



Independent Pricing and Regulatory Tribunal

Review of the Hunter Water Corporation Operating Licence

Water Licensing — Issues Paper
May 2016



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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 Hunter Water Corporation is due by 15 July 2016. All other submissions are due by 29 July 2016.

We would prefer to receive them electronically via our online submission form http://www.ipart.nsw.gov.au/Home/For_Consumers/Having_your_say/Lodge_a_submission.

You can also send comments by mail to:

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Late submissions may not be accepted at the discretion of the Tribunal. Our normal practice is to make submissions publicly available on our website <www.ipart.nsw.gov.au> as soon as possible after the closing date for submissions. 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) of the current Hunter Water Corporation (Hunter Water) operating licence.¹

Hunter Water is a State Owned Corporation (SOC) whose shareholders are Ministers. The *Hunter Water Act 1991 (NSW)* (the Act) specifies that an operating licence, granted by the Governor of NSW, must include certain requirements,² including quality and performance standards in relation to water quality and service interruptions. The operating licence enables and requires Hunter Water, within a defined area of operations, to provide, construct, operate, manage and maintain systems and services for:

- ▼ supplying water
- ▼ providing sewerage and drainage services, and
- ▼ disposing of wastewater.³

The current Hunter Water operating licence is a relatively complex instrument, which reflects the nature and scope of the water utility's operations. It protects public health, consumers, and the environment and meets other policy objectives.⁴

The current Hunter Water operating licence expires on 30 June 2017. Operating licences granted to Hunter Water may be renewed for a maximum period of five years.⁵ If we were to adopt the standard 5-year term, the next term of Hunter Water's operating licence will be the period 1 July 2017 to 30 June 2022. We will be consulting on this issue, as outlined in section 9.2.

1.1 What is an operating licence?

The Act establishes the water utility and sets out its functions. However, Hunter Water can only carry out certain of its functions under the authority of, and in accordance with, an operating licence.

An operating licence is a key regulatory instrument which authorises and requires a water utility to carry out its functions. The operating licence contains terms and conditions which specify the way in which a water utility is to carry out those functions. An operating licence also contains quality and performance standards which the utility must achieve.

¹ The Hunter Water operating licence is granted under the *Hunter Water Act 1991 (Act)*, s 12.

² *Hunter Water Act 1991*, s 13.

³ *Hunter Water Act 1991*, s 12(1).

⁴ IPART, *Assessment of Hunter Water Corporation Operating Licence – Application of the Licensing Framework*, August 2014, p 2.

⁵ *Hunter Water Act 1991*, s 15.

The terms and conditions of a licence (including the standards), which should be reflective of customer expectations and willingness to pay, set the priorities for a utility's operations within the licence term.

The operating licence is an enforceable instrument, and is subject to a compliance regime, with penalties applicable for contravention. IPART is responsible for the compliance regime and conducts audits of Hunter Water's compliance with their existing operating licence. The audit scope is determined using a risk-based approach, with all components of Hunter Water's operating licence audited at least once over its term. IPART then reports on Hunter Water's compliance to the portfolio Minister, currently the Minister for Lands and Water (the Minister).

An operating licence is a more flexible regulatory instrument than legislation, while still allowing for a compliance regime and enforcement powers. It is regularly reviewed to ensure that it maintains currency and reflects changes in public expectations, best practice and changing circumstances.

The requirements of the Act in relation to the contents of the operating licence are discussed further in chapter 3. The operating licence is supported by a reporting manual which is issued by IPART and contains details, deadlines and definitions of reporting obligations.

1.2 Our approach to this review

In this review we will consider whether to maintain or amend the terms of the current operating licence to improve the way we regulate Hunter Water and their operational effectiveness. Any proposed changes to the licence will need to achieve the regulatory objectives without imposing unnecessary compliance and administration costs, and should provide a net benefit to society.

In addition to meeting the regulatory objective, we are aiming to:

- ▼ introduce greater consistency in the licensing approach adopted between the major public water utilities
- ▼ further enhance a system based approach to licensing, and
- ▼ consider the potential issues associated with alignment of the price determination and operating licence periods.

In August 2014 IPART assessed the Hunter Water Operating Licence against the Licensing Framework⁶ and Licensing Guide⁷ and established that the licence passes the four key stages of the framework.⁸ This means that an operating licence is required. A summary of the key findings from the 2014 assessment is included as Appendix A.

With that assessment as a starting point, we will use this review to determine if any improvements are required to the licence. In effect, this review is an in-depth implementation of Stages 2 to 4 of the Licensing Framework.

We will approach this review by undertaking the following steps:

1. We will develop and consult on options for changing the licence after considering:
 - a) the regulatory framework that applies to Hunter Water. This includes examining the requirements in the Act and other regulatory instruments (as described in Chapter 3 and Appendix C);
 - b) the performance of Hunter Water under its current operating licence;
 - c) developments in best practice operation and regulation including issues raised and changes that we made in previous reviews of public water utilities' operating licences; and
 - d) issues raised through the consultative process.
2. We will conduct a cost benefit analysis (CBA) on the options for changing the licence. Appendix B provides some information on how a CBA will be undertaken and how the results will be used in the review.
3. After considering the analysis conducted under steps 1 and 2, we will form recommendations to the Minister for changes to the operating licence.

This Issues Paper is part of the first step of our review process – identifying issues and developing options for changing the licence, where required. The remaining chapters of this Issues Paper assist in the identification, description and consideration of potential issues for the review. We relate them to Hunter Water's functions and pose questions to seek stakeholders' comments on these issues. We also ask whether there are any other issues we haven't yet identified. The requirements of the Licensing Framework have guided the way we have framed the discussion and specific questions within this Issues Paper.

The CBA will be conducted at a later stage in this review, once options for change are identified.

⁶ Pricewaterhouse Coopers (PwC), *A best practice approach to designing and reviewing licensing schemes*, March 2013.

⁷ Pricewaterhouse Coopers (PwC), *A best practice approach to designing and reviewing licensing schemes – Guidance material*, March 2013.

⁸ IPART, *Case Study - Assessment of Hunter Water Corporation Operating Licence – Application of the Licensing Framework*, August 2014, pp 2-3.

1.3 When and how can you participate?

The current operating licence records the intention to engage in public consultation and report to the Minister on the findings of a review of the operating licence and any recommendations for its amendment. The Minister may accept or reject our recommendations before endorsing a new operating licence for approval by the Governor and subsequent gazettal by the end of June 2017.

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

This issues paper was prepared to support the public consultation process, to help identify and understand the key issues for review, and to encourage stakeholder comment. To assist stakeholders, we have provided a range of issues and questions. We welcome feedback on the options we have presented, and encourage stakeholders to identify any other issues or alternatives to the issues we have already identified.

We request that Hunter Water make its submission by **15 July 2016** and we will publish this submission on our website. We invite other interested parties to provide us with their submissions by **29 July 2016**. This timing will allow other interested parties to consider Hunter Water's submission in formulating their own submission. All submissions will be made available on IPART's website (www.ipart.nsw.gov.au) unless stakeholders specifically request confidentiality.⁹ Late submissions are discouraged, but whether to accept them is at the discretion of the Tribunal.

For this review, we propose to hold a stakeholder workshop in Newcastle in February 2017. The workshop will be held following the public release of the draft operating licence, reporting manual, customer contract and cost-benefit analysis (draft licence package). This workshop will allow interested parties to participate in a discussion on the proposed changes to the operating licence. This workshop will allow us to communicate our reasoning for the draft operating licence package including how we have incorporated stakeholder feedback on the issues paper. It will also allow us to collect any further comments from interested stakeholders in a transparent and co-ordinated way.

Any organisation or member of the public can make a written submission at this stage of the process, whether or not they attend the workshop.

⁹ Please refer to page iii, Invitation for Submissions, for more information on how to make a submission.

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 timetable for the review

Action	Timeframe
IPART release Issues Paper and invite submissions	31 May 2016
Hunter Water's submission on Issues Paper due	15 July 2016
Other stakeholders' submissions on Issues Paper due	29 July 2016
IPART releases draft operating licence, reporting manual, customer contract and cost-benefit analysis (draft operating licence package) for comment	December 2016
Stakeholder workshop on draft operating licence package	7 February 2017
Stakeholder comments on draft licence due	17 February 2017
IPART provides the Minister with final recommendations and associated operating licence	28 April 2017
Publish final Operating Licence and release updated Reporting Manual	July 2017

1.4 The structure of this issues paper

This Issues Paper provides background information on the existing regulatory framework affecting Hunter Water's operations and outlines the issues about which IPART is interested in receiving comments. This material is intended to assist interested parties in making submissions.

The Issues Paper has been structured as follows:

- ▼ Chapter 2 lists the questions we seek comment on.
- ▼ Chapter 3 outlines Hunter Water's regulatory framework and the role of the current operating licence.
- ▼ Chapters 4 to 8 identify and discuss the issues related to each of the regulated functions of Hunter Water.
- ▼ Chapter 9 identifies and discusses other issues that may also require consideration as part of this review.
- ▼ A Glossary of terms and acronyms used in the Issues Paper follows Chapter 9.

2 Issues we seek comment on

To assist in identifying and understanding the key issues for this review, we seek comment on the issues which are explained and discussed throughout this Issues Paper (the page numbers are listed below). The issues are grouped and sequenced according to the relevant section of the Operating Licence.

The issues should be considered in light of Hunter Water's submission, which will be published on our website soon after its submission date on 15 July 2016.

Stakeholders are also welcome to raise and comment on any other issues they consider relevant to this review.

2.1 List of issues for stakeholder comment

Water Quality

- 1 Should the operating licence obligations for drinking water be retained, given the presence of similar requirements under the *Public Health Act 2010*? 17
- 2 How should NSW Health's role in the review and endorsement of water quality management systems be articulated? Are there other viable options for approving water quality management systems in accordance with the Australian Drinking Water Guidelines and Australian Guidelines for Water Recycling? 17
- 3 How should the risk of potential inappropriate use of recycled water with industrial customers be managed? What action could/should Hunter Water take in the event that the end-use is considered inappropriate? 17

Water Quantity

- 4 What are your views on adopting the Economic Level of Water Conservation (ELWC) approach in the new licence, and removing the water conservation target and Economic Level of Leakage requirements? 22
- 5 If the ELWC approach is adopted, what are your views on the appropriate reporting requirements? Should Hunter Water continue to report on its water conservation performance? 22
- 6 What are the factors that we should consider, in the context of Hunter Water's operating environment, if/when adopting the ELWC approach? 22
- 7 Should the new operating licence require Hunter Water to continue to have a roles and responsibilities protocol with DPI Water, given that the development of the Lower Water Hunter Plan is complete? If so, what should be the scope of such a protocol? 22

Assets and infrastructure

- 8 Is ISO 55001 the most appropriate asset management standard or is there another standard that we should consider? 29
- 9 Should the biennial 'State of the Assets reporting' continue in its current form or would it suffice for Hunter Water to provide IPART with asset information by providing copies of reports produced as part of the ISO 55001, or similar Asset Management System? 29
- 10 What are your views on maintaining or changing the Water Pressure Standard, the Water Continuity Standard and the Wastewater Overflow Standard, given that Hunter Water has consistently and significantly performed better than the target thresholds? 29

Customers and consumers

- 11 What are your concerns regarding the supply of non-potable water to residential customers, the conditions of supply, and the approved end-uses? How should these concerns be addressed - in the operating licence, the customer contract, or is there some other method? 34
- 12 What changes, if necessary, are needed to the operating licence and/or customer contract to facilitate negotiation of non-standard contracts between Hunter Water and its customers? 34
- 13 What changes, if necessary, are needed in the operating licence and/or customer contract to account for 'wholesale' customers and services? 34
- 14 Are the definitions of 'customer' and 'consumer' in the customer contract suitable for the current operating environment? If not, how can the definitions be amended to provide greater clarity? 34
- 15 Should Hunter Water be obliged to service anyone other than property owners? If so, who are these 'customers' and what are the appropriate obligations on Hunter Water to service them? 34
- 16 What are the factors that we should consider, in the context of Hunter Water's operating environment, when considering changes to the customer contract. The changes being considered (for consistency) reflect recent changes that were made to Sydney Water's customer contract? 34
- 17 Would it be beneficial to amend the *Hunter Water Act 1991* to eliminate the difficulties associated with varying the customer contract? If so, how could it be achieved cost-effectively? 35
- 18 Is there merit in having more than one type of customer contract, to reflect the different customer groups, or is it more appropriate to allow for individual

negotiations to establish specific contracts with specific customers, as is currently the case?	35
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Environment, Quality, Performance Monitoring and Memoranda of Understanding

19 What are your views on maintaining the Environmental Management and Quality Management System requirements in the operating licence?	39
20 Are there any performance indicators that are unnecessary or unduly costly to compile?	39
21 What are your views on including a requirement for Hunter Water to report against NWI performance indicators in the operating licence?	39
22 What reporting obligations, if any, should be removed or revised to better align with the outputs of drinking water and recycled water quality management plans?	39
23 How could the reporting of information (content and frequency) be improved to reduce the regulatory burden on Hunter Water but still sufficient to inform the customers and the public?	39
24 What are your views on maintaining the current licence obligation to require a Memorandum of Understanding with NSW Health?	39
25 What alternative methods are there to include NSW Health in the auditing process for water quality, to ensure it is kept informed of issues that may affect public health in the Hunter region?	39

Other potential licence issues

26 Are there any licence obligations that may hinder or enhance competition in the supply of water and sewerage services in Hunter Water's area of operations?	40
27 Is there merit, in changing the timing of the operating licence review and the pricing review undertaken by IPART? If so, what should be the order of these reviews?	40
28 Is water availability from Hunter Water's network for fire-fighting an issue that needs to be addressed in the new operating licence? If so, is an MOU with the Rural Fire Service or FRNSW the best way to address this issue?	41

3 Hunter Water's regulatory requirements

Hunter Water is governed principally by the Act, but has additional obligations under various NSW legislation and national guidelines. Additionally, Hunter Water must comply with its operating licence.

This chapter describes the key parts of regulatory framework that govern Hunter Water.

A map showing Hunter Water's area of operations can be found on Hunter Water website.¹⁰

3.1 Legislation and regulatory agencies

The Hunter Water Act 1991 and the State Owned Corporations Act 1989

The Act established Hunter Water as a SOC and provides that its functions include the supply of water, the provision of sewerage and drainage services and the disposal of waste water. The Act provides for matters including the operating licence terms and conditions, IPART's regulatory and auditing functions, obligations under a customer contract, and Hunter Water's area of operations. Hunter Water's principal functions are to provide, construct, operate, manage and maintain systems and services for:

- ▼ supplying water
- ▼ providing sewerage and drainage services, and
- ▼ disposing of wastewater

subject to the terms of the operating licence, within its area of operations.¹¹

Subject to the terms of any operating licence, Hunter Water also has the functions of:

- ▼ providing facilities or services that are necessary, ancillary or incidental to its principal functions, and
- ▼ conducting any business or activity (whether or not related to its principal functions) that it considers will further its objectives.¹²

¹⁰ Hunter Water Corporation's area of operations, <http://www.hunterwater.com.au/About-Us/Our-Organisation/Our-Organisation.aspx>.

¹¹ *Hunter Water Act 1991*, s 12.

¹² *Hunter Water Act 1991*, s 4A(3).

Hunter Water also has certain functions under the *State Owned Corporations Act 1989* (SOC Act). As a statutory SOC, Hunter Water has the following principal objectives set out in s 20E(1) of the SOC Act:

The principal objectives of every statutory SOC are:

- a) to be a successful business and, to this end:
 - i) to operate at least as efficiently as any comparable businesses, and
 - ii) to maximise the net worth of the State's investment in the SOC, and
- b) to exhibit a sense of social responsibility by having regard to the interests of the community in which it operates, and
- c) where its activities affect the environment, to conduct its operations in compliance with the principles of ecologically sustainable development contained in section 6(2) of the *Protection of the Environment Administration Act 1991*, and
- d) to exhibit a sense of responsibility towards regional development and decentralisation in the way in which it operates.

Regulatory agencies

IPART's role as the economic and licensing regulator¹³ is one component of the broad regulatory environment in which Hunter Water operates. We are responsible for monitoring and reporting on Hunter Water's compliance with its operating licence. Our responsibilities include receiving and analysing reports from Hunter Water, undertaking annual compliance audits, and managing and reporting on reviews as required by the licence.

Additionally, the following Government agencies have regulatory roles in relation to Hunter Water:

- ▼ Department of Primary Industries¹⁴ (through its water division, DPI Water) has primary responsibility for the management of water resources throughout NSW. DPI Water regulates surface waters and groundwater in NSW through Water Access Licences and various work approvals.¹⁵ These licences and approvals regulate water extractions, environmental flow requirements in natural waterways and other natural resource management issues.
- ▼ Environment Protection Authority (EPA) licenses sewage treatment facilities and regulates their environmental impact on receiving waters. The EPA is also responsible for regulating stormwater pollution under the *Protection of the Environment Operations Act 1997* (POEO Act).

¹³ IPART is responsible for setting maximum prices that can be charged by Hunter Water for monopoly services, for monitoring compliance with its operating licence and other matters.

¹⁴ On 3 July 2015, DPI Water was formed, replacing the NSW Office of Water. It is a division of the Department of Primary Industries (DPI).

¹⁵ Water supply work approvals, controlled activity approvals and flood work approvals.

- ▼ NSW Health is responsible for regulating the quality and safety of drinking and recycled water.
- ▼ The Dams Safety Committee is responsible for regulating the security of prescribed dams to ensure that the likelihood of dam failures, or other dam incidents arising from security breaches, is appropriately managed.
- ▼ Until 2014 the National Water Commission was responsible for overseeing the maintenance of the framework for benchmarking water utilities.¹⁶ The National Water Initiative (NWI) principles were developed and agreed to by all governments in 2004. The NWI is a commitment by the Commonwealth and state and territory governments to increase the efficiency of Australia's water use. IPART co-ordinates the NSW component of the benchmarking project for major urban water utilities, including Hunter Water. The benchmarking project involves the collection and audit of various performance, customer service and financial data, with the combined results forwarded to the Bureau of Meteorology. The Bureau of Meteorology is working with state and territory governments and the water industry to continue the national performance reports for the urban water sector, which will provide an important annual snapshot of this section of the industry.

A brief summary of the main regulatory instruments that govern Hunter Water's operations is provided in Appendix C.

3.2 The role of the operating licence

The current operating licence sets out the terms and conditions under which Hunter Water is to carry out its functions. The Act specifies that the operating licence must include terms and conditions under which Hunter Water is required to:

- ▼ provide, construct, operate, manage and maintain efficient, co-ordinated and commercially viable systems and services for supplying water, providing sewerage services and disposing of wastewater, and
- ▼ provide, operate, manage and maintain a drainage service within the capacity of the drainage service included in the business undertaking transferred under Part 3 of the Act by the (now defunct) Hunter Water Board to Hunter Water as at the date of the transfer of the business undertaking, and
- ▼ ensure that the systems and services meet the quality and performance standards specified in the operating licence in relation to water quality, service interruptions, price levels and other matters determined by the Governor and set out in the operating licence.¹⁷

¹⁶ *National Water Initiative (NWI) Agreement 2004*. Refer <http://www.nwc.gov.au/organisation/closure-in-2014> for information on closure of the commission.

¹⁷ *Hunter Water Act 1991*, s 13(1).

The licence may also make provision for the preparation of operational audits of Hunter Water by IPART,¹⁸ and set out the terms and conditions of the customer contracts.¹⁹

The licence is supported by a reporting manual which is issued by IPART and contains details, deadlines and definitions of Hunter Water's reporting obligations.

In considering the role of the operating licence, and potential licence requirements, it is also important to be mindful that many of the potential environmental and health impacts of Hunter Water are regulated by other instruments. In recommending the provisions of the operating licence, we are seeking to avoid regulatory duplication.

3.3 Current operating licence

The current operating licence is the fifth licence held by Hunter Water since it was established in 1991.²⁰ It sets Hunter Water's direction and its performance criteria, and outlines the audit process for monitoring its performance against the licence conditions.

Clause 1.1 of the operating licence sets out the objectives of the licence. The current objective is to enable and require Hunter Water to provide the services within its area of operations. Consistent with this objective, the current licence requires Hunter Water to:

- ▼ meet the objectives and other requirements imposed on it in the Act or other applicable law
- ▼ comply with the system quality and performance standards
- ▼ recognise the rights given to customers and consumers, and
- ▼ be subject to operational audits.

While we support the need to avoid unnecessary duplication of regulation, we also recognise the importance of Hunter Water's services to their customers, and on public health generally and the environment. The operating licence needs to ensure that the level of regulation is proportionate to the risks associated with the issue being addressed.

¹⁸ *Hunter Water Act 1991*, ss 18B and 18C.

¹⁹ *Hunter Water Act 1991*, s 35(1).

²⁰ Previous operating licences were issued for the years commencing 1992 and 1995 and then for the periods 2002-2007 and 2007-2012.

4 Water Quality

In this chapter we discuss the obligations in the operating licence that address water quality. The quality of drinking water and recycled water supplied by Hunter Water can have a significant impact on public health.

As a result of previous reviews, the licence has progressed from the original prescriptive requirements to systems-based requirements based on the risk-based frameworks developed in the relevant national guideline documents.

However, where NSW Health considers it appropriate, the application of the relevant guidelines may be amended or added to, to take account of Hunter Water's circumstances and/or water quality (drinking and recycled) practices and policy within NSW.²¹

4.1 Objectives and requirements of the current licence

Water quality objectives in the operating licence relate to the provision of drinking water and recycled water that meet the required public health standards.

4.1.1 Drinking water

The current obligations in the operating licence regarding drinking water quality include the requirement for Hunter Water to:

- ▼ Maintain a management system that is consistent with the Australian Drinking Water Guidelines (ADWG),²² as amended or added to in respect of Hunter Water by NSW Health.²³
- ▼ Implement the drinking water quality management system and ensure that all relevant activities are carried out in accordance with the system, including to the satisfaction of NSW Health.²⁴
- ▼ Notify IPART and NSW Health of any significant changes that it proposes to make to the drinking water quality management system in accordance with the Reporting Manual.²⁵
- ▼ Obtain NSW Health's approval for any significant changes proposed to be made to the drinking water quality management system before implementing or carrying out its activities in accordance with them.²⁶

²¹ Hunter Water Operating Licence 2012-2017, cls 2.1.1 and 2.2.1 (Notes).

²² National Health and Medical Research Council, *Australian Drinking Water Guidelines 2011*, (v3.2, updated February 2016).

²³ Hunter Water Operating Licence 2012-2017, cl 2.1.1.

²⁴ Hunter Water Operating Licence 2012-2017, cl 2.1.2.

²⁵ Hunter Water Operating Licence 2012-2017, cl 2.1.3.

²⁶ Hunter Water Operating Licence 2012-2017, cl 2.1.4.

Additionally, the *Public Health Act 2010* (NSW) imposes an obligation to supply drinking water fit for human consumption. The Minister for Health has powers to take action or give directions with respect to unsafe water. The Public Health Act mandates safety measures for drinking water, such as requiring suppliers of drinking water to establish and adhere to quality assurance programs that address the elements of the Australian Drinking Water Guidelines.²⁷

In our 2014 assessment of Hunter Water's operating licence, we identified that there is not likely to be a gap in the scope of regulation in the area of drinking water quality.²⁸ However, there are no direct enforcement mechanisms in the Public Health Act to ensure compliance with the requirement for drinking water quality management programs, such as penalties for failure to establish and adhere to these programs. Assuming that compliance with this requirement is optimal, there is a gap between the optimal regulatory environment and that which would exist in absence of the current operating licence. The existing operating licence fills this gap through the requirement for a drinking water quality management system.

4.1.2 Recycled water

The current obligations regarding recycled water quality include the requirements for Hunter Water to:

- ▼ Maintain a management system that is consistent with the Australian Guidelines for Water Recycling (AGWR)²⁹, as amended or added to in respect of Hunter Water by NSW Health.³⁰
- ▼ Ensure that the abovementioned recycled water quality management system is fully implemented and that all relevant activities are carried out in accordance with the system, including to the satisfaction of NSW Health.³¹
- ▼ Notify IPART and NSW Health of any significant changes that it proposes to make to the recycled water quality management system in accordance with the Reporting Manual.³²
- ▼ Obtain NSW Health's approval for any significant changes proposed to be made to the recycled water quality management system before implementing or carrying out its activities in accordance with them.³³

²⁷ *Public Health Act 2010*, s 25 and *Public Health Regulation 2012*, cl 34.

²⁸ IPART, *Assessment of Hunter Water Corporation Operating License*, August 2014, p 16.

²⁹ National Health and Medical Research Council, Environment Protection and Heritage Council, Australian Health Ministers Conference, *Australian Guidelines for Water Recycling: Managing Health and Environmental Risks (Phase 1)*, November 2006.

³⁰ Hunter Water Operating Licence 2012-2017, cl 2.2.1.

³¹ Hunter Water Operating Licence 2012-2017, cl 2.2.2.

³² Hunter Water Operating Licence 2012-2017, cl 2.2.3.

³³ Hunter Water Operating Licence 2012-2017, cl 2.2.4.

Water quality for recycled water is regulated solely through the operating licence - the *Public Health Act 2010* has no provisions directly addressing recycled water quality. The Minister for Health is only able to restrict or prevent the use of unsafe water.³⁴ The POEO Act requires an Environment Protect Licence (EPL) for large treatment plants,³⁵ but this does not address recycled water quality.

We rely on adherence to the AGWR framework to manage risk with regard to Hunter Water's recycled water operations. NSW Health provides advice in relation to Hunter Water's management systems, and the annual audits assess compliance of these management systems with the AGWR, to provide a fit for purpose product to its customers and consumers.

Our 2014 assessment of Hunter Water's operating licence concluded that government intervention was needed in relation to the safe supply of recycled water.³⁶ We note that there are synergies in regulating both drinking water and recycled water quality under the one regulatory instrument. Therefore, recycled water is also regulated using the operating licence.

4.2 Performance against the current licence

Hunter Water provides high quality drinking water and recycled water, which meet the respective water quality requirements of the ADWG and AGWR. This is demonstrated by:

- ▼ water quality and customer performance indicators³⁷
- ▼ monitoring results provided to NSW Health and posted on Hunter Water's website, and
- ▼ results of IPART's annual compliance audits.

Hunter Water has achieved full compliance for water quality monitoring results for each of the last three years, as identified in its annual Compliance and Performance reports.³⁸

In the last three years, Hunter Water has received adequate, high or full compliance for drinking water quality and recycled water quality clauses audited during IPART's annual audit of the operating licence. There were no concerns identified with the quality of water during the annual compliance audits.

³⁴ *Public Health Act 2010*, s 16(1).

³⁵ *Protection of the Environment Operations Act 1997*, s 48 and Sch 1. A scheduled activity is one that exceeds 2500 equivalent persons or 750 kL/day in treatment capacity.

³⁶ IPART, *Case Study - Assessment of Hunter Water Corporation Operating Licence - Application of the Licensing Framework*, August 2014, p 13.

³⁷ IPART, *Hunter Water Corporation Reporting Manual*, June 2013, http://www.ipart.nsw.gov.au/Home/Industries/Water/Public_Water_Licensing/Hunter_Water_Corporation_Reporting_Manual_-_June_2013, refer Appendices for full list of performance indicators.

³⁸ Hunter Water Corporation, *Compliance and Performance Reports: 2012-13, 2013-14, 2014-15*.

However, some recommendations were made that related to strengthening processes to manage water quality, and to achieve the requirements of ADWG and AGWR.

IPART's audit reports on Hunter Water's operating licence compliance can be found on IPART's website.³⁹

NSW Health has advised IPART that it is generally satisfied with Hunter Water's water quality performance and with the level of communication between the two organisations.

4.3 Developments in best practice operation and regulation

The new Hunter Water operating licence could adopt the recent changes made to the Sydney Water operating licence. We are considering making similar changes to the Hunter Water operating licence as follows:

- ▼ Minor changes to the obligation to manage water quality (management systems) in accordance with ADWG and AGWR for greater clarity.
- ▼ Review and potentially revise the reporting obligations to align with the requirements and outputs of a Water Quality Management System (WQMS) for drinking water and recycled water. This will allow greater efficiency in Hunter Water's reporting activities.

4.4 Other issues raised

4.4.1 Recycled water in industrial use

NSW Health has identified that the use of recycled water by industrial customers is an area which has a lack of regulatory oversight. Currently, there is the potential that the recycled water supplied to these customers may be misused, (ie, Hunter Water is providing recycled water, suitable for a certain use, which may then be used for unsuitable purposes by the customer). NSW Health suggests that Hunter Water has a role to ensure that appropriate barriers are in place, to prevent the use of recycled water supplied by them for purposes that are not in keeping with the requirements of AGWR. Suggestions to monitor this issue include an annual audit of customers by Hunter Water, with clauses in the supply agreement enabling termination for unauthorised uses. This may, however, have other implications including a reduction in the use of recycled water, and could lead to an increase in effluent discharges to the environment from treatment plants.

³⁹ NSW Water Utilities Compliance and performance reporting, http://www.ipart.nsw.gov.au/Home/Industries/Water/Compliance_Performance_Reporting.

4.4.2 Approval of Water Quality Management System

The current licence requires Hunter Water to obtain NSW Health's approval for any significant changes proposed to be made to the water quality management systems. NSW Health noted that it is not an approval authority.

There is no relevant Australian Standard and so certification by an appropriately qualified third party is not an option.

This leaves two practical options:

1. any changes to the Water Quality Management System (WQMS) could be considered as part of an audit regime and an independent auditor, with appropriate experience and qualifications, could consider the appropriateness of the changes; or
2. we could maintain NSW Health's role in the process of assessing changes to the WQMS. Within this option, this role could be defined as an 'approval', 'endorsement', 'advisory' or 'support' role.

This is an issue for consultation.

IPART seeks comments on the following:

- 1 Should the operating licence obligations for drinking water be retained, given the presence of similar requirements under the *Public Health Act 2010*?
- 2 How should NSW Health's role in the review and endorsement of water quality management systems be articulated? Are there other viable options for approving water quality management systems in accordance with the Australian Drinking Water Guidelines and Australian Guidelines for Water Recycling?
- 3 How should the risk of potential inappropriate use of recycled water with industrial customers be managed? What action could/should Hunter Water take in the event that the end-use is considered inappropriate?

5 Water Quantity

Hunter Water provides reliable, high quality water and wastewater services to over half a million people in the Lower Hunter region. There is a risk that if the water supply and demand balance is not managed effectively, water customers will have to pay for potentially inefficient supply augmentation projects and/or face a lack of water supply reliability and/or restrictions that are considered inconsistent with the standards set for public water utilities (ie, too frequent and/or too long in duration).

The Government uses a whole-of-government approach to water planning, to ensure water supply and demand are in balance over the medium to long-term. The outcomes of this planning approach are documented in the Lower Hunter Water Plan (LHWP).⁴⁰ This plan does not impose legislative obligations on Hunter Water, rather it is a policy document. The development of the LHWP resulted in many of the prescriptive requirements of the previous licence being replaced in the current licence with a requirement to work co-operatively with the Government in implementing the LHWP.

5.1 Objectives and requirements

The operating licence is intended to ensure that Hunter Water provides its essential services efficiently and to the satisfaction of customers and consumers.

With this in mind, the water quantity obligations in the operating licence are aimed at ensuring:

- ▼ customers don't have to pay for inefficient supply augmentation projects and/or face a lack of water supply reliability and/or restrictions that are considered inconsistent with the standards set for public water utilities, and
- ▼ the Hunter region's drinking water supplies are secured efficiently, in the absence of a competitive bulk water market and in accordance with the LHWP.

The current water quantity obligations in the licence include the following:

- ▼ Water Conservation Target: Ensure a 5-year rolling average water conservation target for residential water consumption of equal to or less than 215 kilolitres per year for each property, and report its compliance in accordance with the reporting manual.⁴¹
- ▼ Economic level of leakage: Complete a review to determine and report on the economic level of leakage (ELL) from its drinking water network, based on a methodology approved by IPART.⁴²
- ▼ Roles and responsibilities protocol: Hunter Water must use its best endeavours to develop and agree to a Roles and Responsibilities Protocol with Metropolitan Water Directorate⁴³ for the development of the LHWP.⁴⁴ It must also use its best endeavours to maintain and comply with the agreed protocol.

⁴⁰ Department of Finance and Services, Metropolitan Water Directorate, *2014 Lower Hunter Water Plan*, January 2014.

⁴¹ Hunter Water Operating Licence 2012-2017, cl 3.1.1 and 3.1.2.

⁴² Hunter Water Operating Licence 2012-2017, cl 3.2.1 and 3.2.2.

⁴³ Metropolitan Water Directorate was part of the Department of Finance and Services when the LHWP was developed. It is now a part of the Department of Primary Industries and is referred to as DPI Water throughout the rest of the Issues Paper.

⁴⁴ Hunter Water Operating Licence 2012-2017, cl 3.3.1.

In our 2014 assessment of Hunter Water's operating licence we concluded that there is a need for government intervention in relation to the availability of drinking water and therefore provisions in this regard are included in the operating licence.⁴⁵

5.2 Performance against the current licence

Over the course of the term of the existing operating licence, Hunter Water has achieved full compliance with all the water quantity obligations.

Further information on Hunter Water's annual compliance audit reports can be found on IPART's website.⁴⁶

5.2.1 Water conservation target

Hunter Water's water conservation target is based on residential water use. It has achieved water efficiency gains through:

- ▼ initiatives outlined in the LHWP – implementation of Water Wise rules; school education programs; investigating the effectiveness of rainwater tanks, and
- ▼ residential water efficiency initiatives – appliance replacement incentives; and water efficiency education (eg, promotion of water saving products, sponsorships, and a “save water” section on the website).

Hunter Water reports that the 5-year rolling average has continued a general downward trend since 2005-06, resulting in an average figure of 173 kilolitres per year per property in 2014-15.⁴⁷

5.2.2 Economic Level of Leakage

Hunter Water reports annually on water loss performance through a water balance. It determines and reports on water loss volumes, rates and water industry indicators. The water balance is undertaken using the International Water Association (IWA) / Water Services Association of Australia (WSAA) methodology and assessment tool to ensure consistency with national reporting requirements.⁴⁸

In addition, Hunter Water has developed a methodology, approved by IPART, for determining the ELL. In general terms, the ELL is the point where the value of the water lost from leakage is equal to the value of the resources committed to reducing losses.

⁴⁵ IPART, *Case Study - Assessment of Hunter Water Corporation Operating Licence – Application of the Licensing Framework*, August 2014, p 13.

⁴⁶ NSW Water Utilities Compliance and performance reporting, http://www.ipart.nsw.gov.au/Home/Industries/Water/Compliance_Performance_Reporting.

⁴⁷ Hunter Water Corporation, *Compliance and Performance Report 2014-15*, September 2015, p 25.

⁴⁸ Hunter Water Corporation, *Economic Level of Leakage, Program review and report*, May 2014, p 5.

The concept of ELL recognises that up to a point, it is more efficient to obtain an additional unit of water from leakage management than another source (such as a dam – at the marginal cost of supply). Beyond this point, the reverse applies and further expenditure on leakage management is uneconomic. Information on the ELL can be used by:

- ▼ Hunter Water when determining its leakage management program (ie, in deciding whether it is economic to obtain an additional unit of water through active leakage reduction or from its dams or other bulk water sources).
- ▼ IPART when assessing the efficiency and prudence of Hunter Water’s leakage management expenditure in a price review.

Hunter Water’s forecast leakage rates based on the current program of works (real losses) were determined to be slightly lower than the ELL forecasts for the 4-year period in the report.⁴⁹ This is due to improved recent performance and establishment of long-term water loss reduction programs.

5.3 Developments in best practice operation and regulation

5.3.1 Economic level of water conservation and water conservation targets

The recent operating licence review for Sydney Water extended the approach to forecasting water loss to include other aspects of water conservation in an effort to calculate and determine systemic water losses. The concept of economic level of water conservation (ELWC) was developed to incorporate water leakage, water recycling and water efficiency activities (including demand management) in its definition. Sydney Water is required to develop a methodology to assess the costs and benefits of implementing additional water conservation activities. Sydney Water is responsible for obtaining IPART’s approval of the methodology by the end of 2016.

When we introduced the economic level of water conservation into Sydney Water’s operating licence, we removed the prescriptive water conservation and leakage targets. Instead, we included a new requirement for Sydney Water to develop and utilise a methodology to determine the ELWC over a rolling 5-year water conservation program. Our reasons for this change were that it would enable Sydney Water to report water usage within the context of its water conservation strategy, rather than needing to comply with (seemingly) arbitrary or outdated targets. It also allows the utility to be more responsive to changing circumstances.⁵⁰

⁴⁹ Hunter Water Corporation, *Economic Level of Leakage, Program review and report*, May 2014, p 14.

⁵⁰ IPART, *Sydney Water Corporation Operating Licence – End Of Term Review, Water Licensing – Report to the Minister*, May 2015, p 14.

We are seeking stakeholders' views on whether the licence should be modified to require Hunter Water to change its existing water loss forecasting methodology (ELL) to an ELWC methodology. The ELWC provisions would be aimed at including other water conservation activities rather than a focus solely on the need to reduce water leakage. To achieve this requirement, Hunter Water would:

- ▼ determine a suitable approach, principles and methodology for the ELWC and submit it to IPART for review and approval
- ▼ develop a water conservation program as a result of applying the methodology and report on the implementation of this program, and
- ▼ determine and regularly review the ELWC in a manner acceptable to IPART.

If we were to adopt an approach similar to the Sydney Water operating licence, we would remove the water conservation target once an ELWC methodology is approved. This means there would be a transition period, during which the ELWC process and methodology is developed and approved.

5.3.2 Roles and Responsibilities Protocol

Under the current operating licence, Hunter Water must use its best endeavours to develop, maintain and comply with a Roles and Responsibilities Protocol with the DPI Water for the development of the LHWP. The current protocol has no expiry date, but with the LHWP now developed, it could be argued that this provision is no longer relevant.

We note that in setting Hunter Water's maximum prices, our approach is to only allow Hunter Water's prudent and efficient costs of delivering its monopoly services.⁵¹ We consider that other non-economic activities relating to the implementation of Government policy should be funded by the Government, on behalf of the broader community, as a Community Service Obligation.

There may be differing views between Hunter Water, DPI Water and IPART regarding the nature of any licence obligations in relation to complying with such a protocol, especially when the content is not entirely within the control of Hunter Water, whom we regulate. DPI Water has policy responsibility for the state's surface water and groundwater resources, and this includes water planning and water conservation.

We are seeking stakeholders' views on whether the licence should continue with this provision or whether it should be updated or removed.

⁵¹ However, under section 16A of the *Independent Pricing and Regulatory Tribunal Act 1992*, the portfolio Minister may direct IPART to include in prices the efficient costs of complying with a specified requirement imposed on the agency.

IPART seeks comments on the following:

- 4 What are your views on adopting the Economic Level of Water Conservation (ELWC) approach in the new licence, and removing the water conservation target and Economic Level of Leakage requirements?
- 5 If the ELWC approach is adopted, what are your views on the appropriate reporting requirements? Should Hunter Water continue to report on its water conservation performance?
- 6 What are the factors that we should consider, in the context of Hunter Water's operating environment, if/when adopting the ELWC approach?
- 7 Should the new operating licence require Hunter Water to continue to have a roles and responsibilities protocol with DPI Water, given that the development of the Lower Water Hunter Plan is complete? If so, what should be the scope of such a protocol?

6 Assets and infrastructure

The performance of Hunter Water's infrastructure (or assets) can have implications for its customers and consumers, public health and safety, the environment and the community. To date, we have audited Hunter Water's asset management performance against its current operating licence conditions, with a view to transitioning Hunter Water to a fully systems-based licence.

6.1 Objectives and requirements

The objective of infrastructure provisions in the operating licence is to ensure Hunter Water provides sufficient levels of service both now and in the longer-term, consistent with the expectations and requirements of its customers and consumers. These provisions also minimise the risk to the environment and broader community associated with potential infrastructure failure.

There are a number of obligations in Hunter Water's current operating licence that relate directly to infrastructure. These include:

▼ Asset management system

- the requirement for Hunter Water to maintain an asset management system to a specified standard,⁵² and
- requirements to implement the asset management system, and ensure that all relevant activities are carried out in accordance with it.⁵³

⁵² *Hunter Water Operating Licence 2012-2017*, cl 4.1.1.

⁵³ *Hunter Water Operating Licence 2012-2017*, cl 4.1.2.

▼ **System performance standards and performance indicators**

- targets for three system performance standards (the water pressure, water continuity and sewage overflow standards).⁵⁴

In our 2014 assessment of the Hunter Water operating licence we found that the systems standard approach for many areas of Hunter Water's operating licence (including asset management) were the minimum mandatory attributes necessary, and achieved the intention of:

- ▼ enhancing the clarity of the licence
- ▼ removing duplication, and
- ▼ addressing issues from previous operational audits of Hunter Water.⁵⁵

6.2 Performance against the current licence

In the current licence Hunter Water has maintained a management system consistent with an acknowledged asset management system standard. It has also begun a process of improvement through implementation of initiatives identified through a benchmarking project. It is significantly progressed in its aim to achieve asset management system certification by 1 July 2017.

6.2.1 Asset management system

Asset management obligations have been included in the last two Hunter Water licences. Hunter Water has achieved a mix of full and high compliance for the audited asset management obligations in the last three years of the current licence. The reasons for not achieving full compliance are that Hunter Water has not fully implemented improvements identified through its participation in the *IWA-WSAA 2012 Asset Management Performance Improvement Project*. Hunter Water has made considerable progress in addressing and completing the improvements identified.

⁵⁴ *Hunter Water Operating Licence 2012-2017*, cls 4.2.2, 4.2.3 and 4.2.4.

⁵⁵ IPART, *Case Study - Assessment of Hunter Water Corporation Operating Licence – Application of the Licensing Framework*, August 2014, p 35.

Further information on Hunter Water's annual compliance audit reports can be found on IPART's website.⁵⁶ Hunter Water has decided to transition its asset management system to a new standard, based on ISO 55001: *Asset Management – Management systems - Requirements*, (ISO 55001), and has targeted a certification date of 1 July 2017.⁵⁷ ISO 55001 provides organisations with a systematic and structured approach for developing asset management systems. It also allows organisations sufficient flexibility to align activities and processes with their own objectives and resources. ISO 55001 represents the application of best practice principles in asset management, which is appropriate given the critical nature of the assets managed by Hunter Water. Hunter Water is significantly progressed towards completion of the requirements for certification.

6.2.2 State of the Assets Report

Hunter Water's Reporting Manual requires it to provide a biennial report on the state of its assets to IPART. The Reporting Manual prescribes the content of the State of the Assets Report.⁵⁸ The latest State of the Assets Report⁵⁹ provides information on the current state of assets, the short and long-term investments and key initiatives for all asset classes. IPART uses this report to inform our audit and pricing review processes.

6.2.3 Current system performance standards

System performance standards define the minimum level of performance or service required of Hunter Water. System performance standards have two essential components:

- ▼ they *measure* the performance of the utility with respect to one or more operational parameters, and
- ▼ they compare this performance against a defined *target level*.

Unlike performance indicators, which are passive measures of performance, the inclusion of the target determines compliance. Performance that does not meet the target level would constitute a breach of the operating licence and result in reduced compliance grades, enforcement actions or penalties.

⁵⁶ NSW Water Utilities Compliance and performance reporting, http://www.ipart.nsw.gov.au/Home/Industries/Water/Compliance_Performance_Reporting.

⁵⁷ IPART, *Compliance Report – Hunter Water Corporation Operational Audit 2014-15, Report to the Minister*, March 2016, Appendix C, p 18.

⁵⁸ IPART, *Hunter Water Corporation Reporting Manual*, June 2013, cl 4.1.1.

⁵⁹ Hunter Water Corporation, *State of the Assets Report*, September 2014.

Hunter Water has three system performance standards:

- ▼ a water pressure standard
- ▼ a water continuity standard, and
- ▼ a sewage overflow standard.

Water Pressure Standard

The Water Pressure Standard requires that no more than 4,800 properties experience a water pressure failure in a financial year in Hunter Water's drinking water supply systems.⁶⁰ The operating licence also defines when a water pressure failure is taken to have occurred⁶¹ and the definition of a water pressure failure.⁶²

The definition of a water pressure failure and when such a failure is taken to have occurred have not changed in the last two operating licence terms. Performance with respect to this standard has been well within this maximum target for the last eight years.

Hunter Water met the performance requirement for each year under the current licence. The number of affected properties ranged from 1171 in 2011-12 to 2334 properties in 2010-11. There were 1345 properties affected in 2014-15.⁶³

This may suggest that the Water Pressure Standard is either too generous or that Hunter Water is spending too much money to meet (and exceed) the standard.

Water Continuity Standard

The Water Continuity Standard is comprised of two measures:

- ▼ no more than 10,000 properties experience an unplanned water supply interruption exceeding five hours in a financial year, and
- ▼ no more than 5,000 properties experience three or more unplanned water supply interruptions of more than 1-hour duration in a financial year.⁶⁴

⁶⁰ *Hunter Water Operating Licence 2012-2017*, cl 4.2.2.

⁶¹ *Hunter Water Operating Licence 2012-2017*, cl 4.2.2(b).

⁶² *Hunter Water Operating Licence 2012-2017*, cl 12.1, p 26.

⁶³ *Hunter Water Corporation, Compliance and Performance Report 2014-15*, August 2015, p 95.

⁶⁴ *Hunter Water Operating Licence 2012-2017*, cl 4.2.3.

Performance in the last eight years has fluctuated. However, performance against this standard has been well within the maximum target. Hunter Water recorded 7,020 properties with an unplanned outage in 2014-15, with the predominant driver being the April 2015 East Coast Low storm event, where 4,920 properties were impacted. The lowest number recorded during the current licence period was 1,855 properties in 2011-12.⁶⁵

This may suggest that this part of the Water Continuity Standard is either too generous or that Hunter Water is spending too much money to meet (and exceed) the standard.

The second component of the Water Continuity Standard is the multiple unplanned water interruptions standard. Under this standard, Hunter Water must ensure that no more than 5,000 properties experience three or more unplanned water interruptions of more than 1-hour duration in a financial year. Performance has fluctuated but has consistently been well within the maximum target. Hunter Water recorded 1,959 properties that experienced three or more unplanned outages during 2014-15. The lowest recorded number during the current licence period was 1,062 properties in 2012-13.⁶⁶

This may suggest that this part of the Water Continuity Standard is either too generous or that Hunter Water is spending too much money to meet (and exceed) the standard.

Furthermore, the definition of 'unplanned water interruption', under the licence, means an event which commences when the water supply is interrupted without the customer receiving prior notice of that interruption. The definition does not include any description to identify or categorise the cause of the interruption.

Sewage Overflow Standard

The Sewage Overflow Standard is the final system performance standard included in the licence. It is comprised of two components.

The first part of the Sewage Overflow Standard requires Hunter Water to ensure that no more than 5,000 properties (other than public properties) experience an uncontrolled sewage overflow in dry weather in a financial year.⁶⁷ Over the last eight years, the number of private properties experiencing uncontrolled dry weather sewage overflows has been relatively steady, fluctuating between a high in 2010-11 of 3,723 properties and a low of 2,601 properties in 2012-13. The number of properties affected in 2014-15 was recorded as 3,469 properties.⁶⁸

⁶⁵ Hunter Water Corporation, *Compliance and Performance Report 2014-15*, August 2015, p 96.

⁶⁶ Hunter Water Corporation, *Compliance and Performance Report 2014-15*, August 2015, p 96.

⁶⁷ *Hunter Water Operating Licence 2012-2017*, cl 4.2.4.

⁶⁸ Hunter Water Corporation, *Compliance and Performance Report 2014-15*, August 2015, p 97.

The second part of the Sewage Overflow Standard addresses and limits multiple dry weather sewage overflows. The maximum number of private properties that may experience three or more uncontrolled dry weather sewage overflows is 45 as noted in the operating licence.⁶⁹

During the term of the licence, Hunter Water has never exceeded the target. Performance over the last three years has been well within the allowed target. The highest recorded level was 26 properties in 2010-11, and the lowest number was 12 properties in 2012-13. The 2014-15 year recorded 25 properties affected by multiple wastewater overflows. The increase can be attributed to the effects of the East Coast Low storm event in April 2015.

This may suggest that the Sewage Overflow Standard is either too generous or that Hunter Water is spending too much money to meet (and exceed) the standard.

6.3 Developments in best practice operation and regulation

6.3.1 Asset Management System

One approach to achieving best practice in asset management is for Hunter Water to adopt an Asset Management System consistent with ISO 55001. We seek stakeholder views on whether this standard is the best option, or whether another management system may be more cost-effective. If this standard is appropriate, we seek stakeholder views on the relative merits of 'consistency' versus 'certification' against this standard.

We consider that Hunter Water's progress towards completion of improvements to its asset management system is in keeping with the change from prescriptive licensing towards outcomes based regulation, which is achieved through systems-based licensing. It is consistent with changes Hunter Water has implemented in achieving certification of its Environmental and Quality Management Systems. The completion of certification of the asset management system will complete its requirements for implementing an integrated quality management system across its business operations, and builds on changes made to the previous operating licence.

⁶⁹ *Hunter Water Operating Licence 2012-2017*, cl 4.2.4.

6.3.2 State of the Assets Report

We seek stakeholder views on:

- ▼ maintaining State of the Assets reporting requirements in its current form, or making changes to the format such that it becomes less prescriptive, and
- ▼ whether there is merit in aligning the Reporting Manual with one or more of the outputs of the new management system.

The implementation of ISO 55001 may mean that a State of the Assets Report is not required. Alternatively, it may take a different form, eg as extracts of existing system documents such as:

- ▼ description of asset portfolio (as required by part 4.3 of ISO 55001)
- ▼ copies of the report to top management on the performance of assets (as required by part 5.3 of ISO 55001), and
- ▼ copies of action plans to address risks and opportunities (as required by part 6.1 of ISO 55001).⁷⁰

Appendix D compares current state of the assets reporting to the equivalent or similar ISO 55001 requirements.

6.3.3 Review of system performance standards

The need for system performance standards reflects the fact that Hunter Water is a monopoly provider of essential services. These standards are aimed at ensuring that customers receive a suitable level of service consistent with their needs and expectations. The standards recognise that some failures will occur within a system, but these failures should be limited to a level consistent with the expectations of customers.

We are mindful that there are often trade-offs between the level of service provided to customers and the costs of providing this service. Performance standards should not generate levels of service that fall short of customers' needs and expectations and they should also not be set at levels that exceed customers' willingness to pay.

Hunter Water's performance, confirmed through the operational audit reports from 2012-13, 2013-14 and 2014-15, is well within the target levels required by the operating licence. Hunter Water's performance against its standards indicates that there is merit in considering whether the standards need to be reviewed.

⁷⁰ ISO, *ISO55001: Asset Management - Management systems requirements*, January 2014, pp 7, 9.

It should be noted that the current performance standards are fixed target levels expressed in number of properties affected. The number of properties serviced by Hunter Water increases every year while the target level is static. This may suggest that Hunter Water's performance, in percentage terms, noting the ever increasing number of properties serviced, has actually improved over time by staying within the fixed target levels.

IPART seeks comments on the following:

- 8 Is ISO 55001 the most appropriate asset management standard or is there another standard that we should consider?
- 9 Should the biennial 'State of the Assets reporting' continue in its current form or would it suffice for Hunter Water to provide IPART with asset information by providing copies of reports produced as part of the ISO 55001, or similar Asset Management System?
- 10 What are your views on maintaining or changing the Water Pressure Standard, the Water Continuity Standard and the Wastewater Overflow Standard, given that Hunter Water has consistently and significantly performed better than the target thresholds?

7 Customers and consumers

One of the objectives of the operating licence is to recognise the rights given to customers and consumers. This is particularly important in respect of Hunter Water's activities because it is a monopoly and provides essential services to customers and consumers. The current Hunter Water operating licence includes customer and consumer protection provisions in excess of general consumer law.⁷¹

7.1 Objectives and requirements

The Act requires that the terms and conditions of a customer contract are set out in Hunter Water's operating licence.⁷² Schedule C of Hunter Water's operating licence contains the customer contract.

The operating licence relevantly imposes the following obligations on Hunter Water:

- ▼ To publish the customer contract and any variations to it on its website, and report any significant changes it proposes to make to the customer contract to IPART in accordance with the Reporting Manual.⁷³

⁷¹ *Hunter Water Act 1991*, Part 5, Division 5.

⁷² *Hunter Water Act 1991*, s 35.

⁷³ *Hunter Water's Operating Licence 2012-2017*, cl 5.1 and Sch C.

- ▼ To provide information, in the form of a pamphlet to briefly explain the customer contract, key rights and obligations of customers and consumers, types of account relief available for customers experiencing financial hardship, customer's obligations and rights to claim a rebate, and how to contact Hunter Water. Hunter Water is obliged to regularly update and disseminate the pamphlet.⁷⁴
- ▼ To extend complaint handling and complaint resolution procedures to consumers (tenants or occupiers who do not own a property serviced by Hunter Water) in the same manner that the procedures would apply to customers (ie, property owners).⁷⁵
- ▼ To include provisions for dealing with customer hardship, debt, water flow restrictions and disconnection for non-payment.⁷⁶
- ▼ To maintain and regularly consult with customers and consumers through a Consultative Forum.⁷⁷
- ▼ The requirement to establish and maintain internal and external dispute resolution processes.⁷⁸

In our 2014 assessment of the Hunter Water operating licence we found that Hunter Water's Customer Contract provides comprehensive protections for its customers.

7.2 Performance against the current licence

To determine Hunter Water's performance against customer obligations, we have reviewed the findings of recent operating audits conducted by IPART and reviewed a number of customer indicators for Hunter Water.

Under our risk-based approach to auditing, Hunter Water's customer licence obligations have been progressively audited from the commencement of the current licence, receiving full compliance each year for the clauses audited.⁷⁹

⁷⁴ *Hunter Water Operating Licence 2012-2017*, cl 5.2.

⁷⁵ *Hunter Water Operating Licence 2012-2017*, cl 5.3.

⁷⁶ *Hunter Water Operating Licence 2012-2017*, cl 5.4.

⁷⁷ *Hunter Water Operating Licence 2012-2017*, cl 5.5.

⁷⁸ *Hunter Water Operating Licence 2012-2017*, cls 5.6 and 5.7.

⁷⁹ IPART, *Hunter Water Corporation Operational Audits - Reports to the Minister*, 2012-13, 2013-14 and 2014-15.

Table 7.1 lists Hunter Water’s customer related performance indicators over the last five years, to provide an indication of its performance in this area.

Table 7.1 Sample of Hunter Waters’ customer performance indicators

Indicator	2012-13	2013-14	2014-15
Total no. of water and sewerage complaints (per 1000 properties)	7.05	6.70	6.31
Customer complaints resolved in 10 business days (%)	81	88	93
No. of residential customers disconnected for non-payment	0	0	0
No. of residential customers with water flow restrictions for non-payment	1,118	1,381	1,704
No. of Residential customers experiencing financial difficulty on instalment plans (per 1000 properties)	-	18.8	15.1

Source: IPART, *NSW Water Utilities Performance 2014-2015 Database (Part B)*, 7 April 2016, Available online: http://www.ipart.nsw.gov.au/Home/Industries/Water/Compliance_Performance_Reporting/NSW_Water_Utilities_Performance_2014_-_2015/07_Apr_2016_-_Part_B_-_Database/Database_-_PART_B_-_NSW_Public_Water_Utilities_Performance_Indicator_Database_2014-15_-_April_2016.

From the above data we note:

- ▼ The number of customer complaints remains low (between 0.6-0.7% of customers). Comparable water utilities such as Yarra Valley Water and Gold Coast Water report similar figures (around 0.5%).⁸⁰ Comparable electricity utilities have much higher complaint numbers (the percentage of complaints in 2012-13 from small retail customers was about 1.46% for EnergyAustralia, 1.64% for Origin Energy, and 5.72% for AGL Sales).⁸¹
- ▼ The number of customers that are subject to water flow restriction for non-payment of bills has been slowly rising (from 350 properties in 2011-12 to 1,704 properties in 2014-15).⁸² Hunter Water has escalated its debt collection activities in recent years, resulting in an increase in this indicator. However, the figure for water flow restrictions is still considered low, at 0.7% of total connected properties.⁸³

7.3 Developments in best practice operation and regulation

The new Hunter Water operating licence could adopt the recent changes made to Sydney Water’s customer contract. We are considering making similar changes to the customer contract. The proposed changes are largely editorial.

⁸⁰ Bureau of Meteorology, *National Performance Report 2014-15: urban water utilities, Part A*, March 2016, pp 56-57.

⁸¹ IPART, *Information Paper - Customer service performance of electricity retail suppliers 1 July 2008 to 30 June 2013*, December 2013, Appendix A, p 29.

⁸² Hunter Water Corporation, *Compliance and Performance Report 2014-15*, August 2015, p 107.

⁸³ This figure is calculated from the number of residential customers with water flow restrictions divided by the number of residential properties. Figures are found in Hunter Water Corporation, *Compliance and Performance Report 2014-15*, August 2015.

We have identified a number of issues for discussion in relation to competition and the obligation to service, including:

- ▼ the definitions of ‘customer’ and ‘consumer’, to clarify their rights and obligations, particularly with regard to customers and consumers receiving unfiltered water, and
- ▼ in relation to alternative water and sewerage service providers (‘wholesale’ customers):
 - the maximum prices that can be set and the mechanism to determine that price, (to be investigated and determined by the Wholesale Pricing Review)
 - the definition for ‘wholesale customer’, (to be investigated and determined by the Wholesale Pricing Review)⁸⁴
 - whether there should be an obligation on Hunter Water to service a ‘wholesale customer’, (to be investigated in this Operating Licence Review process). This issue is particularly relevant to *Water Industry Competition Act 2006* (WIC Act) licensees, who may need to negotiate non-standard agreements with Hunter Water, and
 - if there is an obligation to service, the appropriate levels of service and the necessary adjustments to the Operating Licence and/or the customer contract.

7.3.1 Supply of unfiltered water

Customers situated between Chichester Dam and Dungog water treatment plant do not have access to potable water. Hunter Water supplies these customers with ‘unfiltered water’, ie water that has not been treated to a potable water standard, via the transfer pipeline from Chichester Dam to Grahamstown Dam. The main water filtration plant takes water out of Grahamstown Dam and is therefore downstream of the transfer pipeline and the customers that access water from it. Hunter Water has developed non-standard customer contracts to provide the terms and conditions of supply and to note the quality (non-potable) of the water being supplied to these customers. Supply of unfiltered water relates to water quality as well as Hunter Water’s customer obligations. We seek stakeholder proposals to address the issue.

⁸⁴ The wholesale price review (due for completion in December 2016) will consider the form of wholesale pricing regulation. Refer to the Discussion paper for more information, http://www.ipart.nsw.gov.au/Home/Industries/Water/Reviews/Metro_Pricing/Review_of_wholesale_pricing_for_Sydney_Water_and_Hunter_Water/26_Apr_2016_-_Discussion_Paper/Discussion_Paper_-_Prices_for_wholesale_water_and_sewerage_services_-_Sydney_Water_Corporation_and_Hunter_Water_Corporation_-_April_2016.

7.3.2 Alternative water and sewerage service providers

The current operating licence requires Hunter Water to ensure that drinking water and wastewater services are available on request for connection to any property in its area of operations.⁸⁵ The connection of properties to Hunter Water's drinking water and wastewater systems is subject to any conditions it may determine to ensure the safe, reliable and financially viable supply of those services.⁸⁶

The word 'property' is defined in the existing operating licence as either an individual dwelling, individual premises, land owned by a person or a lot in a strata plan that is connected to the water supply and/or sewerage system, or for which connection is available.⁸⁷ That is, 'property' refers to land or premises, rather than to water or sewerage infrastructure. This means that Hunter Water is only obliged to provide services on request of the owner of the relevant land.

The Customer Contract is a generic instrument that applies to all customers as defined in the licence. Hunter Water must meet the obligations of the customer contract, unless both parties enter into a separate agreement.

This requirement was developed with individual customers in mind, but it may also apply to 'wholesale' customers (eg, WIC Act licensees). The operating licence does not currently distinguish between 'wholesale customers' and 'customers'. WIC Act licensees often own water or sewerage infrastructure used for their businesses, but not the land to which a connection is requested. Therefore, Hunter Water might not be obliged to supply 'wholesale' customers with drinking water and wastewater services. As a consequence, a WIC Act licensee in that situation would have to negotiate a non-standard contract (eg, a Utility Services Agreement) with Hunter Water. The existing operating licence and customer contract does not facilitate the negotiation of this type of supply agreement.

A related issue is how to determine prices for the supply of wholesale services by Hunter Water. This issue is being considered as part of the wholesale price review.⁸⁸

⁸⁵ *Hunter Water Operating Licence 2012-2017*, cl 1.6.1.

⁸⁶ *Hunter Water Operating Licence 2012-2017*, cl 1.6.2.

⁸⁷ *Hunter Water Operating Licence 2012-2017*, cl 12.1, pp 24-25.

⁸⁸ IPART is currently investigating the issue of pricing of wholesale services for Hunter Water and Sydney Water. Information on the wholesale pricing review can be found on our website, http://www.ipart.nsw.gov.au/Home/Industries/Water/Reviews/Metro_Pricing/Review_of_wholesale_pricing_for_Sydney_Water_and_Hunter_Water/26_Apr_2016_-_Discussion_Paper/Discussion_Paper_-_Prices_for_wholesale_water_and_sewerage_services_-_Sydney_Water_Corporation_and_Hunter_Water_Corporation_-_April_2016.

We seek input from stakeholders regarding possible changes to the operating licence and customer contract to address the obligation to supply services to, and the appropriate level of services for, 'wholesale' customers. For example, we would like input as to whether the definitions of 'customer' and/or 'consumer' in the customer contract should be modified to specifically provide for wholesale customers of Hunter Water.

7.4 Process to amend the customer contract

Another issue relates to the requirement to attach the customer contract to the operating licence, with the result being that any change to the customer contract requires a licence variation.⁸⁹ We seek stakeholder's views on whether the current approach works, and whether any amendments to the Act or operating licence or both are necessary in order to reduce unnecessary red tape and enable a more flexible approach to developing the customer contract.

We welcome any proposals from Hunter Water and other stakeholders to improve the existing customer contract.

IPART seeks comments on the following:

- 11 What are your concerns regarding the supply of non-potable water to residential customers, the conditions of supply, and the approved end-uses? How should these concerns be addressed - in the operating licence, the customer contract, or is there some other method?
- 12 What changes, if necessary, are needed to the operating licence and/or customer contract to facilitate negotiation of non-standard contracts between Hunter Water and its customers?
- 13 What changes, if necessary, are needed in the operating licence and/or customer contract to account for 'wholesale' customers and services?
- 14 Are the definitions of 'customer' and 'consumer' in the customer contract suitable for the current operating environment? If not, how can the definitions be amended to provide greater clarity?
- 15 Should Hunter Water be obliged to service anyone other than property owners? If so, who are these 'customers' and what are the appropriate obligations on Hunter Water to service them?
- 16 What are the factors that we should consider, in the context of Hunter Water's operating environment, when considering changes to the customer contract. The changes being considered (for consistency) reflect recent changes that were made to Sydney Water's customer contract?

⁸⁹ The licence may only be varied by the Governor by notice in the NSW government gazette, *Hunter Water Operating Licence, 2012-2017*, cl 1.5.1.

- 17 Would it be beneficial to amend the *Hunter Water Act 1991* to eliminate the difficulties associated with varying the customer contract? If so, how could it be achieved cost-effectively?
- 18 Is there merit in having more than one type of customer contract, to reflect the different customer groups, or is it more appropriate to allow for individual negotiations to establish specific contracts with specific customers, as is currently the case?

8 Environment, Quality, Performance Monitoring and Memoranda of Understanding

Management system standards require organisations to implement systems that provide effective planning, operation and control of processes. Hunter Water is progressing towards completion of certification of all its business processes and establishment of an integrated management system across its business.

8.1 Environmental Management

Hunter Water's current operating licence requires it to develop and implement an Environmental Management System (EMS) certified to AS/NZS ISO 14001 (ISO 14001), as updated from time to time, to manage risks to the environment of its business and service delivery.⁹⁰

Implementation of a certified EMS is industry best practice and provides a framework for an organisation to identify and target the environmental impact of all its business activities.

ISO 14001 specifies requirements to enable an organisation to develop and implement plans and policies that take into account the organisation's environmental impacts and its legal requirements. It does not duplicate or replace regulatory requirements, but is a mechanism to collate all regulatory requirements together. It also helps ensure compliance with these requirements.

⁹⁰ *Hunter Water Operating Licence 2012-2017*, cl 6.1.

The requirement for implementation of a certified EMS was introduced in the 2012-2017 Hunter Water Operating Licence. Hunter Water's EMS was first certified in October 2014. Recertification occurs every three years.

Under our risk-based approach to auditing, Hunter Water's operating licence obligations have been progressively audited from the commencement of the current licence. The audits provided some recommendations to improve existing systems, including the improvement of document control for environmental incident and emergency management. These improvements have been incorporated by Hunter Water, as evidenced by the completion, implementation and certification of the EMS.

We seek stakeholder views on whether the environmental management provisions of the existing operating licence require any significant change, apart from minor editing.

8.2 Quality Management System

Similarly to the requirements for an EMS, the current licence has a requirement that Hunter Water achieve certification of a Quality Management System (QMS) that is consistent with *AS/NZS ISO 9001: Quality Management Systems – Requirements (ISO 9001)*.⁹¹ Hunter Water achieved certification of its QMS in August 2015.

Implementation of a certified QMS is industry best practice. A QMS will not directly address Hunter Water's functions, but will assist in the integration of the management systems across all operational areas. The greatest benefit will be seen in areas such as document management, training, auditing, reporting, legislative registers and training records.

An integrated management system may reduce the need to audit elements that are common across all management systems within the business. This would enable operating audits to be more targeted to higher risk elements of those systems.

We seek stakeholder views on whether the quality management system provisions of the existing operating licence require any significant change, apart from minor editing.

⁹¹ *Hunter Water Operating Licence 2012-2017*, cl 7.1.2.

8.3 Performance Monitoring – performance indicators

Performance indicators can be collected to:

- ▼ analyse a utility's operations by reviewing performance trends in relevant areas
- ▼ provide input to our licence reviews and operational audits and to assist IPART to develop performance standard targets
- ▼ enhance transparency, accountability and ultimately improve a utility's performance
- ▼ provide information to the public regarding a utility's operations, and
- ▼ provide data to other regulators (eg, NSW Health and the EPA) for their legislative reporting and auditing requirements.

IPART has undertaken a review of the performance indicators for the major public water utilities.⁹² An outcome of the review was a reduction in the number of performance indicators and a consistent list of indicators amongst the major public water utilities.

We will consider further updates to the current list of performance indicators. Our preliminary position is the current list of IPART performance indicators, along with the National Water Indicators and our annual operating audit, provides a comprehensive framework for the assessment of water utility performance in NSW.

We seek stakeholder views on whether to maintain or reduce the current set of indicators. The full list of performance indicators is provided in the Reporting Manual.⁹³

8.4 Performance Monitoring – reporting

Hunter Water must comply with its reporting obligations set out in the Reporting Manual, and maintain records for accurate reporting.⁹⁴

Currently there is a gap in the operating licence regarding Hunter Water's obligation to report NWI performance indicators. These were removed from the reporting manual previously, but no amendment to the operating licence was made to account for this change.

⁹² IPART, *Compliance Report - Review of Metropolitan Public Water Utilities' Performance Indicators*, August 2012.

⁹³ IPART, *Hunter Water Reporting Manual*, http://www.ipart.nsw.gov.au/Home/Industries/Water/Public_Water_Licensing/Hunter_Water_Corporation_Reporting_Manual_-_June_2013.

⁹⁴ *Hunter Water Operating Licence 2012-2017*, cl 8.2.

The recent Sydney Water Operating Licence review generated discussion about reporting frequency for water quality, (real-time or quarterly). The intent of this reporting is the underpinning factor in determining what is reported and the appropriate frequency. For instance, if the intent is to inform the public and prevent risks to public health (for this purpose, the frequency would be closer to real-time reporting) as opposed to reporting on performance (for this purpose, the frequency would be closer to quarterly).

We seek stakeholder views on appropriate reporting strategies to enhance the effectiveness and efficiency of current reporting requirements.

8.5 Memoranda of Understanding

The purpose of a Memorandum of Understanding (MOU) is to define the relationship and responsibilities between organisations. MOUs can be particularly effective where a high degree of coordination or communication is required between two organisations.

The current operating licence requires Hunter Water to maintain a MOU with NSW Health as the drinking water quality regulator and facilitates effective interaction between the two organisations. In particular, the MOU recognises the role of NSW Health in providing advice to the Government in relation to drinking water quality standards and the supply of water which is safe to drink.

To determine whether the existing obligations should stay in the operating licence, consideration needs to be given to the auditing and compliance role of IPART and the risk associated with not having an MOU. Placing an obligation in the operating licence reinforces its importance and ensures it is independently audited during the term of the operating licence.

The argument for a MOU requirement in the operating licence is linked to the:

- ▼ strength of the other regulatory instruments available to the state agency
- ▼ responsibility of the agencies in the event of an incident, and
- ▼ risks that arises from not having a MOU.

NSW Health is the lead agency in the response to water-related public health incidents. Ensuring a close and clear relationship between Hunter Water and NSW Health is important. To date, the parties to the agreement have been satisfied that the relationship works well for both parties. We seek stakeholder views on whether Hunter Water should retain its licence obligation in respect to the MOU with NSW Health.

IPART seeks comments on the following:

- 19 What are your views on maintaining the Environmental Management and Quality Management System requirements in the operating licence?
- 20 Are there any performance indicators that are unnecessary or unduly costly to compile?
- 21 What are your views on including a requirement for Hunter Water to report against NWI performance indicators in the operating licence?
- 22 What reporting obligations, if any, should be removed or revised to better align with the outputs of drinking water and recycled water quality management plans?
- 23 How could the reporting of information (content and frequency) be improved to reduce the regulatory burden on Hunter Water but still sufficient to inform the customers and the public?
- 24 What are your views on maintaining the current licence obligation to require a Memorandum of Understanding with NSW Health?
- 25 What alternative methods are there to include NSW Health in the auditing process for water quality, to ensure it is kept informed of issues that may affect public health in the Hunter region?

9 Other potential licence issues

9.1 Competition in the water market

The WIC Act was developed to encourage competition in relation to the supply of water and the provision of sewerage services and to facilitate the development of infrastructure for the production and reticulation of recycled water.⁹⁵ It includes a licensing regime for corporations to construct, operate and maintain water industry infrastructure and to supply water or provide sewerage services.⁹⁶ It also includes an access regime by which an applicant may seek access to water industry infrastructure services by lodging a coverage declaration application with IPART.⁹⁷ An applicant may also seek to revoke a coverage declaration, or seek a declaration that a third party may not seek access to a water industry infrastructure service by lodging a binding non coverage declaration application with IPART.

⁹⁵ *Water Industry Competition Act 2006*, Long Title.

⁹⁶ *Water Industry Competition Act 2006*, Part 2.

⁹⁷ *Water Industry Competition Act 2006*, Part 3.

There are currently 28 WIC Act licence holders.⁹⁸ Several of these licence holders are potentially in competition with Hunter Water, particularly in the supply of water and sewerage services to some infill and peri-urban residential and commercial developments.

We would like stakeholder views on whether there is any hindrance to competition in the water and wastewater markets as a result of obligations or rights within Hunter Water's operating licence.

IPART seeks comments on the following:

- 26 Are there any licence obligations that may hinder or enhance competition in the supply of water and sewerage services in Hunter Water's area of operations?

9.2 Synergies between the operating licence and IPART's price regulation

As mentioned in Chapter 2 of this issues paper, IPART regulates Hunter Water's prices. In doing so, we set Hunter Water's maximum prices to reflect its prudent and efficient costs of providing water, drainage and wastewater services.

There is a close relationship between IPART's price regulation and licensing roles. For example, there is a relationship (and trade-off) between performance standards (set by the operating licence) and prices (set to reflect efficient costs, including the costs of complying with the operating licence).

We would like stakeholder views on whether the links between the operating licence and IPART's pricing function can be improved, and how the operating licence can be designed to enhance the efficiency of Hunter Water.

We would also like stakeholder views on the merits or otherwise of aligning the schedules of the operating licence reviews and the price reviews such that any changes to the operating licence can be considered immediately in the subsequent price review. If alignment is preferred, then this would mean an adjustment to the period of the price determinations (from 2020 onwards) and/or the operating licence and would require careful consideration of the issues associated with shorter or longer terms of either.

IPART seeks comments on the following:

- 27 Is there merit, in changing the timing of the operating licence review and the pricing review undertaken by IPART? If so, what should be the order of these reviews?

⁹⁸ Water Licensing and Compliance newsletter March 2016, at http://www.ipart.nsw.gov.au/files/sharedassets/website/shared_files/licensing_-_administrative_-_amended_wica_2014_-_project_management_-_stakeholders_-_correspondence/newsletter_-_water_licensing_and_compliance_-_issue_2_-_march_2016.pdf.

9.3 Water availability for fire-fighting

The new Hunter Water operating licence could adopt the recent changes made to the Sydney Water operating licence, to include a requirement to enter into a MOU with Fire and Rescue NSW (FRNSW). The purpose of the MOU is to identify and develop strategies for effective provision of firefighting water consistent with the goals of each party, including water availability (minimum flow and pressure).

However, the same issues regarding water availability, at the required flow rates and pressure, are not in evidence within the Hunter region. In addition, there is significantly less infill development and housing density in Hunter Water's area of operations.

IPART seeks comments on the following:

- 28 Is water availability from Hunter Water's network for fire-fighting an issue that needs to be addressed in the new operating licence? If so, is an MOU with the Rural Fire Service or FRNSW the best way to address this issue?



Appendices

A Assessment of Hunter Water's operating licence against the Licensing Framework

In recognition of the regulatory burden created by licensing, and driven by its 'red tape' reduction target of \$750 million by 2015, the NSW Government asked the Independent Pricing and Regulatory Tribunal (IPART) to undertake a review of licensing in NSW. As part of this review, IPART engaged PricewaterhouseCoopers (PwC) to assist in developing a Licensing Framework⁹⁹ and Licensing Guide¹⁰⁰ that assess whether licences in NSW are:

- ▼ likely to achieve their underlying purpose
- ▼ the most appropriate means of meeting this purpose.

The Licensing Framework, in conjunction with the Licensing Guide, is an assessment tool for regulators to apply to their existing and proposed licences. It consists of four stages, requiring the regulator to:

- ▼ establish the rationale for licensing
- ▼ assess its design
- ▼ assess its administration, and
- ▼ confirm that licensing is the best response.

As an exercise to identify whether reforms were required, IPART undertook an assessment, using the Licensing Framework, of the Hunter Water Corporation (Hunter Water) operating licence.¹⁰¹

Overall, we found that the Hunter Water operating licence has passed the four key stages of the Licensing Framework. This means there is little scope to reform this licence.

In summary, the **key findings** were:

- ▼ Stage 1 – Licensing Hunter Water's operations is appropriate.
 - The policy rationale and objectives justify ongoing intervention in Hunter Water's operations.
 - Existing legislation does not adequately address the policy objectives in the absence of Hunter Water's licence – ie, Hunter Water's licence covers gaps in the scope and enforcement of existing legislation.
 - Licensing provides policy and administrative functions that are required to meet the policy objectives of the Hunter Water operating licence. Therefore licensing is an appropriate option to address the policy objectives.

⁹⁹ PricewaterhouseCoopers (PwC), *A best practice approach to designing and reviewing licensing schemes*. March 2013 (Licensing Framework).

- ▼ Stage 2 - The current Hunter Water operating licence is well designed.
- ▼ Stage 3 - The licence is administered effectively and efficiently.
- ▼ Stage 4 - While the policy objectives could potentially be delivered through amendments to a range of legislation, our assessment supports continued licensing of Hunter Water as the most efficient option to administer and ensure compliance and enforcement.

B Cost-benefit analysis (CBA)

We are mindful of concerns about the burden of regulation, the costs that such regulation adds to Hunter Water's business activities, and the fact that these costs must ultimately be passed on to customers. To address these concerns, and in accordance with good regulatory practice, as part of this review we will undertake an analysis of the costs and benefits of the proposed licence amendments. We intend to consider this analysis in making our final recommendations to the Minister on amendments to the licence.

This analysis will consider the costs and benefits of the options/amendments relative to the 'base case' of business as usual. The base case assumes that Hunter 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 Hunter Water and other stakeholders on the costs and benefits of the options we have identified that would be *incremental* to current requirements and Hunter Water's 'business as usual' practices.

We are also seeking stakeholders' views as to whether there are any other more cost-effective or appropriate alternatives.

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

- ▼ administrative costs or savings, including any increase or reduction in time associated with complying with and reporting on regulatory requirements
- ▼ 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
- ▼ economic impacts, such as increased efficiency or productivity, better or worse conditions for innovation, or improved or decreased competitiveness, and
- ▼ 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, and
- ▼ better or worse public health and safety outcomes.

It is anticipated that Hunter Water will be in a better position to quantify costs and benefits or provide quantitative indicators (where possible) than other stakeholders.

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 Hunter 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.

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

C Hunter Water Corporation – Regulatory Regime

State Owned Corporations Act 1989

As described in chapter 2, Hunter Water, as a statutory SOC, has the following principal objectives set out in s 20E of the SOC Act:

1. The principal objectives of every statutory SOC are:
 - a) to be a successful business and, to this end:
 - iii) to operate at least as efficiently as any comparable businesses, and
 - iv) to maximise the net worth of the State’s investment in the SOC, and
 - b) to exhibit a sense of social responsibility by having regard to the interests of the community in which it operates, and
 - c) where its activities affect the environment, to conduct its operations in compliance with the principles of ecologically sustainable development contained in section 6(2) of the *Protection of the Environment Administration Act 1991*, and
 - d) to exhibit a sense of responsibility towards regional development and decentralisation in the way in which it operates.

As a SOC, Hunter Water operates as a company which is separate from Government. Its shareholding ministers are the Minister for Finance and Services and the Treasurer. Hunter Water pays dividends to the Government. The directors of Hunter Water are appointed by the Governor on the recommendation of its shareholding ministers.

Hunter Water’s portfolio Minister is the Minister for Lands and Water. The portfolio Minister may:

- ▼ direct a SOC (including Hunter Water) to carry out activities, that are not in its commercial interest¹⁰²
- ▼ require a SOC to comply with public sector policies,¹⁰³ or
- ▼ provide a direction to the board of a SOC if the portfolio minister is satisfied that, because of exceptional circumstances, it is necessary to give the direction in the public interest.¹⁰⁴

¹⁰² *State Owned Corporations Act 1989*, s 20N.

¹⁰³ *State Owned Corporations Act 1989*, s 20O.

¹⁰⁴ *State Owned Corporations Act 1989*, s 20P.

There are two different ways in which Hunter Water can recover the costs of complying with a Ministerial Direction:

- ▼ The Minister can direct IPART to pass through the efficient costs of complying with the requirement to customers when determining the prices Hunter Water can charge.¹⁰⁵
- ▼ Hunter Water can be reimbursed from money advanced from the Treasurer or appropriated by Parliament.¹⁰⁶

Protection of the Environment

There are two key pieces of legislation to regulate Hunter Water's impact on the environment:

Environmental Planning and Assessment Act

The *Environmental Planning and Assessment Act 1979* (EP&A Act) outlines the environmental assessment and approval processes Hunter Water must follow to undertake any development.

Hunter Water must generally obtain approval for development, unless an exemption applies. Development approval is generally granted by the local council or the Minister for Planning (in the case of State significant development). Part 4 of the EP&A Act outlines the approval process the consent authority must follow, including environmental factors it must consider.

There are a number of Hunter Water's activities that do not require development consent under Part 4 of the EP&A Act due to the operation of the *State Environmental Planning Policy (Infrastructure) 2007*. For example, Hunter Water may carry out development for the following purposes without consent under Part 4 of the EP&A Act:

- ▼ sewage treatment plants, biosolids treatment facilities or water recycling facilities on land in a prescribed zone
- ▼ sewage reticulation on any land
- ▼ water storage facilities on land in certain land use zones
- ▼ water treatment facilities on land in certain land use zones, and
- ▼ water reticulation on any land.¹⁰⁷

¹⁰⁵ *Independent Pricing and Regulatory Tribunal Act 1992*, s 16A.

¹⁰⁶ *State Owned Corporations Act 1989*, ss 20N(3), 20O(4) and 20P(4).

¹⁰⁷ *State Environmental Planning Policy (Infrastructure) 2007*, Division 18 and Division 24.

For the development described above, in most instances Hunter Water is a determining authority under Part 5 of the EP&A Act, as a public authority that is a proponent of an activity.¹⁰⁸ Part 5 of the EP&A Act prescribes the environmental assessment Hunter Water must complete before carrying out an activity, which includes a requirement to “examine and take into account to the fullest extent possible all matters affecting or likely to affect the environment by reason of that activity”.¹⁰⁹ If the development is ‘state significant infrastructure’ under Part 5.1 of the EP&A Act, then approval is required from the Minister for Planning.¹¹⁰

Protection of the Environment Operations Act

The *Protection of the Environment Operations Act 1997* (POEO Act) prohibits persons (including Hunter Water) from polluting the environment unless authorised to do so by an Environment Protection Licence (EPL).

The Environment Protection Authority (EPA) administers, and is the compliance regulator for the POEO Act.¹¹¹ The EPA has the authority to issue environment protection notices (such as clean-up notices) and take action in respect of offences defined in the POEO Act.¹¹²

Hunter Water is required to have an EPL for any ‘scheduled activities’ and any activities that pollute water.¹¹³ The operation of sewage treatment systems (that involve the discharge or likely discharge of wastes or by-products to land or waters) is a scheduled activity if the processing capacity exceeds 2,500 equivalent persons or 750 kilolitres per day.¹¹⁴ The majority of Hunter Water’s sewage treatment systems have an EPL, and their operation is directly regulated by the EPA.

Hunter Water’s stormwater drainage activities are covered under the POEO Act requirement to not pollute waters.

Water resource management

DPI Water is responsible for the administration of the *Water Management Act 2000*, which regulates the extraction of water from rivers and dams and the construction of works for water supply, drainage and flood management.

¹⁰⁸ *Environment Planning and Assessment Act 1979*, s 110.

¹⁰⁹ *Environment Planning and Assessment Act 1979*, s 111(1).

¹¹⁰ *Environmental Planning and Assessment Act 1979*, s 115W.

¹¹¹ *Protection of the Environment Operations Act 1997*, s 6(1).

¹¹² *Protection of the Environment Operations Act 1997*, Parts 4 and 5.

¹¹³ *Protection of the Environment Operations Act 1997*, ss 43, 48(2) and 122.

¹¹⁴ *Protection of the Environment Operations Act 1997*, Sch 1, cl 36.

The water sharing plans in force, in respect of Hunter Water's area of operation, together with Hunter Water's water access licences, determine the amount of water and the flow conditions under which Hunter Water can extract water for drinking water use.¹¹⁵ One of the purposes of water sharing plans is to protect the environmental health of the water sources.

Further, while not a regulatory instrument, the NSW Government's approach to water planning is outlined in the Lower Hunter Water Plan (LHWP). This plan identifies a range of water supply and conservation measures, and is aimed at ensuring that Hunter's water demand and supply are in balance over the medium to long-term. As the primary water utility in the region, Hunter Water is a major contributor to meeting the strategies outlined in this document. The LHWP and its relationship with Hunter Water are discussed further in Chapter 4.

Public health

As a supplier of drinking water, Hunter Water is required to comply with the *Public Health Act 2010*¹¹⁶ and the regulations under it. This includes establishing a quality assurance program,¹¹⁷ which addresses elements of the Australian Drinking Water Guidelines (ADWG) and can be reviewed at any time.¹¹⁸

Under the *Public Health Act 2010*, the Chief Health Officer can determine whether or not it should issue a boil water advice.¹¹⁹ Hunter Water can also be directed, by the Secretary of the Ministry of Health, to test drinking water and be required to provide information on the quality of the water supplied.¹²⁰

Hunter Water is also required to comply with the *Fluoridation of Public Water Supplies Act 1957* and the *Fluoridation of Public Water Supplies Regulation 2012*, which require water supply authorities such as Hunter Water to implement the *NSW Code of Practice for Fluoridation of Public Water Supplies 2011* (Fluoridation Code). The Fluoridation Code is prepared by NSW Health and applies to all new and existing water treatment plants in NSW. Hunter Water is responsible for ensuring that it complies with the Fluoridation Code.

¹¹⁵ *Water Management Act 2000*, s 56(1) and (2).

¹¹⁶ *Public Health Act 2010*, Part 3.

¹¹⁷ *Public Health Act 2010*, s 25(1).

¹¹⁸ *Public Health Regulation 2012*, cl 34.

¹¹⁹ *Public Health Act 2010*, s 21.

¹²⁰ *Public Health Act 2010*, ss 18 and 19.

The Fluoridation Code outlines monitoring, reporting and auditing requirements. Fluoridation monitoring results are reported to NSW Health, which is responsible for confirming monitoring results and following up with any non-compliances.¹²¹ NSW Health also provides training for plant operators and DPI Water provides technical advice on treatment plant operations.¹²² The Fluoridation Code also allows NSW Health to carry out independent audits of Hunter Water's compliance.¹²³

These regulatory instruments provide a comprehensive framework for the fluoridation of water supplies, including reporting and compliance requirements, and therefore it is not included in the operating licence.

Australian Drinking Water Guidelines (ADWG)

The *Australian Drinking Water Guidelines 2011* (the ADWG) are intended to provide a framework for good management of drinking water supplies that, if implemented, will assure safety at point of use. The ADWG have been developed after consideration of the best available scientific evidence. They are designed to provide an authoritative reference on what defines safe, good quality water, how it can be achieved and how it can be assured. They are concerned both with safety from a health point of view and with aesthetic quality.

The ADWG are not mandatory standards; however, they provide a basis for determining the quality of water to be supplied to consumers in all parts of Australia. These determinations need to consider the diverse array of regional or local factors, and take into account economic, political and cultural issues, including customer expectations and willingness and ability to pay.

The ADWG are intended for use by the Australian community and all agencies with responsibilities associated with the supply of drinking water, including catchment and water resource managers, drinking water suppliers, water regulators and health authorities.¹²⁴

¹²¹ Centre for Oral Health, *New South Wales Code of Practice for Fluoridation of Public Water Supplies*, April 2011, pp 35 and 36.

¹²² Centre for Oral Health, *New South Wales Code of Practice for Fluoridation of Public Water Supplies*, April 2011, p 36.

¹²³ Centre for Oral Health, *New South Wales Code of Practice for Fluoridation of Public Water Supplies*, April 2011, p 40.

¹²⁴ National Health and Medical Research Council, *Australian Drinking Water Guidelines 2011*, (v3.2, updated February 2016).

Australian Guidelines for Water Recycling (AGWR)

The *Australian Guidelines for Water Recycling: Managing Health and Environmental Risks (Phase 1) 2006* (AGWR) provide guidance on best practices for water recycling. They are not prescriptive and do not represent mandatory standards, but are designed to provide an authoritative reference that can be used to support beneficial and sustainable recycling.

AGWR sets out a holistic approach to managing health and environmental risks. The approach involves systematically assessing where and how contamination may arise, how it may find its way to the point of use, and how to protect consumers and the environment from such contamination. Management of health and environmental risks is provided in AGWR in the form of a risk management framework for beneficial and sustainable management of water recycling systems.

The guidelines are intended to be used by anyone involved in the supply, use and regulation of recycled water schemes, including government and local government agencies, regulatory agencies, health and environment agencies, operators of water and wastewater schemes, water suppliers, consultants, industry, private developers, body corporates and property managers.

It should be noted that the *Public Health Act 2010* (NSW) has no provisions that directly address recycled water quality.

NSW Health uses these standards to ensure accountability of public water utilities in NSW. Hunter Water is obligated under the operating licence to develop recycled water quality management systems to the satisfaction of NSW Health.¹²⁵

Price regulation

IPART is responsible for regulating Hunter Water's prices, under the *Independent Pricing and Regulatory Tribunal Act 1992*.¹²⁶ The rationale for IPART's price regulatory role is similar to the rationale underpinning Hunter Water's operating licence – ie, the need to protect consumers from the potential adverse impacts of monopoly power and to replicate the pressures of a competitive market on Hunter Water's performance.

¹²⁵ National Health and Medical Research Council, Environment Protection and Heritage Council, Australian Health Ministers Conference, *Australian Guidelines for Water Recycling: Managing Health and Environmental Risks (Phase 1)*, November 2006.

¹²⁶ *Independent Pricing and Regulatory Tribunal Act 1992*, s 11.

IPART sets the maximum prices Hunter Water can charge its customers for its water, sewerage, stormwater and miscellaneous services, and for some mandatory recycled water services.¹²⁷ IPART has developed pricing guidelines for other recycled water services.¹²⁸

IPART sets prices to only allow Hunter Water to recover its prudent and efficient costs of service delivery. Prices are usually set for a 4-year determination period.

Importantly, in setting Hunter Water's maximum prices, IPART allows for its efficient costs of complying with regulatory requirements - including requirements of the EPA, NSW Health and its operating licence.

That is, the operating licence can potentially affect Hunter Water's costs, and hence the prices consumers pay for its services. It also further demonstrates the importance of only including requirements in the operating licence that are necessary, achieve targeted outcomes at least cost, and result in a net economic benefit to society.

Other consumer protection legislation

It is important to note that in addition to the requirements of its operating licence, the Australian Consumer Law as set out in Schedule 2 of the *Competition and Consumer Act 2010* (Cth) applies to Hunter Water. The Australian Consumer Law is a national consumer protection law.

¹²⁷ *Independent Pricing and Regulatory Tribunal Act 1992*, s 11.

¹²⁸ IPART, *Final Determinations - Pricing arrangements from recycled water and sewer mining*. Sydney Water Corporation, Hunter Water Corporation and Wyong Shire Council, September 2006.

D Comparison of the State of the Assets Report and ISO 55001:2014 outputs

Obligations of Reporting Manual clause 4.1.1	Corresponding ISO 55001:2014 requirements
A description of each group of assets	<p>Part 4.3 requires the organisation to "...define the asset portfolio covered by the scope of the asset management system.</p> <p>The scope shall be available as documented information."</p>
Hunter Water's assessment of the expected capability of the assets to deliver the services and meet the existing obligations consistent with the licence, the customer contract and all applicable laws with which Hunter Water must comply	<p>Part 5.3 requires reporting on the performance of the asset management system to top management.</p> <p>Part 6.1 requires the organisation to provide assurance that an asset management system can achieve its intended outcomes considering the needs and expectations of stakeholders (including, for example IPART, operating licence, customer contract, the Act and other legislation, reporting manual etc).</p> <p>Part 6.2.1 requires the organisation to "...establish asset management objectives at relevant functions and levels." In doing so clause 6.2.1 requires the organisation to give consideration to "the requirements of relevant stakeholders and of other financial, technical, legal, regulatory and organisational requirements in the asset management planning process."</p> <p>The asset management objectives shall:</p> <ul style="list-style-type: none"> ▼ be monitored, and ▼ be communicated to relevant stakeholders. <p>"The organisation shall retain documented information of the asset management objectives."</p>
Hunter Water's assessment of the major issues or constraints on current and future performance of the assets	<p>Part 6.1 requires that:</p> <p>"When planning for an asset management system, the organisation shall ...determine the risks and opportunities that need to be addressed to give assurance that the asset management system can achieve its intended outcomes, prevent, or reduce undesired effects and achieve continual improvement.</p> <p>The organisation shall plan:</p> <p>Actions to address these risks and opportunities, taking into account how these risks and opportunities can change with time..."</p>

Obligations of Reporting Manual clause 4.1.1	Corresponding ISO 55001:2014 requirements
The strategies and expected costs of future investment in assets	<p>Part 6.2.2 requires the organisation to "...determine and document:</p> <ul style="list-style-type: none"> ▼ the processes and methods to be employed in managing its assets over their life cycles... ▼ what resources will be required... ▼ when it will be completed... ▼ the financial and non-financial implications of the asset management plan(s)".
Such other matters as reasonably required by IPART	<p>Part 7.5 requires that "the organisation shall determine its information requirements to support its assets, asset management, asset management system and the achievement of its organisational objectives. In doing this the organisation shall include consideration of:</p> <ul style="list-style-type: none"> ▼ the exchange of information with its stakeholders, including service providers." <p>Part 7.6.1 requires that the organisations asset management system shall include "... documented information for applicable legal and regulatory requirements."</p>

Source: ISO 55001: Asset Management – Management systems: requirements, January 2014.

Glossary

AMS	Asset Management System
ADWG	Australian Drinking Water Guidelines
AGWR	Australian Guidelines for Water Recycling
CBA	Cost-benefit analysis
Consumers	Any person who consumes or uses Hunter Water's services (as defined in the operating licence), and includes, but is not limited to, a tenant or occupier of a Property
Customers	Any person who is taken to have entered into a customer contract under section 36 of the Act, or to have entered into a contract on terms relating to the imposition of charges under section 43 of the Act
DPI Water	Department of Primary Industry - Water
ELWC	Economic Level of Water Conservation
ELL	Economic Level of Leakage
EMS	Environmental Management System
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EPA	Environmental Protection Authority
EPL	Environmental Protection Licence
FRNSW	Fire and Rescue NSW
Hunter Water	Hunter Water Corporation
IPART	Independent Pricing and Regulatory Tribunal
ISO 9001	<i>AS/NZS ISO 9001 Quality Management Systems – Requirements</i>
ISO 14001	<i>AS/NZS ISO 14001 Environmental Management Systems – Requirements with guidance for use</i>

ISO 55001	<i>ISO 55001 International Standard for Asset Management</i>
IWA	International Water Association
LHWP	Lower Hunter Water Plan
Minister	Minister for Lands and Water
MOU	Memorandum of Understanding
MWD	Metropolitan Water Directorate
NSW Health	NSW Ministry of Health
NWI	National Water Initiative
Operating licence/ Licence	Hunter Water's operating licence issued under Section 12 of <i>Hunter Water Act 1991</i>
POEO Act	<i>Protection of the Environmental Operations Act 1997</i>
QMS	Quality Management System
Wholesale customers	Licensees under the WIC Act, service providers exempt from the requirement to obtain a WIC Act licence, and local councils
SOC	State Owned Corporation
The Act	<i>Hunter Water Act 1991</i>
WIC Act	<i>Water Industry Competition Act 2006</i>
WQMS	Water Quality Management System
WSAA	Water Services Association of Australia