nsw.gov.au, as updated from time to time.

State Water means the State Water Corporation constituted as a statutory State owned corporation by the Act.

Sydney Catchment Authority has the meaning given to it under the Sydney Water Catchment Management Act 1998 (NSW).

Sydney Water Corporation has the meaning given to it under the *Sydney Water* Act 1994 (NSW).

Unregulated River has the meaning given to that term under the Water Management Act 2000 (NSW).

Valley means a river valley.

Water Allocation Account has the meaning given to it under the Water Management Act 2000 (NSW) or means an account for a water access licence set up under the administrative procedures implemented under the *Water Act* 1912 (NSW).

Water Management Work has the meaning given to it under the *Water Management Act* 2000 (NSW).

Water Order means a request by a Customer, made in accordance with the relevant conditions imposed on the relevant:

- a) water access licence, to take water under the *Water Management Act* 2000 (NSW); or
- **b)** entitlement, to take water under section 20AF of the *Water Act* 1912 (NSW).

Water Supply Authority means a body listed under Schedule 3 of the *Water Management Act* 2000 (NSW).

10.2 Interpretation

- a) In this Licence, unless the contrary intention appears:
 - i) "person" includes an individual, a body corporate, an unincorporated body or other entity and one or more of each of them;
 - ii) headings are for convenience only and do not affect the interpretation of this Licence;
 - iii) notes do not form part of this Licence but may be used to assist with interpretation if there is an ambiguity;
 - iv) words importing the singular include the plural and vice versa;
 - v) a reference to a law or legislation (including the Act) includes regulations made under the law or legislation;
 - vi) a reference to regulations includes ordinances, codes, licences, orders, permits and directions;
 - vii) a reference to a law or regulation includes consolidations, amendments, variations, re-enactments, or replacements of any of them;
 - viii) a reference to a person includes a reference to the person's executors, administrators, successors, substitutes (including, but not limited to, persons taking by novation) and assigns;
 - ix) a reference to a year means a calendar year that ends on 31 December;
 - x) a reference to a financial year means a period of 12 months commencing on 1 July and ending on the following 30 June;
 - xi) a reference to a clause or schedule is to a clause of or schedule to this Licence; and
 - xii) a reference to a quarter is a period of three months beginning on 1 July, 1 October, 1 January or 1 April in a year.

- b) Terms defined in the Act, Water Act 1912 (NSW), Water Management Act 2000 (NSW) and New South Wales - Queensland Border Rivers Act 1947 (NSW) have the same meaning in this Licence, unless a contrary definition is specified in this Licence.
- c) If any part of this Licence is prohibited, void, voidable, illegal or unenforceable, then that part is severed from this Licence but without affecting the continued operation of the remainder of this Licence.
- d) A reference in this Licence to any organisation, association, society, group, authority or body will, in the event of it ceasing to exist or being reconstituted, renamed or replaced or if its powers or functions are transferred to any other entity, body or group, refer respectively to any such entity, body, authority or group, established or constituted in lieu thereof or succeeding to similar powers and functions.
- e) A reference in this Licence to a document (original document) is a reference to the original document as amended or revised or, where the original document is replaced, to the replacing document, or the document that most closely approximates the original document.
- f) Information provided to IPART under this Licence may be used by IPART for the purpose of an investigation or report under the IPART Act in relation to State Water, or in the discharge of any function lawfully conferred on IPART.

Schedules

10 Definitions and interpretation

A | Conferral of functions

The following functions under the specified sections of the Water Management Act 2000 (NSW) are conferred on State Water by the Licence:

- a) approving the form of an application for an assignment dealing with an access licence under section 71L, subject to any requirement approved by the Minister administering the *Water Management Act 2000* (NSW);
- b) granting consents to temporary water transfers under sections 71T and 71V;
- c) debiting and crediting of water accounts under sections 76, 85 and 85A, subject to the condition that State Water provide water account information to NSW Office of Water;
- d) suspending access licences under section 78 and suspending approvals under section 109 in relation to a failure to pay any fees or charges imposed by State Water;
- e) authorising the taking of water by means of a metered work while its metering equipment is not operating properly under section 91I(3) subject to any requirement approved by the Minister administering the Water Management Act 2000 (NSW);
- f) imposing and recovering fees and charges under section 114 consistent with any relevant determination in relation to the price of Bulk Water made by IPART or any other pricing authority vested with the power to determine water prices for State Water;
- g) making a temporary water restriction order under section 324 where water restrictions are required as a result of an emergency works failure. In such cases, State Water must notify in writing to the Deputy Commissioner, Water Regulation, NSW Office of Water as soon as practicable after making any direction;
- h) issuing certificates under section 362B, subject to any requirement approved by the Minister administering the Water Management Act 2000 (NSW); and
- i) recovering fees and charges under sections 362A and 362C, subject to any requirement approved by the Minister administering the Water Management Act 2000 (NSW).

The following functions under the specified sections of the Water Act 1912 (NSW) are conferred on State Water by the Licence:

entering any land to take levels, make surveys and marks, fix pegs and stakes and inspect any water works under section 22(1);

The following Functions specified under the specified sections of the *New* South Wales - Queensland Border Rivers Act 1947 (NSW) are conferred on State Water by the Licence, subject to any requirement imposed by the Minister administering the New South Wales - Queensland Border Rivers Act 1947 (NSW) or the Border Rivers Commission:

- a) constructing, maintaining, operating and controlling relevant works in New South Wales under section 14; and
- b) exercising the powers and obligations of a "Controlling Authority" under section 20.

B | Recommended reporting manual



State Water Corporation Reporting Manual

Water — Reporting Manual May 2013

Amendment Record

Issue No	Date Issued	Reason/s for Amendment
RM-StateWater-V1	July 2012	First release

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Introduction

The Independent Pricing and Regulatory Tribunal (IPART - also referred to as "we", "us" or "our") is responsible for monitoring and reporting on the compliance of State Water Corporation (State Water) with its Licence.

1.1 **Purpose**

This Reporting Manual outlines all of State Water's reporting requirements under its Licence. This Reporting Manual identifies:

- ▼ when State Water should report
- what information State Water must report, and
- ▼ how State Water should report.

It is a condition of State Water's Licence that it must comply with the reporting obligations set out in this Reporting Manual.1

This Reporting Manual does not reproduce State Water's Licence obligations in full. It is still necessary for State Water to refer to the Licence and to any law, statutory instrument or document referred to in the Licence terms and conditions (including guidelines and international standards, where applicable).

1.2 **Definitions and interpretation**

Terms that are defined in the Licence have the same meaning in this Reporting Manual, unless the terms are separately defined in this Reporting Manual.

The interpretation provisions in the Licence apply to this Reporting Manual, with all references to the Licence in those provisions taken to be references to this Reporting Manual.

[Note: As at the Commencement Date, the definition and interpretation provisions are contained in clause 10 of the Licence.]

¹ Clause 7.2.1 of the Licence.

1.3 Structure of this Reporting Manual

This Reporting Manual is structured as follows:

- Section 1 details how and when State Water is to report
- Sections 2 to 7 outline the specific reporting requirements for each section of the Licence
- Section 8 outlines other reporting requirements, and
- Appendix A sets out State Water's performance indicators.

1.4 **Changing this Reporting Manual**

IPART may change this Reporting Manual at any time. In particular, we may change this Reporting Manual to:

- ▼ reflect changes in any applicable law, including the Act
- include additional reporting obligations where appropriate
- include references to new Licence obligations
- delete references to Licence obligations that are no longer relevant
- amend the information that State Water must provide to IPART, to NSW Health and to any Auditor appointed by IPART under the Licence (as the case may be), and
- improve the reporting process.

Before we change this Reporting Manual significantly, we will consult with State Water and other interested stakeholders. We will also examine the costs and benefits of any major changes.

We will then notify State Water and stakeholders of the changes to this Reporting Manual and the start date for any new reporting arrangements. In determining the start date of significant changes, we will make sure there is sufficient time for State Water to implement new arrangements.

1.5 When should the information be reported?

State Water's reporting schedule is summarised in Table 1.1. State Water is required to report annually according to the schedule and this Reporting Manual.

1.6 How should the information be reported?

1.6.1 **Reporting to IPART**

State Water should report the required information in a clear and concise report. Where this Reporting Manual requires information on more than one area (eg, asset management and environment) at the same time, State Water is encouraged to provide the information in a single report. However, State Water may choose to report the information in separate reports.

The reports must be approved by State Water's Chief Executive Officer prior to submission to IPART.

State Water must lodge each report electronically with a hard copy sent by mail. When lodging a report, State Water must also provide the name and contact details (phone, email) of the primary contact with whom IPART can liaise when assessing compliance, and an alternative contact for those times when the primary contact is unavailable.

Electronic reports must be emailed to: compliance@ipart.nsw.gov.au.

Hard copy reports must be sent to:

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

Summary of State Water's reporting requirements Table 1.1

Reporting schedule	Water quality	Water quantity	Assets	Customers	Environmental management	Performance monitoring	
	Section 2 of Reporting Manual	Section 3 of Reporting Manual	Section 4 of Reporting Manual	Section 5 of Reporting Manual	Section 6 of Reporting Manual	Section 8 of Reporting Manual	
Annual		Water balance reports – 1 December	Compliance and performance report – 1 September				
Annuai	Report on audit recommendations and significant changes to systems and/or procedures - 31 March						

2 | Water quality

There are no reporting obligations for clause 2 of the Licence.

3 Water quantity

This section sets out State Water's reporting obligations for clause 3 of the Licence.

3.1 **Annual reporting**

3.1.1 Water balance reports

State Water must complete water balance reports for each financial year. State Water must complete final reports by 1 December following the end of the financial year, or at such later date as agreed to by IPART.

The water balance reports must be prepared consistently for each Valley, and must include an annual account of:

- water delivery, including sources and distribution of water
- ▼ breakdown of the distribution of water by each major category of water user,
- ▼ the percentage of time that planned environmental water delivery requirements were met; and
- water that is unaccounted for.

[Note: State Water must prepare annual water balance reports in accordance with clause 3.3.1 of the Licence.]

3.2 **Publicly available documents**

State Water must make the water balance reports (referred to in section 3.1.1 of this Reporting Manual) available free of charge:

- on its website for downloading by any person, and
- ▼ at its offices for access or collection by any person.

Assets

This section sets out State Water's reporting obligations for clause 4 of the Licence.

State Water is required to develop and have certified an Asset Management System by 30 June 2018.² Before the Asset Management System is certified, State Water must report in accordance with section 4.1.1 of this Reporting Manual. Following certification of the Asset Management System, State Water must report in accordance with section 4.1.2 of this Reporting Manual.

4.1 **Annual reporting**

Compliance and performance reporting (before certification of Asset 4.1.1 **Management System)**

State Water must submit a compliance and performance report on its asset management programs to IPART for each financial year. State Water must submit the report by 1 September following the end of the financial year, or at a later date agreed to by IPART.

The report must include:

- details of activities undertaken by State Water to maintain asset management programs across its business
- any changes to existing asset management programs
- ▼ State Water's performance in meeting the programs for the financial year, and
- asset management programs identified for the next financial year.

[Note: Under clause 4.1.4 of the Licence, State Water must maintain programs to manage its asset base, and ensure that its asset management activities are carried out in accordance with those programs. This section 4.1.1 requires State Water to report on those programs.]

² Licence, clause 4.1.1.

4.1.2 Compliance and performance reporting (after certification of Asset Management System)

State Water must submit a compliance and performance report on its Asset Management System to IPART for each financial year. State Water must submit the report by **1 September** following the end of the financial year, or at a later date agreed to by IPART.

The report must include:

- ▼ the asset management activities and programs completed by State Water in the financial year to meet the objectives of the Asset Management System
- the performance and outcomes from those activities and programs
- the asset management activities and programs proposed to be undertaken by State Water to meet objectives of the Asset Management System in the future, including the timetable for completion and proposed performance measures
- any proposed significant changes to the Asset Management System, and
- ▼ any Asset Management System failures and the action taken to resolve them.

[Note: As noted above, State Water must maintain and implement by 30 June 2018 an Asset Management System, ie, a Management System that is consistent with the standard specified in the licence (Licence, clauses 4.1.1 and 4.1.2). The objectives referred to in this section 4.1.2 are those that State Water identifies for the Asset Management System. The asset management activities and programs referred to in this section 4.1.2 are those that State Water is to undertake to achieve the objectives of the Asset Management System.]

4.2 Publicly available documents

State Water must make the compliance and performance report on asset management (referred to in sections 4.1.1 and 4.1.2 of this Reporting Manual) available free of charge:

- on its website for downloading by any person, and
- at its offices for access or collection by any person.

Customers

This section sets out State Water's reporting obligations for clause 5 of the Licence.

5.1 **Annual Reporting**

5.1.1 **Compliance and performance reporting**

State Water must submit a compliance and performance report on its Customer management to IPART for each financial year. State Water must submit the report by 1 September after the end of the financial year, or at a later date agreed to by IPART.

The report must include:

- ▼ any systemic problems arising from Complaints and the action taken to resolve them
- ▼ any proposed significant changes to:
 - the Customer Service Charter
 - the code of practice on payment difficulties (Code)
 - the Internal Complaints Handling Procedure, and
 - the external dispute resolution scheme referred to in clause 5.7 of the Licence
- **▼** the following information:
 - the number of requests by Customers for assistance with paying Bills, including which valleys they are located in
 - the number of Customers in receipt of assistance with paying Bills, including which Valleys they are located in
 - the number of licences and entitlements suspended under the Water Management Act 2000 or the Water Act 1912, and
 - the number of approvals suspended under the Water Management Act 2000.

[Note: Under the Licence, State Water must:

- ▼ maintain and implement a code of practice on payment difficulties (Licence, clause 5.5);
- ▼ consult with its Customers through a Valley-based customer service committee and maintain a Customer Service Charter (Licence, clauses 5.1 and 5.2); and
- ▼ maintain and implement an Internal Complaints Handling Procedure (Licence, clause 5.6) and be a member of the external dispute resolution scheme (Licence, clause 5.7).]

5.2 **Publicly Available Documents**

State Water must make the compliance and performance report on its Customer management (referred to in section 5.1.1 of this Reporting Manual), available free of charge:

- on its website for downloading by any person, and
- at its offices for access or collection by any person.

6 | Environmental management

This section sets out State Water's reporting obligations for clause 6 of the Licence.

State Water is required to develop and have certified an Environmental Management System by 30 June 2018.3 Before the Environmental Management System is certified, State Water must report in accordance with section 6.1.1 of this Reporting Manual. Following certification of the Environmental Management System, State Water must report in accordance with section 6.1.2 of this Reporting Manual.

6.1 **Annual reporting**

Compliance and performance reporting (before certification of **Environmental Management System)**

State Water must submit a compliance and performance report to IPART for each financial year on the programs that it is required to maintain under clause 6.1.4 of the Licence. State Water must submit the report by 1 September following the end of the financial year, or at a later date agreed to by IPART.

The report must include:

- ▼ details of the activities undertaken by State Water to maintain the programs across its business to manage risks to the environment
- ▼ any changes to the environmental improvement targets or timetables to achieve these targets
- ▼ State Water's performance in meeting the targets and timetables for the financial year, and
- ▼ programs and timetables identified for the next financial year to achieve environmental improvement targets.

³ Licence, clause 6.1.

[Note: Under clause 6.1.4 of the Licence, State Water must maintain programs to manage risks to the environment from carrying out its activities, and ensure that its activities are carried out in accordance with those programs. In implementing those programs, State Water must identify the targets for those programs. This section 6.1.1 requires State Water to report on those programs and the targets.]

Compliance and performance reporting (following certification of 6.1.2 **Environmental Management System)**

Once the Environmental Management System is certified, State Water must submit a compliance and performance report on its Environmental Management System to IPART for each financial year. State Water must submit the report by **1 September** following the end of the financial year, or at a later date agreed to by IPART.

The report must include:

- ▼ a summary of the objectives and targets of the Environmental Management System
- the environmental management activities and programs completed by State Water in the financial year to meet the objectives and targets of the **Environmental Management System**
- the performance and outcomes of those activities and programs
- the environmental management activities and programs proposed to be undertaken by State Water to meet the objectives and targets of the Environmental Management System in the future, including the timetable for completion and proposed performance measures
- any proposed significant changes to the Environmental Management System,
- any failures in the Environmental Management System and the action taken to resolve them.

[Note: Under clauses 6.1.1 and 6.1.2 of the Licence, State Water must develop and implement an Environmental Management System, ie, a Management System that is consistent with the standard specified in the Licence. The standard outlines the components of an Environmental Management System, which includes identifying and developing objectives and targets for the Environmental Management System. This section 6.1.2 requires State Water to report on how it complies with these Licence conditions. The environmental management activities and programs referred to in this section 6.1.2 are those that State Water would need to undertake to achieve the objectives and targets of the Environmental Management System.]

6.2 **Publicly available documents**

State Water must make the compliance and performance report on:

- ▼ its environmental programs (referred to in section 6.1.1 of this Reporting Manual), and
- ▼ the Environmental Management System (referred to in section 6.1.2 of this Reporting Manual),

available free of charge:

- ▼ on its website for downloading by any person, and
- ▼ at its offices for access or collection by any person.

7 | Performance monitoring

This section sets out State Water's reporting obligations for clause 7 of the Licence.

7.1 **Annual reporting**

7.1.1 **Compliance and performance reporting**

State Water must submit a compliance and performance report on performance indicators to IPART for each financial year. State Water must submit the report by 1 September following the end of the financial year, or at a later date agreed to by IPART.

The report must include:

- ▼ State Water's performance against the performance indicators set out in Appendix A of this Reporting Manual for the financial year, and
- State Water's analysis of any systemic problems arising from its performance against those performance indicators.

[Note: Under clause 7.2 of the Licence, State Water is required to measure its performance against the performance indicators specified in Appendix A of this reporting manual.]

7.2 **Publicly available documents**

State Water must make the compliance and performance report on performance indicators (referred to in section 7.1.1 of this Reporting Manual) available free of charge:

- on its website for downloading by any person, and
- at its offices for access or collection by any person.

[Note: The National Water Commission prepares an annual national performance report for all Australian rural water service providers, including State Water. This report is publicly available.]

8 Other Reporting

8.1 **Audit recommendations**

State Water must report to IPART annually on the status of any audit recommendations identified in the most recent Operational Audit and outlined in IPART's audit report to the Minister.

State Water must submit the audit recommendations status report to IPART by 31 March each year (or at a later date agreed to by IPART).

[Note: Under clause 7.1 of the Licence, IPART or an Auditor may undertake an Operational Audit. This section 8.1 requires State Water to report on the status of implementing recommendations identified in an Operational Audit.]

8.2 **Audit opportunities for improvement**

State Water may, but is not required to, report to IPART on the implementation of any opportunities for improvement identified in our report to the Minister on the results of the audit.

State Water should provide this information with the status update on audit recommendations, if it chooses to report on opportunities for improvement. This information may be considered by an auditor in the subsequent annual audit.

[Note: IPART requirements for opportunities for improvement are set out in the Audit Guideline – Public Water Utilities.4]

⁴ IPART, Audit Guideline – Public Water Utilities, May 2013, Appendix D.

8.3 Significant changes

State Water must submit to IPART by 31 March each year a report on any significant changes that have been made to the following since 31 March the previous year:

- the asset management programs maintained under clause 4.1.4 of the Licence
- the Asset Management System (once implemented in accordance with clause 4.1.3 of the Licence
- the Customer Service Charter (as established and maintained under clause 5.2 of the Licence)
- ▼ the environmental programs maintained under clause 6.1.4 of the Licence, and
- ▼ the Environmental Management System (once implemented in accordance with clause 6.1.3 of the Licence).

[Note: Under the Licence, State Water is required to develop and implement the Management Systems or maintain the programs referred to above (Licence, clauses 2.1, 4.1 and 6.1). This section 8.3 requires State Water to report on any significant changes to these systems or programs. State Water must also notify IPART of any proposed significant changes to the Customer Service Charter in accordance with this Reporting Manual. We use this information to inform the scope of operational audits.]

8.4 Statement of compliance

Our PWU audit guideline specifies the information that IPART requires for a statement of compliance. State Water must provide a statement of compliance in accordance with our PWU audit guideline.

[Note: Our PWU audit guideline is available on IPART's website www.ipart.nsw.gov.au. Under clause 7.1 of the Licence, IPART may undertake an Operational Audit on State Water's compliance with Licence. As part of the audit process, State Water must provide a statement of compliance which identifies any noncompliance of which it is aware.]

Appendices

Performance Indicators

This appendix sets out the performance indicators against which State Water is required to report to IPART, in accordance with clause 7.2 of the Licence.

1. Percentage of customers, who after placing a non-complying water order, are contacted within 1 working day to rectify that order.

[Note: This indicator should be calculated as a percentage of all non-complying water orders placed. A "non-complying water order" is a water order that does not comply with the relevant licence holder's licence conditions, or which contains insufficient *information for State Water to supply water.*]

2. Percentage of complying water orders delivered outside of +/- 1 day of the scheduled day of delivery, as measured by Complaints.

[Note: This indicator should be calculated as a percentage of all complying water orders placed. A complying water order is an order that complies with licence conditions, and which contains sufficient information for State Water to supply water. The scheduled day of delivery takes into account the period of required notice specified in water management work approvals, licences, or entitlements.]

3. Percentage of complying Water Orders rescheduled in consultation with an affected Customer, within 1 working day of an expected water shortage or delivery delay.

[Note: This indicator should be calculated as a percentage of all water orders rescheduled due to an expected shortage or delivery delay.]

4. Percentage of complying intra-valley transfers processed within five working days of State Water's receipt of a correct application and fee.

[Note: This indicator should be calculated as a percentage of all complying intra-valley transfers processed. "Intra-valley transfer" is 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.]

C Cost-benefit analysis report



Cost benefit analysis of proposed changes to State Water Corporation's operating licence

Water — Final Report May 2013

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1 Draft cost benefit analysis framework

1.1 Introduction

We have conducted a Cost Benefit Analysis (CBA) of proposed changes to State Water Corporation's (State Water) operating licence. This CBA is part of the end of term review of State Water's operating licence and has been conducted in accord with the NSW Government's Guide to Better Regulation.¹ The extent of our analysis is proportionate to the relative significance of each proposed change.

We considered the costs and benefits of each proposed change to State Water's operating licence. The cost and benefits discussed here are incremental to the 'base case' of the current operating licence and current 'business as usual' practices. Costs and benefits are defined broadly to include all identifiable economic costs and benefits (ie, all costs and benefits to State Water, State Water's customers, the environment and other stakeholders).

The timeframe of the CBA is the 5-year period 2013/14 to 2017/18. This period aligns with the expected term of State Water's next operating licence. The decision to limit the time frame for the CBA to 5 years was made in order to simplify the process and data requirements.

1.2 Changes since the draft report

After considering feedback and developments since we published our draft report, we have made several additions and modifications in the following areas:

- ▼ Asset management (Section 2.1).
- Quality management of Fish River drinking water (Section 2.4).
- ▼ Water metering (Section 3.3).
- ▼ Local water utilities (Section 3.4). This is a new section added to this Final Report.
- Other changes customer service committee (Section 4).

The Better Regulation Office, NSW Department of Premier and Cabinet, Guide to Better Regulation, November 2009, (http://www.dpc.nsw.gov.au/__data/assets/pdf_file/0009/16848/01_Better_Regulation_eGu ide_October_2009.pdf).

1.3 Overview of proposed changes

On 25 July 2012, as part of end of term review of State Water's operating licence, we released an Issues Paper that identified 15 proposed changes to State Water's operating licence. Following the release of the Issues Paper, IPART identified an additional issue, regarding local water utility drinking water quality. proposed changes comprise of a mix of additions of, removals of and revisions to conditions in the licence. The 16 proposed changes (together with the associated options for each proposed change) are outlined below. Our default position is to maintain the existing operating licence conditions unless the CBA clearly demonstrates that a proposed change will likely result in a net benefit to State Water, stakeholders and the environment.

1. Asset management

- Simplify asset management requirements in State Water's operating licence.
- Require State Water to develop and implement an Asset Management System (AMS).

2. Environmental management

- Require State Water to develop and implement an Environmental Management System (EMS).

3. Quality management (business-wide)

- Require State Water to develop and implement a Quality Management System (QMS).

4. Quality management of Fish River drinking water

- Defer to the Public Health Act 2010 (NSW).
- Introduce specific requirements to regulate Fish River water quality.

5. Release or delivery of water to customers

- Restrict State Water responsibility to the release of water.
- Introduce explicit requirement for State Water to deliver water.

6. Flood management

- Remove flood management requirements from the operating licence.
- Introduce requirements for State Water to develop communication protocols to compliment State Water's ongoing flood management activities.

7. Water metering

- Remove all existing water metering requirements from operating licence.
- Remove requirements to audit customer-owned meters.
- Include requirement to read meters for groundwater and unregulated rivers as well as regulated rivers.

8. Local water utilities

- Maintain list of local water utilities.
- Develop process for local water utility information requests.

9. Conferral of functions

- Specify in operating licence how conferred functions are currently split between State Water and the NSW Office of Water (NOW).
- Require the State Water NOW Memorandum of Understanding (MoU) to define the split of functions.
- Require State Water to make public the extent to which it exercises its conferred functions.

10. Environmental water releases

- Introduce requirements in relation to the capture, storage and release of environmental water.
- Clarify State Water's responsibility to environmental water entitlement holders.

11. Representation on Customer Service Committees (CSC)

- Require State Water to include the Commonwealth Environment Water Holder (CEWH) as a member of relevant CSC.
- Invite CEWH to attend CSC.

12. Community Consultative Committees (CCC)

- Remove the requirement to maintain a CCC.

13. Operational audits

- Remove obligations on IPART that are not required by relevant legislation.

14. Duplicative regulatory requirements

- Remove requirements that duplicate other regulatory requirements outside State Water's operating licence.

15. Reporting manual

- Introduce a reporting manual which will include all reporting and performance indicators.

16. Memorandums of understanding

- Remove requirement for MoUs with the NSW Department of Primary Industries (DPI) and the NSW Office of Environment and Heritage (OEH). Retain requirement for MoU with the NSW Office of Water (NOW).
- Remove all MoU requirements from State Water's operating licence.

1.4 Preliminary cost benefit analysis findings

Table 1.1 summarises the results of the CBA for each proposed change. These results are discussed in detail in the subsequent sections of this paper.

Recommendations contained in this report are based on an assessment of the likely net benefit of the proposal. Where mutually exclusive options are assessed to have net benefits, we will identify and recommend the option that we assess to offer the largest net benefit.

Table 1.1 **Summary of CBA findings**

Proposed Changes	Cost	Benefit	Net Benefit	Rec.	
Asset management					
▼ Option 1: simplify requirements	Med	Med	No	Not Support	
▼ Option 2: Require AMS	Med	High	Yes	Support	
Environmental management					
▼ Require EMS	Med	High	Yes	Support	
Quality management (business-wide)					
▼ Require QMS	High	Low	No	Not Support	
Quality management of Fish River drinking	water				
▼ Option 1: Defer to the <i>Public Health Act</i> 2010 (NSW)	Med	High	Yes	Support	
 Option 2: Include specific licence conditions 	High	High	No	Not support	
Release of water to customers					
 Option 1: Require State Water to release water 	Low	Low	No	Not Support	
 Option 2: Require State Water to deliver water 	Low	Med	Yes	Support as amended	
Flood management					
 Option 1: Remove flood management requirements 	Low	Med	Yes	Support	
 Option 2: Require new communication protocols 	Med	Med	No	Not Support	
Water metering					
▼ Option 1: Remove all metering conditions	High	Low	No	Not Support	
 Option 2a: Remove requirements to audit customer-owned meters 	Low	Medium	Yes	Support	
 Option 2b: Include requirement to read meters for groundwater and unregulated rivers as well as regulated rivers 	Low	High	Yes	Support - subject to cost recovery	
Local water utilities					
 Option 1a: Maintain list of local water utilities 	Low	Med	Yes	Support	
 Option 1b: Develop process for local water utility information requests 	Low	Med	Yes	Support	

Proposed Changes	Cost	Benefit	Net Benefit	Rec.
	COSI	Dellelli	Net Bellelit	
Conferral of functions				
 Option 1: Include conferred function split in State Water's Operating Licence 	Med	Med	No	Not Support
 Option 2: Require State Water - NOW MoU to define the conferred function split 	Med	Med	No	Not Support
 Option 3: Require State Water to publicise the extent to which they will exercise conferred functions 	Low	High	Yes	Support
Environmental water releases				
 Option 1: Introduce environmental water conditions 	Med	Low	No	Not Support
 Option 2: Clarify responsibility to environmental water entitlement holders 	Low	High	Yes	Support
Customer Service Committee (CSC)				
 Option 1: Require environment representatives on CSC 	High	Med	No	Not Support
▼ Option 2: Invite CEWH to attend CSC	Low	Med	Yes	Support
Community Consultative Committee (CCC)				
▼ Remove requirement for CCC	Low	Med	Yes	Support
Operational audits				
▼ Remove obligations on IPART	Low	High	Yes	Support
Duplicative regulatory requirements				
▼ Remove duplicative requirements	Low	High	Yes	Support
Reporting manual				
▼ Introduce reporting manual	Low	High	Yes	Support
Memorandums of understanding				
 Option 1: Remove DPI and OEH MoU requirements 	Low	Med	Yes	Not support
▼ Option 2: Remove all MoU requirements	Low	High	Yes	Support

1.5 Structure of this paper

We have grouped the proposed changes to State Water's operating licence into 3 separate chapters:

- ▼ Chapter 2 covers the 4 proposed management systems.
- ▼ Chapter 3 covers other major changes that will likely impact State Water's operating activities.
- ▼ Chapter 4 covers other proposed changes that are designed to improve the functioning of the operating licence but are not likely to significantly impact State Water's operating activities.

2 Management systems

Our Issues Paper identified 4 areas of State Water's operations where a management system could be considered for inclusion as a condition in State Water's next operating licence:

- asset management
- environmental management
- business-wide quality management
- quality management of Fish River drinking water.

For each of these areas of State Water's operation, we consider the following:

- ▼ The 'base case' including existing operating licence conditions and State Water's current activities in these areas.
- ▼ The proposed options for changing the operating licence as set out in our issues paper.
- The costs, benefits and recommendations for each proposed option. This includes consideration of the potential to achieve development and implementation cost savings (ie, economies of scope) as a result of the common elements shared across these systems.

2.1 **Asset management**

Base case

The State Water Corporation Act 2004 (NSW) ('State Water Act') requires the inclusion of asset management conditions in State Water's operating licence. These conditions require State Water to construct, operate, manage and maintain efficient, co-ordinated and commercially viable systems and services to capture, store and release water.2

State Water's current operating licence requires it to comply with asset management obligations which are set out in other instruments including State Water's asset management plan (which is an instrument required and approved by NSW Treasury) and the Dams Safety Act 1978 (NSW).

State Water's current operating licence also includes a number of high level asset management conditions that relate to other objectives such as:

- achieving the lowest cost of service delivery across the whole life of its assets,
- identifying and managing business risks related to its assets.

State Water Corporation Act 2004 (NSW), section 12(1).

State Water has already invested resources in the development of an Asset Management System (AMS). While State Water has expressed its intention to further develop its AMS, there is no plan or other mechanism in place to ensure the AMS is developed to a certifiable standard.

Options

We proposed 2 options in the Issues Paper:

- ▼ **Option 1**: Simplify the operating licence by replacing existing general asset management conditions with a list of state water specific asset management requirements.
- Option 2: Amend the operating licence conditions to require State Water to develop and implement an asset management system. This involves introducing a requirement that State Water develop and fully implement an asset management system consistent with an industry standard such as ISO 55001: Asset Management. See Appendix B for a description of this standard.

Assessment

Table 2.1 **CBA** of proposed asset management requirements

Option	Costs	Benefits
Option 1	State Water costs = \$0 (involves no direct development and implementation costs) Could promote a culture of 'compliance' rather than best practice. Possibility of regulatory gaps Not flexible (no scope for discretion). Potential for duplication, uncertainty and confusion. Does not adapt quickly to changes in environment, objectives and priorities.	State Water savings = \$146,000 over 5 years (based on an assumption by State Water that setting out specific requirements would result in a 50% reduction in current auditing and reporting expenses). Represents a more targeted and comprehensive approach compared to base case.
Option 2	State Water costs = \$3,233,000 over 5 years (\$2.99m or 93% of this cost relates to internal staff time which SW expects to manage within its existing resources). Once implemented, there will be ongoing audit and reporting expenses. These expenses have not been estimated. However, they are expected to be less than current audit and reporting expenses of \$291,000 (over 5 years). Potential to achieve economies of scope which would reduce the cost of this option (ie, if multiple management systems are adopted).	Unlikely to result in direct savings within the next 5-year operating licence term as existing audit and reporting structures will remain in place until AMS is certified (assumed 2017/18). Once certified (ie, from 2017/18), the AMS will replace existing audit and reporting structures, which will reduce audit and reporting expenses from their current level of \$291,000 (over 5 years). Comprehensive approach – minimises risk of gaps in State Water's AMS. Allows prioritisation of issues. Adapts to changing environment. Efficiency gains. Reduced risk of system failure. Consistent with recommendations made in SCA and Hunter Water licence reviews.

Note: Dollar figures are real (2012) and cover the 5-year term of the next operating licence 2013/14 to 2017/18. Source: State Water costs and savings estimates provided by State Water on 21 November 2012.

Option 1

State Water's current operating licence contains general asset management requirements. Option 1 involves replacing these general requirements with tailored requirements designed specifically for State Water. confirmed that if these new conditions are broadly consistent with existing requirements, State Water's existing systems and processes could accommodate Option 1 without any additional development and implementation costs.

If Option 1 is adopted, State Water estimates that its auditing and reporting expenses relating to asset management could be reduced by 50% resulting in a saving of \$146,000 over 5 years.

Although this approach requires no direct development and implementation costs and offers the potential to reduce auditing and reporting expenses, it does involve a number of potential shortcomings, including:

- ▼ It does not adapt to changes in the regulatory and operating environment.
- It involves a relatively weak link between the licence requirements and the desired outcome.
- ▼ Since it tries to cover all aspects of asset management with specific requirements, it may result in greater risk of regulatory gaps.
- ▼ It does not allow State Water to prioritise issues and focus resources to meet its core objectives.
- ▼ It can result in duplicating other requirements which can lead to an unclear and potentially confusing situation.

Given the shortcomings associated with a prescriptive approach, Option 1 is likely to lead to a sub-optimal regulatory outcome for State Water, its customers and other stakeholders. We do not support Option 1.

Option 2

Compared to the existing operating licence conditions, the inclusion of an AMS requirement in State Water's operating licence is expected to lead to a more comprehensive and informed approach to asset management, consistent with industry best practice. Option 2 will require State Water to design and roll out a series of programs to improve and integrate its existing asset management framework, plan and processes.

In response to our Issues Paper, State Water expressed support for Option 2. State Water's response included commentary from its 2010/11 operating licence audit which reported that State Water had made significant progress in developing a comprehensive and high quality asset management system.

State Water estimates that Option 2 will require development and implementation costs of \$3.23m over 5 years to bring its existing asset management framework in line with the prescribed industry standard.

- ▼ The \$3.23m over 5 years equates to an average of \$0.65m per year or 0.6% of State Water's 2012/13 revenue requirement of \$111m.3
- \$2.99m (93%) of the \$3.23m relates to internal staff time to complete, implement and certify State Water's AMS. Based on input provided by State Water, the \$2.99m over 5 years equates to an average workload of 2.5 full time equivalent (FTE) staff out of State Water's asset management team of 10 FTE over 5 years (ie, 25% of the asset management team's time over the 5-year operating licence term will be devoted to the development and implementation of an AMS). State Water intends to manage these staff expenses within its existing level of resources. Since these expenses are contingent on requiring State Water to complete and certify its AMS, we consider them to be incremental relative to the base case.
- The remaining \$0.24m (7%) of the \$3.23m relates to consultant fees and certification expenses. These expenses are expected to be in addition to State Water's current level of resourcing.

Under Option 2, it is expected that State Water's current asset management related audit and reporting expenses of \$0.29m over 5 years will continue to be incurred over the next operating licence term (ie, prior to AMS certification which State Water expects to occur in 2017/18). Once the AMS is certified, State Water will no longer be required to satisfy current asset management related audit and reporting requirements and will instead be required to comply with the less resource intensive AMS audit and reporting requirements.

Option 2 also offers benefits from operational efficiency gains and reduced risk of asset failure. Although State Water has made significant progress towards the development of an AMS, we consider there to be significant value for State Water, its customers and other stakeholders in requiring State Water to complete its AMS and have it certified. There are a number of wider (unquantified) benefits to a complete and certified AMS, including:

- Higher level of assurance an AMS requirement would provide customers and other stakeholders a high level of assurance that State Water's asset management activities are consistent with industry best practice.
- Operational flexibility a complete and certified AMS will allow State Water to prioritise its resources to help achieve its key objectives.
- Adaptability of requirements an AMS requirement represents a more fluid approach to regulating asset management activities which can evolve over time in response to changes in the regulatory and operating environments.

IPART, Review of bulk water charges for State Water Corporation: from 1 July 2010 to 30 June 2014 -Final Report, June 2010.

Given the high degree of overlap between AMS and the other management systems that we consider in this chapter,4 there is likely to be an opportunity for State Water to achieve economies of scope (ie, cost savings) if it implements more than one management system.

We consider Option 2 will likely deliver a net benefit to State Water, its customers and other stakeholders. State Water has demonstrated a strong commitment to developing an AMS and there is potential to achieve economies of scope. We therefore recommend Option 2. Our recommendation is consistent with our recommendations in the recent operating licence reviews for the Sydney Catchment Authority and Hunter Water Corporation.

2.2 **Environmental management**

Base case

The current operating licence requires State Water to manage its environmental obligations by developing an environmental management plan.

State Water's environmental obligations are currently governed by a range of instruments including:

- ▼ general provisions of the Protection of the Environment Operations Act 1997 (NSW)
- ▼ water supply works approvals which often contain environmental water quality conditions pertaining to cold water pollution and other environmental conditions.

Option

Our Issues Paper proposed the adoption of a systems based approach to environmental management.

This would involve replacing the existing environmental management requirements contained in State Water's operating licence with a requirement for State Water to implement a certified environmental management system (EMS) consistent with the Australian Standard AS/NZS ISO 14001:2004 Environmental Management Systems - Requirements. See Appendix B for a description of this standard.

See Appendix A for illustration of the common elements across these systems.

Assessment

Table 2.2 CBA of proposed environmental management system

Option	Costs	Benefits	
EMS	State Water costs = \$1.14m	State Water savings = \$0.07m	
Potential to achieve economies of scope which would reduce the cost of this option (i.e. if multiple systems adopted).	Potential to achieve economies of	Represents best practice.	
	Encourages achievement of outcomes (rather than focusing on complying with requirements).		
		Adapts to changing regulatory and operating environment.	
		Ability to prioritise areas most critical to achievement of State Water objectives.	
		Consistent with recommendations made in SCA and Hunter Water licence reviews.	

Note: Dollar figures are real (2012) and cover the 5-year term of the next operating licence 2013/14 to 2017/18. Source: State Water costs and savings estimates provided by State Water on 21 November 2012.

State Water estimates that the total cost of developing and implementing an EMS is \$1.14m over 5 years.

- ▼ The \$1.14m over 5 years equates to \$0.23m per year or 0.2% of State Water's forecast revenue requirement for 2012/13 of \$110m.
- ▼ \$0.54m (47%) of the \$1.14m cost estimate relates to internal staff time to develop and implement the system. State Water expects to manage this within its existing level of resources. However, we consider this internal staff time to be an incremental cost because it has an opportunity cost - these resources could otherwise be allocated elsewhere.
- ▼ \$0.60m (53%) of the \$1.14m cost estimate relates to consultant fees for development, certification, implementation and audit services. This will be incremental to State Water's current level of resourcing.

State Water's cost estimate for an EMS is significantly higher than the estimate provided by the Sydney Catchment Authority (SCA) as part of our review of its operating licence. SCA estimated that an EMS would cost \$0.50m over 5 years in present value terms (note that State Water's cost estimate has not been discounted to a present value).5

Partially offsetting the cost is an estimated saving of \$69,000 over 5 years due to a reduction in auditing requirements.

IPART, End of Term Review for Sydney Catchment Authority's Operating Licence, Attachment C: Costbenefit analysis of proposed changes to Sydney Catchment Authority's Operating Licence, April 2012, p 11.

In addition, we expect there to be wider (unquantified) benefits of an EMS including:

- Improved environmental performance: more comprehensive approach, reduced impact on the environment and stronger focus on resource conservation.6
- Improved operational efficiency: allows prioritisation of competing environmental management obligations; better able to adapt to changing circumstances; capture corporate knowledge held by individuals or independent groups within State Water; minimise the risk of gaps in State Water's environmental management.7

Given the high degree of overlap between EMS and the other management systems considered in this chapter (see Appendix A for illustration of the common elements across these systems), there is likely to be an opportunity for State Water to achieve economies of scope (ie, cost savings) if more than one management system is adopted.

We support an EMS requirement in State Water's operating licence. We consider an EMS is likely to deliver ongoing benefits to the environment and State Water's internal operations in excess of the associated development, certification and implementation costs. Our recommendation is consistent with our decisions in the recent operating licence end of term reviews for the Sydney Catchment Authority and Hunter Water Corporation.

2.3 **Quality management (business-wide)**

Base case

A Quality Management System (QMS) refers to a management framework (and supporting structures and processes) that provide the necessary controls to address risks and monitor and measure performance across a business.8

State Water's current operating licence does not contain specific quality management requirements.

⁶ U.S. Environmental Protection Agency website, www.epa.gov/ems/, accessed 11 December

IPART, Review of the operating licence for State Water Corporation – Issues Paper, July 2012, p 68.

⁸ See http://www.bsigroup.com.au/en-au/Assessment-and-Certificationservices/Management-systems/Subject-areas/Quality-Management/.

Option

Our Issues Paper proposed the introduction of an operating licence condition requiring State Water to develop, certify and implement a Quality Management System (QMS) consistent with the Australian Standard AS/NZS ISO 9001:2008. See Appendix B for a description of this standard.

Assessment

Audits of State Water have identified a number of internal process issues that may be addressed by the introduction of a QMS, including:

- lack of integrity of data used to credit and debit customer accounts this led to errors, delays and duplication of effort9
- problems with document control and consistency¹⁰
- difficulties integrating systems and data across the organisation.¹¹

State Water was not able to estimate the level of work required to bring existing systems and processes in line with the requirements of a QMS. We have used data from our CBA for the Sydney Catchment Authority (SCA) to estimate the cost for State Water to develop, implement and certify a QMS.

State Water and SCA perform similar functions (ie, both are involved in water catchment, storage, release, and delivery). Although both organisations are of similar size in terms of number of employees (State Water and SCA employee expenses for FY2012 were \$31.7m and \$36.1m respectively), State Water controls significantly more assets than SCA (\$754.3m and \$60.9m respectively).¹² If QMS costs are higher for companies that control more assets, our methodology may under-estimate the potential cost of a QMS for State Water.

In our CBA for the SCA operating licence review, we reported that in order to be certified, SCA's QMS would need to be taken from its current state of 80% complete to 100% complete. SCA estimated that this 20% improvement would cost between \$475,000 and \$489,000 over 5 years.

Based on the higher estimate of \$489,000 for a 20% improvement in SCA's QMS, we have estimated that it would cost up to \$2.4m for State Water to develop, certify and implement a QMS.13 This estimate assumes State Water does not have any of the required components in place.

Hyder Consulting, Review of the State Water Corporation Act 2004, Final Report, May 2010, p 89.

¹⁰ t-cAM Consulting, State Water Corporation Operational Audit 2010/11 Final Report, November 2011, p8.

¹¹ Ibid, pp 18-19.

¹² State Water, Annual Report 2011-12 and SCA, Annual Report 2011-12.

¹³ That is, \$489,000 / 0.20 = \$2,445,000.

Given the high degree of overlap between QMS and the other management systems considered in this chapter (see Appendix A for illustration of the common elements across these systems), there is likely to be an opportunity for State Water to achieve economies of scope (ie, cost savings) if more than one management system is adopted. However, given the lack of information available regarding State Water's current systems, we are not able to estimate the extent of these potential development and implementation cost savings.

The literature on quality management identifies several benefits associated with organisations that adopt certified QMS. Some of the potential benefits of QMS include better documentation, better customer service and increased operational efficiency.

Due to the relatively high potential cost and general lack of information regarding State Water's requirements and capacity to develop and implement and QMS, we do not support the proposal to include a QMS requirement in State Water's operating licence at this time.

2.4 **Quality management of Fish River drinking water**

Base case

The Fish River Water Supply Scheme (FRWSS) supplies both raw and drinking water to customers within the Central Tablelands of NSW. The scheme includes reservoirs, 236 kilometres of pipelines, four pumping stations, a chlorinator and clarification plants for water transfer and reticulation to customers.¹⁴ State Water has been responsible for managing the scheme since 2005.

Under the State Water Act, State Water's principle objectives are to capture, store and release water in an efficient, effective, safe and financially responsible manner. State Water's operating licence regulates some areas of State Water's FRWSS functions such as customer and asset management, and requires State Water to report on a small number of performance indicators for the scheme. However, the licence does not contain any specific conditions relating to the management of drinking water quality.

State Water's 2010/11 operational audit identified a risk to the quality of drinking water in the FRWSS that "may present a risk to public health if not addressed".15

¹⁴ http://www.sca.nsw.gov.au/dams-and-water/major-sca-dams/fish-river-scheme. Accessed 13 December 2012.

¹⁵ IPART, State Water Corporation Operational Audit 2010/11 - Report to the Minister, December 2011.

Our Issues Paper presented two options with respect to FRWSS water quality:

- **Option 1**: defer to the *Public Health Act* 2010 (NSW) ('Public Health Act')
- ▼ Option 2: include new conditions in the operating licence regulating the water quality of the FRWSS.

Since the Issues Paper was released, the Public Health Act came into effect requiring NSW water utilities to establish and adhere to a quality assurance program for maintaining and monitoring drinking water quality by September 2014. This will require State Water to develop a drinking water management system for the FRWSS.

The Public Health Act allows the Chief Health Officer to exempt water utilities from the quality assurance program if other appropriate licencing or other regulatory requirements are in place.¹⁶ Therefore, the proposed options represent different ways of achieving the same outcome. Option 1 has become the base case and Option 2 would involve IPART taking on responsibilities that would otherwise rest with NSW Health. We understand that Options 1 and 2 are equally acceptable to NSW Health.

Assessment

Table 2.3 CBA of options to regulate FRWSS drinking water quality

		. ,
	Costs	Benefits
Option 1 Defer to the Public Health Act	Total costs = \$809,000 State Water direct costs = \$680,000 NSW Health audit costs = \$129,000 (assumed to be same as audit expense under Option 2. NSW Health has confirmed that some audit costs will be funded by NSW Health and others will be passed through to State Water). Potential risk of duplicating some auditing processes (ie, risk that NSW health will audit some functions already audited by IPART).	State Water savings = \$0 NSW Health has expertise in this area and will be regulating drinking water quality for all other local water utilities across regional NSW.
Option 2 Include specific conditions in licence	State Water direct costs = \$809,000 (includes \$129,000 auditing expenses passed on to State Water).	State Water savings = \$0

Note: Dollar figures are real (2012) and cover the 5-year term of the next operating licence 2013/14 to 2017/18. Source: State Water costs and savings estimates provided by State Water on 21 November 2012.

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¹⁶ We understand that Sydney Water and Hunter Water will be granted exemptions on the basis that their operating licenses already include conditions regulating drinking water quality.

State Water estimates that both options will require capital expenditure of \$500,000 to develop process automation and real time data collection capacity. Both options will also require internal staffing costs of \$180,000.

Although the total cost of both Options 1 and 2 are the same, the expected auditing expense of \$129,000 over 5 years is assumed to be allocated differently under the two options. Under Option 1, audit costs will be shared between NSW Health and State Water. Under Option 2 audit costs will be passed on to State Water in full (in line with the current treatment of audit expenses incurred by IPART).

Given the public health benefits are the same for both options, the main consideration is to identify the most administratively efficient option. consider Option 1 more administratively efficient for the following reasons:

- Drinking water quality falls within NSW Health's responsibilities.
- NSW Health is expected to regulate drinking water quality for all other regional drinking water suppliers in NSW.17 Currently, only major metropolitan water agencies such as Sydney Water and Hunter Water are exempted from the Public Health Act, and regulated by IPART.
- The Public Health Act exemption clause is intended to apply to utilities that are already required to meet drinking water quality standards (ie, to avoid duplication of existing regulatory requirements). This is not the case for State Water which until the introduction of the Public Health Act, was not subject to drinking water quality standards.

Therefore, we support Option 1 (defer to the Public Health Act).

3 Changes to operating activities and responsibilities

Three of the proposed changes to the operating licence related to changes in the way State Water conducts its business operations, or to its responsibilities in doing so. They are:

- the responsibility to release or deliver water to its customers
- flood management responsibilities
- ▼ water metering requirements.

17 This would exclude any schemes covered by the Water Industry Competition Act 2006 (NSW) (WICA), which are regulated by IPART.

3.1 Release or delivery of water to customers

Base case

Currently, there are different references in the State Water Act as to whether State Water is responsible for delivering¹⁸ water to its customers or simply *releasing*¹⁹ water into channels leading to the customer.

State Water's current operating licence currently includes a clause that implies State Water is responsible for the delivery of water to its customers. Clause 6.2(a) reads:

State Water is accountable for the management and delivery of water allocated to Customers.

Options

We considered the 2 options proposed in the Issues Paper to clarify State Water's responsibility in its licence:

- ▼ **Option 1:** amend the current operating licence conditions to refer (only) to the release of water and the standards for the release of water
- ▼ Option 2: amend the current operating licence conditions to outline an explicit requirement to deliver water and the standards for the delivery of water.

Assessment

A summary of costs and benefits (relative to the status quo) is presented in Table 3.1 below.

Table 3.1 Release vs delivery of water to customers

	Costs	Benefits
Option 1: release water	Possible, but unlikely operational costs associated with the compliance of any new explicit requirements.	Increases clarity of the regulatory link to require State Water to release water to customers.
Option 2: deliver water	Contravention of competing regulations and possible costs associated with the compliance of any new explicit requirements.	Increases clarity of the regulatory link to require State Water to deliver water to customers. Higher level of assurance for customers.

¹⁸ State Water Corporation Act 2004 (NSW), section 12(1)(b).

¹⁹ State Water Corporation Act 2004 (NSW), sections 5(1) and 6(1) and section 12(1)(a).

State Water's submission supported Option 1:

State Water does not deliver water, with the exception of the Fish River Scheme. It releases water at the behest of its state regulator, the Minister administering the Water Management Act, 2000.

Since State Water cannot operate contrary to the provisions of the relevant water sharing plan, it is difficult to see how State Water could be made responsible for the delivery of water to its customers.²⁰

After further consultations with State Water, State Water customers and other stakeholders, we recommend that the operating licence should maintain the requirement for State Water to deliver water to its customers. However, in recognition of the concerns which State Water have expressed in their submission, we recommend to revise the wording of the requirement so that it is subject to any requirements of water sharing plans or water works approvals. This is a slight variation of **Option 2**. No evidence has been presented to support the introduction of performance standards at this stage.

3.2 Flood management

Base case

The current operating licence references Section 6 of the State Water Act, specifying that one of the principal functions of State Water is:

...to capture and store water and to release water for the purposes of flood management.²¹

The operating licence specifies that:

When operating its Assets State Water must implement flood planning and other operations instigated by the Dam Safety Committee.²²

However, these flood management conditions duplicate the requirements of The current regulatory framework is quite other legislative instruments. complex with service delivery spread across multiple agencies, representing all three levels of government. For example, the Office of Water includes flood operation rules in the water supply work approvals it issues to State Water.

²⁰ State Water Corporation, Review of the Operating Licence, submission to IPART, 4 September 2012, p 3.

²¹ State Water Corporation Operating Licence 2008-2013, Section 2.4 (a)(ii).

²² Ibid, Section 6.1.2 (e).

Options

We considered the 2 options proposed in the Issues Paper to streamline State Water's flood management responsibilities:

- ▼ Option 1: remove obligations in the current licence relating to flood management
- ▼ Option 2: amend the current licence condition to include an obligation requiring State Water to develop communication protocols for flood management activities.

Assessment

A summary of costs and benefits (relative to the status quo) is presented in Table 3.2 below.

Table 3.2 **Costs and Benefits: Flood management**

	Costs	Benefits
Option 1: remove obligation	Risk of gaps in the current flood management regulatory requirements. Risk of inadequate communication between agencies for the purpose of flood management.	Reduce operational audit costs. Reduce regulatory burden due to duplication of regulation. Minimise the risk of including conditions that conflict with other regulatory instruments that address aspects of flood management.
Option 2: include an obligation to develop communication protocols	Purchase or development of software used to manage data communication. Due to duplicated responsibilities of various agencies, State Water may expend considerable effort in with no guarantee of an outcome.	Project would force State Water and agencies to investigate and resolve conflicting responsibilities.

State Water's submission supported Option 1.23

We recognise that there are costs and benefits for both options. On balance, we support Option 1 - to remove the existing obligations specifically relating to flood operations which duplicate other regulatory requirements. This will help untangle duplication of responsibilities, and facilitate a review of the framework which will potentially result in a more efficient framework for flood operations.

²³ State Water Corporation, Review of the Operating Licence, submission to IPART, 4 September 2012, p 5.

3.3 Water metering

Base case

State Water's operating licence currently includes a requirement to read customer meters and audit compliance of meters against national or state metering standards.24

Until recently, customers have owned the meters used to measure the amount of water which they take. However, a recent State Water audit found that only a small fraction of meters complied with the interim NSW metering standard.²⁵

A Commonwealth Government project is underway to install new meters.²⁶ State Water will own, operate and maintain these new meters in NSW.

At present, the ability to read meters or assess take for groundwater and unregulated river licence holders is considered to be at risk, as State Water may not have a regulatory right to enter customers' premises.

Option

Our Issues Paper proposed that current meter obligations were unnecessary and should be removed from the licence.

Assessment

We have considered two issues involving metering:

- 1. the responsibility to inspect and maintain meters which State Water does not own, and
- 2. the responsibility of reading meters.

Regarding the first responsibility, the State Water Act (as amended in 2009) states:

The Corporation may, if the operating licence so provides, operate, replace, repair, maintain, remove, connect, disconnect or modify metering equipment that the Corporation does not own.27

In other words, under the State Water Act, State Water's powers in relation to customer meters depend on such powers being specified in the operating licence.

²⁴ IPART, State Water Corporation Operating Licence 2008-2013, Section 6.5.

²⁵ State Water Corporation, 2010-2011 Report to IPART under the Operating Licence.

²⁶ See http://www.carmproject.com.au/fs1-metering-the-murrumbidgee.html.

²⁷ State Water Corporation Act 2004 (NSW), Section 22A(1) (emphasis added).

The purpose of the amendment was to 'establish the necessary mechanisms to enable the rollout of metering projects totalling approximately \$250 million in the Murray-Darling Basin and in the Hawkesbury Nepean catchment in New South Wales.'28 Furthermore:

... it installs and confers on State Water the same powers in respect of metering equipment that it already has with respect to works under its legislation. This includes installing, operating, repairing and replacing metering equipment...The bill also extends the powers of State Water Corporation in relation to metering equipment to include metering equipment that State Water does not own, if this is provided for under the State Water Corporation operating license.²⁹

We therefore recommend that reference to metering responsibilities should not be removed from the operating licence. On the contrary, metering clauses should more closely reflect the wording of the State Water Act, in order to strengthen State Water's powers to install new meters and maintain existing meters.

The non-compliance of most customer-owned meters is already known. We therefore see little benefit in prescribing meter auditing of customer-owned meters in the operating licence, and recommend such references be removed from the operating licence.

Regarding meter reading, it is essential that State Water can measure all water usage, including groundwater and unregulated rivers, in order to receive all due revenue. This applies whether State Water is acting on its own behalf or on behalf of another agency such as NOW. If the ability to enter a customer's premises to read a meter is at risk due to the requirement not being specified in the operating licence, this requirement should be specified.

We recommend that such functions be prescribed in the operating licence on the assumption that any costs incurred in fulfilling these functions will be recovered either from customers, from NOW or other sources.

A summary of costs and benefits (relative to the status quo) is presented in Table 3.3 below.

²⁸ Second Reading Speech, Water Management Amendment Bill 2009 (NSW), Legislative Council, 25 November 2009 (Penny Sharpe, Parliamentary Secretary).

²⁹ Ibid (emphasis added).

Table 3.3 **Costs and Benefits: Water metering**

Option	Costs	Benefits
Option 1: Remove all metering requirements from operating licence.	Risk of loss of significant proportion of revenue from usage charges due to substandard or faulty meters not being replaced or repaired.	Saving compliance and audit costs for both IPART and State Water.
Option 2a: Remove requirements to inspect customer-owned meters from operating licence.	Nil	Save inspection and auditing costs.
Option 2b: Include requirement to read meters for groundwater and unregulated rivers as well as regulated rivers.	No net costs to State Water, assuming any meter reading costs will be recovered.	Less revenue lost through not being able to assess water usage.

3.4 Local water utilities

Base case

Local water utilities (LWUs) supply drinking water to customers in regional parts of NSW. There are 105 LWUs in NSW.³⁰ They can be broken down into the following groups:

- ▼ 68 LWUs are direct customers of State Water.³¹
- ▼ The remaining 37 LWUs either:
 - receive water from suppliers that are themselves customers of State Water ie, they are one step removed from State Water, or
 - operate their own dams ie, are not related to State Water and are outside the scope of this review.

State Water's current operating licence does not contain any specific requirements relating to the quality of water supplied to LWUs for drinking water purposes (whether they are directly or indirectly supplied by State Water).

³⁰ Website of NSW Department of Primary Industries - Office of Water, accessed on 2 May 2013: http://www.water.nsw.gov.au/Urban-water/Local-water-utilities/default.aspx

³¹ Information supplied by State Water.

Options

The Public Health Act requires all drinking water suppliers, including LWUs, to develop a drinking water quality assurance program consistent with the Australian Drinking Water Guidelines by 1 September 2014. As a supplier of water to some LWUs, State Water is in a position to assist these LWUs in the development and maintenance of their drinking water quality assurance programs.

We considered 2 options (which are not mutually exclusive) to improve communication between State Water and LWUs and thereby assist LWUs manage their drinking water quality assurance programs:

- ▼ Option 1a: Develop and maintain a register of LWUs which are direct customers of State Water. This register is to include key information including contact details and the approximate location from which each LWU extracts water from State Water supplied water ways.
- ▼ **Option 1b:** Develop and implement a procedure to respond to water quality related information requests by any (direct or indirect) LWU customers.

Assessment

Table 3.4 Costs and Benefits: Local water utilities

Option	Costs	Benefits
Option 1a: LWU register	Total cost: \$9,000 over 5 years. Development costs: \$6,500. Ongoing costs: \$500 per year or \$2,500 over 5 years.	Assist with timely communication with LWUs about issues that may affect water quality.
Option 1b:LWU information request procedure	 Development costs: \$10,000. Ongoing costs: (to be recovered through user charges): Requests for data covering the last 5 years: fee of up to \$1,200 per request. Requests for data covering earlier periods: fee of up to \$6,000 per request. 	Facilitate better communication between State Water and LWUs. Assist LWUs to comply with requirements under the Public Health Act. Majority of costs will be recovered from LWUs through a user charge.

Source: Cost estimates provided by State Water on 30 April 2013 – 2 May 2013.

Option 1a

Option 1a involves the collection and maintenance of a register containing the following information:

- All LWUs that are direct customers of State Water. This will allow State Water to quickly identify which of its customers are LWUs that may be affected in the event that a water quality issue is identified.
- ▼ Where each LWU extracts water from State Water supplied water ways.
- ▼ Who at each LWU should be contacted in the event State Water identifies a water quality issue.

State Water estimates that Option 1a will cost \$9,000 over the 5-year operating licence. This can be broken down into \$6,500 in development costs incurred during 2013/14 and \$500 per year over 5 years in maintenance costs.

In the event that State Water identifies an issue that may pose a risk to water quality, such as a water contamination event in a major storage dam, this register will allow State Water to:

- Quickly identify if any of its LWU customers are likely to be affected.
- ▼ Have up-to-date contact details for each LWU at hand in case information needs to be passed on at short notice. State Water may be in a position to contact these LWUs. Alternatively, State Water may assist by providing a list of potentially affected LWUs to another body such as NSW Health.

We consider these benefits, which include improving communication channels between State Water and LWUs and assisting LWUs manage risks to drinking water quality, likely to exceed the cost of this requirement. We therefore support Option 1a.

Option 1b

As outlined above, the Public Health Act requires LWUs to develop drinking water quality assurance programs by 1 September 2014. In order to develop these programs, LWUs may request information from State Water. Examples of the types of information which LWUs may request include:

- ▼ historical inflow and outflow data
- ▼ historical water quality data
- ▼ information on future capital works that may affect water flows.

Option 1b involves developing a procedure to process information requests from State Water estimates that developing this procedure will cost approximately \$10,000, and be incurred during 2013/14.

Regarding ongoing costs, the proposed licence condition allows for these costs to be recovered through a user charge applied to the LWUs which request information. State Water has estimated that the user charge would be:

- ▼ up to \$1,200 per request relating to data coving the last 5 years.
- ▼ up to \$6,000 per request for data covering earlier periods.

These fees are likely to be lower in cases where more than one LWU requests the same information.

We consider the benefits to LWU and their customers are likely to outweigh the costs to State Water. In addition, the majority of costs associated with this requirement are likely to be recovered from users of the service (ie, LWUs). In addition to Option 1a, we also support Option 1b.

Other changes to the operating licence 4

We have summarised our assessment of other minor changes to State Water's operating licence in the following table.

Table 4.1 Summary of CBA assessment for other proposed changes

	Costs	Benefits	Support
Conferred functions			
 Include split in operating licence 	Inflexible.	Marginal improvement in transparency.	No
 Include split in State Water / NOW MoU 	Overly prescriptive. Could complicate MoU process.	Marginal improvement in transparency.	No
 Require State Water to disclose the extent to which they will exercise the conferred functions. 	Will require additional expenditure to capture and report information.	Improved transparency. Flexible to changes in conferred functions / split.	Yes
Environmental water relea	ises		
 Introduce environmental water conditions 	Duplicates requirements of AMS, EMS and Water Sharing Plans.	No incremental benefit.	No
 Clarify State Water's responsibility to environmental water entitlement holders 	No cost.	Improves clarity and transparency.	Yes
Customer Service Commi	ttee (CSC)		
 Require Commonwealth Environment Water Holder (CEWH) to be member of CSC 	Overly prescriptive. Increases regulatory burden.	No incremental benefit (over base case where these reps are free to attend).	No
 Invite Commonwealth Environmental Water Holder to join CSC 	No cost.	Encourages greater stakeholder involvement.	Yes
Community Consultative	Committee (CCC)		
 Remove requirement for CCC 	No cost. EMS will require State Water to engage with community.	Allows for a more targeted and efficient approach.	Yes
Operational audits			
▼ Remove obligations on IPART	No cost.	Removal of an unnecessary requirement from licence.	Yes
Duplicative regulatory req	uirements		
 Remove duplicative requirements 	No cost.	Improves clarity of regulation / licence.	Yes
Reporting manual			
 Introduce reporting manual 	Low.	Streamlines compliance and audit activity.	Yes

	Costs	Benefits	Support
Memoranda of understand	ding (MoU)		
▼ Remove DPI and OEH MoU requirements	No cost (State Water will continue to maintain these agreements).	Removes unnecessary requirement from licence.	No
▼ Remove all MoU requirements	No cost (State Water will continue to maintain these agreements).	Removes unnecessary requirement from licence.	Yes

Appendices

Α Common elements of proposed management systems

The following table illustrates the common elements of the four management systems considered in Chapter 2. Elements 1 to 12 require system specific information/processes and therefore offer only partial economies of scope. Elements 13 to 18 do not require system specific information/processes and therefore offer full economies of scope across the four systems.

Table A.1 Common elements across proposed management systems

Elements	AMS	EMS	QMS	FRWQMS
General Requirements	✓	✓	✓	✓
2. Policy	\checkmark	✓	✓	✓
3. Environmental Aspects	-	✓	-	-
4. Legal and other Requirements	✓	✓	-	✓
5. Objectives, Targets and Programs	✓	✓	✓	✓
Resources, Roles, Responsibility, (Accountability) and Authority	✓	✓	✓	✓
7. Documentation	✓	✓	-	✓
8. Operational Control	✓	✓	✓	✓
9. Emergency Preparedness and Response	-	✓	-	✓
10. Monitoring and Measurement	✓	✓	✓	✓
11. Evaluation of Compliance	✓	✓	-	✓
12. Nonconformity, Corrective Action and Preventive Action	✓	✓	✓	✓
13. Competence, Training and Awareness	✓	✓	✓	✓
14. Communication	✓	✓	✓	✓
15. Control of Documents	✓	✓	✓	✓
16. Control of Records	✓	✓	✓	✓
17.Internal Audit	✓	✓	✓	✓
18. Management Review	✓	✓	✓	✓

AMS: ISO Draft International Standards 55000, 55001, 55002 - Asset Management Systems.

EMS and QMS: Adapted from SAI Global website. Site accessed on 4 December 2012. http://www.qmi.com/closer/default.asp?load=common&language=english.

FRWQMS: NHMRC, NRMMC (2011) Australian Drinking Water Guidelines Paper 6 National Water Quality Management Strategy. National Health and Medical Research Council, National Resource Management Ministerial Council, Commonwealth of Australia, Canberra.

The significant overlap between these systems indicates that there could be opportunities for State Water to economise on development, implementation and operating expenses associated with these systems.

B Asset, environment, quality and drinking water quality management systems

B.1 Asset management standard³²

ISO 55000 (overview), 55001 (requirements) and 55002 (guidance) are the first set of international standards for asset management. This new family of asset management standards are based on the Publically Available Specification (PAS) 55-2008 standard for best practice in asset management.

Asset management standards provide guidance across all aspects of good asset management, from lifecycle strategy to everyday maintenance. This approach enables the integration of all aspects of the asset lifecycle. This includes the first recognition of a need for the asset, design, acquisition, construction, commissioning, utilisation or operation, maintenance, renewal, modification and/or ultimate disposal.

Asset management standards provide a common language for cross-functional discussion and a framework for understanding how individual parts fit together and how the many mutual interdependencies can be handled and optimised.

IPART Cost benefit analysis of proposed changes to State Water Corporation's operating licence

http://www.assetmanagementstandards.com/2.html, accessed 23 January 2013. The Institute of Asset Management, http://theiam.org/products-and-services/pas-55/what-pas55, accessed 14 December 2012.

B.2 Environmental management standard³³

An Environmental Management System (EMS) is a structured system or management tool designed to help an organisation to reduce its negative impacts on the environment and improve its environmental performance. The system can also provide a methodical approach to planning, implementing and reviewing an organisation's environmental management.

Implementation of an EMS involves an organisation taking the following steps:

- devise a policy that articulates the organisations environmental commitments
- appoint an environmental manager or management team responsible for the ongoing coordination of the EMS
- ▼ identify the organisation's significant environmental aspects
- identify legislative and regulative requirements relevant to the organisations environmental aspects
- establish environmental objectives and targets
- implement programs to achieve those objectives and targets
- monitor and measure progress towards achieving those objectives and targets
- ▼ take steps to continually improve the effectiveness and efficiency of environmental management
- ▼ strategically review the continuing effectiveness of environmental management within the organisation.

Standards Australia adopted the International Standards for Environmental Management Systems (ISO14001 and ISO14004) for use by Australian organisations. These are known within Australia (and New Zealand) as:

- AS/NZS ISO 14001:2004 Environmental Management Systems requirements and guidance for use.
- ▼ AS/NZS ISO 14004:2004 Environmental Management Systems general guidelines on principles, systems and support techniques.

³³ http://www.environment.gov.au/sustainability/government/ems/index.html

B.3 Quality management standard

ISO 9001:2008 is the internationally recognised standard for Quality Management Systems (QMS). This standard provides organisations a framework and set of principles that ensure a common sense approach to the management of the business.³⁴

Key requirements of ISO 9001:2008 include:35

- well defined business processes: includes simple diagrams showing how work flows through the organisation and who is responsible at each stage
- ▼ a quality policy: a short 'quality slogan' issued by top management signalling the organisation's commitment to meeting customer requirements and to continual improvement
- ▼ a set of quality objectives and supporting performance data: measurable targets for improvement and data to show current and past performance
- ▼ a quality manual: a general description of how the company operates and how it meets ISP 9001 requirements
- ▼ administrative procedures including: document control, control of records, control of nonconforming product, internal auditing, corrective action and preventive action
- employee training in areas including: management responsibilities, jobspecific training, quality policy training, administrative procedure training, auditing skills training
- ▼ customer feedback: tracking of complaints, compliments and overall satisfaction
- management review: A regular meeting of top management to review the progress of the organisation's QMS and guide further improvements as required
- ▼ internal audit: formal process by a team of employees trained to conduct audits
- ▼ certification audit: the audit performed by the Registrar that leads to formal certification.

³⁴ http://www.nqa.com/en/atozservices/what-is-iso-9001.asp, accessed 14 December 2012.

³⁵ http://www.9000world.com/index.php?app=ccp0&ns=display&ref=isoguides_required accessed 14 December 2012.

B.4 Australian drinking water guidelines

The Australian Drinking Water Guidelines (ADWG) is designed to provide an authoritative reference to the Australian community and the water supply industry on what defines safe, good quality water, how it can be achieved and how it can be assured.³⁶

The ADWG address 4 general areas:37

- ▼ commitment to drinking water quality management: successful implementation requires the active participation of senior executive and a supportive organisational philosophy
- system analysis and management: involves understanding the entire water supply system, the hazards and events that can compromise drinking water quality, and the preventive measures and operational control necessary for assuring safe and reliable drinking water
- supporting requirements: include the basic elements of good practice such as employee training, community involvement, research and development, validation of process efficacy, and systems for documentation and reporting
- review: includes evaluation and audit processes and their review by senior executives to ensure the management system is functioning satisfactorily and that improvements are made where necessary.

³⁶ http://www.nhmrc.gov.au/guidelines/publications/eh52, accessed 14 December 2012.

³⁷ National Health and Medical Research Council, Australian Drinking Water Guidelines 6, 2011. http://www.nhmrc.gov.au/_files_nhmrc/publications/attachments/eh52_aust_drinking_wat er_guidelines_111130.pdf, accessed 19 December 2012.

C Management system cost benefit data from State Water

Table C.1 Management system cost benefit data from State Water

	2013/14	2014/15	2015/16	2016/17	2017/18	TOTAL
Asset Management						
Option 1 – Asset Management Requirements						
Development / Implementation Costs	-	-	-	-	-	
Direct Savings to State Water						
- Internal staff savings (assumed 50% saving)	\$7,223	-	\$120,242	-	-	\$127,465
- Reduced Audit expenses (assumed 50% saving)	\$9,000	-	\$9,000	-	-	\$18,000
Option 2 – Asset Management System						
Development / Implementation Costs						
- Internal staff costs	\$470,903	\$941,807	\$706,355	\$756,355	\$117,726	\$2,993,146
- Consultants and certification expenses	\$90,000	\$50,000	\$50,000	-	\$50,000	\$240,000
Direct Savings to State Water (note: savings to occur after AMS certification - post 2017/18).	-	-	-	-	-	
Environmental Management System						
Development / Implementation Costs						
- Internal staff costs	\$85,533	\$85,533	\$186,333	\$100,800	\$76,800	\$535,000
- Consultant expenses	\$98,500	\$98,500	\$180,500	\$144,000	\$82,000	\$603,500
Direct Savings to State Water						
- Internal staff savings	\$16,419	-	-	-	\$16,419	\$32,837
- Reduced non-staff audit expenses	\$18,000	-	-	-	\$18,000	\$36,000
Quality Management System						
Development / Implementation Costs	n/a	n/a	n/a	n/a	n/a	n/a
	n/a	n/a	n/a	n/a	n/a	n/a

	2013/14	2014/15	2015/16	2016/17	2017/18	TOTAL
Management of FRWSS Drinking Water Quality						
Option 1 – Defer to the Public Health Act						
Costs						
- Capital expenditure requirement	\$300,000	\$200,000	-	-	-	\$500,000
- Operating expenses	\$100,000	\$20,000	\$20,000	\$20,000	\$20,000	\$180,000
- NSW Health audit expenses (assumed equal to IPART)	\$64,304	-	-	\$64,304	-	\$128,608
Option 2 – Include specific conditions in licence	-	-	-	-	-	-
Costs						
- Capital expenditure	\$300,000	\$200,000	-	-	-	\$500,000
- Operating expenses (including audit expenses)	\$164,304	\$20,000	\$20,000	\$84,304	\$20,000	\$308,609

Note: All estimates are in (real) 2013/14 dollars.

Source: cost and benefit estimates provided by State Water on 21 November 2012.