

# **End of Term Review of Hunter Water Corporation's Operating Licence Report to Minister for Water Utilities**

**Water - Final Report**  
May 2007



## TABLE OF CONTENTS

<b>1</b>	<b>INTRODUCTION</b>	<b>1</b>
<b>2</b>	<b>REVIEW PROCESS</b>	<b>3</b>
<b>3</b>	<b>KEY FINDINGS AND RECOMMENDATIONS</b>	<b>5</b>
<b>4</b>	<b>THE REGULATORY FRAMEWORK</b>	<b>7</b>
	4.1 Role of the Licence	7
	4.2 Regulatory best practice	7
<b>5</b>	<b>HUNTER WATER'S RESPONSIBILITIES (PART 2)</b>	<b>9</b>
	5.1 Memorandum of Understanding	9
	5.2 Monitoring and Reporting Protocol	9
<b>6</b>	<b>WATER QUALITY (PART 3)</b>	<b>11</b>
	6.1 Key Recommendations	11
	6.2 Stakeholder submissions	11
	6.3 Drinking and Bulk Water Quality	12
<b>7</b>	<b>INFRASTRUCTURE PERFORMANCE (PART 4)</b>	<b>15</b>
	7.1 Key Recommendations	15
	7.2 System Performance Standards	15
	7.3 System Performance Indicators	18
	7.4 Asset Management	18
<b>8</b>	<b>CUSTOMER AND CONSUMER RIGHTS (PART 5)</b>	<b>21</b>
	8.1 Key Recommendations	21
	8.2 Customer service indicators	21
	8.3 Debt and disconnection procedures	22
	8.4 Customer Contract	23
<b>9</b>	<b>COMPLAINT AND DISPUTE HANDLING (PART 6)</b>	<b>25</b>
	9.1 Key Recommendations	25
	9.2 Reporting complaints	25
	9.3 Consultative Forum	26
<b>10</b>	<b>ENVIRONMENT – INDICATORS AND MANAGEMENT (PART 7)</b>	<b>27</b>
	10.1 Key recommendations	27
	10.2 Environmental indicators	27
	10.3 Environment Plan	28
	10.4 Energy management	28
	10.5 Catchment Management	30
<b>11</b>	<b>MANAGING SUPPLY AND DEMAND (PART 9)</b>	<b>33</b>
	11.1 Key recommendations	33
	11.2 Integrated Water Resources Plan	33
	11.3 Targets	34
<b>12</b>	<b>OPERATIONAL AUDITS OF THE LICENCE (PART 12)</b>	<b>37</b>
	12.1 Stakeholder submissions – operational audits	37
	12.2 Risk based audits	37
	<b>APPENDIX 1 SUBMISSIONS TO THE REVIEW</b>	<b>39</b>



## 1 INTRODUCTION

The Independent Pricing and Regulatory Tribunal (Tribunal) has completed an end of term review of Hunter Water Corporation's (Hunter Water) Operating Licence. This review has been conducted under Part 4B of the *Independent Pricing and Regulatory Tribunal Act 1992* (the IPART Act).

Hunter Water's current Operating Licence will expire on 30 June 2007. The Tribunal is required to review the Operating Licence and recommend terms of an amended or new Licence, effective from 1 July 2007, to the Minister responsible for administering the *Hunter Water Act 1991*.

The Tribunal has drafted the recommended terms of a new licence for Hunter Water which are attached for the Minister's consideration and approval. The recommended licence is not significantly different to Hunter Water's current licence. The major changes relate to provisions dealing with water quality and asset management. In regard to water quality, the Tribunal has tried to ensure that Hunter Water's licence reflects the contemporary approach to managing water quality, as reflected in the 2004 Australian Drinking Water Guidelines. For asset management, the Tribunal has introduced a specific asset management obligation and provision to upgrade system performance standards during the licence period.

The Minister is not bound to accept the recommendations of the Tribunal. Following consideration by the Minister, the amended or renewed licence should be gazetted prior to 30 June 2007.

This report sets out the Tribunal's recommendations. Section 2 of this report outlines the review process. Section 3 discusses the Tribunal's key findings and recommendations. Section 4 discusses the regulatory framework which governs Hunter Water's operations. Sections 5 to 12 discuss the Tribunal's recommendations and their impacts for each part of the licence.



## 2 REVIEW PROCESS

In September 2006, the Tribunal released an issues paper that discussed the key issues for the review and sought submissions from Hunter Water and other stakeholders. The stakeholder submissions to the review can be found on the Tribunal's website at [www.ipart.nsw.gov.au](http://www.ipart.nsw.gov.au). A list of stakeholders who provided submissions is set out in Appendix 1.

On 5 December 2006, the Tribunal conducted a public workshop with Hunter Water and stakeholders to further discuss issues relevant to the review of the Licence.

To assist in its review process, the Tribunal engaged consultants to assist in the following matters:

- review system performance standards – GHD Pty Ltd<sup>1</sup>
- assist in the review of the potential costs and benefits of regulatory options – Centre for International Economics (CIE)<sup>2</sup>.

The consultants' reports are available on the IPART website.

The Tribunal has made its recommendations, taking into account all of the information and analysis obtained through this review process. This report incorporates the Tribunal's analysis of the regulatory impact of the proposed licence and outlines the reasons for the Tribunal's recommended terms of the proposed Operating Licence.

The Tribunal's assessment of the requirements imposed by this licence suggests that, overall, Hunter Water will incur only limited additional impacts. The Tribunal considers that the costs to Hunter Water in complying with this licence will not be significantly different to those under the current licence. At the same time, the proposed licence will provide increased benefits to customers, the community and the environment.

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<sup>1</sup> GHD, *Review of System Performance Standards for Sydney Water Corporation and Hunter Water Corporation*, October 2006.

<sup>2</sup> Centre for International Economics, *Impact assessment of a new operating licence for Hunter Water Corporation*, April 2007.



### 3 KEY FINDINGS AND RECOMMENDATIONS

In keeping with the requirements of the *Hunter Water Act 1991* (the Act), the current Operating Licence includes requirements that relate to water quality, system performance, customer protection, environmental and resource management, reporting and auditing. The Tribunal has found that the current scope of the Licence is appropriate and it, therefore, recommends maintaining this scope in the new Licence.

Over the period of the current Operating Licence Hunter Water has performed well and has successfully met the terms and conditions specified in the Licence, with the exception of the Water Continuity System Performance Standard in 2003-2004.

While the Tribunal has found that Hunter Water's current Licence has been robust and adequate, it does recommend a number of amendments. The key changes are summarised in the Table 3.1 on the following page and detailed further in this report. The Tribunal also proposes updating the structure of and terminology in the Licence to ensure that it is consistent with the more contemporary Licences for Sydney Water Corporation and the Sydney Catchment Authority.

**Table 3.1 Summary of Tribunal’s key recommendations**

<b>Licence Area</b>	<b>Recommendation</b>	<b>Reasons</b>
Hunter Water Responsibilities	<ul style="list-style-type: none"> <li>Streamline requirements for Memoranda of Understanding</li> <li>Introduce Monitoring and Reporting Protocol</li> </ul>	<p>Reflect the current regulatory framework</p> <p>Provide monitoring and reporting flexibility</p>
Water Quality	<ul style="list-style-type: none"> <li>Incorporate the Australian Drinking Water Guidelines 2004</li> <li>Streamline monitoring and reporting</li> </ul>	<p>Reflect NSW Government policy</p> <p>Reduce regulatory burden</p>
System Performance	<ul style="list-style-type: none"> <li>Maintain existing System Performance Standards with provisions to upgrade them during the term of the licence.</li> <li>Introduce an Asset Management obligation</li> <li>Incorporate National Water Initiative (NWI) Indicators</li> </ul>	<p>Continuous improvement in systems performance</p> <p>Continuous improvement</p> <p>Implement NSW Government commitment</p>
Customer and Consumer Rights	<ul style="list-style-type: none"> <li>Incorporate NWI Indicators</li> </ul>	<p>Implement NSW Government commitment</p>
Complaint and Dispute Handling	<ul style="list-style-type: none"> <li>Streamline reporting</li> </ul>	<p>Improve regulatory processes</p>
Environment	<ul style="list-style-type: none"> <li>Incorporate NWI Indicators</li> <li>Improve transparency and accountability</li> </ul>	<p>Implement NSW Government commitment</p> <p>Improve regulatory process</p>
Water Supply and Demand	<ul style="list-style-type: none"> <li>Upgrade Integrated Water Resources Planning process</li> </ul>	<p>Improve regulatory process</p>
Auditing	<ul style="list-style-type: none"> <li>Introduce Risk based Audit regime</li> </ul>	<p>Reduce regulatory burden</p>
Licence Design	<ul style="list-style-type: none"> <li>Remove duplication and streamline requirements and obligations.</li> <li>Introduce consistency with Sydney Water licence</li> <li>Introduce analysis of regulatory impacts into the Operating Licence development process.</li> </ul>	<p>Reduce regulatory burden</p> <p>Regulatory consistency</p> <p>To provide transparency for the impacts of proposed revisions to the Operating Licence.</p>

## 4 THE REGULATORY FRAMEWORK

Hunter Water operates within a complex regulatory framework. The Operating Licence administered by the Tribunal is a key component of this framework. Hunter Water is also subject to a range of requirements imposed by other regulators, including NSW Health, the Department of Water and Energy (DWE), the Department of Environment and Climate Change (DECC) and the NSW Dam Safety Committee.

### 4.1 Role of the Licence

The Operating Licence is one of the key elements of the regulatory framework which sets the direction and performance criteria for Hunter Water, and monitors its performance against these criteria. The Tribunal views the Operating Licence as the overarching regulatory instrument for Hunter Water. The role of the licence is to:

- protect public health, the environment and consumers by setting quality and performance standards; and
- support public confidence in the quality of Hunter Water’s drinking water and sustainable management of Hunter Water’s asset base and the natural resources associated with its water supply catchments through ongoing monitoring, auditing and enforcement of Hunter Water’s compliance with its regulatory obligations.

The Tribunal strongly believes that the licence should complement, and be consistent with, other regulatory requirements imposed on Hunter Water. Importantly, the Operating Licence should not duplicate other regulatory instruments. The Operating Licence is an important instrument of transparency and accountability for Hunter Water. The proposed new Operating Licence for Hunter Water, therefore, reflects the Tribunal’s view on the role of the Licence in the context of the overall regulatory framework facing Hunter Water.

### 4.2 Regulatory best practice

In developing the proposed new Operating Licence for Hunter Water the Tribunal has been mindful of concerns about the burden of regulation and the cost that regulation imposes on “doing business” which must ultimately be passed to customers. The Tribunal is also mindful that Hunter Water currently has a monopoly in the supply of certain services within a designated area. The Operating Licence together with other regulatory instruments are intended to protect the community from any abuse of that position of market power by Hunter Water.

The Tribunal is therefore cognisant of the need to balance the benefits and costs of regulation in making recommendations to the Minister on the terms and conditions in Hunter Water’s Operating Licence. To represent regulatory best practice, the licence should achieve the desired outcomes without imposing unnecessary compliance and administration costs.

In order to ensure that the proposed Operating Licence for Hunter Water achieves regulatory best practice, the Tribunal has undertaken a regulatory impact analysis with the assistance of independent consultants. The Tribunal has taken account of the need for greater co-ordination of regulatory effort, streamlining of regulatory processes (including the use of common definitions and reporting frequencies across regulatory agencies) and the identification and removal of unnecessary reporting requirements.



## **5 HUNTER WATER'S RESPONSIBILITIES (PART 2)**

### **5.1 Memorandum of Understanding**

The current Operating Licence includes obligations relating to Hunter Water's interactions with some of its other regulators. These include a requirement to establish and maintain a Memorandum of Understanding (MoU) with NSW Health. During the review, the Tribunal heard substantial evidence about the value of this document. Therefore, the Tribunal recommends that this obligation remains in the Operating Licence.

The Operating Licence acknowledges the existence of MoUs between Hunter Water and DLWC (now DWE) and between Hunter Water and the EPA, now included in DECC. However, the Operating Licence has no requirements about these MoUs.

The Tribunal investigated the value of MoUs with DWE and DECC. The existing Operating Licence reflects the regulatory regime in force at the time when that licence was drafted and an expectation that other regulatory instruments would be developed during the course of the licence. Since then, both DWE and DECC have introduced new regulatory instruments.

Following the review, the Tribunal considers that continuation of any requirement to maintain MoUs with either DWE or DECC is unnecessary and that such requirement should be removed from the licence.

The Tribunal recommends that the Operating Licence should contain no requirement for Hunter Water to establish and maintain MoUs with either DWE or DECC.

### **5.2 Monitoring and Reporting Protocol**

In 2005 the Tribunal recommended that the Sydney Water Operating Licence include a Monitoring and Reporting Protocol. This Protocol provided a vehicle for agreement between the Tribunal and the utility on matters relating to licence administration, compliance and reporting. It was especially useful to define reporting requirements associated with the risk-based auditing regime.

A later section of this report will discuss the Tribunal's recommendation to introduce a risk based audit regime for Hunter Water.

The Tribunal recommends that a Monitoring and Reporting Protocol be introduced into the Hunter Water Operating Licence.



## 6 WATER QUALITY (PART 3)

The Act requires that the Operating Licence include obligations to ensure that Hunter Water's systems and services meet the quality and performance standards specified in the licence in relation to water quality.<sup>3</sup>

The water quality standards in the current licence are based on the 1996 Australian Drinking Water Guidelines (1996 Guidelines). These guidelines have now been replaced by the NSW Cabinet endorsed 2004 Australian Drinking Water Guidelines (2004 Guidelines). At the request of NSW Health, Hunter Water has been reporting against the 2004 Guidelines since 1 July 2005.

The Tribunal believes that the new Operating Licence should recognise and implement the 2004 Guidelines. The 2004 Guidelines are risk based standards as distinct from the 1996 Guidelines which are more prescriptive. The key implication associated with adoption of the 2004 Guidelines is the need to undertake a risk assessment of the entire water delivery system to identify potential and actual hazards and areas where operational control vigilance is required. This, in turn, has implications for the monitoring program. The monitoring program will need to scrutinize key areas of concern that have been highlighted in the risk-assessment.

### 6.1 Key Recommendations

The Tribunal's recommendations for Water Quality are that the Operating Licence should:

- Specify the latest Guidelines in the Operating Licence.
- Require Hunter Water to prepare a Five Year Water Quality Management Plan that reflects the latest Guidelines. This Plan will set out the risk assessment that drives the monitoring program to address these risks.
- Require Hunter Water to establish an Annual Water Quality Monitoring Plan
- Require Hunter Water to prepare an annual report on the implementation of the Five Year Water Quality Management Plan.

### 6.2 Stakeholder submissions

In its submission, Hunter Water supported the replacement of water parameter targets listed in Schedule 3 with risk-based criteria but suggested that it is duplication to require monitoring required in the MoU with NSW Health to be incorporated in the licence. NSW Health supported recognition of the 2004 Guidelines and suggested that a risk-based approach similar to the 2004 guidelines should also be adopted for wastewater and recycling operations. There was general consensus for the continuation of overarching water quality requirements in the licence and more detailed regulation in the MOU between Hunter Water and NSW Health.

DWE recommended that monitoring and reporting requirements in the Operating Licence and the Water Management Licence should be modified to reduce duplication. Hunter Water and DWE felt that existing requirements for recycled water remain appropriate and that there is no need to cover raw water quality in the licence.

<sup>3</sup> Section 13 (1) (c), *Hunter Water Act 1991*.

## 6.3 Drinking and Bulk Water Quality

### ***Water Quality Standards, 5 Year Water Quality Management Plan and Reporting***

The 2004 Guidelines include recommendations for 97 physical/chemical water characteristics and 122 pesticides. Many of these characteristics and contaminants are not relevant to the catchments from which Hunter Water draws drinking water. The 2004 Guidelines state “the most effective means of assuring drinking water quality and the protection of public health is through the adoption of a preventative management approach that encompasses all steps in water production from catchment to consumer.”<sup>4</sup>

The Framework for Management of Drinking Water Quality, which is the centrepiece of the 2004 Guidelines, is built around four general areas:

- Full management support and Board-level strategic direction for water quality matters;
- The development of a detailed understanding of the entire water supply system, the hazards and events that can compromise drinking water quality and the preventative measures and operational control necessary for assuring safe and reliable drinking water;
- Supporting requirements, such as training, community involvement, research, validation of process efficacy and systems for documentation and reporting; and
- Review, including evaluation and audit processes that assess the performance of the management systems and provide a basis for review and continual improvement.

The Tribunal considered the costs and benefits of explicitly specifying the latest Guidelines (meaning the 2004 Guidelines, but allowing for the event that these may be updated) compared to the option of maintaining the existing requirements (which specify the 1996 Guidelines).

Specification of the latest Guidelines involves preparation of a risk analysis, preparation and implementation of the resulting monitoring plan, and other reporting and auditing requirements.

The requirement to undertake a risk assessment and prepare a monitoring plan is likely to be a feature of any future Guidelines. Compared to the status quo, this will involve increased effort from Hunter Water. However, the effort required of Hunter Water to undertake monitoring of these activities will likely be similar to that currently done. Similarly, the reporting or auditing effort required by future guidelines is likely to be no more onerous than that which is currently required.

Balancing the costs associated with these efforts is the increased benefit provided to customers, consumers and the environment by a more tailored water quality management system. Introduction of the new Guidelines may be expected to mean that the water supply system addresses the identified risks, rather than simply relying on generic risk factors and accepted monitoring procedures. This analysis is summarised in Table 6.1.

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<sup>4</sup> National Health and Medical Research Council and Natural Resource Management Ministerial Council, *Australian Drinking Water Guidelines, 2004*, p 2-1.

Table 6.1 Costs and benefits of options for specifying a standards and monitoring program

<i>Options</i>	<i>Magnitude of costs</i>		<i>Magnitude of benefits</i>		
	<i>Government administration</i>	<i>HWC compliance</i>	<i>Wider community</i>	<i>Direct customers</i>	<i>Environment</i>
Status quo: Maintaining existing reference to 1996 version of the Australian Drinking Water Guidelines	Low	Low - medium	Low-medium	Medium-high	Low-medium
Option 1: Require water quality standards to be as agreed with NSW Health (including water quality monitoring requirements)	Low	Medium	Low - medium	High	Medium - high

Note: Costs and benefits are indicative, i.e. characterised on the following scale: mildly negative, no impact, low, low-medium, medium, medium-high, high. Comparisons should be made across options by reading down the column for each category of cost and benefit. The net impact, that is whether benefits outweigh costs, can not be determined from the above table.

Reference: The above analysis is based on *Impact assessment of a new operating licence for Hunter Water Corporation*, Centre for International Economics, April 2007, page 9. Note that Table 2.4 in the CIE paper analyses different options to those in Table 6.1 above.

The Tribunal recommends that the latest Guidelines be specified in the Operating Licence.

### ***Bulk Water Quality – Monitoring***

The existing Operating Licence has water quality requirements located in several areas. The Tribunal has recommended that these disparate water quality monitoring requirements should be collected and rationalised within the Water Quality section of the Operating Licence. Grouping all requirements in the one section has the benefit that all Drinking Water monitoring will be focussed on addressing the risk assessment in the 2004 Guidelines. Bulk water monitoring, including targeted, investigative and event-based monitoring is focussed on identifying potential hazards in the water supply and changes in water quality. This recommendation removes some duplication in monitoring requirements and streamlines the requirements of the Operating Licence.

### ***Recycling and Other Grades of Water***

The current Operating Licence requires Hunter Water to comply with certain general standards, similar to those in the Sydney Water Operating Licence. The Tribunal believes that the Operating Licence should emphasise recycled water to reflect the community's interest in this issue.

Following advice from NSW Health, the Tribunal has recommended the Operating Licence include an obligation that Hunter Water be required to adopt a risk management approach to waste water and water recycling operations and prepare a risk management plan for waste water and recycling operations. The Tribunal also supported the view of NSW Health that the Operating Licence should include a requirement that Hunter Water report to NSW Health on any information or event in relation to waste water or recycling operations which may have risks for public health.

In regard to other grades of water, the current Operating Licence requires Hunter Water to reach agreement with raw water customers on quality, use, continuity and costs and provide advice to users on potential uses and the need for treatment if the water is used for drinking.

The Tribunal considered the costs and benefits of removing this requirement. Removal may be expected to complement policy objectives of promoting reuse of water by reducing transactions costs incurred by Hunter Water in the supply of other grades of water. The Tribunal recommends that these requirements be deleted from the Operating Licence.

The Tribunal received evidence that the Operating Licence should retain the requirement that water other than drinking water, such as recycled water or raw water, must be supplied in accordance to relevant guidelines and requirements, such as those specified by NSW Health or DECC. Compliance with these guidelines will assure customers that water other than drinking water provided by Hunter Water is fit for purpose.

### ***Environmental Water Quality***

The current Operating Licence requires Hunter Water to report its performance against the environmental water quality requirements of DECC and DWE. This provides public disclosure of important environmental surveillance and water quality monitoring activities. It involves no additional work for Hunter Water, merely release of reports prepared for other agencies. The Tribunal decided that this requirement fulfils an important public interest role and so should be recommended to be retained in the new Operating Licence.

## 7 INFRASTRUCTURE PERFORMANCE (PART 4)

Section 13 of the Act requires the Operating Licence to include terms and conditions under which the Corporation 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 waste water, and to 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.

Infrastructure performance includes obligations to achieve this requirement.

### 7.1 Key Recommendations

The Tribunal recommends that the licence includes:

- the system performance standards developed by GHD with targets to be determined during the term of the licence
- indicators required by the National Water Initiative benchmarking project (NWI)
- an asset management obligation.

### 7.2 System Performance Standards

The current Operating Licence includes three System Performance Standards that relate to water supply continuity, water supply pressure and sewage overflows. These standards are set out below.

**Water Continuity Standard** - Hunter Water must ensure that no more than 14,000 Properties in a financial year experience one or more water interruptions (whether a planned water interruption or an unplanned water interruption) which taken together have a cumulative duration exceeding 5 hours.

**Water Pressure Standard** - Hunter Water must ensure that no more than 4,800 Properties in a financial year experience one or more pressure incidents, where a "pressure incident" is an event where the water pressure to a property falls below 20 metres head at the point of connection of the property to Hunter Water's main, other than as a result solely of:

- a water interruption;
- water usage by authorised fire authorities in the case of a fire; or
- operational problems (including breaks in a main or a failure of a pump) that are temporary and short term in nature.

**Sewage Overflows Standard** - Hunter Water must ensure that the number of uncontrolled sewage overflows in a financial year (other than on public land) does not exceed 6,500.

The current Operating Licence has no requirements relating to drainage. This reflects the complex nature of the ownership and administration of these assets.

### **Stakeholder views**

In its submission, Hunter Water:

- agreed that standards and indicators in the Operating Licence should be consistent with those in the NWI framework;
- highlights the need for consideration of social cost-benefit of any proposed standard;
- supports measures for water quality, continuity, pressure and sewage overflow; and
- suggests that system performance standards should provide a net benefit, be within Hunter Water's ability to control and report, sufficiently stable to allow observation of underlying trends and avoid duplication.

Views were also expressed that the number and definitions of indicators should be rationalised, especially where these provide consistency with data collected through the NWI process, that system performance should be assessed in terms of continuous improvement, and that the standards should be set so as to maintain current service levels.

### **Consultancy**

The Tribunal engaged consultants, GHD Limited, to advise it on any changes required to system performance standards or indicators in the Operating Licence.

In its report, GHD proposed a suite of system performance standards for Hunter Water consisting of two water continuity standards, one water pressure standard and two wastewater standards. They also made recommendations concerning performance indicators, quality assurance, system performance standard targets and implementation. The GHD recommendations are summarised below.

#### *Water continuity standards*

- Number of properties experiencing 3 or more unplanned interruptions in a year.
- Number of properties per financial year with unplanned interruptions in excess of 5 hours.

#### *Water pressure standard*

The number of properties that do not receive continuous water pressure, and are likely to continue to not receive, a pressure less than the reference level for a specified duration. This standard includes multiple property counts for separately metered parts of multiple occupancy properties.

#### *Wastewater standards*

- Number of private properties in a year experiencing a sewage overflow.
- Number of private properties experiencing three or more overflow in a year.

#### *Performance indicators*

GHD recommended that NWI indicators be adopted where these cover similar issues to existing indicators.

*Quality assurance*

A data confidence grading system that includes quantified estimates of accuracy is recommended. The OFWAT or ESC reliability and accuracy confidence grading systems are suggested as reliable models.

*System Performance Standard (SPS) targets*

GHD suggest that SPS targets should be set as an integrated part of the staged implementation approach and aligned with the next pricing review.

System Performance Standards have the capacity to become major cost drivers for water utilities. For this reason the Tribunal considered the costs and benefits related to changes to the System Performance Standards. Table 7.1 summarises this analysis.

**Table 7.1 Costs and benefits of options for performance standards**

<b>Options</b>	<b>Magnitude of costs</b>		<b>Magnitude of benefits</b>		
	<i>Government administration</i>	<i>HWC compliance</i>	<i>Wider community</i>	<i>Direct customers</i>	<i>Environment</i>
Status quo: Retain current standards and targets	Medium	Medium	Low	Mildly negative	Low
Option 1: Adopt recommended changes to the standards and revise targets based on currently available information	Low-medium	Low-medium	Low	Mildly negative	Low
Option 2: Adopt recommended changes to the standards and revise targets based on new analysis and information	Medium	Low-medium	Low-medium	Medium-high	Low-medium

Note: Costs and benefits are indicative, i.e. characterised on the following scale: mildly negative, no impact, low, low-medium, medium, medium-high, high. Comparisons should be made across options by reading down the column for each category of cost and benefit. The net impact, that is whether benefits outweigh costs, can not be determined from the above table.

Reference: This analysis is based on *Impact assessment of a new operating licence for Hunter Water Corporation*, Centre for International Economics, April 2007, p 11.

The above analysis shows the preferred option to be option 2, which entails a rigorous approach to target development, involving detailed assessment of data to ensure that targets were based on appropriate and relevant information. Option 2 is consistent with GHD recommendations and seeks to avoid any misspecification of targets which may result in inefficient investment or resource allocation which are likely to have a negative effect on customers.

The Tribunal recommends that the GHD suggestions for System Performance Standards be incorporated into the Operating Licence and recommends that targets be developed and implemented during the course of the Operating Licence.

### 7.3 System Performance Indicators

Public reporting is an important feature of Hunter Water’s Operating Licence. However the strength of assessment and reporting is dependent upon monitoring and the use of indicators that meaningfully communicate performance and outcomes. The Operating Licence includes a range of indicators relating to water quality, environment and sustainability, system performance, and supply and demand management.

The NSW Government has agreed to participate in the National Water Initiative (NWI) benchmarking project. This project aims to develop a consistent set of indicators against which all water utilities across Australia can report. In light of this obligation, options were explored for incorporating the NWI indicators into Hunter Water’s reporting requirements.

Table 7.2 summarises the options and associated expected impacts related to indicator reporting. The analysis in Table 7.2 suggests that rationalising the indicators may be expected to lower costs (administrative and compliance) while potentially generating benefits for the community and customers.

**Table 7.2 Costs and benefits of options for reporting indicators**

<i>Options</i>	<i>Magnitude of costs</i>		<i>Magnitude of benefits</i>		
	Government administration	HWC compliance	Wider community	Direct customers	Environment
Status quo: Do not amend current indicators to include NWI indicators	Medium	High	Low-medium	Low	Low-medium
Option 1: Retain both localised (current) indicators and NWI benchmarking indicators	Medium	High	Medium	Low	Medium
Option 2: Rationalise indicator requirements	Low	Medium	Medium	Medium	Medium

Note: Costs and benefits are indicative, i.e. characterised on the following scale: mildly negative, no impact, low, low-medium, medium, medium-high, high. Comparisons should be made across options by reading down the column for each category of cost and benefit. The net impact, that is whether benefits outweigh costs, can not be determined from the above table.

Reference: This analysis is based on *Impact assessment of a new operating licence for Hunter Water Corporation*, Centre for International Economics, April 2007, p 20.

The Tribunal recommends that any overlap between existing indicators and those required under the NWI agreement should be removed and the resulting indicator set should be rationalised.

### 7.4 Asset Management

Asset management provisions provide transparency and assurance to stakeholders, via the audit process, that a water utility is devoting adequate attention to:

- the maintenance of existing systems, to minimise failure and ensure that current service levels are consistent with current standards;
- the planning of new systems to meet required service levels into the future; and
- the construction or acquisition of new assets at the most efficient, sustainable and affordable cost.

This is important, as a decline or failure of system performance could impact significantly on customers, the environment and the wider community. This importance is heightened by the fact that many assets are buried below ground, or in situations where their condition is not easily checked. This is especially relevant to Hunter Water, since its systems are characterised by isolated networks, connected by long, often unduplicated, water and sewer mains which can traverse terrain that is difficult to access, such as National Parks.

Reporting against system performance standards and indicators reflect past or current asset management practices, rather than looking into the future. Asset management obligations, on the other hand, are more forward-looking and pro-active.

One option suggested in the Issues Paper was for the new Hunter Water licence to contain an asset management obligation similar to that recently included in the Sydney Water, State Water and SCA licences (as set out in Appendix D of the Issues Paper). Such an option would be consistent with the NSW Treasury's approach to asset management.

### ***Stakeholder submissions on Asset Management***

Hunter Water argued that existing asset management requirements drive it to ensure that its asset management does not result in situations that could adversely affect customers. This view is not consistent with the Corporation's recent record against system performance standards. Since 2002, Hunter Water's performance against its water system continuity standard has attracted comment and concern in almost every annual audit. It is common practice for asset systems similar to those managed by Hunter Water to be subject to an asset management review conducted on a 4-5 year cycle.

Other workshop participants supported the inclusion of asset management requirements in the Licence and believed that the asset management strategy should be subject to independent audit (similar to the Sydney Water and Sydney Catchment Authority licences).

### ***The Asset Management Obligation***

The Tribunal considered the costs and benefits of two options for the asset management obligation and compared these with the status quo. The results of this analysis are presented in Table 7.3.

**Table 7.3 Costs and benefits of options related to asset management**

<b>Options</b>	<b>Magnitude of costs</b>		<b>Magnitude of benefits</b>		
	<i>Government administration</i>	<i>HWC compliance</i>	<i>Wider community</i>	<i>Direct customers</i>	<i>Environment</i>
Status quo: No asset management requirements	No impact	No impact	Mildly negative	Mildly negative	Mildly negative
Option 1: Require assets to be managed in a generic way as per operating licences for Sydney Water, SCA, and State Water	Low	Medium	Low-medium	Low-medium	Low-medium
Option 2: Adopt WSAA asset management benchmarking framework	Low-medium	Medium	Low	Low	Low
Note	Costs and benefits are indicative, i.e. characterised on the following scale: mildly negative, no impact, low, low-medium, medium, medium-high, high. Comparisons should be made across options by reading down the column for each category of cost and benefit. The net impact, that is whether benefits outweigh costs, can not be determined from the above table.				
Reference:	This analysis is based on <i>Impact assessment of a new operating licence for Hunter Water Corporation</i> , Centre for International Economics, April 2007, p 18.				

The approach suggested by this analysis is to adopt a licence requirement that maintains consistency across the various Operating Licences of water utilities in the State. This approach is not prescriptive, thereby allowing Hunter Water to capitalise on its experiences and knowledge gained through its involvement in the benchmarking framework Water Services Association of Australia (WSAA).

Working from updated wording of the asset management obligation suggested by Hunter Water, the Tribunal recommends an asset management obligation similar to those recommended by the Tribunal in previous Operating Licence reviews.

## 8 CUSTOMER AND CONSUMER RIGHTS (PART 5)

A key aspect of the Operating Licence is the protection of the rights of customers who rely on the monopoly services provided by Hunter Water. The existing Operating Licence establishes the need for customer contracts, which sets out the rights and obligations of customers and Hunter Water with respect to the delivery of water services. It also requires Hunter Water to develop a code of practice and procedure on debt and disconnection, and to consult with a Consultative Forum in a specified way to enable community involvement in issues relevant to the performance of Hunter Water's obligations.

The objective of specifying how Hunter Water should relate to its customers generally relates to addressing the information asymmetry problem that arises between a sole provider and its customers, to help prevent any abuses of Hunter Water's market power and to provide consumers with an opportunity to obtain information on how their needs may be addressed. It is also a means by which Hunter Water can obtain information from consumers on the issues it needs to pursue, which can help it to identify systemic water quality and other problems. These objectives remain appropriate and relevant.

The challenge is to provide for an exchange of relevant information in an efficient and effective way. The Tribunal has recommended a number of changes to incorporate additional reporting (as required under the NWI) and to streamline existing reporting.

### 8.1 Key Recommendations

The Tribunal's key recommendations on this section of the licence are that:

- The customer service indicators be based on those collected as part of the National Water Initiative, with some additional localised indicators.
- There be no change to the existing Debt and Disconnection Procedures, but that these procedures be reviewed as part of any review of the Customer Contract.
- The Customer Contract may be reviewed within the term of the licence.

### 8.2 Customer service indicators

Since 2002, Hunter Water has been directed by the Minister to report annually against a range of customer service indicators. Some of these indicators are similar to those that Sydney Water is required to report against under its Operating Licence, although Sydney Water has more extensive indicators in relation to affordability.

Under the National Water Initiative (NWI) a set of customer service indicators have recently been agreed to by all States under the *National Performance Framework*<sup>5</sup> and will be collected for all water utilities in Australia and publicly reported.

There was general consensus amongst stakeholders that the set of customer service indicators in the NWI indicators should be adopted or referenced in the next licence, as well as additional existing local indicators that did not have an equivalent NWI indicator. The Tribunal supports this view, as it will minimise any duplication with Hunter Water's

<sup>5</sup> National Water Commission, *National Performance Framework: 2006 urban performance reporting indicators and definitions, a handbook for WSAA members*, 2006.

requirements under the NWI but will also provide information on its performance in its local area. It will also enhance industry performance benchmarking and comparison across jurisdictions.

The Tribunal recommends that the customer service indicators be based on those collected as part of the National Water Initiative, with some additional localised indicators.

### **8.3 Debt and disconnection procedures**

The current licence requires that Hunter Water develop a Code of Practice and Procedure on Debt and Disconnection within 6 months of the licence commencing. This requirement has been met by Hunter Water. The existing Code provides for deferred payment or payment by instalment options, and that advice about these payment options is included on bills.

Stakeholders have raised a number of areas for revision or improvement in the Code, namely:

- offering retrofitting programs to customers experiencing financial hardship
- Hunter Water participating in Centrepay (so customers can arrange for automatic deductions from their Centrelink payments to pay bills, and thereby avoid direct debit fees and accumulating debts)
- giving notification to tenants/consumers of pending restriction/disconnection action (as well as property owners/customers), and notification to customers via telephone prior to taking restriction/disconnection action (not just notification by mail or visit at the time of taking the action).

The Tribunal believes that requiring a set of minimum standards on the way in which Hunter Water ought to service its customers is a direct way of addressing the information asymmetry problem that exists between Hunter Water and its customers. It is reasonable that any cost effective measures to improve the efficiency and equity of debt and disconnection procedures would be justified.

The Tribunal considered a number of options to improve the efficiency and equity associated with specifying a code of practice and procedures with respect to debt and disconnection. These options along with their associated costs and benefits are summarised in Table 8.1.

**Table 8.1 Costs and benefits of additional provisions in the code of practice and procedures on debt and disconnection**

<i>Options</i>	<i>Magnitude of costs</i>		<i>Magnitude of benefits</i>		
	<i>Government administration</i>	<i>HWC compliance</i>	<i>Wider community</i>	<i>Direct customers</i>	<i>Environment</i>
Status quo: Provide options for deferred payment or by instalments which are to be advised in bills	No impact	Low	Low	Low-medium	No impact
Option 1: Provide for additional provisions in the licence, such as providing retrofitting programs for customers experiencing financial hardship; enabling access to Centrepay; follow a specified notification process	Low-medium	Medium	Low	Medium	Low
Option 2: Require amendments to the customer contract if reviewed which accommodate the provisions in Option 1	Low	Medium	Low	Medium	Low
Option 3: Do not specify additional provisions or require amendments to the customer contract	No impact	Low	Low	Low-medium	No impact

Note: Costs and benefits are indicative, i.e. characterised on the following scale: mildly negative, no impact, low, low-medium, medium, medium-high, high. Comparisons should be made across options by reading down the column for each category of cost and benefit. The net impact, that is whether benefits outweigh costs, can not be determined from the above table.

Reference: This analysis is based on *Impact assessment of a new operating licence for Hunter Water Corporation*, Centre for International Economics, April 2007, p 5.

The Tribunal notes that Hunter Water is already actively implementing the areas for revision noted in the dot points above. The Tribunal therefore does not recommend any changes to the current Licence at this stage. It, however, does recommend that a review of the Debt and Disconnection Procedures should be a part of any review of the Customer Contract.

The Tribunal recommends no change to the existing Debt and Disconnection Procedures, but that these procedures should be reviewed as part of any review of the Customer Contract.

### 8.4 Customer Contract

A “customer” is defined under the Act as a person who is taken to have entered into a Customer Contract under section 36, or a person who has made a contract with Hunter Water of a kind referred to in section 37 (ie, a contract for the provision of water supply or sewerage services specifically agreed to by Hunter Water). Under section 36 of the Act, a person who is an owner of land that is connected to a water main or sewer main owned by Hunter Water is taken to have entered into a Customer Contract with Hunter Water and to be the “customer”. The customer therefore is not always the ultimate consumer or user of the services (ie, if the property is tenanted). The Customer Contract and Operating Licence are drafted in a manner consistent with the Act’s definitions.

The current licence requires IPART to initiate a review of the Customer Contract (having regard to the system performance standards in the licence), complete the review within 12 months of the commencement of the licence and provide a report setting out its finding and recommendations to the Minister. It also requires Hunter Water to take all steps necessary to issue a new Contract that addresses the recommendations of the review report within 3 months, if directed by the Minister.

The Tribunal notes that the Customer Contract was last reviewed in 2003. The Tribunal does not consider that it is necessary to review the Customer Contract at this time. However, it may be desirable to review the Contract during the course of the next Operating Licence and the Licence should provide for this.

The Tribunal recommends that the licence provide that the Customer Contract may be reviewed within the term of the licence.

## 9 COMPLAINT AND DISPUTE HANDLING (PART 6)

As noted above, a key aspect of the Operating Licence is the protection of the rights of customers who rely on the monopoly services provided by Hunter Water. The existing Operating Licence requires Hunter Water to consult with a Consultative Forum in a specified way to enable community involvement in issues relevant to the performance of Hunter Water's obligations. The existing licence also requires Hunter Water to report customer complaints which provides consumers with an opportunity to obtain information on how their needs are being addressed. It is also a means by which Hunter Water can obtain information from consumers on the issues it needs to pursue, which can help it to identify systemic water quality and other problems.

### 9.1 Key Recommendations

The Tribunal recommends that the licence requires Hunter Water to

- publicly report customer complaints by suburb on exceptions basis.
- report annually on the activities of the Consultative Forum and compliance with the Consultative Forum Charter and for this report (and the Minutes of proceedings) to be made available on the website.

### 9.2 Reporting complaints

Currently Hunter Water is required to report on the number and type of complaints received on a month to month basis, classified into suburb for a number of categories (including water pressure and sewage overflow).

Hunter Water argues that this reporting requirement is onerous, resulting in large "table cloth" reports that are not used by the Corporation to identify systemic problems (which is the purpose behind the reporting requirement, in order to provide an 'early warning' system for water quality or other problems).

The current system performance indicators and proposed new system performance standards require reporting on repeat or continuing problems with water pressure and sewage overflows. However, detailed reporting against the suburb or location is not required.

The Tribunal considered the option of maintaining the existing requirement to reporting information by suburb/location against the option of reporting this information at an aggregate level. The Tribunal recognises that there will be some additional cost of reporting this information at a disaggregated level but it believes that the benefits of this outweigh the additional costs. Specifically, the Tribunal believes that reporting complaints on a suburb or location basis does help to identify areas where customers may face persistent problems. However, in order to reduce the cost of reporting, the Tribunal recommends that this information could be reported on an "exception basis", where Hunter Water is only required to report on those areas where customer complaints are persistent.

The Tribunal recommends that Hunter Water be required to publicly report, on an exceptions basis, customer complaints by suburb.

### 9.3 Consultative Forum

The Act requires Hunter Water to "...consult with its customers at regular intervals..."<sup>6</sup> The Operating Licence requires it to establish and regularly consult with a Consultative Forum made up of representatives from the community and specific interest groups. Hunter Water is required to provide the Consultative Forum with all information necessary to fulfil its functions and to facilitate a charter to govern the operation, membership and resourcing of the Forum.<sup>7</sup>

The Consultative Forum is well received by stakeholders, including Hunter Water, and has proven to be an effective way of liaising with stakeholders and meeting the Operating Licence requirements for community consultation.

The substantive issue with regard to the Forum for the new Operating Licence is the extent to which the licence should specify how the Forum is run, the issues that it ought to cover, and the way that Forum information should be distributed to the wider community. The Tribunal has considered options to enhance the reporting requirements of Forum and/or to require greater reporting of outcomes and proceedings of the Forum.

The options for enhancing the reporting requirements of the Forum are expected to have both reasonably low costs and low order benefits. The greater costs and benefits relate to the reporting of outcomes and proceedings rather than reporting of official documents. On balance, the Tribunal believes that the benefits of greater transparency of the Forum's activities outweigh the marginally higher additional costs for Hunter Water.

The Tribunal recommends that the licence should require Hunter Water to report annually on the activities of the Forum and compliance with the Consultative Forum Charter and for this report (and the Minutes of proceedings) to be made available on the website.

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<sup>6</sup> Section 13 (2), *Hunter Water Act 1991*.

<sup>7</sup> Clause 5.4, *Hunter Water Corporation Operating Licence Operating Licence 2002-2007*.

## 10 ENVIRONMENT – INDICATORS AND MANAGEMENT (PART 7)

The provision of water, sewerage and drainage services have fundamental impacts on the environment. Given the significance of these impacts, Hunter Water's environmental performance is subject to specific regulation by the DECC and DWE. The Tribunal recognises the primary roles of the DECC and DWE in determining environmental priorities and standards. However, the Tribunal cannot accurately report to government on Hunter Water's overall performance without considering the Corporation's impact on the environment. In the past, the role taken by the Operating Licence has been to require public reporting of Hunter Water's environmental performance against the standards set by regulators such as DECC and DWE.

### 10.1 Key recommendations

The Tribunal recommends that the licence:

- require Hunter Water to adopt the environmental indicators proposed through the National Water Initiative, with some additional indicators relating to local issues.
- maintain the current regulatory framework regarding the EMP.
- should only be required to report against NWI indicators of energy consumption and greenhouse abatement actions.
- not specify additional energy reporting requirements be imposed on Hunter Water.
- expand Hunter Water's reporting requirements to provide information on planned and actual activities and costs associated with catchment management.

### 10.2 Environmental indicators

Under the current Licence, Hunter Water is currently required to report annually against a suite of environmental indicators and indicators of ecologically sustainable development (ESD indicators). Hunter Water is now also required to report against ESD indicators through its obligations under the National Water Initiative (NWI).

The Tribunal considered the option of changing the suite of indicators that Hunter Water currently reports against to ensure consistency with those reported by Sydney Water Corporation as part of its licence obligations. The Tribunal also considered streamlining the existing indicators reported by Hunter Water to ensure consistency with its new obligations under the NWI.

There was general consensus amongst stakeholders that the new Licence should adopt the environmental indicators proposed through the NWI, with some additional indicators relating to local issues.

The Tribunal considered that this position would reduce the costs for Hunter Water as it would minimise any duplication and overlap between reporting requirements. However, the Tribunal also noted that there was an additional cost of regular changes to the suite of indicators because the value of the indicators is often the trend observations drawn from the indicators over time. This cannot be done if the measures are changed frequently.

The Tribunal noted that there was also considerable benefit in adopting the NWI indicators as it enhances industry performance benchmarking and comparison across jurisdictions. The Tribunal considers it important to also maintain some localised indicators to provide a more detailed understanding of issues specific to Hunter Water's area. On balance the Tribunal believed that the benefits of this approach outweighed any costs.

The Tribunal recommends that the licence require Hunter Water to adopt the environmental indicators proposed through the National Water Initiative, with some additional indicators relating to local issues.

### **10.3 Environment Plan**

The current Licence requires Hunter Water to develop and report against a five-year Environmental Management Plan (EMP).

One of the concerns raised about the EMP was that the difficulty in assessing the quality of the plan. One option considered by the Tribunal was for Hunter Water to certify its environmental management system (EMS), of which the EMP is just one component, to the relevant Australian standard. This would help ensure that Hunter Water's primary tool in meeting its environmental obligations reflected best practice in Australia.

Hunter Water argued against the certification process due to the additional costs associated with this process. Hunter Water also did not believe that the certification process will provide an accurate assessment of the quality of the EMP.

The Tribunal recognises that to have the Environmental Management System (EMS) certified to the relevant Australian standard is costly. It also recognises that, in practice, the certification process tends to be input or process oriented rather than examining outcomes and effectiveness of systems for managing risk. There is little evidence to support the position that the additional costs of EMS certification would produce better environmental outcomes. The Tribunal believed that, to the extent that there are gains from certification, they are not outweighed by the costs.

The Tribunal has decided to maintain the current regulatory framework regarding the Environment Management Plan.

### **10.4 Energy management**

The current Licence requires Hunter Water to participate in the Energy Smart Business Program, or similar program administered by the Sustainable Energy Development Authority. Hunter Water complied with this requirement until the program was disbanded in June 2005.

#### ***Energy Reporting***

One option considered by the Tribunal was to require Hunter Water to reduce energy consumption and increase its uptake of energy from renewable sources. This requirement could be supported by indicators covering electricity consumption, emission of greenhouse gases and generation and use of renewable energy.

Stakeholders believed that Hunter Water should report energy management indicators. However, Hunter Water already reports energy consumption and greenhouse results as part of its NWI obligations. The expected impacts associated with the options for reporting requirements are summarised in Table 10.1. This analysis supports the view that Hunter Water should only be required to report against NWI indicators of energy consumption and greenhouse abatement actions.

**Table 10.1 Costs and benefits of options for energy management reporting**

<b>Options</b>	<b>Magnitude of costs</b>		<b>Magnitude of benefits</b>		
	<i>Government administration</i>	<i>HWC compliance</i>	<i>Wider community</i>	<i>Direct customers</i>	<i>Environment</i>
Status quo: Do not require reporting against energy management indicators	No impact	No impact	Mildly negative	Mildly negative	Mildly negative
Option 1: Require reporting against NWI indicators only	Low	Low-medium	Low	Medium	Low
Option 2: Require reporting against indicators specified in the EMP including NWI indicators	Low-medium	Medium	Low	Low	Low

Note: Costs and benefits are indicative, i.e. characterised on the following scale: mildly negative, no impact, low, low-medium, medium, medium-high, high. Comparisons should be made across options by reading down the column for each category of cost and benefit. The net impact, that is whether benefits outweigh costs, can not be determined from the above table.

Reference: This analysis is based on *Impact assessment of a new operating licence for Hunter Water Corporation*, Centre for International Economics, April 2007, p 26.

The Tribunal recommends that Hunter Water should only be required to report against NWI indicators of energy consumption and greenhouse abatement actions.

**Energy Management Targets**

There was also a suggestion at the workshop that there should be a long term, net greenhouse emissions target and for Hunter Water to show progress toward meeting this target. The expected impacts associated with the options for specifying energy use performance targets are summarised in Table 10.2.

This analysis suggests that the licence should not require Hunter Water to specify energy management targets beyond those in the EMP. Further, Hunter Water must comply with the NSW Government’s Energy Savings Action Plan. Imposing targets beyond those in the EMP increases the risk that multiple targets, each developed through distinct processes/programs, can potentially give rise to conflicting and/or inefficient direction when it comes to making investment decisions.

**Table 10.2 Costs and benefits of options for energy management targets**

<b>Options</b>	<b>Magnitude of costs</b>		<b>Magnitude of benefits</b>		
	<i>Government administration</i>	<i>HWC compliance</i>	<i>Wider community</i>	<i>Direct customers</i>	<i>Environment</i>
Status quo: Do not specify targets	No impact	No impact	Mildly negative	No impact	Mildly negative
Option 1: Require implementation of targets beyond those identified in the EMP	Low	Medium	Medium	Low-medium	Medium
Option 2: Specify targets developed through negotiation with Govt and stakeholders	Medium	High	Medium	Low	Medium-high
Note:	Costs and benefits are indicative, i.e. characterised on the following scale: mildly negative, no impact, low, low-medium, medium, medium-high, high. Comparisons should be made across options by reading down the column for each category of cost and benefit. The net impact, that is whether benefits outweigh costs, can not be determined from the above table.				
Reference:	This analysis is based on <i>Impact assessment of a new operating licence for Hunter Water Corporation</i> , Centre for International Economics, April 2007, p 27.				

The Tribunal recommends that no additional energy reporting requirements be imposed on Hunter Water.

## 10.5 Catchment Management

Under the current arrangements, Hunter Water, the Hunter-Central Rivers Catchment Management Authority, DWE, DECC, and local councils all share responsibility for the condition and health of the Hunter Water catchments. The current Licence requires Hunter Water to publish an annual Catchment Report containing certain information. Hunter Water agrees that transparency in reporting of catchment activities is desirable but does not support incorporation of an outcome-focussed approach similar to that in the Sydney Catchment Authority licence. Other stakeholders disagree and argue that the catchment report should be more outcomes-focussed.

With increased concern over the sustainability of water supplies, the issue is whether the current reporting requirements provide sufficient transparency and accountability of Hunter Water’s activities to assist stakeholders to understand the impacts of Hunter Water’s activities. Relevant options and their potential impacts are summarised in Table 10.3.

This analysis suggests that Hunter Water’s reporting requirements should be expanded. The Tribunal recommends that Hunter Water be required to provide additional information on planned and actual catchment management activities and the associated costs. The recommended approach is likely to impose minor additional compliance cost for Hunter Water, but the Tribunal believes that this will be outweighed by the additional benefits from greater transparency of Hunter Water’s catchment management operations.

**Table 10.3 Costs and benefits of options for catchment management reporting**

<b>Options</b>	<b>Magnitude of costs</b>		<b>Magnitude of benefits</b>		
	<i>Government administration</i>	<i>HWC compliance</i>	<i>Wider community</i>	<i>Direct customers</i>	<i>Environment</i>
Status quo: Annual report on activities undertaken	Low	Low	Low	Low	No impact
Option 1: Expand reporting requirements to information on both planned and actual activities/investment	Low	Low	Medium	Low	Low-medium

Note: Costs and benefits are indicative, i.e. characterised on the following scale: mildly negative, no impact, low, low-medium, medium, medium-high, high. Comparisons should be made across options by reading down the column for each category of cost and benefit. The net impact, that is whether benefits outweigh costs, can not be determined from the above table.

Reference: This analysis is based on *Impact assessment of a new operating licence for Hunter Water Corporation*, Centre for International Economics, April 2007, page 28.

The Tribunal recommends expanding Hunter Water’s reporting requirements to provide information on planned and actual catchment management activities and associated costs.



## 11 MANAGING SUPPLY AND DEMAND (PART 9)

Drought conditions experienced in recent years have served to highlight the value of water. Low rainfall coupled with growing populations have placed considerable pressure on the existing water sources in a number of centres – forcing water supply authorities to undertake new supply augmentation and demand management initiatives. Hunter Water’s principle vehicle for managing supply and demand is its Integrated Water Resource Plan (IWRP). The Licence also includes a Demand Management target for HWC for residential water consumption.

### 11.1 Key recommendations

The Tribunal recommends that the licence:

- maintain the existing requirement to use the least cost approach, but where social and environmental costs cannot be quantified Hunter Water be allowed to use an alternative qualitative approach such as multi-criteria analysis;
- require Hunter Water to publish details of any qualitative analysis of options to ensure transparency of its findings; and
- maintain the existing licence requirements that regarding water conservation targets and not impose additional targets for leakage or recycling.

### 11.2 Integrated Water Resources Plan

In accordance with requirements of the current Operating Licence, Hunter Water developed an initial IWRP in 2002. The IWRP aims to find the best solutions to meet future water demands after devoting due consideration to social, economic and environmental factors. It treats both demand management and supply development options equally so that the optimal sequencing of demand and supply options is identified.

Since 2002 a number of factors influencing demand and supply have changed and the IWRP is in need of review. Major challenges are posed by the supply needs of the Central Coast and recent revisions to population projections.

Stakeholders supported the continued use of the IWRP. Hunter Water argues that the fundamental basis of the IWRP is that it provides a rational and informed process for examining, side-by-side, a mix of options for improving water-use efficiency (modifying demand) and water-delivery efficiency and increasing supply. It argues that the IWRP allows options to be adopted in line with their merits measured in terms of their cost, environmental sustainability, community acceptance and contributions to the demand/supply balance.

Notwithstanding this, Hunter Water recognises the need to revise the IWRP to take account of changing circumstances. It has commenced a review of the IWRP which will be completed over the next 18 months and will include public consultation (as required by the licence).

The assessment of impacts associated with options for the planning horizon for the IWRP are summarised in Table 11.1.

**Table 11.1 Costs and benefits of specifying a planning horizon for the IWRP**

<i>Options</i>	<i>Magnitude of costs</i>		<i>Magnitude of benefits</i>		
	<i>Government administration</i>	<i>HWC compliance</i>	<i>Wider community</i>	<i>Direct customers</i>	<i>Environment</i>
Status quo: 10-yr planning horizon	Low	Low	Low	Low	Low
Option 1: 25-yr planning horizon	Low	Medium	Low	Low	Medium
Option 2: Specify a <i>minimum</i> 10-yr planning horizon	Low	Low-medium	Low	Low	Medium

Note: Costs and benefits are indicative, i.e. characterised on the following scale: mildly negative, no impact, low, low-medium, medium, medium-high, high. Comparisons should be made across options by reading down the column for each category of cost and benefit. The net impact, that is whether benefits outweigh costs, can not be determined from the above table.

Reference: This analysis is based on *Impact assessment of a new operating licence for Hunter Water Corporation*, Centre for International Economics, April 2007, p 13.

The above analysis suggests that the licence should specify a minimum 10-year planning horizon.

A key issue raised in relation to the IWRP has been the provision in the current Licence that requires Hunter Water to adopt the least-cost option in the Plan. It believes that it would be better to replace this requirement to adopt the least cost option with a requirement to pursue options identified by a multi-criteria analysis, where the criteria have been established through community consultation. Stakeholders did not support the use of multi-criteria analysis (as a replacement for least cost analysis), due to concerns regarding the potential lack of transparency of this approach.

The Tribunal recommends that the Licence maintain the existing requirement to use the least cost approach, but where social and environmental costs cannot be quantified Hunter Water be allowed to use an alternative qualitative approach such as multi-criteria analysis. The Tribunal also recommends that Hunter Water must publish details of any qualitative analysis of options to ensure transparency of its findings.

### 11.3 Targets

The Licence currently includes a water conservation target which requires Hunter Water to hold average water consumption by residential properties at or below 215 kilolitres per annum. The Tribunal considered whether the existing target should be made more stringent and whether additional requirements covering leakage, recycling, security of supply and incentives for demand management are cost-effective.

Hunter Water firmly believes that the IWRP process is preferable to individual targets set by regulation. It supports the current form of water conservation targets on residential use (given the unpredictable nature of non-residential use due to a range of factors outside of their control) and the current level of the target. It also supports the continued use of some voluntary demand management targets in its IWRP.

Hunter Water does not support the inclusion of additional targets covering recycling, leakage and security of supply, however other stakeholders supported introducing more stringent demand management targets for Hunter Water.

**Table 11.2 Costs and benefits of options for additional water saving targets**

<i>Options</i>	<i>Magnitude of costs</i>		<i>Magnitude of benefits</i>		
	<i>Government administration</i>	<i>HWC compliance</i>	<i>Wider community</i>	<i>Direct customers</i>	<i>Environment</i>
Status quo: Requires reporting against targets for annual residential water consumption which is currently set at equal to or less than 215 kilolitres per annum per residential household	Low	Medium	Low	Low	Low
Option 1: Amend existing targets to take account of all water users (i.e. including non-residential consumption such as via per capita targets)	Medium-high	High	Low	Low	Low-medium
Option 2: Adopt new recycling target	Medium-high	Medium-high	Low	Low	Medium
Option 3: Adopt new leakage reduction target	Medium-high	Medium-high	Low	Low-medium	Medium-high
Option 4: Adopt new minimum response times target	Medium-high	Medium-high	No impact	Low	No impact
Option 5: Remove existing targets	Low	Low	Low	Low	Mildly negative

Note: Costs and benefits are indicative, i.e. characterised on the following scale: mildly negative, no impact, low, low-medium, medium, medium-high, high. Comparisons should be made across options by reading down the column for each category of cost and benefit. The net impact, that is whether benefits outweigh costs, can not be determined from the above table.

Reference: This analysis is based on *Impact assessment of a new operating licence for Hunter Water Corporation*, Centre for International Economics, April 2007, p 17.

The analysis presented in Table 11.2 suggests that the status quo is the preferred option and that new targets should not be introduced into the Hunter Water Operating Licence. It takes into consideration that there is no incentive for Hunter Water to exceed targets. Targets for industrial consumption may become a disincentive for new industry to establish in the Hunter region. For some targets, the outcome is beyond the control of the utility. While a leakage target has benefits of promoting water conservation, the cost of developing a program to meet any such target may be less efficient than direct investment in early intervention and other asset management activities.

The Tribunal accepts this analysis and has decided to resist the adoption of additional targets for improving water conservation performance. The Tribunal believes that there has been limited evidence that water conservation provides incentives for the community to reduce water use. Other mechanisms are provided, such as via the IWRP, to meet the same objectives, which might otherwise result in duplication of effort/cost.

The Tribunal recommends maintaining the existing licence requirements that regarding water conservation targets and not imposing additional targets for leakage or recycling



## 12 OPERATIONAL AUDITS OF THE LICENCE (PART 12)

The current Operating Licence for Hunter Water requires a comprehensive audit of all Operating Licence requirements each year. Use of a more targeted, risk management approach to auditing was advocated (and implemented) in the reviews of Operating Licences for Sydney Water, State Water and the Sydney Catchment Authority, as an alternative to the existing regime of annual comprehensive audits. This approach could involve high risk areas of the licence being subject to an annual independent audit, with lower risk or less critical areas monitored through self-reporting.<sup>8</sup> The Issues Paper suggested a similar approach could be adopted for Hunter Water.

### 12.1 Stakeholder submissions – operational audits

Hunter Water supported the concept of more targeted, risk-based audits, but believes that the audit should still confirm basic compliance across main licence parameters. Hunter Water considered that risk-based, targeted auditing should be used to focus more deeply on specific areas of community interest or where there is scope for performance improvement. Hunter Water also expressed the view that IPART should be obliged to conduct the audit expeditiously – audits should commence no later than 15 September and be provided to the Minister no later than 30 November each year.

The Total Environment Centre (TEC) accepted that there is merit in a risk-based approach to audits. However, TEC believed that in the first and final year of each licence there should be a comprehensive audit.

DWE advocated that of the same risk-based, targeted audit process implemented in the Sydney Water and SCA licences should be adopted for Hunter Water. DWE also proposed a full audit every 2 years with issues based audits in other years.

### 12.2 Risk based audits

Table 12.1 outlines options and the possible outcomes of each approach. The results of this analysis suggest that a risk-based approach would have a net positive impact.

The Tribunal is mindful that adopting a less prescriptive approach to audit carries the risk of negatively impacting on performance. However, the Tribunal notes that HWC will still be required to report to IPART on all requirements of the Operating Licence, even if some of these requirements are not subject to audit as part of the risk based audit regime.

Hunter Water would also remain subject to regulatory oversight of other agencies (e.g. DECC and DWE).

<sup>8</sup> Factors considered by the Essential Services Commission (ESC) in assessing risk in the Victorian water industry include: Cost to customers or the public; Danger to public health or safety; Damage to property; Loss or reduction of essential service; Environmental damage; Adverse public reaction.

**Table 12.1 Costs and benefits of options for operational audits**

<b>Options</b>	<b>Magnitude of costs</b>		<b>Magnitude of benefits</b>		
	<i>Government administration</i>	<i>HWC compliance</i>	<i>Wider community</i>	<i>Direct customer s</i>	<i>Environment</i>
Option 1: Comprehensive annual audits	High	High	Medium	Medium	Medium
Option 2: Risk-based approach to determining frequency and scope of audit	Low-medium	Low-medium	Medium	Medium-high	Medium

Note: Costs and benefits are indicative, i.e. characterised on the following scale: mildly negative, no impact, low, low-medium, medium, medium-high, high. Comparisons should be made across options by reading down the column for each category of cost and benefit. The net impact, that is whether benefits outweigh costs, can not be determined from the above table.

Reference: This analysis is based on *Impact assessment of a new operating licence for Hunter Water Corporation*, Centre for International Economics, April 2007, p 29.

The Tribunal recommends that the licence should provide for a risk based auditing regime.

## APPENDIX 1 SUBMISSIONS TO THE REVIEW

The Tribunal received submissions from the following individuals and groups:

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**Organisation/Individual**

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Rick Banyard

Hunter Water Corporation

Rick Banyard

IPART

NSW Health Department

Hunter Region Landcare Network

Energy and Water Ombudsman NSW

Hunter Water Corporation

Rick Banyard

Property Owners Association of NSW

NSW Department of Natural Resources

Nature Conservation Council of NSW

Public Interest Advocacy Centre Ltd

Total Environment Centre

Dr Simon Fane

Hunter Water Corporation

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