



Independent Pricing and Regulatory Tribunal

Review of the Operating Licence for State Water Corporation

Water — Issues Paper
July 2012



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Invitation for submissions

IPART invites written comment on this document and encourages all interested parties to provide submissions addressing the matters discussed.

The submission from State Water Corporation is due by 4 September 2012. All other submissions are due by 25 September 2012.

We would prefer to receive them electronically via our [online submission form](#).

You can also send comments by fax to (02) 9290 2061, or by mail to:

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Our normal practice is to make submissions publicly available on our website <www.ipart.nsw.gov.au>. If you wish to view copies of submissions but do not have access to the website, you can make alternative arrangements by telephoning one of the staff members listed on the previous page.

We may choose not to publish a submission—for example, if it contains confidential or commercially sensitive information. If your submission contains information that you do not wish to be publicly disclosed, please indicate this clearly at the time of making the submission. IPART will then make every effort to protect that information, but it could be disclosed under the *Government Information (Public Access) Act 2009* (NSW) or the *Independent Pricing and Regulatory Tribunal Act 1992* (NSW), or where otherwise required by law.

If you would like further information on making a submission, IPART's submission policy is available on our website.

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1 Introduction

The Independent Pricing and Regulatory Tribunal (IPART) is conducting an end of term review (review) into State Water Corporation's (State Water) operating licence.¹

This review is a requirement of the State Water operating licence, and must be conducted prior to the renewal of the operating licence. We last undertook such a review in 2007/08². State Water's current operating licence expires on 23 June 2013.³

State Water's operating licence must be reviewed and a new operating licence subsequently granted for a maximum period of 5 years.⁴ We usually recommend that an operating licence be granted for the full 5-year period. On this basis, State Water's next operating licence would operate during the period 24 June 2013 to 23 June 2018.

The current operating licence combines obligations imposed on State Water by specific provisions of the *State Water Corporation Act 2004* (the Act) and requirements prescribed by other legislation relevant to the administration of the operating licence.⁵

The operating licence is an extensive document and can be viewed at www.ipart.nsw.gov.au.

1.1 The purpose of the review

The primary purpose of this end of term review is to determine whether the operating licence is fulfilling its objectives and to recommend to the Minister for Primary Industries conditions which may be included in State Water's new operating licence.⁶

¹ The State Water operating licence is granted under the *State Water Corporation Act 2004*, Part 11.

² *State Water Corporation Operating Licence 2008-2013*.

³ NSW Government Gazette No 72, 20 June 2008, p 5589.

⁴ *State Water Corporation Act 2004*, section 14.

⁵ For example, some provisions of the *Independent Pricing and Regulatory Tribunal Act 1992* and *State Owned Corporations Act 1989*.

⁶ See the *State Water Act 2004*, section 30 and the *State Water Corporation Operating Licence 2008-2013*, clause 1.4.

The purpose of the operating licence is to set out the terms and conditions under which State Water is to carry out its functions. The Act specifies that the operating licence must include terms and conditions under which State Water is required:

- ▼ to provide, construct, operate, manage and maintain efficient, co-ordinated and commercially viable systems and services to capture, store and release water; and
- ▼ to ensure that the systems and services meet the performance standards specified in the operating licence in relation to water delivery and any other applicable requirements set out in the operating licence.⁷

The licence must also make provision for the preparation of operational audits by the Tribunal.⁸

The terms and conditions of the operating licence should be determined having regard to the principal function and objectives, as well as the other objectives, of State Water as outlined by the Act.

In reviewing State Water's operating licence, we consider whether to maintain or amend the terms of the current licence to improve State Water's operational efficiency and regulation. Furthermore, we aim to introduce greater consistency in the licensing approach for major public water utilities, including encouraging the adoption of systems based management approaches.

1.1 Our approach to the review of State Water's operating licence

We have approached this review from first principles. Each of State Water's functions is reviewed, the regulatory framework of the function explored and consideration given to the appropriateness of the current operating licence conditions within this regulatory framework. We have taken into account whether other instruments regulate the functions of State Water to achieve its objectives.

This approach ensures that, to the extent possible, we avoid duplicating the objectives of other regulatory instruments in the operating licence, while identifying any gaps in the regulation of State Water's functions.

⁷ *State Water Act 2004*, section 12(1).

⁸ *State Water Act 2004*, section 12(2).

Our approach to the review is consistent with the evolution of good regulatory practice for public utilities.⁹ To accomplish good regulatory practice, the terms of an operating licence should achieve the desired outcomes without imposing unnecessary compliance and administration costs. The terms should also provide a net benefit to society. In conducting the review, we have adapted the NSW Office of Better Regulation principles of Better Regulation. The principles we will apply to this review are:

- ▼ The need for action should be established.
- ▼ The objectives of the licence conditions should be clear.
- ▼ The impact of the licence conditions should be properly understood by considering the costs and benefits of a range of options, including non-regulatory options.
- ▼ The licence conditions should be effective and proportional to the issue being addressed.
- ▼ Consultation with the regulated utility and stakeholders should inform the licence review.
- ▼ Simplification, minimisation of regulatory overlap and avoidance of regulatory inconsistency should be considered.
- ▼ The licence should be enforceable and periodically reviewed to ensure continued efficiency and effectiveness.

Appendix C contains a detailed explanation of each of the principles.

1.2 Scope of Review

State Water's current operating licence requires that a review be undertaken:

- ▼ to determine whether the Licence is fulfilling its objectives;
- ▼ in relation to any matter required to be reviewed by the Licence¹⁰
- ▼ to determine the terms of any renewal of the Licence.¹¹

The end of term review must also consider all clauses of State Water's current operating licence. This review is not an audit of State Water's compliance with the operating licence.

⁹ Reviews of Sydney Water's operating licence (2009/10), Hunter Water's operating licence (2011/12) and Sydney Catchment Authority licence (2011/12).

¹⁰ No additional matters for review have been identified in the current operating licence.

¹¹ *State Water Corporation Operating Licence 2008-2013*, clause 1.4.1.

Furthermore, the operating licence includes performance indicators (Schedule 1). We will conduct a review of these performance indicators in a separate, parallel process.¹² Changes to the performance indicators are not canvassed in detail in this issues paper. However, the outcomes of the performance indicator review are intended to feed into the draft operating licence and reporting manual, which are outputs of this review.

1.3 The purpose of this paper

This issues paper has been prepared to assist in identifying and understanding the key issues for review. It examines each of State Water's functions, raises issues associated with the regulation of these functions and explores possible options to address these issues.

1.4 Cost benefit analysis

We are mindful of the burden of regulation. In particular, we are mindful that the costs of regulation are ultimately passed on to State Water's customers. To address these concerns, and in accordance with good regulatory practice, we will undertake an analysis of the costs and benefits of the identified options. The analysis of the options will determine the net benefit or cost to State Water, the environment, its consumers and society in general (ie, all economic costs and benefits).

This analysis will consider the costs and benefits of the options relative to the 'base case' of business as usual. The base case assumes that State Water continues to operate under its current regulatory regime including the current operating licence (ie, that there is no change to its current practices). This means that we seek information from State Water and other stakeholders on the costs and benefits of the options we have identified that would be *incremental* to current requirements and State Water's 'business as usual' practices.

¹² More information on the review of State Water's indicators will be made available on IPART's website, including a background paper to initiate discussion on the performance indicators. Stakeholders will be notified when the paper is made available.

Where costs or benefits can be quantified, we are seeking information which quantifies or could enable the quantification of the incremental¹³ costs or benefits of each proposed amendment or alternative.¹⁴ Where costs or benefits are not quantifiable, we are seeking:

- ▼ qualitative descriptions of costs or benefits of the proposed changes (eg, the change will improve the transparency of State Water’s business function or activity), or
- ▼ quantitative indicators of costs or benefits of the proposed changes (eg, the change is estimated to improve the average response time to customer inquiries by 2 days).

Examples of the types of costs and benefits that may arise from the proposed options are summarised in Box 1.1 below.

Finally, we will seek to ensure that our analysis is proportionate to the expected impact of the proposed options. We consider that the time and effort that State Water and other stakeholders spend responding to our information request should also be proportionate to the expected impacts of the proposed changes and their alternatives.

As the Better Regulation Office (BRO) notes:

The effort and resources used to measure the costs of regulation should be proportional and will vary according to the expected impact and scope of the regulation.¹⁵

We intend to consider this analysis in making our final recommendations to the Minister on amendments to the licence.

¹³ The costs incurred and savings made as a direct result of an amendment to the licence and only to the extent that the costs or benefits differ from would have eventuated under the base case.

¹⁴ Guidance on how to assess and quantify (where possible) costs and benefits is provided in *Guide to Better Regulation and Measuring the Costs of Regulation*, NSW Better Regulation Office: <http://www.betterregulation.nsw.gov.au/>.

¹⁵ NSW Better Regulation Office, *Measuring the Costs of Regulation*, 2008, p 7, available at: www.dpc.nsw.gov.au/__data/assets/pdf_file/0003/23979/02_Measuring_the_Costs_of_Regulation.pdf.

Box 1.1 Costs and Benefits of options

The types of costs and benefits likely to arise for State Water as a result of a proposed amendment or proposed alternative may be:

- ▼ changes in administrative costs or savings, including any increase or reduction in time associated with complying with and reporting on regulatory requirements
- ▼ changes in compliance costs or savings, such as costs of training staff, developing new systems, changes to procedures or processes resulting in higher or lower operational costs or capital expenditure
- ▼ different economic impacts, such as increased efficiency or productivity, better or worse conditions for innovation, or improved or decreased competitiveness
- ▼ different social and environmental impacts, such as better or worse public health and safety, water conservation or environment protection outcomes.

The types of costs and benefits likely to arise for customers and other stakeholders as a result of a proposed amendment or proposed alternative may be:

- ▼ higher or lower prices
 - ▼ improved or diminished water quality, service standards or customer protections
 - ▼ increased or reduced availability of information
 - ▼ better or worse environmental health outcomes
 - ▼ better or worse public health and safety outcomes.
-

1.5 Stakeholder input and next steps

The current operating licence requires that we engage in public consultation and report to the Minister on the findings of the review and any recommendations for amendment to the operating licence.

We invite all interested parties, including customers, the environmental community and water user advocacy organisations, to make submissions to us. You are welcome to make submission on any or all of the issues highlighted in this paper, or any other matters relating to the operating licence.

This issues paper has been prepared to support the public consultation process. It includes questions where we are seeking specific feedback from stakeholders. We welcome feedback on the options we have presented for discussion, and encourage stakeholders to identify any other alternatives. For example, a stakeholder might consider that an existing operating licence provision is effective and does not require amendment, that the issue is already adequately regulated through other means or that an alternative would be more efficient.

We are also seeking information related to the possible costs and benefits of the options. We recognise that State Water is likely to be in the best position to quantify the costs and benefits of the option. Other stakeholders may find that they can only provide qualitative descriptions of costs or benefits, such as a belief that a proposed amendment or alternative will improve or diminish the quality of consumer information provided, or provide greater or lesser consumer protection or better or worse environmental health outcomes.

We request that State Water make its submissions by **4 September 2012**. Other interested parties are invited to provide us with their submissions by **25 September 2012**. This timing will allow other interested parties to take account of State Water's views in formulating their submissions. Submissions will be made available on IPART's website (www.ipart.nsw.gov.au).

For this review, we propose to hold a stakeholder workshop following the public release of the draft operating licence, reporting manual and cost benefit analysis (draft licence package). This workshop will allow us to communicate our reasoning for the draft licence package including how we have incorporated stakeholder feedback on the issues paper, and allow us to collect any final comments from interested stakeholders in a transparent and co-ordinated way.

We will publicise arrangements for this workshop closer to the date. An indicative timetable for the review is provided in Table 1.1.

Table 1.1 Indicative timeframe for the State Water licence review

Key tasks	Date
Release Issues Paper and invite submissions	25 July 2012
State Water submission due	4 September 2012
Stakeholder submissions due	25 September 2012
Prepare draft operating licence, reporting manual and cost benefit analysis	September 2012 to January 2013
Public consultation and workshop	February to March 2013
Prepare final licence package	March to April 2013
Release final recommendations to Government	May 2013

1.6 Structure of the paper

To assist interested parties in making submissions, this paper explores State Water's functions, provides background information on the current regulatory arrangements. It outlines the issues about which we are particularly interested in receiving comments, and provides a discussion on the possible options, including possible amendments to the operating licence, to address these issues.

The issues paper has been structured as follows:

- ▼ Chapter 2 outlines State Water’s regulatory framework and the role of the current operating licence.
- ▼ Chapters 3 to 8 consider each of the functions of State Water in turn, as defined by the Act.¹⁶ Each chapter is divided into 3 sub-sections that discuss:
 - How the function is currently regulated; so that any option to include conditions in the operating licence can be considered in the context of the current regulation with the aim of minimising unnecessary duplication and filling regulatory gaps.
 - If there are any potential issues in relation to those functions; these have been identified through preliminary stakeholder consultation, various reports or operating licence audits.
 - What could be done better; by identifying potential options to address the issues, defining the objectives of the options and briefly discussing the costs and the benefits.
- ▼ Chapter 9 considers the ancillary functions and the overall objectives of State Water, discusses any identified issues in relation to those functions and objectives and identifies potential options to address the issues.

1.7 List of issues for stakeholder comment

Throughout this paper, we have identified a number of issues where we are seeking stakeholder comment (see Appendix A for the full list of questions on which we are seeking comment). Within this extensive list, we consider there to be key issues of focus. Each of these issues are summarised below including the main questions on which we seek comment. We encourage stakeholders to raise and discuss any other issues that they believe are relevant to the review.

A detailed explanation and discussion of each of the issues is included in the paper.

1.1.1 Release of water to customers (section 3)

The current operating licence is the only regulatory instrument that obligates State Water to operate its infrastructure so that its customers can access water made available under their water entitlements. The current operating licence makes State Water “accountable” for the delivery of water to its customers. We examine whether the current licence obligations accurately reflect State Water’s obligations to its customers. We consider whether State Water should be responsible for the *release* of water for its customers or the *delivery* of water to its customers. We discuss the possible options for amending the licence, including the development of measurable performance standards for the release or delivery of water and strengthening the existing customer charter.

¹⁶ *State Water Corporation Act 2004*, section 6.

IPART seeks comment on the following key issue:

- 1 Recognising that the responsibility for river management sits within other agencies, should State Water be made responsible for the release or the delivery of water to its customers?

1.1.2 Flood management (section 4)

The current operating licence duplicates other flood management legislative requirements imposed on State Water. We consider that flood management requirements are largely dealt with in State Water's water supply works approvals which are regulated by the NSW Office of Water. Our analysis has identified that in at least one past flood event, there were issues relating to data sharing and communication between State Water, the NSW Office of Water and interstate water utilities. Our preliminary position is that, if it has not already done so, these matters would be better addressed by the NSW Office of Water.

IPART seeks comments on the following key issues:

- 2 Are State Water's flood management and mitigation functions adequately regulated through other instruments? If not, where are there gaps, and how could these best be regulated?
- 3 Should we consider including terms and conditions in the operating licence to address the issue of data sharing and communication between State Water, NOW and relevant cross border agencies or corporations?

1.1.3 Environmental releases (section 5)

The current operating licence does not include any obligations that regulate State Water's role in releasing water for the environment. State Water's environmental water releases are already well regulated by other state and federal instruments. We do not consider that the operating licence needs to be amended to include conditions to generally regulate State Water's activities for the release of environmental water.

IPART seeks comment on the following key issue:

- 4 Are there issues or regulatory gaps related to State Water's environmental water functions that we should consider in this review? Please provide an overview of the issue including how it is currently regulated.

1.1.4 Construct, maintain and operate water management works (section 6)

The operating licence must include terms or conditions under which State Water is required to construct, operate, manage and maintain efficient, co-ordinated and commercially viable systems and services to capture, store and release water.¹⁷

¹⁷ *State Water Corporation Act 2004*, section 12 (1).

State Water has numerous obligations relating to asset management which are set out in various regulatory instruments, including the operating licence. We consider that the conditions on the operating licence should avoid duplicating other regulatory instruments and address any identified regulatory gaps. In this paper, we propose a system standard approach. We consider this approach to be more comprehensive than the current practice of prescribing conditions and consistent with State Water's asset management requirements under other regulatory instruments.

IPART seeks comment on the following key issues:

- 5 Are there any gaps in the current requirements for State Water's asset management system?
- 6 If a system standard approach is preferred, what industry standards for asset management should we consider referencing in the licence? What are the costs and/or benefits of referencing that standard?

1.1.5 Fish River Water Supply Scheme (FRWSS) (section 7)

The current operating licence includes customer, asset management and performance indicator obligations in relation to the Fish River Water Supply Scheme (FRWSS). It does not current include any conditions relating to the management of water quality for drinking. Past reports and our operating audits have identified deficiencies with the management of water quality in this scheme.

Consistent with State Water's principle objectives to capture, store and release water in an efficient, effective, *safe* and financially responsible manner, we explore the options for regulating the safe operation of the FRWSS. The options consider a range of regulatory instruments with the aim of ensuring that the most appropriate instrument for regulating the risk to public health from the FRWSS is identified.

IPART seeks comment on the following key issues:

- 7 What is your preferred option for regulating the quality of drinking water produced by the FRWSS? Are there other options we should consider to meet the objective of the licence conditions to ensure State Water captures, stores and releases water in a safe manner that is fit for purpose?

1.1.6 Conferral of functions (section 8)

State Water has numerous functions conferred on it by the operating licence and other instruments of delegation. Unlike other functions discussed in this paper, the conferred functions are regulatory powers. These functions are about what State Water regulates rather than how it is regulated. We consider the functions currently conferred on State Water and identify options to improve the transparency of the division of those conferred functions which are shared between State Water and the

NSW Office of Water. We also consider whether the operating licence should comprehensively list all conferred functions.

IPART seeks comment on the following key issues:

- 8 What is your preferred option for improving the transparency of State water's conferred powers and the extent to which State Water exercises these powers?

1.1.7 Other functions (section 9)

We have examined and considered a number of proposed amendments to the operating licence to ensure State Water carries out its functions consistent with the objectives of its Act. These amendments include considering:

- ▼ the adoption of an environmental management system
- ▼ changes to the representation on the customer service committees
- ▼ the removal of the requirement for the customer consultative committee
- ▼ the removal of metering conditions
- ▼ the adoption of a quality management system
- ▼ clarification of operational audit requirements
- ▼ the removal of duplicative regulatory requirements
- ▼ the adoption of a reporting manual subsidiary document
- ▼ whether to maintain or remove the requirements for memoranda with some government agencies.

IPART seeks comment on the following key issues:

- 9 What are your views on the licence obligating State Water to develop and implement an environmental management system in place of the current prescriptive environmental management plan requirements? Are there other option(s) we should consider to meet the objective of the licence conditions for the environmental management of State Water's activities?
- 10 Do you have any objections to removing the requirement for State Water to maintain a Customer Consultative Committee from the licence, if the systems standard approach is adopted in other areas of the operating licence?
- 11 Given the progress in the national framework for meter standards since the last operating licence review, should we consider maintaining metering obligations in the operating licence? Are there specific obligations should we consider including in the operating licence?
- 12 Given State Water shares many of its systems, should State Water be required to develop and implement a quality management system to manage quality assurance across the organisation?

- 13 Are there any issues related to the operational audits of State Water that we need to consider in this review? Please provide an overview of the issue.
- 14 Are there other amendments or options we should consider to improve the structure of State Water's operating licence to better meet the licensing objectives and better regulation principles? What are the costs and benefits of the proposed options?
- 15 Are the proposed reporting manual arrangements adequate to consolidate and co-ordinate reporting requirements under the operating licence?
- 16 Are there other requirements that we should consider including in the licence that could enhance the Memoranda of Understandings (MoU) between State Water and other agencies? What are the impacts of removing the requirements for MoUs with DPI and OEHL?

Appendix A contains a complete list of the questions on which we seek comment.

2 Context for the review

State Water is a State Owned Corporation (SOC) wholly owned by the NSW Government. It was established as a SOC on 1 July 2004 by the *State Water Corporation Act 2004*. Before this time, State Water was part of the Department of Energy, Utilities and Sustainability and before that, the Department of Land and Water Conservation.

State Water incorporates all of NSW's bulk water delivery functions outside of the areas of operation of the Sydney Catchment Authority, Sydney Water Corporation, Hunter Water Corporation and of other water supply authorities, but includes the area of operations of the Fish River Water Supply Scheme.¹⁸

The establishment of State Water as the rural bulk water delivery business in NSW was an important element of the government's water reforms, consistent with the Council of Australian Government's national competition policy reforms.¹⁹

State Water owns, maintains, manages and operates approximately \$3.5 billion of assets which enable it to deliver bulk water to approximately 6,300 customers on regulated rivers.²⁰ Water is delivered primarily by releasing flows from dams and other structures. State Water accounted for more than half (56%) of all rural bulk water supplied at customer service points in Australia in 2010/11.²¹

State Water's customers include irrigation corporations, country town water supply authorities, statutory environmental water holders, farms, mines, electricity generators and stock and domestic users. State Water is also responsible for delivering planned environmental water²² in regulated rivers²³.

¹⁸ See the *State Water Act*, section 15 of for full details of the area of operations covered by the operating licence.

¹⁹ State Water website - www.statewater.com.au, accessed 20 June 2012.

²⁰ State Water website - www.statewater.com.au, accessed 11 May 2012.

²¹ National Water Commission, *National performance Report 2010-11, Rural water service providers*, p 12. The report presents data for 13 rural WSPs accounting for approximately 90% of the rural water supply network across Australia in 2010/11.

²² Environmental water is water committed to achieve environmental outcomes. This includes water which is *held* under an access right or other right for this purpose, or committed (*planned*) to this purpose by the Murray-Darling Basin Plan or a water resource plan to be adopted under the *Water Act 2007* (Cth) for the Murray-Darling Basin, or under a water sharing plan made under the *Water Management Act 2000* (NSW): *Water Act 2007* (Cth), sections 4 & 6.

²³ "Regulated rivers" are those where flows are regulated by dams or weirs as proclaimed by the NSW Government.

This chapter outlines State Water's objectives and functions, and the regulatory framework within which the company operates.

2.1 State Water's role

The objectives and functions of State Water are prescribed by the *State Owned Corporations Act 1989* and the *State Water Corporation Act 2004* (the Act). Under the Act, State Water is granted an operating licence to enable it to carry out its functions,²⁴ subject to the terms of the operating licence.

The principal objectives of State Water are to capture, store and release water, in regulated rivers, in an efficient, effective, safe and financially responsible manner.²⁵

State Water also has the same objectives as all other SOCs. These objectives are of equal importance, but are not as important as the principle objectives.²⁶ These objectives are:

- ▼ to be a successful business and, to that end:
 - to operate at least as efficiently as any comparable businesses, and
 - to maximise the net worth of the State's investment in State Water
- ▼ to exhibit a sense of social responsibility by having regard to the interests of the community in which it operates
- ▼ where its activities affect the environment, to conduct its operations in compliance with the principles of ecologically sustainable development²⁷
- ▼ to exhibit a sense of responsibility towards regional development and decentralisation in the way in which it operates.²⁸

The principal functions of State Water are:

- ▼ to capture, store and release water:
 - to persons entitled to take water, including release to regional towns
 - for the purposes of flood management
 - for any lawful purpose, including the release of environmental water
- ▼ to construct, maintain and operate water management works
- ▼ any other function conferred or imposed on it by the operating licence or by or under the Act or any other Act or law.²⁹

²⁴ *State Water Corporation Act 2004*, section 11(1).

²⁵ *State Water Corporation Act 2004*, section 5(1).

²⁶ *State Water Corporation Act 2004*, section 5(3).

²⁷ The principles as contained in the *Protection of the Environment Administration Act 1991*, section 6(2).

²⁸ *State Water Corporation Act 2004*, section 5, and *State Owned Corporations Act 1989* section 8.

²⁹ *State Water Corporation Act 2004*, section 6(1).

The operating licence may also be used to confer on State Water specific functions of either the Minister for Primary Industries under the *Water Management Act 2000* or *Water Act 1912*, or the Water Administration Ministerial Corporation under any Act or law.³⁰ These conferred functions are discussed further in section 8 of this paper.

Since January of 2005, State Water has the functions of a “water supply authority” in relation to the Fish River Water Supply Scheme (the Fish River scheme) which include:

- ▼ constructing, maintaining and operating water management works and associated works
- ▼ conducting research, collecting information and developing technology in relation to water management.³¹

State Water may also:

- ▼ provide facilities or services that are necessary, ancillary or incidental to its principal functions
- ▼ conduct any business or activity (whether or not related to its principal functions) that it considers will further its objectives.³²

The functions of State Water form the basis of the remaining chapters in this paper. In summary, these functions are:

- ▼ the release of water allocations to persons entitled to take water
- ▼ flood management
- ▼ manage environmental water
- ▼ construct, maintain and operate water management works
- ▼ construct, maintain and operate the Fish River Water Supply Scheme
- ▼ undertake conferred functions, and
- ▼ undertake other functions that are necessary, ancillary or incidental to its principal functions.

³⁰ See *State Water Corporation Act 2004*, section 12(3)-(6). Such functions can only be conferred with the Minister for Primary Industries’ or Premier’s concurrence.

³¹ See *Water Management Act 2000*, section 292. Note: water supply authority functions are generally subject to the approval or control and direction of the Minister for Primary Industries.

³² Act, section 6(2).

2.2 Regulatory requirements of water legislation

State Water operates within a complex and dynamic regulatory framework of which the operating licence is just one component. It is subject to both federal (in relation to its operations in the Murray-Darling Basin) and state laws. IPART is only one of State Water's regulators. Some of the key aspects of State Water's regulatory framework as defined in water legislation are discussed further below.

2.2.1 NSW water legislation

NSW water legislation imposes significant regulation upon State Water's operations.

Water sharing plans (WSPs) made under the *Water Management Act 2000* set out the rules for water sharing between the environment and extractive users in specified areas, and for determining how much water will be available for extraction in those areas. WSPs include requirements for monitoring against performance indicators and mandatory conditions that apply to water access licence holders. WSPs are audited at least every 5 years.³³

The *Water Management Act 2000* requires that "when exercising its functions, a public authority must have regard to the provisions of any management plan to the extent to which they apply to the public authority".³⁴

In areas where a WSP has commenced, State Water's customers are required to hold a water access licence (WAL). A WAL entitles the holder to a share of available water (expressed in units or ML) within a particular water management area. The quantity of water the holder can extract in any year depends on the available water determination. Water sharing plans and available water determinations govern how much water State Water can release to customers, including environmental water holders.

The *Water Management Act* requires an entity to hold a water supply works approval to install and operate water supply infrastructure in an area governed by a WSP. A total of 13 water supply works approvals are required to cover all State Water's infrastructure. These approvals are required for all of State Water's existing infrastructure or works (eg, dams, weirs) in each regulated river system where a WSP has commenced. To date the NSW Office of Water has issued 11 water supply work approvals to State Water.³⁵ A further 2 approvals are anticipated to be issued in the second half of 2012 when the WSPs commence for the Muggabah and Merrimajeel Creeks (in the Lachlan River catchment) and the Fish River (in the Macquarie Bogan water sources).

³³ <http://www.water.nsw.gov.au/Water-management/Water-sharing> accessed on 21 May 2012.

³⁴ *Water Management Act 2000* section 49.

³⁵ Taken from NOW's website www.water.nsw.gov.au accessed on 22 May 2012.

The water supply works approvals issued to State Water guide the operation of the works for releasing environmental water, transferring bulk water and delivering water in compliance with water sharing plans. They contain specific conditions relating to undertaking monitoring and reporting, and managing water quality or environment issues (such as managing the effects of cold water pollution). They also include rules for the operation of works during times of flood, the spilling of water to maintain the safety of the works, and to minimise risks to public health.

2.2.2 Commonwealth Water Act 2007

The *Water Act 2007* will be an increasingly significant aspect of State Water's regulatory framework. Under the Water Act, a number of State Water's functions and operations in the Murray-Darling Basin may become regulated by the Commonwealth.³⁶ Given that key provisions of the Water Act, such as the Basin Plan, are yet to be implemented, it is not yet clear to what extent there will be duplication in regulation.³⁷ For example, once the Basin Plan has been adopted, State Water must not do any act or fail to do any act in relation to Basin water resources that is inconsistent with that Plan.³⁸

The Basin Plan will include limits on the quantity of water that can be taken ("long-term average sustainable diversion limits"), management objectives and outcomes, an environmental watering plan, a water quality and salinity management plan, water quality targets, trading rules and a monitoring program to evaluate the effectiveness of the Plan, including annual reporting requirements.³⁹

Water resource plans that are consistent with the Basin Plan will be made for each water resource plan area in the Murray-Darling Basin.⁴⁰ These plans must include, amongst other things, annual diversion limits for the water resources, planned environmental water, water quality and salinity objectives, and metering requirements.⁴¹

The current WSPs in NSW will be considered interim water resource plans. When these plans expire, new plans that are consistent with the requirements of the Basin Plan will be adopted⁴². After the Basin Plan takes effect, it will remain the NSW Office of Water's responsibility to develop water sharing plans under the NSW legislation. However, water sharing plans made after the Basin Plan takes effect will either be accredited by the Commonwealth Minister in line with the Basin Plan

³⁶ The Commonwealth allocation instruments only cover the Murray-Darling Basin, which makes up approximately 70% of State Water's area of operations.

³⁷ The revised draft Murray-Darling Basin Plan has been released for comment but the plan has not yet been finalised. Murray-Darling Basin Authority, *Proposed basin Plan – a revised draft*, May 2012.

³⁸ Op cit, section 35.

³⁹ Op cit, Part 2 and see the draft Basin Plan at <http://www.mdba.gov.au/draft-basin-plan>.

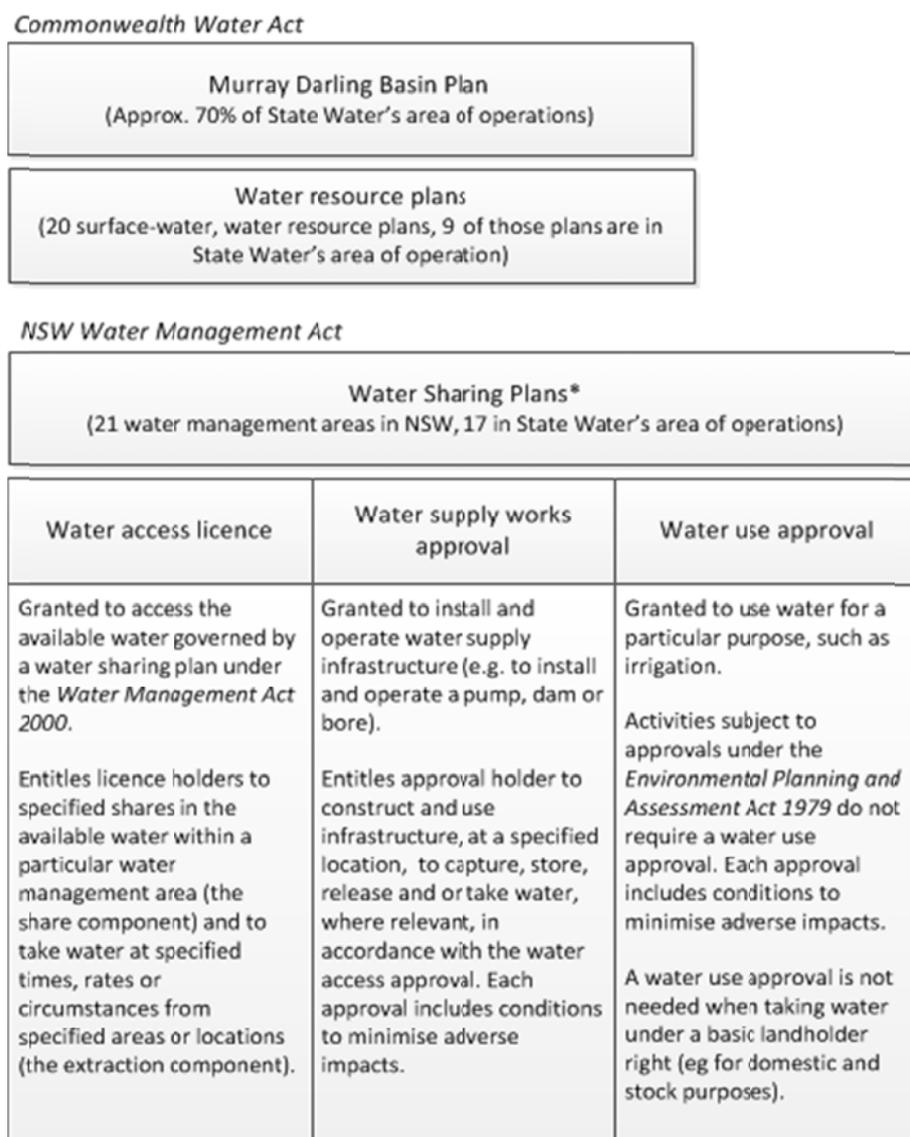
⁴⁰ Op cit, sections 54-55.

⁴¹ *Water Act 2007* (Cth), section 22(3).

⁴² *Water Act 2007* (Cth), section 241.

requirements or replaced by water resource plans made under the Commonwealth Water Act.⁴³ Figure 2.1 illustrates the interaction of the Commonwealth Water Act and the NSW Water Management Act.

Figure 2.1 Commonwealth and NSW water regulation



*Once accredited, NSW WSP is a water resource plan

⁴³ *Water Act 2007* (Cth), sections 68-70.

Once a new WSP is accredited, State Water must not do any act or fail to do any act in relation to water resources that is inconsistent with the water resource plan.⁴⁴ State Water will be required to report certain information regarding the quantities of water (available, permitted, taken, allocated or traded) under each water resource plan, and compliance with each plan's annual diversion limit.⁴⁵

The Commonwealth Water Act makes provision for water charges in relation to Basin water resources to be determined or approved by the Australian Competition and Consumer Commission (ACCC) or by an accredited State agency.⁴⁶ From June 2014, the ACCC will determine State Water's charges in relation to Basin water resources. We will continue to determine State Water's charges outside the Basin boundary, for coastal areas of the state.

2.3 Broader regulatory framework

Key aspects of State Water's broader regulatory framework are discussed below.

- ▼ *Catchment Management Authorities Act 2003* (NSW) – Catchment Management Authorities (CMAs) implement catchment action plans under the Act and may manage environmental water held under water access licences. CMAs are represented on State Water's Community Consultative Committee and (where relevant) on the valley-based Customer Service Committees.
- ▼ *Dams Safety Act 1978* (NSW) - The Dams Safety Committee established under this Act is responsible for developing and implementing policies and procedures for effective dam safety management to protect life, property and the environment from dam failures. To minimise the risks posed by dams, the Committee requires dam owners to undertake regular monitoring and surveillance; appropriate operation and maintenance procedures; actions to ensure dams are maintained in a safe condition; and prepare Dam Safety Emergency Plans⁴⁷ to mitigate the effects of downstream flooding due to natural conditions or a dam failure. The Committee also audits the effectiveness of these dam safety measures by requiring dam owners to submit 5-yearly surveillance reports.
- ▼ *Independent Pricing & Regulatory Tribunal Act 1992* (NSW) – This act established IPART as the licence regulator. Furthermore, as the economic regulator, we currently determine the prices State Water can charge for its services, including charges in relation to the Fish River scheme.⁴⁸

⁴⁴ Op cit, section 59.

⁴⁵ Op cit, section 71 – each Basin state must report this information to the MDBA within 4 months after the end of a water accounting period.

⁴⁶ *Water Act 2007* (Cth), sections 91-92.

⁴⁷ In association with plans prepared by the State Emergency Service.

⁴⁸ *Independent Pricing and Regulatory Tribunal Act 1992*, section 11. From 1 July 2014 the ACCC will determine prices for State Water's basin activities under the *Water Act 2007*.

- ▼ *National Water Initiative (NWI) Agreement 2004* - Under this Agreement the National Water Commission is responsible for overseeing the establishment and maintenance of a nationally consistent framework for benchmarking water utilities. IPART co-ordinates (with the NSW Office of Water) the NSW component of the benchmarking project for the rural water performance report, including State Water. The benchmarking project involves the collection and audit of various performance, customer service and financial data, with the combined results forwarded to the National Water Commission.

3 Release of water allocations to persons entitled to take water

In this chapter we discuss State Water’s function of capturing, storing and releasing water allocations to persons⁴⁹ entitled to take water. We consider how the function is currently regulated to achieve State Water’s objectives.

The State Water Act states that the operating licence must include the terms and conditions under which State Water is required “to ensure that the systems and services meet the performance standards specified in the operating licence in relation to water delivery...”⁵⁰ At the same time the Act infers that the systems and services provided by State Water relate to the capture, storage and *release* of water,⁵¹ not *delivery*.

We identify as the key issue for consideration in this chapter as: should State Water be responsible for the *release* of water for its customers or the *delivery* of water to its customers?

Whilst this is a subtle distinction, we consider it has quite different regulatory implications. We discuss the options for amending the licence in response to the question, including the development of measurable performance standards for the release or delivery of water and options to strengthen the existing customer charter.

3.1 What does State Water do?

State Water manages and maintains a portfolio of assets which it operates to release allocated water to water access licence holders. State Water’s core water delivery business provides services to about 6,300 customers, who purchase water sourced from regulated rivers. Each year, State Water delivers about 5,500 gigalitres⁵² of water to these customers and the environment in 14 regulated river systems, along some 7,000 kilometres of river.⁵³

⁴⁹ While the Act refers to “persons” we take this to generally mean State Water’s customers and the words are used interchangeably in this chapter.

⁵⁰ *State Water Corporation Act 2004* section 12(1)(b).

⁵¹ *State Water Corporation Act 2004*, sections 5(1), 6(1) and 12(1)(b).

⁵² 5,500GL = 5,500 billion litres.

⁵³ State Water’s website www.statewater.com.au accessed 22 May 2012.

The range of activities that State Water undertakes as part of its function to release water to customers includes:

- ▼ Receiving water orders from customers and coordinating releases from the dams it manages to meet these orders.
- ▼ Co-ordinating water orders, collecting water usage figures, undertaking water-use modelling and monitoring river and dam levels to enable real-time response to the operation of its infrastructure.
- ▼ Tracking water credits and debits on customer accounts attached to their water access licences.
- ▼ Preparing annual water balances for each of the regulated river systems. These water balances describe where the water came from and where it went to.
- ▼ The treatment and delivery of water to customers in the Fish River Water Supply Scheme (FRWSS). The FRWSS is discussed separately in Chapter 7.

3.2 Are the activities currently regulated?

The majority of State Water's business of releasing water for its customers is currently regulated in accordance with the NSW water sharing plans (WSPs) through its customer's water access licences and its own water supply works approvals issued under the Water Management Act. In the Muggabah and Merrimajeel Creeks and the Fish River Water Supply Scheme (FRWSS), these functions are regulated under the *Water Act 1912*, as water sharing plans in these water sources are yet to commence.

State Water's current operating licence creates the regulatory link between the water access licence holder's water entitlement and State Water's water supply work approval.⁵⁴ In essence, it is the operating licence (and the customer charter made under it) that makes State Water accountable for delivering the water allocated to its customers.

Under the operating licence, State Water:

- ▼ is "accountable for the management and delivery of water allocated to its customers"⁵⁵
- ▼ must manage water orders *with a view to* ensuring customer access to water;⁵⁶ [emphasis added], and

⁵⁴ As set out in the Water Supply Work Approval, authorised water supply works, Part A(1).

⁵⁵ State Water Corporation Operating Licence 2008-2013, clause 6.2(a).

⁵⁶ State Water Corporation Operating Licence 2008-2013, clause 6.2(b).

- ▼ must ensure that its systems and services meet the performance standard, including the performance standards in relation to water delivery.⁵⁷

The operating licence does not currently include any quantitative performance standards for the release or delivery of water allocations. However, the licence outlines the indicators used to benchmark State Water's performance in its water release/delivery function to customers⁵⁸. The performance indicators do not commit State Water to a standard for releasing or delivering water for its customers.

3.3 Are there any issues with the current activities?

The operating licence is the only instrument that places requirements or expectations on State Water to operate its water supply works to deliver water allocations to customers.⁵⁹ State Water's water supply works approvals include rules for planned environmental water, minimum flow levels and various operational rules that provide a framework for making releases. However, these water supply works approvals do *not* require or compel State Water to release or deliver water in response to a specific customer order for water.

A review undertaken in 2010 by Hyder consultants and State Water into the *State Water Corporation Act 2004* included concerns raised by customers regarding whether State Water's expectation to deliver water allocations was assumed rather than explicitly expressed.⁶⁰

The crux of the issue is defining reasonable customer expectations of State Water in relation to the delivery or release of customer allocations. Specifically, is State Water obligated to *release* or *deliver* water to its customers?

The regulatory requirements that should be imposed on State Water by the operating licence change depending on whether it is required to *release* or *deliver* water.

If State Water is obligated only to *release* water to its customers, then the regulation of the function is limited to the operation of infrastructure to release water in relation to orders placed by its customers.

⁵⁷ State Water Corporation Operating Licence 2008-2013, clause 10.1.2. Water delivery is defined in the operating licence as "the water management service provided by State Water, which involves the operation of State Water's Water Management Works and its internal procedures, including the management of Water Allocation Accounts, to enable State Water to satisfy Water Orders, Customer Contracts and environmental requirements."

⁵⁸ State Water Corporation Operating Licence 2008-2013, schedule 1, part A(1).

⁵⁹ Note that the work order forms could potentially be construed as imposing implied terms requiring delivery of water ordered.

⁶⁰ State Water Corporation, *Review of the State Water Corporation Act 2004, Final Report*, prepared by Hyder, May 2010, p 90.

If State Water is obligated to *deliver* water to its customers, this implies a guarantee that the end-user receives the water.⁶¹ In this case, the regulation of the function extends beyond the operation of infrastructure, arguably to the customer's off-take.

When considering whether State Water is responsible for the release or delivery of water to its customers it is important to understand the context and limitations of State Water's responsibilities and activities. State Water generally releases water into river systems which it neither owns nor is responsible for managing. Furthermore, the degree to which State Water has control over release decisions varies between valleys. These limitations are particularly important to consider in the River Murray system discussed in Box 3.1 below.

⁶¹ State Water Corporation, *Review of the State Water Corporation Act 2004, Final Report*, prepared by Hyder, May 2010, p 24.

Box 3.1 River Murray system operation

The operation of the River Murray system is co-ordinated by the Murray-Darling Basin Authority (MDBA). The aim of the River Murray system is to provide water to the states of NSW, Victoria and South Australia in accordance with the *Water Act 2007 (Cth)*, and the Murray-Darling Basin Agreement (the Agreement), which is a schedule to the Water Act (Cth).

The MDBA and the state authorities provide crucial services, such as:

- ▼ storing, managing and releasing water
- ▼ operating salinity mitigation schemes
- ▼ enabling navigation
- ▼ supporting recreation and tourism.

The MDBA operates the river system by directing releases from storages and controlling diversions of water from the river for irrigation and agricultural use, and for consumer in urban areas. They then advise the state authorities, such as State Water in NSW of the rates of release for that day. During floods, flows may be adjusted every few hours.

To regulate the river system, the MDBA is responsible for a number of structures in NSW including the Hume reservoirs and the Menindee Lakes (the Menindee Lakes are not an authority asset, but are leased from New South Wales). These structures are operated and managed by State Water on behalf of the MDBA.

The operation of the River Murray system also occurs in coordination with State Water for some regulated tributaries. These tributaries include the Murrumbidgee River and Billabong Creek in NSW (operated by State Water) and the delivery of water held in inter-valley trade accounts (Valley Accounts) as a result of water being traded to the Murray. The MDBA must also co-ordinate the River Murray operations with State Water's operation of the Darling River in NSW, including any operations of the Menindee Lakes directed by NSW.

This coordination is important, as water released from storages within the MDBA's control needs to be managed in conjunction with other regulated and unregulated inflows to the system in order to optimise outcomes.

All information taken from the Murray-Darling Basin Authority website, www.mdba.gov.au, accessed on 17 July 2012 and the Murray-Darling Basin Authority, River Murray System Annual Operating Plan 2011-12 Water Year, 1 June 2011 – 31 May 2012.

State Water has a customer service charter, as required by the operating licence,⁶² which outlines what a customer can expect which includes timely delivery of water allocations within the limits of system response times.⁶³ However, the charter sets a customer expectation rather than an express obligation on State Water to deliver water to customers.

⁶² State Water Corporation Operating Licence 2008-2013, clause. 4.3.

⁶³ State Water website accessed 25 May 2012.

Finally, while the Act clearly outlines functions⁶⁴ and objectives⁶⁵ related to the release of water, the mandated terms and conditions for inclusion in the operating licence refer to the “performance standards ... in relation to water delivery”.⁶⁶

3.4 What could be done better?

Our primary objective for regulating the release or delivery of water allocations to State Water’s customers is to ensure the operating licence is consistent with the legislative requirements in the Act. We also consider that it is important for the licence to maintain a regulatory obligation for State Water to either release or deliver water to its customers, to fill what would otherwise be a regulatory gap. There are a number of regulatory options depending on whether State Water is responsible for the release or the delivery of water to its customers.

The options that we consider in further detail below are:

- ▼ Option 1 - amend the current operating licence conditions to refer to the release of water and the standards for the release of water
- ▼ Option 2a - maintain the current operating licence conditions that infer an obligation to deliver water
- ▼ Option 2b - amend the current operating licence conditions to outline an explicit requirement to deliver water and the standards for the delivery of water.

If State Water is responsible for the *release* of water to its customers, then option 1 should be considered. If State Water is responsible for the *delivery* of water to its customers, then option 2 alternatives should be considered.

IPART seeks comments on the following

- 1 Are there other issues or regulatory gaps related to State Water’s release of water allocations that we need to consider in this review? Please provide an overview of the issue, including how it is currently regulated.
- 2 Recognising that the responsibility for river management sits within other agencies⁶⁷, should State Water be made responsible for the *release* or the *delivery* of water to its customers?
- 3 Should the operating licence regulate State Water’s River Murray operations? If so, should we consider limiting State Water’s operational responsibility for the release or delivery of water to avoid duplicating other regulatory obligations? How?

⁶⁴ *State Water Corporation Act 2004*, section 6.

⁶⁵ *State Water Corporation Act 2004*, section 5.

⁶⁶ *State Water Corporation Act 2004*, section 12(1)(b).

⁶⁷ Including the NSW Office of Water, Office of Environment and Heritage, the Murray-Darling Basin Authority and the Department of Primary Industries (Fishing and Aquaculture).

- 4 What are your views on the options presented? Are there other options we should consider to meet the objective of the licence conditions for the management of releases or delivery of water allocations to customers? What are the costs and benefits of the options presented?

3.4.1 Option 1; Amend existing licence conditions to refer to the *release* of water and the standards for the *release* of water

In order to maintain a requirement for State Water to release water to customers, the current licence obligations could be amended. The wording of the revised conditions could better reflect the fact that State Water is not able to control the delivery of water to its customers, but is able to control its assets for the release of water and provide services for the processing of water orders. This is consistent with the wording recommended to the Minister in IPART’s final report to the Minister following the 2008 end of term review.⁶⁸

The wording of the obligations in clauses 6.2 and 10.1.2 could also be improved to make the requirements explicit and auditable. For example, measurable performance standards for the release of water could be included in the licence.

Any revised wording would need to consider the requirements of other regulatory instruments, such as water sharing plans.

Benefits	Costs
Removes requirements from the licence over which State Water has no control.	Possible operational costs associated with the compliance of any explicit requirements.
Provides regulatory link to require State Water to release water to customers.	
Includes specific performance standard.	
Improves clarity and auditability.	

IPART seeks comments on the following

- 5 What other costs or benefits are there in *amending* the operating licence requirements to refer to the *release* of allocated water to State Water’s customers and developing measurable performance standards?
- 6 What specific performance standards in relation to *releasing* water should we consider including in the licence? What are the costs and benefits of including those conditions?

⁶⁸ IPART, *End of Term Review of State Water Corporation’s Operating Licence, Final Report to the Minister for Water*, April 2008, p 25.

3.4.2 Option 2a; Maintain existing licence conditions

The current operating licence outlines conditions on State Water for the management of the *delivery* of allocated water. If the current licence conditions appropriately meet the legislative requirements of the Act, and accurately reflect State Water's systems and services, the existing operating licence conditions could be maintained.

It should be noted that there are limitations to State Water *delivering* water to its customers. State Water releases water into a river system which it neither owns nor has complete responsibility for managing. Further, the customers of State Water access water releases under the provisions of their water access licence, in which State Water has no role or responsibility. If State Water is unable to deliver water to its customers, then the current licence conditions may represent an unfair regulatory burden.

This is the status quo. There is no change to the requirements and practices of the current operating licence and therefore no change to the costs or benefits.

3.4.3 Option 2b; Amend existing licence conditions to outline requirement to deliver water and the standards for the delivery of water

This option is an alternative to maintaining the current licence obligations (option 2a). The wording of the obligations in clauses 6.2 and 10.1.2 could be improved to make the requirements for delivering water allocations explicit and auditable. Within the amended wording, there is scope for the inclusion of measurable performance standards and the customer charter to be strengthened.

Any revised wording would need to be consistent with the requirements of other regulatory instruments such as the water sharing plans.

Benefits	Costs
Provides regulatory link to require State Water to release water to customers. Include explicit performance standards. Improves clarity and auditability.	Possible operational costs associated with the compliance of any explicit requirements.

IPART seeks comments on the following

- 7 What other costs or benefits are there in *amending* the existing operating licence requirements to include measurable performance standards and a strengthened customer charter relating to the *delivery* of allocated water to State Water's customers?
- 8 What specific performance standards in relation to water *delivery* should we consider including in the licence? What are the costs and benefits of including those conditions?

4 Flood management

In this chapter we discuss State Water's function of capturing, storing and releasing water for the purpose of flood management. Our review of State Water's function focuses on its roles and responsibilities in active flood management including the operation and maintenance of its infrastructure during flood conditions.

State Water's flood management responsibilities are already regulated by instruments other than the operating licence. However, we identify as a key issue for consideration in this operating licence review, the communication and sharing of data, during flood events, between the various agencies and businesses with responsibilities in flood management.

We consider whether the issue, should be regulated within the operating licence. While it is within the scope of the operating licence to include new conditions to address the issue, we conclude that there are limitations on State Water that mean the operating licence may not be the best instrument for this purpose.

4.1 What does State Water do?

As outlined in the State Water Act one of the principal functions of State Water is to capture and store water and to release water for the purposes of flood management. State Water currently maintains 20 dams, of which it is able to undertake active flood mitigation on 3 (Burrendong, Burrinjuck and Glenbawn).⁶⁹

State Water's current flood management activities include:

- ▼ analysing flood event data to (where possible) release water from its dams consistent with the rules outlined in its water supply works approvals
- ▼ communicating with the State Emergency Service (SES) during flood events
- ▼ preparing procedures and protocols for the operation of its infrastructure during flood events.

⁶⁹ Meeting between State Water and IPART, 8 March 2012.

4.2 Are these activities regulated?

State Water's current operating licence duplicates the requirements of other legislative instruments with regards to its flood management activities. The operating licence requires State Water, when operating its assets, to:

- ▼ ensure that releases are consistent with any works approval, and
- ▼ implement flood planning and other planning instigated by the Dams Safety Committee.⁷⁰

Flood mitigation requirements, channel capacity and airspace requirements are set out in the relevant Water Sharing Plan (WSP) for each river system.⁷¹ Consistent with the WSPs, further detail regarding these matters is provided in water supply work approvals issued by the NSW Office of Water. These approvals contain the conditions on how the works may be used, including the rules for dam operation during floods.

State Water's key responsibilities in flood management, according to its water works approvals, are twofold. The first is to maintain the safety of works and to minimise risk to public safety. The second is to maintain the water supply works at full supply level at the completion of the flood event.⁷² These responsibilities are prioritised, with more importance placed on safety than maintaining a full storage.

In addition to the requirements outlined in State Water's water supply works approvals, the Dams Safety Committee (DSC) has requirements of State Water. The requirements of the DSC relate to maintaining the safety of dams during flood events and depend upon the consequence of the dam failing.

Specifically, the DSC gives critical consideration to flood capacity of dams because floods and inadequate spillway capacity continue to be a major cause of dam failure worldwide.⁷³ The DSC requires that State Water ensure effective operation, maintenance and emergency management practices are in place for dams and that relevant dam safety status information is provided to the State Emergency Service (SES) to assist in the prioritisation and implementation of flood planning.⁷⁴

⁷⁰ State Water Operating Licence 2008-2013, clauses 6.1.2(a) and (e).

⁷¹ As discussed in section 2, the water sharing plans will be reviewed in light of the Murray-Darling Basin Plan. The Basin Plan outlines the rules for environmental flows including the replenishment and taking of water from floodplains which may impact on the flood requirements in the various WSPs. Principle 6 of the draft Basin Plan states: priorities for applying environmental water are to be determined having regard to matters relating to risk including: (a) potential risks, including downstream risks, that may result from the application of environmental water (for example, flooding private land with water released from a storage without prior agreement, fish kills or salinity impacts) and measures that may be taken to minimise the risks.

⁷² Correspondence from NOW to IPART, State Water Corporation's Operating Licence Review 2008-2013 - Issues Paper, June 2012.

⁷³ Dams Safety Committee NSW, *DSC3B Acceptable Flood Capacity for Dams*, June 2010, p 2.

⁷⁴ Dams Safety Committee website, www.damsafety.nsw.gov.au, accessed 21 June 2012.

It is important to note that the water supply work approval conditions are subservient to DSC, the Dams Safety Act and its requirements.⁷⁵

Finally, the State Emergency Services (SES) under the *State Emergency and Rescue Management Act 1989* also has a role in managing and co-ordinating flood emergency response.

4.3 Are there any issues with the current activities?

The principle objectives of State Water are to capture, store and release water in an efficient, effective, *safe* and financially responsible manner. Of lesser importance, State Water also has the objective of exhibiting a sense of social responsibility by having regard to the interests of the community in which it operates.

These objectives are consistent with the rules for the operation of dams during floods, outlined in State Water's water supply works approvals. We consider that State Water's functions of capturing, storing and releasing water for the purposes of flood management is regulated primarily by the NSW Office of Water and that the State Water's water works approvals are the most appropriate regulatory instrument for the regulation of flood mitigation strategies.

During this review, we have identified a gap in the current regulatory regime relating to communication between parties during flood events. In the following sections we explore this issue, and options to address the concern.

4.3.1 Communication for the purpose of flood management

Water infrastructure used for the purpose of flood management and mitigation, within State Water's operational area, comprises of dams, weirs and gauging stations used to measure flow rates. This infrastructure is managed and operated by various state and, in some cases interstate, agencies and corporations depending on its location.

For example, infrastructure located in the Tumut and Murrumbidgee Rivers is operated as follows:

- ▼ The NSW Office of Water manages and operates the gauging stations.
- ▼ State Water manages and operates the dams and downstream weirs.
- ▼ ACTEW Corporation Limited manages and operates the gauging stations and dams within the ACT section of the Murrumbidgee river.⁷⁶

⁷⁵ Email NSW Office of Water to IPART, 10 July 2012.

⁷⁶ NSW Office of Water, *Review of water management during the 2010 flood events in the Tumut River and Murrumbidgee River*, August 2011.

Given that the infrastructure for managing flood waters is managed and operated by different entities, often actions to manage flood flows involve co-ordination of the operation of the infrastructure.

The NSW Office of Water review into the 2010 flood event in the Tumut River and Murrumbidgee River identified that timely data sharing between the ACTEW operated gauging station and the NSW Office of Water and State Water was limited, as there is no formal agreement in place for this purpose. It is important that State Water be provided with timely data by ACTEW so that it has accurate information on inflows into Burrinjuck Dam to inform flood mitigation actions.

Since 2010, informal arrangements have been developed between ACTEW and the NSW Office of Water to share data. However, these arrangements do not provide the NSW Office of Water or State Water the ability to access real time data at a frequency that may be required during flood events.⁷⁷

The NSW Office of Water review was limited to an assessment of the Tumut and Murrumbidgee flood response and as such we have been unable to identify whether a similar issue exist in other areas of the state. This issue would be of particular concern where the management and operation of infrastructure on a river system is split between different agencies and corporations such as the Border Rivers.

In these areas, though State Water may not be able to actively manage flood water flows, the sharing of information may be used to inform the appropriate flood management response.

IPART seeks comments on the following

- 9 Are there other issues or regulatory gaps related to State Water's role in capturing, storing and releasing flows for flood management that we should consider? Please provide an overview of the issue including how it is currently regulated.

4.4 What could be done better?

We consider that it is within the scope of the operating licence to include new conditions to address the issue of communication between the relevant agencies and corporations for the purpose of flood management.

The options that we consider in further detail below are:

- ▼ Option 1 - maintain existing licence condition
- ▼ Option 2 - amend the operating licence to remove obligations relating to flood management

⁷⁷ NSW Office of Water, *Review of water management during the 2010 flood events in the Tumut River and Murrumbidgee River*, August 2011, p 15.

- ▼ Option 3 - amend the operating licence to include an obligation requiring State Water to develop communication protocols for flood management activities.

IPART seeks comments on the following

- 10 Are State Water's flood management and mitigation functions adequately regulated through other instruments? If not, where are there gaps, and how could these best be regulated?
- 11 What are your views on the options presented? Are there other options we should consider to address the issue of data sharing and communication between State Water, the NSW Office of Water and other parties?

4.4.1 Option 1; Maintain existing licence condition

The current licence condition requires State Water to operate its assets in accordance with flood planning and other operations instigated by the Dams Safety Committee. The role of the Dams Safety Committee is limited to the safety of the structures and the emergency consequences related to a failure.

The current licence condition does not require State Water to mitigate downstream flooding. However, dam release allowances and airspace requirements are already regulated in the Water Supply Works Approvals issued by the NSW Office of Water.

This is the status quo. There is no change to the requirements and practices of the current operating licence and therefore no change to the costs or benefits.

4.4.2 Option 2; Amend the operating licence to remove obligations relating to flood management

Removing all reference to flood management from the operating licence will not alter State Water's flood management responsibilities. State Water will still be required to manage floods in accordance with other Acts and Regulations.

These other regulatory requirements have been outlined above and include:

- ▼ dam releases and airspace operating rules specific to each river system as outlined in the various water supply works approvals⁷⁸
- ▼ dam safety measures, formulated by the Dams Safety Committee, to ensure safety of dams during floods, under the *Dams Safety Act*⁷⁹
- ▼ flood emergency response requirements (including the formulation of emergency response arrangements for the areas downstream of dams) managed by the SES under the *State Emergency and Rescue Management Act 1989*.⁸⁰

⁷⁸ Normally clause 67 and 68 in work supply works approvals.

⁷⁹ *Dam Safety Act 1978*, section 14.

⁸⁰ *State Emergency and Rescue Management Act 1989*, section 10.

We also consider it to be reasonable and consistent with the principles of better regulation to remove the existing licence conditions relating to flood management from the operating licence. These conditions duplicate other regulatory instruments and in our view do not provide an auditable benefit.

Benefits	Costs
Reduced operational audit costs.	Does not account for regulation of any gaps in the current flood management requirements.
Reduced regulatory burden due to duplication of regulation.	Does not address the identified issue of communication between agencies for the purpose of flood management.
Minimise the risk of including conditions that conflict with other regulatory instruments that address aspects flood management.	

IPART seeks comments on the following

- 12 What other costs or benefits are there in removing the clause related to flood management from the operating licence?

4.4.3 Option 3; Amend the operating licence to include an obligation requiring State Water to develop communication protocols for flood management activities

While it is within the scope of the operating licence to include conditions requiring State Water to develop and implement communication protocols with other agencies for the purpose of flood management, there are limitations on State Water that mean the operating licence may not be the best instrument.

In particular, given that the operating licence only binds State Water, it may be unfair to regulate State Water when there are other parties to the communication. Further, the NSW Office of Water owns and maintains the Hydstra system, and is responsible for managing the time series data used to inform flood management activities. Arguably, negotiations to input data into Hydstra would be best managed by the NSW Office of Water.⁸¹

Conversely, including a condition obligating State Water to identify, develop and agree on communication protocols for the purpose of flood management activities (particularly sharing data) may encourage State Water to manage the risk of communication issues in flood management, to the extent possible.

⁸¹ Memorandum of Understanding, Department of Water and Energy, State Water Corporation, 30 June 2009, Part B, Schedule 2, p 25.

Benefits	Costs
Scope of issue would be investigated and progress tracked in the operational audits.	<p>State Water does not own software used to manage data – the source of the communication issue.</p> <p>The operating licence will only regulate State Water’s actions.</p> <p>State Water may expend considerable effort in negotiations with no firm outcome.</p>

IPART seeks comments on the following

- 13 What other costs or benefits are there in amending the operating licence to include an obligation requiring State Water to develop communication protocols for flood management activities?

5 Environmental releases

In this chapter we discuss State Water's function of capturing, storing and releasing water for the environment.

State Water's environmental water releases are extensively regulated by both state and federal legislation. Consistent with the principle of minimising regulatory overlap, the current operating licence does not include specific conditions to regulate State Water's management of environmental flows.

We do not consider that the operating licence needs to be amended to include conditions to regulate State Water's activities for the release of environmental water.

5.1 What does State Water do?

State Water currently releases environmental water in 2 ways.

Firstly, State Water releases water to customers that hold water access licences used to achieve environmental outcomes. These customers include the Commonwealth Environmental Water Holder and the NSW Office of Environment and Heritage (OEHL) through NSW Riverbank⁸² and The Living Murray⁸³ water recovery for the environment programs. Combined, these environmental water holders are currently State Water's third largest customer, and are fast becoming the largest customer.⁸⁴

Secondly, State Water releases environmental water in accordance with the rules of a water sharing plan. This environmental water includes:

- ▼ planned environmental water (such as minimum daily flows, transparent flows, translucent flows and environmental water allowances) which is released in accordance with the relevant water supply works approvals conditions, and
- ▼ adaptive environmental water such as environmental contingency allowances in some rivers.⁸⁵

⁸² RiverBank is a \$105-million environmental fund established under the Environmental Trust to buy water for the state's most stressed and valued inland rivers and wetlands. See www.environment.nsw.gov.au/environmental_water/RiverBank.htm for further details.

⁸³ See www.water.nsw.gov.au/Water-management/Water-recovery for further details.

⁸⁴ *Statement of Corporate Intent 2010/11*, State Water Corporation, p 10.

⁸⁵ NSW Office of Water, *Statement of Approval, State Water Corporation – Water Supply Work Approval Murrumbidgee Regulated River Water Source*, 1 April 2011.

5.2 Are these activities regulated?

The current operating licence does not include any conditions with the objective of regulating the capture, storage and release of environmental water.

The majority of State Water's activities for environmental water releases are currently regulated by the NSW Water Management Act under the various WSPs. As explored in Section 2.2.2, once the Basin Plan has been developed, the Commonwealth Water Act will become increasingly significant in regulating State Water's functions relating to the management of environmental flows in the Murray-Darling Basin.

5.3 Are there any issues with the current activities?

At this time, we do not consider that the licence needs to be amended to include any conditions to regulate State Water's functions of capturing, storing and releasing water for environmental flows. We consider that State Water's functions relating to environmental releases are well regulated by both state and federal instruments.

While there is scope to include conditions on environmental flows within the operating licence, those conditions are not terms or conditions that must be included in the licence. Further regulation under the operating licence could lead to duplication with other instruments.

IPART seeks comments on the following

- 14 Are there issues or regulatory gaps related to State Water's environmental water functions that we should consider in this review? Please provide an overview of the issue including how it is currently regulated.
- 15 Should we consider including terms and conditions in the operating licence to regulate State Water's function of capturing, storing and releasing environmental water? What condition(s) should we consider and what are the costs and benefits of these?

6 Construct, maintain and operate water management works

In this chapter we discuss State Water’s function of constructing, operating and maintaining water management works. The State Water Act states that the operating licence must include the terms and conditions under which State Water is required “to provide, construct, operate, manage and maintain efficient, co-ordinated and commercially viable systems and services to capture, store and release water”.⁸⁶

We consider the conditions we should recommend including in the operating licence that avoid duplicating other regulatory instruments but address any identified regulatory gaps.

6.1 What does State Water do?

To deliver allocated water, State Water manages and maintains a portfolio of assets including 20 major dams (see Figure 6.1 below), 280 weir structures, a water treatment plant, distribution pipelines and other associated assets.⁸⁷ These assets can be broadly termed as State Water’s water management works.

The construction, maintenance and operation of the water management works are all aspects of asset management. Over the term of the current operating licence, State Water has made significant progress in improving the asset management of its extensive portfolio, and actions are in place to continue to develop its asset management system.⁸⁸

⁸⁶ *State Water Corporation Act 2004* section 12(1)(a).

⁸⁷ *State Water Corporation, 2010-11 Annual Report*, p 4.

⁸⁸ IPART, *State Water Corporation Operational Audit 2010/11, report to the Minister*, December 2011, p 1.

State Water developed and finalised its current asset management framework in June 2009 and a TAMP in November 2009. These documents outline the asset management approach and strategy for State Water's assets in accordance with the requirements of the current operating licence and the NSW Total Asset Management (TAM) guidelines (discussed below).

6.2 Are the activities currently regulated?

State Water's operating licence must include the terms and conditions under which State Water is required to provide, construct, operate, manage and maintain efficient, co-ordinated and commercially viable systems and services to capture, store and release water.⁹⁰

To this end, the current operating licence requires State Water to manage its assets consistent with:

- ▼ its obligations in the licence and all applicable laws, policies and guidelines with which State Water must comply, including the requirements of the NSW Dams Safety Committee
- ▼ the principles of the NSW Government's strategic management framework⁹¹ and the NSW Government's total asset management (TAM) policy and guidelines
- ▼ achieving the lowest cost of service delivery across the whole life of the assets
- ▼ Identifying business risks related to the assets and managing them to a commercially acceptable level.

The licence also includes a list of reporting requirements relating to State Water's asset management system, but does not include prescriptive requirements for the content of the system. To some extent, the content of the asset management system can be inferred from the reporting requirements in the licence. The current approach makes compliance auditing and regulation difficult, should aspects of the asset management be deemed to be insufficient.

In addition to regulating State Water under its operating licence, in the past, we have determined the prices State Water's charges its customers. Our final pricing determination for State Water in June 2010 included a suite of output measures that State Water is required to report on annually. The reporting is required for the term of the pricing determination.

⁹⁰ *State Water Act 2004*, section 12(1)(a).

⁹¹ The NSW Government Strategic Management Framework summarises and defines the various processes which NSW Government agencies should use to plan activities and services, to allocate resources and to report on performance. The Framework shows how the various processes fit together and relate to each other.

The output measures are used to assess State Water's asset management performance in relation to the services and projects that have been allowed for and funded in 2010 pricing determination. These output measures generally relate to State Water's asset management performance.

The output measures for the 2010 Determination included:

- ▼ milestone dates for major projects
- ▼ the percentage of maintenance jobs reported on the facilities maintenance
- ▼ management system reporting of State Water's existing asset conditions
- ▼ environmental output measures to assess fish passage and reduced cold water pollution.⁹²

The NSW Government places asset management obligations on State Water. These obligations require that State Water adopt the Total Asset Management (TAM) planning policies and procedures outlined by NSW Treasury. The TAM policy forms part of the overall NSW capital expenditure submission framework for all state agencies and state owned corporations.⁹³

TAM is the management of physical assets to support the delivery of State Water's services.⁹⁴ The TAM policy requires that State Water align its 10-year asset planning with its service delivery priorities and strategies. The TAM approach requires an assessment of the assets that are needed to support successful service delivery.

State Water also has specific asset management obligations in relation to the construction, operation and maintenance of its dam assets, under the *Dams Safety Act 1978*. The obligations include a requirement for a dam safety management system, a large component being operation and maintenance procedures and the surveillance and monitoring of dam behaviour.⁹⁵

State Water's water supply works approvals authorise State Water to construct and use the works listed in the approvals to capture, store and release water.⁹⁶ The works approvals set out the rules for the operation of the named infrastructure. In order to augment, alter, extend or enlarge any of the authorised water supply works which would change the capacity of the works to affect flow, volume, quality and behaviour of the water, State Water must seek the written approval of the Minister.⁹⁷

⁹² IPART, *Review of bulk water charges for State Water Corporation - From 1 July 2010 to 30 June 2012 - Final Report*, June 2010, p 17.

⁹³ Treasury website, www.treasury.nsw.gov.au/tam, accessed 1 June 2012.

⁹⁴ Treasury website, www.treasury.nsw.gov.au/tam, accessed 1 June 2012.

⁹⁵ State Water, *2009/2010 Report to IPART under the Operating Licence*, p 27.

⁹⁶ Mandatory condition normally schedule 1(1) of Water Supply Works Approval.

⁹⁷ Discretionary condition normally schedule 1 of Water Supply Works Approval.

State Water's water management licences issued under the *Water Act 1912* (NSW) contain similar obligations for the construction, maintenance and operation of water management works.⁹⁸

6.3 Are there any issues with the current activities?

6.3.1 Multiple asset management objectives

State Water has numerous regulatory obligations relating to the management of its assets. The objective of the asset management requirements vary depending on the regulatory instrument. For example:

- ▼ the TAM planning process is to ensure that there is a robust and reliable business case to support State expenditure on physical assets
- ▼ the asset management requirements under the Dams Safety Committee guidelines have the objective of effectively managing dam safety to protect life, property and the environment from dam failures
- ▼ the current operating licence includes terms and conditions related to asset management with the objective of ensuring State Water has efficient, co-ordinated and commercially viable systems and services to capture, store and release water.⁹⁹

In past operating licence reviews, we have met the requirements of the Act relating to asset management by including conditions that reference both the dam safety and TAM requirements. However, State Water has other asset management obligations, such as the obligations under the water supply works approvals, which are not referenced in the current operating licence.

By including reference to some asset management obligations and not others, the operating licence may duplicate some legislative requirements while missing other components of good asset management, regardless of whether they are included in State Water's asset management framework.

IPART seeks comments on the following

- 16 Are there other issues related to State Water's asset management functions that we need to consider in this review? Please provide an overview of the issue including how it is currently regulated.
- 17 Are there any gaps in the current requirements for State Water's asset management system?

⁹⁸ State Water Corporation Water Management Licence, Fish River Scheme, conditions 2.1, 2.2 and 2.3.

⁹⁹ Dams Safety Committee website, www.damsafety.nsw.gov.au, accessed 5 June 2012.

6.4 What could be done better?

The objective of the licence conditions for asset management are outlined in the Act; to provide, construct, operate, manage and maintain efficient, co-ordinated and commercially viable systems and services to capture, store and release water.

We consider that the terms and conditions should minimise the burden of the numerous and varied existing asset management obligations on State Water by integrating those asset management requirements. At the same time, the operating licence should aim to fill any gaps in State Water's current asset management processes, when compared with an industry standard for good asset management.

We have identified a number of options to meet the licence objective for asset management. The options that we consider in further detail below are:

- ▼ Option 1 - Maintain existing licence conditions
- ▼ Option 2 - Amend licence conditions to require State Water to implement specific asset management requirements
- ▼ Option 3 - Amend licence conditions to require State Water to develop and implement an asset management system.

It should be noted that we have not considered options such as alternative policy or regulatory tools other than the operating licence. This is because the State Water Act specifies that the operating licence must include terms and conditions to achieve the objective outlined above. The identified costs and benefits of each option in meeting the objective are also discussed.

IPART seeks comments on the following

- 18 What are your views on the options presented? Are there other options we should consider to meet the objective of the licence conditions for asset management? What are the costs and benefits of the option?

6.4.1 Option 1; Maintain existing licence condition

The current operating licence requires State Water to manage its assets consistent with specifically named asset management obligations set out in other instruments such as the TAMP and the Dams Safety Act.¹⁰⁰

The current approach has the benefit of minimising the risk of the operating licence conditions conflicting with State Water's other regulatory obligations. However, the licence does not comprehensively list all State Water's regulatory obligations related to asset management set out in other instruments. This approach obviously duplicates other regulatory requirements.

¹⁰⁰ For example clause 3.1 (d) of the operating licence requires State Water to identify and manage business risks related to assets which is equivalent to a required component of the TAM Asset Strategy.

We generally regard the duplication of other legislative requirements in an operating licence to be inconsistent with best practice regulation. Duplicating obligations from other legislative instruments in the operating licence can confuse the responsibility of the appropriate regulatory authority for that obligation.

For example if State Water did not manage its assets consistent with requirements of the Dams Safety Committee as per clause 3.1(a). Would the rectification and/or penalties possibly arising from the inconsistency be managed through the processes outlined in the operating licence and the State Water Act or the Dams Safety Committee and the Dams Safety Act? Who would be responsible for managing any enforcement actions?

The terms of the current operating licence include some prescriptive asset management requirements. These prescriptive requirements relate to achieving the lowest cost of service delivery across the whole life of the assets; and identifying business risks related to the assets and managing them. The conditions were included in State Water's first licence to be consistent with conditions included in other public water utility operating licences. This type of condition has been removed from the operating licences of the other utilities following the respective reviews.

Requiring compliance with different instruments where there is a mixture of overlapping and disparate obligations makes it difficult to identify if there are gaps in the current regulation of State Water's asset management system.

This is the status quo. There is no change to the requirements and practices of the current operating licence and therefore no change to the costs or benefits.

6.4.2 Option 2; Amend licence conditions to require State Water to implement specific asset management requirements

Prescriptive standards focus attention on specific issues, and are considered to be simpler and generally less subjective to audit than other regulatory approaches. Such standards tell licence holders precisely what measures to take and require little interpretation. These standards identify "inputs", which are the specific actions required of the licensee in a particular situation.

Our experience in regulating the major public water utilities, has been that prescribing the specific inputs has not always achieved the desired outcomes.

For example, it is only possible to prescribe requirements in relation to circumstances we are aware of or able to predict. While certain issues may have been important at the time the licence is prepared, these may not necessarily maintain the same priority over the term of the licence. Prescriptive licence conditions cannot be flexibly applied to appropriately manage emerging risks, especially in a changing operating environment. By the end of the licence period, the licence may not cover issues that have arisen or address new industry standards.

Benefits	Costs
Minimises the risk of duplicating asset management obligations in other instruments.	Is not flexible to changes during the term of the licence (ie, if other instruments change may result in duplication and or conflict).
Easier to audit therefore lower audit costs.	Requires a thorough understanding of all other asset management obligations to identify appropriate conditions.
Able to focus regulatory supervision on specific issues of concern (at the time of writing the licence).	Risk of overlooking the regulation of some aspects of asset management.
	Not as comprehensive as a standards approach.

IPART seeks comments on the following

- 19 What other costs or benefits are there in amending the asset management obligations in the current operating licence to reflect specific, prescriptive asset management requirements?
- 20 What prescriptive obligations should we consider including in the licence? What are the costs and benefits of including those conditions?

6.4.3 Option 3; Amend licence conditions to require State Water to develop and implement an asset management system

In recent operating licence reviews of other State owned utilities, our final recommendations have tended to move away from prescriptive licence conditions in favour of asset management systems standards.

Effective asset management systems 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.

In order for the management system approach to be successful, it is important to identify an appropriate asset management standard that represents good industry practice for State Water's business. A discussion of a recognised industry standard for asset management systems and a comparison with the TAMP approach is outlined in Appendix F.

We consider a systems approach to be much more comprehensive than the prescriptive approach outlined in option 2. 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 businesses asset management. Further, a systems approach generally includes continual improvement processes, encouraging refinement over the term of the licence.

For these reasons we have recommended, and the Minister has adopted, a systems standard approach to asset management in the operating licences of the other major water utilities.

Benefits	Costs
Outcome driven.	Audit costs (though less than option 1). May require both technical and implementation audits.
Capacity to prioritise competing asset management obligations according to objectives.	Certification of the system, if required.
Adaptive to changing circumstances, including social and technological change.	Development and implementation costs to bring State Water's existing asset management framework in line with the prescribed industry standard.
Captures corporate knowledge held by individuals or independent groups within the organisation.	Perceived issue of reduced regulatory supervision.
Comprehensive approach – minimises the risk of gaps in the asset management system.	
Consistent with State Water's other asset management regulatory requirements.	
If a certified system standard can be used, incorporates audit process.	

IPART seeks comments on the following

- 21 What other costs or benefits are there in amending the asset management obligations in the current operating licence to reflect a systems standard approach?
- 22 What industry standard for asset management should we consider referencing in the licence? What are the costs and benefits of referencing that standard?

7 | Fish River Water Supply Scheme

In this chapter we discuss State Water's function of operating and maintaining the Fish River Water Supply Scheme (FRWSS) to provide treated water to the customers of the scheme. This is a unique function in State Water's business, being the only scheme that involves the operation and maintenance of infrastructure for the treatment of water for drinking.

In our 2010/11 audit of State Water's operating licence we identified that aspects of the operation and maintenance of the FRWSS may present a risk to public health if not addressed. Consistent with State Water's principle objectives to capture, store and release water in an efficient, effective, *safe* and financially responsible manner, we explore the options for regulating the safe operation of the FRWSS.

7.1 What does State Water do?

State Water is responsible for the Fish River Water Supply Scheme (FRWSS), which was a government trading enterprise that operated as a bulk water supplier on the Fish River until 2005. Responsibility for the FRWSS was transferred to State Water from the then Department of Public Works in 2005.¹⁰¹

The FRWSS provides treated water to Lithgow Council. Raw water is supplied to Oberon Council¹⁰² and Sydney Catchment Authority for town water supplies in the Blue Mountains¹⁰³ and to the Wallerawang and Mount Piper power stations for power generation purposes.¹⁰⁴ FRWSS is also the source of drinking water for many smaller communities, including Rydal, Lidsdale, Cullen Bullen, Glen Davis and Marrangaroo, as well as approximately 300 'minor customers' that are supplied for domestic and some stock purposes.¹⁰⁵

The infrastructure of the FRWSS includes Oberon Dam and a weir on nearby Duckmaloi Creek. State Water undertakes the treatment of the water at the Duckmaloi water treatment plant.

¹⁰¹ State Water website, accessed 5 June 2012.

¹⁰² Email State Water to IPART, 27 June 2012.

¹⁰³ Following further treatment of the water by Sydney Water.

¹⁰⁴ NSW Office of Water, *Fish River Water Supply Scheme – review of water sharing arrangements*, March 2012.

¹⁰⁵ Barrett, Denis *Nomination of Fish River Water Supply Scheme as a national Engineering Landmark*, 2008, p 3.

7.2 Are the activities currently regulated?

The FRWSS is currently regulated by several Acts. Due to the complexity of the regulation, each of these is discussed below.

7.2.1 State Water operating licence, *State Water Act 2004*

State Water's current operating licence includes conditions that apply to the FRWSS in relation to customer and asset management, as well as requirements to report on a small number of performance indicators for the scheme. Many of these requirements have the same, or very similar, objectives as those of the best practice framework required under State Water's water supply authority designation (see section 7.2.3).

The operating licence does not currently include any specific conditions relating to the management of water quality from the FRWSS.

7.2.2 Water Management Licence, *Water Act 2012*

State Water's water supply works on the Fish River are currently regulated by a water management licence issued under the *Water Act 1912* (NSW). The water management licence was issued in May 2012, following a review of the FRWSS by the NSW Office of Water.¹⁰⁶ The licence covers the water management works, the water entitlement and the water allocation rules relating to the scheme. The licence does not include any conditions on the quality of the treated water for supply to customers.

A water sharing plan for the Macquarie Bogan unregulated and alluvial water sources, which includes the FRWSS, is anticipated to commence in the second half of 2012. At that time, it is likely that the water management licence will be revoked and the FRWSS will be subject to a major utilities licence issued under the *Water Management Act*.¹⁰⁷ The major water utilities licence would collectively cover the water allocation for the FRWSS, as an alternative to issuing individual water access licences to customers of the scheme.¹⁰⁸ State Water would then be responsible for allocating the water to the customers of the scheme in accordance with rules defined

¹⁰⁶ NSW Office of Water, *Fish River Water Supply Scheme – review of water sharing arrangements*, March 2012.

¹⁰⁷ NSW Office of Water, *Fish River Water Supply Scheme – review of water sharing arrangements*, March 2012.

¹⁰⁸ A major utilities licence would entitle State Water to take and use water from authorised water sources in accordance with a comprehensive set of conditions. These conditions cover works authorisations, environmental flow releases and other operating requirements, monitoring, reporting and scientific studies. The major water utilities licence would essentially mean that the FRWSS is issued with only one water access licence in lieu of each of the customers of the scheme being issued with water access licences.

in the major water utility licence and in consultation with the Fish River Customer Council.¹⁰⁹

7.2.3 Water supply authority, *Water Management Act 2000*

State Water is a water supply authority in relation to the FRWSS.¹¹⁰ This authority confers powers under the *Water Management Act* to enable State Water to exercise its functions.¹¹¹ Examples of conferred powers include those to enter land to read meters, carry out works, make inspections, remove obstructions, break up roads, and find the source of pollution (these same powers have also been granted to State Water under the *State Water Act*).

Under the requirements of the *Water Management Act* relating to water supply authorities, State Water is required to seek approval for the construction, operation and maintenance of water treatment works.¹¹² These approvals are issued by the Minister, and are not publicly available.

In addition to the Minister's approval, in 2007 the NSW Office of Water developed the *Best Practice Management of Water Supply and Sewerage Guidelines* (best practice guidelines), a framework for the best-practice management of water supply and sewerage. Water supply authorities are actively encouraged by the NSW Government to achieve effective, sustainable, and safe water supply businesses through compliance with the best practice framework.¹¹³ The best practice guidelines include voluntary elements that relate to drinking water quality.

The NSW Office of Water prepares annual performance monitoring and benchmarking reports of the urban local water utilities it regulates. For each utility, this report outlines compliance and progress against the best practice guidelines.¹¹⁴ According to the 2010/11 benchmarking report, State Water achieved 71% compliance with the 10 required elements of the best practice guidelines for water supply.¹¹⁵ It should be noted that the required elements do not include the voluntary drinking water quality elements of the framework.

¹⁰⁹ The Fish River Customer Council is established as condition of State Water's current operating licence. NOW proposes to include additional conditions for the operation of the council within the major water utility licence.

¹¹⁰ *Water Management Act 2000*, schedule 3, Part 3.

¹¹¹ *Water Management Act 2000*, Chapter 6, Part 2, Division 3.

¹¹² *Water Management Act 2000*, section 292(1)(a) and *Water Management Regulation 2011*, clause 116(1)(c).

¹¹³ NSW Government Department of Water and Energy, *Best-Practice Management of Water Supply and Sewerage Guidelines*, August 2007.

¹¹⁴ NSW Office of Water website, www.water.nsw.gov.au, accessed on 4 July 2012.

¹¹⁵ NSW Office of Water, *2010/11 Water Supply and Sewerage, NSW Benchmarking Report*, Table 12, p 161.

7.2.4 Public Health Act 2010

In the future, the FRWSS will also be regulated by the *Public Health Act 2010* when that legislation has commenced¹¹⁶. The Public Health Act includes regulatory requirements on the suppliers of drinking water to establish, and adhere to, a quality assurance program for maintaining and monitoring drinking water quality.¹¹⁷ This quality assurance program is akin to the voluntary drinking water quality framework outlined in the NSW Office of Water's best-practice guidelines.

The Public Health Act also includes the capacity for the Chief Health Officer to exempt a supplier of drinking water from the quality assurance program if the supplier is subject to other appropriate licensing or other regulatory requirements.¹¹⁸

7.3 Are there any issues with the current activities?

7.3.1 Water quality management

The current operating licence requires annual reporting by State Water against a performance indicator related to water quality from the scheme.¹¹⁹

In the course of State Water's 2010/11 operational audit (conducted in September 2011), we identified a potential water quality issue for the FRWSS that in our opinion "may present a risk to public health if not addressed".¹²⁰

The issue related to the possibility of cross connecting the drinking water supply with the raw water supply in order to maintain the water service to customers. Although no evidence was found that State Water had cross connected its drinking water and raw water systems, we considered that its existing procedures were inadequate to manage such an event if it was ever required in the future.

¹¹⁶ The Public Health Act is expected to commence in 2012 when the associated Regulations under this Act are made.

¹¹⁷ *Public Health Act 2010*.

¹¹⁸ *Public Health Act 2010*.

¹¹⁹ Schedule 1 Part B (3) State Water operating Licence 2008-2013. "Percentage of treated water samples that comply with the Australian Drinking Water Guidelines (2004) at the FRWSS water sampling locations for e-coli, colour, turbidity, iron, manganese, aluminium and pH."

¹²⁰ IPART, *State Water Corporation Operational Audit 2010/11, Report to the Minister*, December 2011

In addition to the 2010/11 audit report issues, a consultant's report commissioned by IPART in 2009 raised concerns regarding the operation of the Duckmaloi water treatment plant.¹²¹ In 2007, water quality from the plant declined with the treated water exceeding guideline values in the Australian Drinking Water Guidelines (ADWG) for turbidity, iron and manganese.¹²² The membranes were replaced in 2009 in response to the degradation of the water quality.¹²³

The consultant concluded that the high turbidity would have impacted on disinfection effectiveness (which could have public health risks) and that dirty water complaints would have arisen as a result of high iron and manganese levels.¹²⁴

Since the release of the consultant's report, State Water has contracted Hunter Water Australia¹²⁵ to undertake a review of the operational procedures and provide recommendations for improvements to the treatment plant and processes.¹²⁶ Hunter Water Australia, the NSW Office of Water and Veolia (the provider of the membrane technology) have also provided training to State Water staff on various aspects of operating and maintaining the treatment plant.¹²⁷

IPART seeks comments on the following

- 23 Are there other issues related to State Water's management of the FRWSS that we need to consider in this review? Please provide an overview of the issue including how it is currently regulated.

7.4 What could be done better?

The principle objectives of State Water are to capture, store and release water in an efficient, effective, *safe* and financially responsible manner. In the context of the FRWSS, this infers that the FRWSS should be managed to provide water that is safe and fit for purpose.

¹²¹ Atkins, *Strategic Management Overview and Review of Operating and Capital Expenditure of State Water Corporation 2009*, Draft report for consultation, p 48.

¹²² Atkins, *Strategic Management Overview and Review of Operating and Capital Expenditure of State Water Corporation 2009* Final report, p140. Department of water and Energy, 2007-08 NSW Water Supply and Sewerage, Benchmarking Report, p 46.

¹²³ Atkins, *Strategic Management Overview and Review of Operating and Capital Expenditure of State Water Corporation 2009*, Final report, p 50. State Water email 4 June 2012.

¹²⁴ Atkins, *Strategic Management Overview and Review of Operating and Capital Expenditure of State Water Corporation 2009*, Final report, p 140.

¹²⁵ Hunter Water Australia is a consultancy with expertise in the operation of water and wastewater treatment plants. Hunter water Australia website, www.hwa.com.au, accessed 7 June 2012.

¹²⁶ Hunter Water Australia also operated the Duckmaloi water treatment plant on State Water's behalf following the retirement of the long-term plant operator until State Water staff were fully trained and had adequate experience to take over.

¹²⁷ State Water email 4 June 2012.

We have identified a number of options to meet the licence objective to capture, store and release water in a safe manner. The options that we consider in further detail below are:

- ▼ Option 1 - rely on the regulation of the FRWSS as a water supply authority and remove all duplicative requirements from the operating licence
- ▼ Option 2 - rely on yet to be commenced *Public Health Act 2010*
- ▼ Option 3 - include new conditions on the FRWSS water quality akin to other major water utilities in the operating licence.

IPART seeks comments on the following

- 24 What are your views on the options presented? Are there other options we should consider to meet the objective of the licence conditions to ensure State Water captures, stores and releases water in a safe manner that is fit for purpose? What are the costs and benefits of the option?

7.4.1 Option 1; Rely on the regulation of the FRWSS as a water supply authority and remove all duplicative requirements from the operating licence

The *Best-Practice Management of Water Supply and Sewerage Guidelines* include a recommendation for local water utilities (including water supply authorities) to prepare and implement a drinking water quality framework. This recommendation, as discussed above, is voluntary.

The best practice guidelines briefly describe the actions required:

A risk based drinking water quality management plan is required to be developed by each LWU [Local Water Utility] under the Australian Drinking Water Guidelines 2004. It is recommended that all LWUs with over 10,000 connected properties obtain an external third party accredited assessment of their drinking water quality management plan.¹²⁸

In addition to the recommended drinking water quality management plan, water supply authorities are also required to complete an annual water supply and sewerage report. Among other things, the performance monitoring report provides a high level summary of the compliance of some microbiological and chemical drinking water quality characteristics with the Australian Drinking Water Guidelines (ADWG).

State Water reports that it has completed a risk based drinking water quality plan based on the ADWG, but that this plan has not been externally audited.¹²⁹

¹²⁸ Department of Water and Energy, *Best-Practice Management of Water Supply and Sewerage Guidelines*, August 2007, p 13.

¹²⁹ NSW Office of Water website, www.water.nsw.gov.au, accessed on 4 July 2012.

This option would constitute business as usual for State Water, as such it is questionable whether it creates adequate incentives or comprehensively addresses the range of potential risks in relation to managing the drinking water quality.

7.4.2 Option 2; Rely on yet to be commenced *Public Health Act 2010*.

The new Public Health Act is yet to commence. However, the provisions in the draft regulation were released for public comment in August 2011 and outline the likely requirements of the quality assurance program referred to in the Act.

The draft Public Health Regulation 2011 states that a quality assurance program must address the elements of the Framework for Management of Drinking Water Quality (outlined in the ADWG) that are relevant to the operations of the supplier of drinking water concerned.¹³⁰ The regulation also makes provisions for the Director-General of NSW Health to arrange for the review of a quality assurance program of a supplier of drinking water at any time.¹³¹

Benefits	Costs
Focus of regulation is on water quality so will be easier to minimise duplication with the operating licence.	Development of systems and framework to bring the FRWSS in line with the requirements of the ADWG.
NSW Health has the appropriate expertise to oversee drinking water quality.	NSW Health will oversee up to 105 quality assurance programs for local water utilities in addition to private water supplies.
Quality assurance program is likely to be included in a risk based audit regime.	

IPART seeks comments on the following

- 25 What other costs or benefits are there in relying on the regulation of water quality from the FRWSS under the Public Health Act?

7.4.3 Option 3; Include new conditions on State Water relating to water quality akin to other major water utilities in the operating licence

The State Water Act has no mandatory requirement to include conditions in the operating licence regarding the management of water quality. The Act requires the inclusion of terms and conditions to ensure that the systems and services meet the performance standards specified in the operating licence in relation to water delivery.¹³² The Australian industry standard for encouraging the safe delivery of treated water is the ADWG. As such, our view is that there is scope to include such conditions in the operating licence.

¹³⁰ Clause 27(1) Public Consultation Draft Public Health Regulation 2011, 18 August 2011.

¹³¹ Clause 27(1) Public Consultation Draft Public Health Regulation 2011, 18 August 2011.

¹³² *State Water Act, 2004* section 12(1)(b).

In order to meet the objective of ensuring that the FRWSS is managed to provide water that is safe and fit for purpose, under this option, the operating licence would be amended to include a new clause related to the performance standard for the management of water quality from the FRWSS.

We consider that the clause would be worded similar to the clauses in Hunter Water's operating licence, for the management of drinking water quality:

1. State Water must maintain a Management System that is consistent with:
 - (a) the Australian Drinking Water Guidelines; or
 - (b) if NSW Health specifies any amendment or addition to the Australian Drinking Water Guidelines that applies to State Water, the Australian Drinking Water Guidelines as amended or added to by NSW Health.

This approach is consistent with the proposed approach to asset and environmental management in that it relies on the development and implementation of a management system.

The operating licence conditions relating to the drinking water management system would also provide that:

- ▼ the adequacy of the system is independently audited
- ▼ the system is fully implemented
- ▼ compliance with the system is independently audited.

Discussions with NSW Health indicate that an exemption from the requirement to establish and adhere to the quality assurance program¹³³ is only likely to be considered where another regulatory instrument mandates the development and implementation of similar requirements, and includes an external compliance assessment or audit of the requirements.¹³⁴ This means if the operating licence was to include conditions akin to the Public Health Act, it is likely State Water would be granted an exemption from the requirements for a quality assurance program

¹³³ *Public Health Act 2010*, section 25(3).

¹³⁴ Discussion NSW Health Water Unit, 13 June 2012.

Benefits	Costs
Focus of regulation is on providing drinking water of a suitable quality.	Development of systems and framework to bring the FRWSS in line with the requirements of the ADWG.
Drinking water management system would be included in the annual audit regime for compliance.	
The adequacy of the drinking water management system would be audited by an industry expert at the commencement of the licence condition and following any significant change to the system.	
Possibility to exempt State Water from the quality assurance program requirements in the Public Health Act (minimising duplication).	

IPART seeks comments on the following

- 26 What other costs or benefits are there in relying on the regulation of water quality from the FRWSS under the operating licence?

8 Conferral of functions

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

This chapter considers the functions currently conferred on State Water. We identified issues associated with the transparency of the division of conferred functions which are shared between State Water and the NSW Office of Water and State Water's foreshore management functions.

It also considers whether the operating licence should comprehensively list all conferred functions.

8.1 What activities does State Water regulate?

State Water's current licence confers a number of regulatory functions¹³⁵ that enable State Water to:

- ▼ administer the release of water and recover fees and charges (eg, debiting and crediting of water accounts; temporary water transfers; metering; imposing and recovering fees, charges and civil penalties; suspending licences and approvals)
- ▼ protect water sources and water management works (eg, directing temporary water restrictions; directions to protect water sources; directions to stop work; taking remedial measures; applying for an injunction)
- ▼ protect against fraudulent extraction of water (eg, suspending licences and approvals; debiting water from water accounts or imposing civil penalties; directions concerning waste of water).

These functions complement State Water's water delivery role, by enabling it to deliver water and take action to prevent failure to pay for water or fraudulent extraction of water.

¹³⁵ State Water Operating Licence 2008-2013, clause 2.4. These are functions of the Minister or the Water Administration Ministerial Corporation under the *Water Management Act 2000*, *Water Act 1912* and *New South Wales – Queensland Border Rivers Act 1947*.

Many of the functions conferred under the operating licence are non-exclusive, meaning that responsibility is shared with the NSW Office of Water.¹³⁶ In order to delineate and co-ordinate the exercise of these functions, State Water and the NSW Office of Water have in place a Memorandum of Understanding (MoU) under the operating licence (see Box 8.1)¹³⁷ and a separate compliance protocol. The compliance protocol outlines each agencies compliance and enforcement responsibilities in more detail but is not publicly available.

Box 8.1 Summary of MoU between State Water and the NSW Office of Water

The purpose of the MoU is to form the basis for co-operative arrangements between State Water and the NSW Office of Water.^a The MoU documents the roles of each party and aims to improve the co-ordination of powers, authorities or duties and associated responsibilities between them in undertaking their respective roles. In particular, the MoU outlines shared and complementary roles in areas such as:

- ▼ available water determinations for water users
- ▼ river flow management
- ▼ environmental management including water quality, algal management, cold water pollution strategy
- ▼ metering
- ▼ land management
- ▼ system and data management
- ▼ compliance management.

The MoU acknowledges that the principle role of enforcement of the NSW Water Legislation^b rests with the NSW Office of Water. State Water's role is limited to:

- ▼ the reporting to the NSW Office of Water any circumstances in which it believes that there might be non-compliance with the NSW water legislation and
- ▼ within its range and functions and interest, exercising its conferred compliance powers, in particular, imposing statutory penalties for taking water illegally.

In addition to the powers conferred under the operating licence, the MoU also references powers delegated to State Water under other instruments of delegation including:

- ▼ land management functions under foreshore lands, and
- ▼ salinity management schemes.

^a A copy of the document can be downloaded from <http://www.statewater.com.au/About+us/Publications/Corporate+Publications>

^b NSW water legislation as set out in the State Water and Office of Water Memorandum of Understanding includes the *Water Management Act 2000*, the *Water Act 1912*, the *New South Wales – Queensland Border Rivers Act 1947* and the *State Water Corporation Act*.

¹³⁶ The NSW Office of Water also exercises many of these functions on behalf of the Minister or Ministerial Corporation.

¹³⁷ Clause 2.3 of the current operating licence requires State Water to use its best endeavours to maintain MoUs with a number of agencies including the NSW Office of Water.

8.2 Are there any issues with the current activities?

8.2.1 Transparency and scope of shared powers with the NSW Office of Water

Many of State Water's conferred power are non-exclusive and shared with the NSW Office of Water.

The Hyder report into the review of the State Water Act in 2010¹³⁸ noted concerns by stakeholders about the transparency of State Water's conferred functions. The views included:

- ▼ There is a possible conflict within government over operational roles carried out by other agencies. This needs to be resolved eg, responsibility for hydrometrics, unregulated river operations and groundwater roles need to be clarified.¹³⁹
- ▼ Roles and separation of the regulator and service provider / operator need clarification to ensure that match COAG principles.¹⁴⁰
- ▼ Areas where the organisation can act on behalf of the Minister need to be identified.¹⁴¹
- ▼ Better clarification is needed between roles of State Water and Office of Water, particularly for allocation announcements (especially supplementary flows) which State Water could provide under delegation.¹⁴²

It is a policy decision of the State Government as to what powers are conferred to State Water, and thus beyond the scope of this licence review to recommend any change to the conferred powers of State Water.

The operating licence does not include a comprehensive list of all functions conferred on State Water. Some functions have been delegated to State Water through various other instruments. Delegating the functions using other instruments gives the Minister the flexibility to transfer the functions, without the need to amend the operating licence. These functions tend to be focused on activities that State Water undertakes on behalf of the government, rather than investigation and enforcement powers linked to State Water's core business.

¹³⁸ Hyder, *State Water Corporation, Review of the State Water Corporation Act 2004, Final Report*, May 2010.

¹³⁹ Hyder, *State Water Corporation, Review of the State Water Corporation Act 2004, Final Report*. Stakeholder Meeting – Dubbo, 9 April 2010, p 87.

¹⁴⁰ *Ibid*, p 87.

¹⁴¹ *Ibid*, p 89.

¹⁴² *Ibid*, p 89.

8.2.2 Appropriateness of the objectives for foreshore powers

Until 2006, the primary responsibility for the management of land including dam foreshores, inundated land and land associated with water management infrastructure was shared between government departments such as the Department of Natural Resources and the Department of Lands, with secondary responsibility sometimes devolved to private lessees.¹⁴³

In June 2006, the then Minister for Natural Resources, delegated the lands administration functions in respect to land around 18 dams in NSW to State Water. In performing these functions, State Water acts on behalf of the Minister and must exercise the functions in accordance with any conditions set out in the instrument of delegation.

The delegation gave State Water the power, among other things, to:

- ▼ negotiate and determine the terms and conditions of leases and licences for the land
- ▼ prepare, execute and manage lease and licence agreements
- ▼ manage lease and licence agreements
- ▼ approve and execute easements over the land, and
- ▼ recommend the sale of land.¹⁴⁴

State Water has integrated the land management functions into its Environment Management Plan (see section 9.1) and has prepared foreshore management plans for each of its major dam sites. The focus of foreshore management plans are to:

- ▼ maintain or improve the ecological condition, including soil condition, of the foreshores
- ▼ identify and conserve populations of threatened species
- ▼ manage stock, pest plants and pest and native animals so that foreshore ecosystems (including pasture and vegetation) are conserved and catchment conditions are maintained or improved identify and conserve cultural heritage values (including indigenous heritage), and
- ▼ ensure future access to foreshore land to enable management.¹⁴⁵

¹⁴³ State Water Corporation, State Water Policy: SW2007-P0122, Land Management Policy.

¹⁴⁴ Draft 3, Instrument of Delegation, *Water Management Act 2000* - Section 377, 21 June 2006.

¹⁴⁵ State Water Corporation, *Report to IPART under the Operating Licence*, 1 September 2011.

State Water's foreshore management objectives do not explicitly include the management of foreshore activities to reduce the health risks associated with supplying raw water for drinking water. A recent report prepared for the Victorian Department of Health into the public health issues of stock accessing waterways upstream of drinking water off-takes highlights the need to consider foreshore activities to protect drinking water from micro-biological contamination.¹⁴⁶

While State Water has the operational powers to affect source water protection objectives (through its management of foreshore land lease agreements), it is beyond the scope of the licence to place conditions on State Water requiring them to do so.

In our view the foreshore land management functions that have been delegated to State Water sit outside the regulatory regime of the operating licence. As such, we do not consider that the operating licence can place conditions on the exercise of the delegated functions and we have not explored options to address this issue further.

IPART seeks comments on the following

- 27 Are there other issues related to State Water's conferred functions that we need to consider in this review? Please provide an overview of the issue.
- 28 Does the current list of conferred functions need to be amended or updated? What functions should be included or removed from the list?

8.3 What could be done better?

8.3.1 Transparency and scope of shared powers with the NSW Office of Water

We consider that the transparency of the division of the conferred functions between State Water and the NSW Office of Water could be improved based on previous reported stakeholder comments. This could be done by one of the following options:

- ▼ Option 1 - outline in the operating licence how the conferred functions are split.
- ▼ Option 2 - require the MoU between the NSW Office of Water and State Water to more clearly outline how relevant conferred functions are split.
- ▼ Option 3 - require State Water to make public (for example on their website) to what extent they will exercise the conferred functions.

We consider the costs and benefits of each of these options are discussed in the following section.

¹⁴⁶ Department of Health, *Public health issues associated with stock accessing waterways upstream of drinking water off-takes, final report, version 5*, prepared by Water Futures, 26 September 2011.

IPART seeks comments on the following

- 29 What are your views on the options presented? Are there other options we should consider to address the issue of transparency regarding State Water's conferred powers particularly where this role is shared with other agencies? What are the costs and benefits of the options?

Option 1; Amend operating licence to outline how the conferred functions are split

In addition to specifying the conferred functions, the operating licence could also note how these functions are shared with the NSW Office of Water and the extent to which State Water would exercise the powers.

This approach would require State Water and the NSW Office of Water to agree on the exact split of the functions prior to finalising the operating licence conditions. It would also mean that once the operating licence comes into effect, if the split of the functions was to be changed, the operating licence would also need to be amended.

Benefits	Costs
Auditable. Transparent disclosure of the extent that functions conferred under the operating licence will be exercised.	Inflexible. Only covers functions conferred by the operating licence.

IPART seeks comments on the following

- 30 What other costs or benefits are there in amending the operating licence to include conditions outlining how the conferred functions are split?

Option 2; Amend the operating licence to include the MoU between State Water and the NSW Office of Water to define the split of the functions

As discussed above, the current MoU between the NSW Office of Water and State Water references a compliance protocol. In turn, the compliance protocol outlines the split of each agencies compliance and enforcement responsibilities in more detail but is not publicly available.

This information could be included or attached to the MoU which would improve the transparency of the division of the conferred functions with the NSW Office of Water. The operating licence could include conditions requiring this information to be included in the MoU.

Benefits	Costs
Auditable to the extent required to be included in the MoU.	Only covers functions split with NSW Office of Water.
Formal agreement between both parties to nominate split of the conferred powers	Requires lengthy approvals process to update the MoU.
Transparent disclosure of the extent that conferred functions shared with NSW Office of Water will be exercised.	

IPART seeks comments on the following

- 31 What other costs or benefits are there in amending the operating licence to require that the MoU between the NSW Office of Water and State Water clearly outlines how the conferred functions are split?

Option 3; Amend the operating licence to require State Water to make public to what extent they will exercise the conferred functions

The operating licence could be amended to include a condition requiring State Water to make a full list of all their conferred functions and delegated powers publicly available. The operating licence could also require that State Water publicly disclose details on the extent the functions are exercised by State Water and, if relevant, how the functions are split with other regulatory parties.

Benefits	Costs
Flexible and easily updated.	Time to prepare and update list.
Covers all delegated and conferred functions.	Does not require the agreement of other parties that share the conferred powers.
Auditable.	
Transparent disclosure of the extent that all conferred functions will be exercised.	

IPART seeks comments on the following

- 32 What other costs or benefits are there in amending the operating licence to require State Water to make public to what extent they will exercise the conferred functions?

9 Other functions and consideration of the objectives of State Water

The State Water Act enables State Water to provide facilities or services that are necessary, ancillary or incidental to its principal functions¹⁴⁷. State Water may also conduct any business of activity (whether or not related to its principal functions) that it considers will further its objectives.¹⁴⁸

State Water, in carrying out its functions, needs to ensure that it achieves its broader objectives outlined in the State Water Act. This chapter considers whether any terms and conditions should be included in the licence to ensure that State Water's:

- ▼ remaining (ancillary) functions are undertaken in a manner consistent with its objectives, and
- ▼ objectives are broadly considered across all business functions.

The primary objective of this chapter is to ensure that any licence conditions to address the remaining functions and objectives are consistent with the principles of better regulation. Notably that the conditions are effective, proportional, clear and minimise any regulatory overlap.

9.1 Environment management

State Water's objective, where its activities affect the environment, is to conduct its operations in compliance with the principles of ecologically sustainable development. In essence, these are:

- ▼ the Precautionary Principle
- ▼ the Principle of Inter-generational equity
- ▼ conservation of biological diversity and ecological integrity
- ▼ inclusion of environmental factors in the provision of assets and services including polluter pays, full life cycle costing and the cost-effective pursuit of environmental goals.

¹⁴⁷ *State Water Act 2004*, section 6(2)(a).

¹⁴⁸ *State Water Act 2004*, section 6(2)(b).

The current operating licence requires State Water to maintain an environmental management plan. The content of the environmental management plan is prescribed by the conditions of the operating licence. The operating licence states that the plan must:

- (a) include details of State Water's program for addressing its environmental impacts and achieving environmental improvements, including (but not limited to):
 - (i) management and mitigation of riverbank and bed erosion;
 - (ii) management and mitigation of water quality issues associated with storage and release (including mitigation of thermal impacts);
 - (iii) management and mitigation of barriers to fish passage;
 - (iv) an algal management strategy;
 - (v) energy management and consumption; and
 - (vi) waste management and minimisation;
- (b) adopt Ecologically Sustainable Development principles;
- (c) be integrated into State Water's business plans;
- (d) include indicators to measure the environmental impact of State Water's Asset operations and maintenance; and
- (e) incorporate environmental improvement targets and timetables for State Water to achieve those targets over the term of the Environment Management Plan.¹⁴⁹

State Water is also required to report to IPART annually against the Environmental Plan.

9.1.1 What could be done better?

State Water's environmental activities are currently regulated by a range of instruments including:

- ▼ general provisions of the *Protection of the Environment Operations Act*
- ▼ water supply works approvals which often contain environmental water quality conditions pertaining to cold water pollution and other environmental conditions
- ▼ the current operating licence.

¹⁴⁹ State Water Corporation Operating Licence 2008-2013, clause 7.1.5.

The current operating licence deals with the various objectives for environmental management, by requiring State Water to manage environmental objectives with prescriptive environmental management obligations under the environmental management plan.

In recent years, regulatory instruments have increasingly evolved from prescriptive specifications to more adaptive and preventive systems standards. We have explored 2 possible options, retaining the current prescriptive approach and adopting a systems based approach to environmental management.

Option 1 – Retain current conditions, prescribing environmental management requirements

This option would involve the continuation of the current prescriptive approach outlined above.

The limitation of this prescriptive form is that the operating licence cannot flexibly apply to manage risks, especially in a changing operating environment. Prescriptive requirements focus State Water on specific issues. While these issues may have been important at the time the licence is prepared they may not necessarily have the same priority at the end of the licence period, particularly if the operating environment changes.

For example, any emerging environmental issues due to changes in climatic conditions over the term of the licence may not have been included in the prescriptive requirements that were developed at the time of reviewing the licence, as the issue was not evident at that time. This may mean that State Water focuses its environmental management activities on issues that are not materially significant at any given time.

Option 2 – Adopt a systems based approach to environmental management

Under this option, we propose to replace the prescriptive requirements of an environmental management plan in the operating licence with the requirement to implement an environmental management system (EMS).

We consider that the clause would be worded similar to the clauses in Hunter Water's operating licence¹⁵⁰, for the environment management:

- ▼ 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.

¹⁵⁰ A similar clause has also been included in the most recent State Catchment Authority operating licence.

The operating licence conditions relating to the environmental management system would also provide that:

- ▼ the system is independently certified
- ▼ the adequacy of the system is audited
- ▼ the system is fully implemented
- ▼ compliance with the system is audited.

An effective environmental management system will take into consideration all of State Water's activities that have an impact on the environment (see Box 9.1).

Box 9.1 Blue green algae management in the context of an EMS

State Water's current operating licence requires that its Environmental Management Plan (EMP) include an algal management strategy.^a The licence does not prescribe how the algal management strategy is to be developed nor what elements are to be included in the strategy. Feedback from the NSW Office of Water on this approach suggests that the information in the EMP on algal management is too general and the detail of the program is absent as the document is written for the general public.^b

As an alternative to prescribing the requirements for inclusion in the EMP, the operating licence could require that State Water develop and implement an Environmental Management System (EMS) in accordance with a recognised standard. As a case study we consider how adopting an EMS approach would capture State Water's blue-green algae responsibilities.

In developing an EMS State Water is required to identify the environmental aspects of its activities and services that it can control and those that it can influence. In this case of blue-green algae there are aspects of State Water's activities that could both control and influence the management of blue-green algae outbreaks. The EMS framework requires that State Water identify and define the impact of its activities and services on blue-green algae control and management.

Subsequently, State Water would establish, implement and maintain documented environmental objectives and targets for blue-green algae management in relation to its activities and services. The objectives and targets should be measurable, where practicable, and consistent with the commitments to prevention of pollution, to compliance with applicable legal requirements and with other requirements to which the organization subscribes, and to continual improvement.^c

When establishing and reviewing its objectives and targets, State Water is required to consider its technological options, its financial, operational and business requirements, and the views of interested parties.

State Water would then establish, implement and maintain a programme(s) for achieving its objectives and targets. Programme(s) would include a procedure(s) to monitor and measure, on a regular basis, the key characteristics of its operations that can have a significant environmental impact on blue-green algae management. The procedure(s) shall include the documenting of information to monitor performance, applicable operational controls and conformity with its environmental objectives and targets.

a State Water Corporation Operating Licence 2008-2013, clause 7.1.5 (a)(iv).

b Email NSW Office of Water to IPART, 31 May 2012.

c AS/NZS ISO 14001:2004 *Environmental management systems - Requirements with guidance for use*.

Benefits	Costs
Outcome driven.	Audit costs. May require both technical and implementation audits.
Capacity to prioritise competing environmental management obligations according to objectives.	Certification of the system, if required.
Adaptive to changing circumstances, including social and technological change.	Development and implementation costs to bring State Water's existing environmental management framework in line with the prescribed industry standard.
Captures corporate knowledge held by individuals or independent groups within the organisation.	Perceived issue of reduced regulatory supervision.
Comprehensive approach – minimises the risk of gaps in the environmental management.	
Consistent with State Water's other environmental management regulatory requirements.	
If a certified system standard can be used, incorporates audit process.	

IPART seeks comments on the following

- 33 Are there other issues related to State Water's environment management objective that we should consider in this review?
- 34 What other costs or benefits are there in amending the environmental management obligations under the current licence to reflect a systems standard approach?
- 35 What are your views on the options presented? Are there other option(s) we should consider to meet the objective of the licence conditions for the environmental management of State Water's activities? What are the costs and benefits of the option?

9.2 Retail services – customer and community engagement

The current operating licence includes conditions relating to the protection of the rights of customers who rely on the monopoly services provided by State Water. State Water's operating licence is the only policy instrument that addresses this aspect of State Water's business.

It does this by:

- ▼ requiring State Water to take the views of its customers, community and stakeholders into account in its decision-making, and
- ▼ establishing the types of procedures and processes State Water must implement to manager customer interactions, services and issues.

In particular, the existing licence requires State Water to develop a community consultative committee, valley based customer service committees, a customer service charter and customer contracts (for Fish River customers only). It also requires State Water to maintain a code of practice and procedure on debt management, an internal dispute resolution process and to participate as a member of an external dispute resolution scheme (currently Energy and Water Ombudsman NSW).

The valley based customer service committees (CSCs) and the Fish River customer council (Fish River CC) address the problem of information imbalance that arises between a sole provider and its customers. The purpose of these committees is to enable customer involvement in issues relevant to the performance of State Water. The state-wide Community Consultative Committee (CCC) enables community involvement and stakeholder feedback relevant to State Water's performance.

9.2.1 What could be done better?

Require environmental representation on CSCs.

Currently, the licence requires that the CSCs include representatives from unregulated water customers, groundwater customers, the relevant Catchment Management Authority and a representative from the former Department of Environment and Climate Change (DECC - now the Office of Environment and Heritage and the Environmental Protection Agency).¹⁵¹ The purpose of including representation from the former DECC was to represent the public interest in the provision of water for environmental purposes.

State Water's environmental customers include the Commonwealth Environmental Water Holder and the NSW Office of Environment and Heritage (OEH). The environment is fast becoming State Water's largest customer.¹⁵²

We consider it prudent for an environmental customer representative to remain on the valley based customer service committees. As such, we propose to require State Water's to use its best endeavours to ensure that membership of the CSCs includes a representative (where relevant) from both these environmental water customers.

¹⁵¹ State Water Operating Licence 2005-2008 clause 4.2.1 and State Water Operating Licence 2008-2013 clause 4.2.1.

¹⁵² State Water Corporation, *Statement of Corporate Intent 2010/11*, p 10.

Require strategic stakeholder engagement on specific issues using a systems approach.

Our audit of State Water's performance in the area of the CSCs and the Fish River CC included surveys of committee members. The survey results indicate that the committees and the council are working effectively and are perceived by the members to benefit all stakeholders. We consider the requirements in the operating licence to maintain valley based CSC's and the Fish River CC remain appropriate and relevant.

While the benefits of maintaining the CSCs and the Fish River CC are supported by feedback received from the respective members and State Water, the same feedback has not been forthcoming from the CCC.¹⁵³ Anecdotal evidence from State Water suggests that the diversity of interests represented on the CCC make it difficult to engage with those stakeholders.¹⁵⁴ Understandably, stakeholders are only interested in issues of relevance to them.

We consider that if the operating licence requires State Water to adopt a systems standards approach, the requirement for stakeholder engagement on issues (such as specific environmental objectives or proposed changes to procedures for placing customer orders) will be covered by the requirements of the systems standards. These requirements will also be audited to ensure State Water appropriately identifies and engages stakeholders on issues relevant to their respective interests.

In light of this, we will consider removing the requirement maintain a CCC from the licence if the systems standard approach is adopted in other areas of the operating licence.

Maintain debt management and dispute resolution conditions.

The existing clauses on the code of practice and procedures on debt management, the internal dispute resolution process and the external dispute resolution scheme provide significant benefit to customers and the wider community. We are therefore inclined to keep these clauses, however we will review the licence wording with the aim of ensuring all conditions are effective and written in simple, plain English for improved clarity.

We note that we will also need to consider any recommendations from the IPART review of Rural Water Charging Systems (2012) in relation to State Water's customer and retail obligations in the new operating licence.

¹⁵³ t-cAM Consulting, *State Water Corporation Operational Audit 2010/11 Final Report*, November 2011, p 11.

¹⁵⁴ t-cAM Consulting, *State Water Corporation Operational Audit 2010/11 Final Report*, November 2011, p 44.

IPART seeks comments on the following

- 36 Do you have any objections to removing the requirement for State Water to maintain a CCC from the licence, if the systems standard approach is adopted in other areas of the operating licence?
- 37 Are there other issues related to State Water's retail and customer management functions we should consider in this review?
- 38 Are there other conditions we should consider including in the licence to ensure State Water's retail and customer functions are appropriately regulated? What are the costs and benefits of these additional conditions?

9.3 Metering

Historically State Water has not owned the meters used to measure the amount of water that its customers take. Meters are generally owned and maintained by customers. Despite this, our operating licence review in 2008 identified concerns regarding State Water's lack of capacity to accurately measure any water that it supplies to its customers.

At that time we recommended that conditions be included in the licence that:

- ▼ assign State Water the express function of meter reading
- ▼ direct State Water to adopt a national or state metering standard (see Box 9.2).¹⁵⁵

In response to the recommendations, State Water submitted to IPART proposed performance measures with respect to its "performance in ensuring compliance with metering conditions as imposed by Water Management Works Approvals"¹⁵⁶. IPART approved 4 performance measures in March 2010.

Subsequently State Water commenced audits to comply with the agreed performance measures. Over the term of this operating licence, State Water completed an audit of 81% of its customer's water meters. The audits have found only a very small proportion of the water meters (0.002%) comply with the interim NSW meter standard.

¹⁵⁵ IPART, *End of term review of State Water Corporation's Operating Licence, Report to the Minister for Water*, April 2008, p 24.

¹⁵⁶ State Water Operating Licence 2005-2008 clause 6.5.3.

Box 9.2 National framework for non-urban water metering

In 2004, all Australian governments agreed to establish a national approach to water management, by creating the National Water Initiative. Under the initiative, new national standards for water meters and meter data collection systems were established under a national framework for non-urban water metering.^a

Specifically, the National Framework outlines:

- ▼ the implementation of the national standards for meter construction, installation and maintenance
- ▼ the use of certified installers, maintainers and validators
- ▼ compliance, auditing and reporting requirements.

The National Framework also specifies:

- ▼ That all non-urban meters shall comply with the national metering standards by 1 July 2020, unless otherwise exempted by the relevant jurisdictional government department or agency.
- ▼ Any meter installed after 30 June 2010 must comply with the national metering standards.
- ▼ Any meter installed prior to 1 July 2010 shall be replaced with a compliant meter by 1 July 2020. Replacement shall be undertaken at the earliest opportunity, such as when major maintenance is required on the non-compliant meter.^b

The National Framework requires that all non-urban water metering equipment is manufactured, tested and validated against Australian Standards. Due to the complexity of the process, it was first necessary to produce a set of Australian Technical Specifications (ATS) on which the final Australian Standards would be based. Following a 2-year public consultation period, ATS 4747 are now being considered for conversion to an Australian Standard. It is anticipated that, once underway, the conversion will take approximately one year to complete.

Until the national standards are fully operational, the NSW Office of Water, in conjunction with State Water, has developed the NSW Interim Water Meter Standards which set criteria for the supply and installation of water meters. The Interim Standards as far as possible follow and relate to the national standards. The Interim Standards will eventually be replaced by the national standards.

- a** Recognising that information available from metering needs to be practical, credible and reliable, the Parties agree to develop by 2006 and apply by 2007
- i. a national meter specification
 - ii. national meter standards specifying the installation of meters in conjunction with the meter specification;
- and
- national standards for ancillary data collection systems associated with meters.

- b** Department of Sustainability, Environment, Water, Population and Communities website, www.environment.gov.au, accessed 20 June 2012.
-

As part of the national non-urban water metering implementation plan, 2 metering projects are underway in NSW:

- ▼ the Murray Pilot Project which will see up to 1200 state of the art, telemetry enabled meters installed in the upper Murray catchment.¹⁵⁷
- ▼ the Murrumbidgee CARM project, which includes the installation of approximately 600 meters on the Murrumbidgee River.

Under both projects, State Water will own, operate and maintain all government-installed meters on these 2 rivers. Extractors will pay an annual metering charge as determined by the pricing regulator.

Metering requirements for water users who do not yet have a government-installed meter are unchanged.

9.3.1 What could be done better

Given the meters State Water currently owns, and will own in the foreseeable future, have been installed under the National Water Initiative, we see little benefit in maintaining the current meter obligations in the licence.

However, it should be noted that any meters owned by State Water would still be subject to the relevant asset management clauses in the licence (see the discussion in section 6.4). Following is a summary of the costs and benefits on removing the clause from the licence.

Benefits	Costs
Removes any further audit obligations on State Water which are likely to be of little additional benefit.	No requirements for State Water to install meters in accordance with the standards if meters are installed outside national non-urban water metering implementation plan.
Removes any duplicative regulatory requirements with those agreed to under the National Water Initiative by the State Government.	

IPART seeks comments on the following

- 39 Given the progress in the national framework for meter standards since the last operating licence review, should we consider maintaining metering obligations in the operating licence? Are there specific obligations should we consider including in the operating licence?
- 40 What costs or benefits are there in changing metering obligations from State Water's operating licence?

¹⁵⁷ The Murray Pilot will be used to evaluate installation options and techniques prior to the roll out of the project across the Murray-Darling Basin in NSW.

9.4 Quality (administration)

State Water currently operates in a complex business environment, collecting and sharing data with other agencies and organisations. Many of State Water's core business systems are owned and operated by third parties (usually the NSW Office of Water) with State Water given access to the data and information. Similarly, State Water operates some systems which contain data and information accessed by the NSW Office of Water for the purpose administering water access licences.

The review of *the State Water Corporations Act 2004* identified issues with the integrity of access licence data which is used for the purpose of crediting and debiting customer water accounts. These issues have led to delays, and duplication and inaccuracy in customer billing and interaction.¹⁵⁸

The NSW Office of Water's corporate database systems are managed in accordance with the quality management standard requirements and are accredited to AS/NZS ISO 9001:2008 (Quality Management Systems - Requirements) to ensure data quality.¹⁵⁹ It is our understanding that State Water does not currently have an accredited quality management system (QMS). This is a potential risk to data integrity when information is shared between parties.

Our 2010/11 operating licence audit of State Water identified several areas that may benefit from the implementation of a QMS for example:

- ▼ Document Control and Consistency: it would be useful for the organisation to review how it applies its report and other document templates (including document histories and document control) to achieve consistency.¹⁶⁰
- ▼ A number of improvements were identified as part of the review against the standard. As part of the continual improvement process it would be useful to close out this process completely by updating the report with a summary of completion (ie, reporting completion against the improvement tasks).¹⁶¹
- ▼ Training: A training register was viewed during the audit showing dates and attendees for particular types of training. It is suggested that training should be integrated into existing systems if possible to ensure the currency of training records and requirements. State Water's Facility Maintenance Management System could be the vehicle for capturing training since it can be linked to work orders (ie, via the training prerequisites for undertaking a particular job).¹⁶²

¹⁵⁸ Hyder Consulting, *Review of the State Water Corporation Act 2004, Final Report*, May 2010, p 89.

¹⁵⁹ NSW Office of Water, *New South Wales Strategic Water Information and Monitoring Plan Final report 2011*, p 12.

¹⁶⁰ t-cAM Consulting, *State Water Corporation Operational Audit 2010/11 Final Report*, November 2011, p 8.

¹⁶¹ *Ibid*, pp 13-14.

¹⁶² *Ibid*, pp 18-19.

9.4.1 What can be done better?

As the NSW Office of Water and State Water work closely together, there is a strong case for State Water to develop a QMS with the aim of ensuring the data and information transferred between the agencies is appropriately managed to maintain integrity.

We consider 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.

Imposing a QMS requirement on State Water could be achieved by adding a new clause in the operating licence. Such a clause could be worded similar to the clauses in Hunter Water’s operating licence, for the environment management:

- ▼ State Water must develop a Management System that is consistent with the Australian Standard AS/NZS ISO 9001:2008: Quality Management Systems – Requirements.

The operating licence conditions relating to the quality management system would also provide that:

- ▼ the system is independently certified
- ▼ the adequacy of the system is audited
- ▼ the system is fully implemented
- ▼ compliance with the system is audited.

Benefits	Costs
Outcome driven.	Audit costs.
Adaptive to changing circumstances, including social and technological change.	Certification of the system, if required.
Captures corporate knowledge held by individuals or independent groups within the organisation.	Development and implementation costs to bring State Water’s existing systems in line with the prescribed industry standard.
Comprehensive approach – minimises the risk of gaps in the management of business systems.	
Improved integrity of system data and information.	
Consistent with State Water’s other environmental management regulatory requirements.	
If certified it will incorporate an audit process.	

IPART seeks comments on the following

- 41 Given State Water shares many of its systems, should State Water be required to develop and implement a quality management system to manage quality assurance across the organisation?
- 42 Are there other quality management issues related to State Water's current business systems that are relevant to this review?
- 43 What other costs or benefits are there in requiring State Water to develop and implement a certified quality management system?

9.5 Operational audits

We are required by legislation to audit State Water's compliance with its operating licence, in accordance with the conditions in the operating licence.¹⁶³ We do this by receiving reports from State Water and undertaking and publishing annual compliance audits. We also report our findings to the Minister.

To be effective, the compliance auditing process must be rigorous. However, the process must also be efficient, in order to avoid becoming an unreasonable administrative burden on either State Water or IPART, and an unwarranted cost to State Water's customers and the community.

Some of State Water's current licence conditions impose obligations on IPART. Where the obligations are not a requirement of the relevant legislation, it is not considered appropriate for an operating licence to place obligations on a party other than the regulated utility.

We will consider removing the audit obligations on IPART currently included in the operating licence. However the requirements to undertake annual operational audits shall remain.

IPART seeks comments on the following

- 44 Are there any issues related to the operational audits of State Water that we need to consider in this review? Please provide an overview of the issue.

9.6 Duplicative regulatory requirements

Some licence conditions duplicate legislative or other requirements. This duplication creates the potential for conflict if the licence obligations are not amended in line with legislative changes. Duplication of other regulatory requirements also confuses who the appropriate regulatory authority is in the event of a non-compliance with the clause and as such is not good regulatory practice.

¹⁶³ *State Water Act 2004*, section 31.

Examples of the duplication in the current State Water operating licence include:

- ▼ restating the general legislative requirements in the Act¹⁶⁴, and
- ▼ briefly listing some of State Water’s other regulatory obligations.¹⁶⁵

We consider that the licence should complement, and be consistent with, other regulatory requirements imposed on State Water. It therefore needs to reflect the broader regulatory framework applying to State Water, without unduly duplicating requirements prescribed by other regulatory instruments.

We propose to remove references to legislative requirements (where they are not mandatory terms and conditions for the licence) and where they do not provide any additional guidance or auditable benefit.

Benefits	Costs
Reduced auditing costs linked to annual operating licence audits	
Reduced regulatory burden due to duplication of regulation	
Minimise the risk of including conditions that conflict with other regulatory instruments	
Reduced confusion around appropriate regulatory authority.	

IPART seeks comments on the following

- 45 What other costs or benefits are there in removing duplicative regulatory requirements from State Water’s operating licence?

9.7 Other matters

The following is a summary of proposed amendments to the general structure of the operating licence. We consider that these amendments will result in a more effective and efficient operating licence. The proposed amendments are consistent with the approach we have adopted for private water utility licensees under the *Water Industry Competition Act 2006* and adopted for Sydney Catchment Authority, Hunter Water and Sydney Water in our most recent operating licence reviews. In summary, these proposed amendments relate to:

- ▼ setting out reporting obligations in a reporting manual
- ▼ the requirement for State Water to enter into MoUs with the Department of Primary Industries and the Office of Environment and Heritage.

¹⁶⁴ *State Water Corporation Operating Licence 2008-2013*, clauses 1.1, 1.6, 1.7, 2.2, 9, 10.4.

¹⁶⁵ *State Water Corporation Operating Licence 2008-2013*, clauses 2.1, 7.

IPART seeks comments on the following

- 46 Are there other amendments or options we should consider to improve the structure of State Water’s operating licence to better meet the licensing objectives and better regulation principles? What are the costs and benefits of the proposed options?

9.7.1 Reporting manual

We are required by the Act to monitor State Water’s compliance with its operating licence.¹⁶⁶ Under the current operating licence, State Water’s reporting obligations consist of numerous obligations spread across the licence relating to each of the operational functions.

The reporting obligations set out under the operating licence are outlined in Table 9.1.

Table 9.1 State Water operating licence reporting obligations

Obligation to report	Clause
Annual report on performance against, and compliance with the MoUs	2.3.5
Report on the state of its assets	3.2.1
Annual report on performance against the customer charter	4.3.5
Quarterly report on number of customers requesting and receiving assistance with bills	4.6.4
Annual exception report on internally managed complaints	5.1.4
Annual report on complaints made to EWON	5.2.7
Annual report on complaints made to a court or tribunal	5.3.1
Annual report on civil actions brought against it	5.3.2
Annual report on activities concerning metering accuracy	6.5.2
Report on proposed performance indicators for metering	6.5.3
Annual report on performance against meter performance indicators	6.5.6
Bi-annual report (one draft, one final) on water balances	6.6.1
Bi-annual report (one draft, one final) on water balances for FRWSS	6.7.1 (a)
Report on system yield for FRWSS	6.7.1 (b)
Annual report on environmental performance	7.1.7
Annual report on performance indicators	8.2

We propose to amend the structure of the licence by placing all reporting requirements and performance indicators in a subsidiary reporting manual. The reporting manual would be made publicly available on our website. Similar manuals have been prepared for the other water utilities we regulate and can be viewed at www.ipart.nsw.gov.au.

¹⁶⁶ *State Water Act 2004*, section 30(3).

The reporting manual will provide us with greater flexibility to address reporting issues and adapt performance indicators during the term of any licence. It will also assist in developing consistent compliance reporting across public and private water utilities.

IPART seeks comments on the following

- 47 Are the proposed reporting manual arrangements adequate to consolidate and co-ordinate reporting requirements under the operating licence?

9.7.2 Memoranda of Understanding

The current operating 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).

It should be noted that, unlike other public water utilities we regulate, there is no requirement in the State Water Act for State Water to enter into a MoU with any organisation. The purpose of each MoU is to form the basis for the co-operative relationship between State Water and the respective agency.

State Water's MoU with the NSW Office of Water is the most developed and arguably the most beneficial due to the complicated relationship between the parties.¹⁶⁷ It was last updated in June 2009 and we note that it is scheduled to be reviewed by State Water and the NSW Office of Water during 2012.

As discussed throughout this paper, State Water shares a number of functions with the NSW Office of Water. State Water also undertakes some functions on behalf of the NSW Office of Water and similarly the NSW Office of Water undertakes some function on behalf of State Water. The respective roles necessitate a co-operative approach between these agencies and it is important they establish a formal framework for the interactions.

For this reason we consider that it is important to maintain the MoU between the NSW Office of Water and State Water. The MoUs with DPI and OEH do not have the same priority as State Water's MoU with the NSW Office of Water. This is because the MoUs with these agencies are unlikely to directly affect the ability of State Water to meet its objectives. These agencies have regulatory and other instruments that require State Water to meet certain conditions and obligations outside of the MoU.

¹⁶⁷ State Water and the Department of Water and Energy, Memorandum of Understanding, 30 June 2009.

State Water has suggested that the conditions for the MoUs in the current licence have limited its ability to develop MoUs which enhance the relationship with DPI and OEI. State Water would like to see these obligations removed from the licence.¹⁶⁸

While the requirement to maintain MoUs with these agencies could be removed from the operating licence, we would only consider doing so if all parties to the MoU agreed. Removing the MoUs with DPI and OEI from the licence would not mean that would need to necessarily cease but that they would no longer be subject to regulatory supervision such as audits.

IPART seeks comments on the following

- 48 How do the requirements for MoUs in the current operating licence add value to the relationship between State Water and other agencies?
- 49 Are there other requirements that we should consider including in the licence that could enhance the MoUs between State Water and other agencies?
- 50 What are the impacts of removing the requirements for MoUs with DPI and OEI?

¹⁶⁸ State Water letter to IPART 20 March 2012.



Appendices

A Summary of questions

To assist in identifying and understanding the key issues for this review, throughout this paper we have posed specific questions on which we seek comment from stakeholders. The following is a consolidated list (with page numbers for cross referencing) of these questions. Stakeholders are encouraged to raise and discuss any other issues that they believe are relevant to the review.

Release of water allocations to persons entitled to take water (section 3)

- 1 Are there other issues or regulatory gaps related to State Water’s release of water allocations that we need to consider in this review? Please provide an overview of the issue, including how it is currently regulated. 26
- 2 Recognising that the responsibility for river management sits within other agencies, should State Water be made responsible for the *release* or the *delivery* of water to its customers? 26
- 3 Should the operating licence regulate State Water’s River Murray operations? If so, should we consider limiting State Water’s operational responsibility for the release or delivery of water to avoid duplicating other regulatory obligations? How? 26
- 4 What are your views on the options presented? Are there other options we should consider to meet the objective of the licence conditions for the management of releases or delivery of water allocations to customers? What are the costs and benefits of the options presented? 27
- 5 What other costs or benefits are there in *amending* the operating licence requirements to refer to the *release* of allocated water to State Water’s customers and developing measurable performance standards? 27
- 6 What specific performance standards in relation to *releasing* water should we consider including in the licence? What are the costs and benefits of including those conditions? 27
- 7 What other costs or benefits are there in *amending* the existing operating licence requirements to include measurable performance standards and a strengthened customer charter relating to the *delivery* of allocated water to State Water’s customers? 28

A Summary of questions

- 8 What specific performance standards in relation to water *delivery* should we consider including in the licence? What are the costs and benefits of including those conditions? 28

Flood management (section 4)

- 9 Are there other issues or regulatory gaps related to State Water's role in capturing, storing and releasing flows for flood management that we should consider? Please provide an overview of the issue including how it is currently regulated. 32
- 10 Are State Water's flood management and mitigation functions adequately regulated through other instruments? If not, where are there gaps, and how could these best be regulated? 33
- 11 What are your views on the options presented? Are there other options we should consider to address the issue of data sharing and communication between State Water, the NSW Office of Water and other parties? 33
- 12 What other costs or benefits are there in removing the clause related to flood management from the operating licence? 34
- 13 What other costs or benefits are there in amending the operating licence to include an obligation requiring State Water to develop communication protocols for flood management activities? 35

Environmental releases (section 5)

- 14 Are there issues or regulatory gaps related to State Water's environmental water functions that we should consider in this review? Please provide an overview of the issue including how it is currently regulated. 37
- 15 Should we consider including terms and conditions in the operating licence to regulate State Water's function of capturing, storing and releasing environmental water? What condition(s) should we consider and what are the costs and benefits of these? 37

Construct, maintain and operate water management works (section 6)

- 16 Are there other issues related to State Water's asset management functions that we need to consider in this review? Please provide an overview of the issue including how it is currently regulated. 42
- 17 Are there any gaps in the current requirements for State Water's asset management system? 42
- 18 What are your views on the options presented? Are there other options we should consider to meet the objective of the licence conditions for asset management? What are the costs and benefits of the option? 43

- 19 What other costs or benefits are there in amending the asset management obligations in the current operating licence to reflect specific, prescriptive asset management requirements? 45
- 20 What prescriptive obligations should we consider including in the licence? What are the costs and benefits of including those conditions? 45
- 21 What other costs or benefits are there in amending the asset management obligations in the current operating licence to reflect a systems standard approach? 46
- 22 What industry standard for asset management should we consider referencing in the licence? What are the costs and benefits of referencing that standard? 46

Fish River Water Supply Scheme (section 7)

- 23 Are there other issues related to State Water's management of the FRWSS that we need to consider in this review? Please provide an overview of the issue including how it is currently regulated. 51
- 24 What are your views on the options presented? Are there other options we should consider to meet the objective of the licence conditions to ensure State Water captures, stores and releases water in a safe manner that is fit for purpose? What are the costs and benefits of the option? 52
- 25 What other costs or benefits are there in relying on the regulation of water quality from the FRWSS under the *Public Health Act*? 53
- 26 What other costs or benefits are there in relying on the regulation of water quality from the FRWSS under the operating licence? 55

Conferral of functions (section 8)

- 27 Are there other issues related to State Water's conferred functions that we need to consider in this review? Please provide an overview of the issue. 60
- 28 Does the current list of conferred functions need to be amended or updated? What functions should be included or removed from the list? 60
- 29 What are your views on the options presented? Are there other options we should consider to address the issue of transparency regarding State Water's conferred powers particularly where this role is shared with other agencies? What are the costs and benefits of the options? 61
- 30 What other costs or benefits are there in amending the operating licence to include conditions outlining how the conferred functions are split? 61

Other functions and consideration of the objectives of State Water (section 9)

31	What other costs or benefits are there in amending the operating licence to require that the MoU between the NSW Office of Water and State Water clearly outlines how the conferred functions are split?	62
32	What other costs or benefits are there in amending the operating licence to require State Water to make public to what extent they will exercise the conferred functions?	62
33	Are there other issues related to State Water’s environment management objective that we should consider in this review?	68
34	What other costs or benefits are there in amending the environmental management obligations under the current licence to reflect a systems standard approach?	68
35	What are your views on the options presented? Are there other option(s) we should consider to meet the objective of the licence conditions for the environmental management of State Water’s activities? What are the costs and benefits of the option?	68
36	Do you have any objections to removing the requirement for State Water to maintain a CCC from the licence, if the systems standard approach is adopted in other areas of the operating licence?	71
37	Are there other issues related to State Water’s retail and customer management functions we should consider in this review?	71
38	Are there other conditions we should consider including in the licence to ensure State Water’s retail and customer functions are appropriately regulated? What are the costs and benefits of these additional conditions?	71
39	Given the progress in the national framework for meter standards since the last operating licence review, should we consider maintaining metering obligations in the operating licence? Are there specific obligations should we consider including in the operating licence?	73
40	What costs or benefits are there in changing metering obligations from State Water’s operating licence?	73
41	Given State Water shares many of its systems, should State Water be required to develop and implement a quality management system to manage quality assurance across the organisation?	76
42	Are there other quality management issues related to State Water’s current business systems that are relevant to this review?	76

43	What other costs or benefits are there in requiring State Water to develop and implement a certified quality management system?	76
44	Are there any issues related to the operational audits of State Water that we need to consider in this review? Please provide an overview of the issue.	76
45	What other costs or benefits are there in removing duplicative regulatory requirements from State Water’s operating licence?	77
46	Are there other amendments or options we should consider to improve the structure of State Water’s operating licence to better meet the licensing objectives and better regulation principles? What are the costs and benefits of the proposed options?	78
47	Are the proposed reporting manual arrangements adequate to consolidate and co-ordinate reporting requirements under the operating licence?	79
48	How do the requirements for MoUs in the current operating licence add value to the relationship between State Water and other agencies?	80
49	Are there other requirements that we should consider including in the licence that could enhance the MoUs between State Water and other agencies?	80
50	What are the impacts of removing the requirements for MoUs with DPI and OEH?	80

B Preliminary outline of proposed operating licence

Licence Clause		Proposed amendment by IPART	Issues Paper reference (section)
1	INFORMATION ABOUT THE LICENCE		
1.1	Purpose of the Licence	General administrative changes and reworking to improve readability. Consider removing or rewording to the extent that the requirement duplicates other legislative requirements. No material changes currently proposed	9.6
1.2	Term of the Licence		
1.3	Mid Term Review		
1.4	End of term review		
1.5	Amendment of Licence		
1.6	Contravention of Licence		
1.7	Cancellation of Licence		
1.8	Availability of the licence		
2	STATE WATER'S RESPONSIBILITIES		
2.1	Responsibility of State Water under the Licence and other laws	Remove to schedule, duplicates other legislative requirements but contains useful information for general audience.	9.6
2.2	Responsibilities of State Water under the Act	Remove, duplicates the requirements of the Act with no auditable benefit.	9.6
2.3	Memoranda of Understanding	Consider amending the requirements of the MoU with the NSW Office of Water. Consider removing obligations for a MoU with OEH and DPI.	9.7
2.4	Functions of State Water Arising from other legislation	Remove to a schedule. Update as required. Consider defining the extent to which State Water exercises its conferred powers.	8.3
3	ASSET MANAGEMENT		
3.1	Asset Management Obligation	Consider replacing with a requirement to develop an asset management system.	6.4
3.2	Reporting on the Asset Management System	Review wording and transfer material to proposed State Water reporting manual	9.7
3.3	Auditing the Asset Management System	Consider reworking section to general audit requirements and to remove obligations imposed on IPART	9.5

Licence Clause		Proposed amendment by IPART	Issues Paper reference (section)
3.4	Augmentation of Water Management Works	Consider deleting as captured in asset management system approach.	6.4
4	Customers' rights and consultation		
4.1	Community Consultative Committee	Consider removing obligation.	9.2
4.2	Valley based customer service committee (excluding fish river customers)	No substantive amendment proposed.	9.2
4.3	Customer Service Charter (excluding Fish River)	Consider reviewing to strengthen performance standards in line with the requirement to either release or deliver water to customers.	3.4
4.4	Fish River Customer Council	No substantive amendment proposed.	9.2
4.5	Customer Contracts (Fish River customers only)	No substantive amendment proposed.	9.2
4.6	Code of Practice and Procedure on Debt Management	No substantive amendment proposed.	9.2
5	COMPLAINT AND DISPUTE RESOLUTION		
5.1	Internal Dispute Resolution Process	Review wording and transfer material to proposed State Water Reporting Manual	9.2
5.2	External Dispute Resolution Process	Review wording and transfer material to proposed State Water Reporting Manual	9.2
5.3	Complaints to other bodies	Review wording and transfer material to proposed State Water Reporting Manual	9.2
6	WATER DELIVERY OPERATIONS		
6.1	Water Infrastructure Operations	Consider removing or rewording to the extent that the requirement duplicates other legislative requirements. Consider removing to the extent elements are captured in asset management system approach.	6.4, 4.4 and 9.6
6.2	Management of Allocated Water	Consider rewording to be consistent with State water's obligation to either release or deliver water.	3.4

Licence Clause		Proposed amendment by IPART	Issues Paper reference (section)
6.3	Water conservation	Consider deleting as captured in asset management system approach.	6.4
6.4	Supply constraints	Consider rewording to be consistent with State water's obligation to either release or deliver water.	3.4
6.5	Water metering	Consider removing requirement as captured in other national program requirements.	9.3
6.6	Water balances	Review wording and transfer material to proposed State Water Reporting Manual.	9.7
6.7	Fish River water balances and system yield	Review wording and transfer material to proposed State Water Reporting Manual.	9.7
7	THE ENVIRONMENT		
7.1	Environment Management Plan	Consider replacing with a requirement to develop an environment management system.	9.1
8	PERFORMANCE INDICATORS		
		Review wording and transfer material to proposed State Water Reporting Manual.	9.7
9	PRICING		
		Review wording to make consistent with legislative changes, consider removing requirement if it is of no auditable benefit.	9.6
10	LICENCE AUTHORISATIONS AND AREA OF OPERATIONS		
10.1	What the Licence authorises and regulates	Consider removing or rewording to the extent that the requirement duplicates other legislative requirements	9.6
10.2	Powers Not Limited		
10.3	Operating Guidelines		
10.4	Area of operations		
10.5	Non-exclusive licence		
11	OPERATIONAL AUDITS OF THE LICENCE		
11.1	Commission of Audits	Review wording and transfer material to proposed State Water	9.5

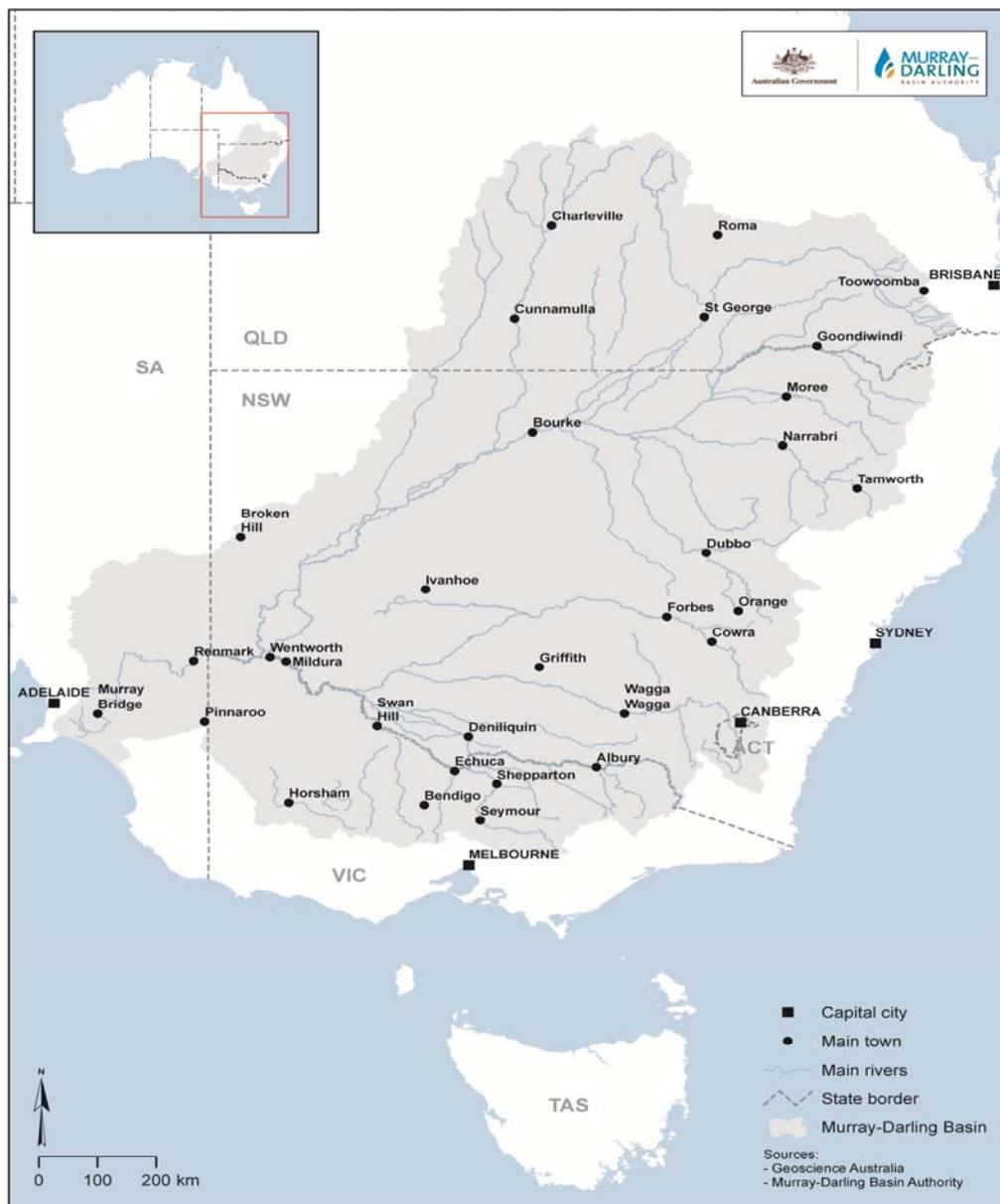
Licence Clause		Proposed amendment by IPART	Issues Paper reference (section)
11.2	What the audit is to report on	Reporting Manual.	
11.3	Reporting of audit		
11.4	Additional audits		
11.5	Provision of information		
12	NOTICES	No substantive amendment proposed.	
13	DEFINITIONS AN INTERPRETATION		
13.1	Definitions	Only to the extent required by other changes to the licence.	
13.2	Interpretation		
	SCHEDULE 1		
	Performance Indicators	Remove to reporting manual.	9.7
	Part A – State Water performance indicators (excluding Fish River Scheme Indicators)		
	Part B – Fish River Scheme Indicators		
	SCHEDULE 2		
	Area of Operations	No amendment proposed.	

C Principles of better regulation for this review

1. **The need for action should be established.** The need to regulate an issue through the licence should be justified. The licence conditions should be directed at regulating issues that cannot be more efficiently or effectively addressed by the market, by individuals acting without government involvement, or by other available alternatives.
2. **The objectives of the licence should be clear.** The objectives of the licence obligations must be clearly articulated. The licence obligations need to directly target these objectives and, where possible, be measurable. The obligations must also be consistent with existing government objectives and policies.
3. **The impact of the licence should be properly understood** by considering the costs and benefits of a range of options, including non-regulatory options. Licence requirements should provide a net benefit to society. They should not impose unnecessary administrative or compliance costs on the regulated utility or IPART, and should avoid perverse outcomes.
4. **The licence should be effective and proportional.** The licence should achieve its objectives without imposing unnecessary costs. The licence obligations or scope of regulation should be proportionate to the seriousness of the issue being dealt with and represent good regulatory practice. Licence obligations can prescribe specific actions, identify particular standards or frameworks to be followed or require specified outcomes. While prescribing action can provide certainty in compliance, the licence should, where possible, stipulate performance goals or outcomes that encourage cost-effective compliance.
5. **Consultation with the regulated utility and the community should inform the licence review.** Consultation should be applied at all relevant stages in the licence review.
6. **Simplification, minimisation of regulatory overlap and avoidance of regulatory inconsistency should be considered.** As far as possible, the licence should avoid inconsistency with or duplication of other regulatory requirements, particularly in relation to the collection and reporting of environmental and other performance indicators. Inconsistencies or overlap can waste resources, create confusion and reduce the regulated utility's level of accountability.

7. **The licence should be enforceable and periodically reviewed to ensure continued efficiency and effectiveness.** Audits are the primary means of assessing compliance with the licence. Performance measures or requirements in the licence should be able to be readily verified – they should be measurable and auditable. The licence, and particular aspects of the licence, should include a periodic review clause(s) to ensure continued efficiency and effectiveness.

D Murray-Darling Basin



Data source: Murray-Darling Basin Authority website, www.mdba.gov.au, accessed 18 June 2012.

E Asset management systems standards

An international asset management system standard based on the Publicly Available Specification BSI PAS55:2008 (PAS 55) Asset Management¹⁶⁹ is currently being established and is scheduled to be finalised in 2014.¹⁷⁰ Our understanding is that the elements of the proposed asset management standard will be similar to those elements currently adopted by State Water in its existing asset management framework.

The PAS 55 Asset Management standard sets out good practice in asset management systems and guidance for the implementation of such good practice.

PAS 55 provides guidance on good asset management, from lifecycle strategy to everyday maintenance (cost/risk/performance). It enables the integration of all aspects of the asset lifecycle: from the first recognition of a need to design, acquisition, construction, commissioning, utilisation or operation, maintenance, renewal, modification and/or ultimate disposal.

PAS 55 can be used for benchmarking, improvements planning, independent audit and demonstration of competence.

We have compared the elements outlined in the PAS 55 with the TAMP elements (see Figure E.1) to ensure that the information for the TAMP could be easily integrated with the elements of the asset management standard. The comparison indicates that the TAMP process matches aspects of the PAS 55 management system, however PAS 55 is more comprehensive with a timeline based on the life of assets rather than the 10 year capital planning horizon for the TAMP.

¹⁶⁹ Institute of Asset Management and the British Standards Institute, www.pas55.net.

¹⁷⁰ OZWATER Asset Management Workshop, May 2012.

Figure E.1 Comparison of the elements of PAS 55 and TAMP

