

Review of Operating Licence for Hunter Water Corporation

Issues Paper

**INDEPENDENT PRICING AND REGULATORY TRIBUNAL
OF NEW SOUTH WALES**

**Review of Operating Licence for
Hunter Water Corporation**

Issues Paper

***Submissions on the issues raised in this paper should be received no later than 20 September 2001.
Hunter Water Corporation is to provide its submission by 20 August 2001.***

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1 INTRODUCTION

Hunter Water Corporation's Operating Licence is an important part of the regulatory framework that has been put in place to protect the customers of this monopoly service provider. The licence sets out legally enforceable minimum service standards that Hunter Water Corporation (Hunter Water) must meet. Although the Licence has been renewed several times since it was first granted in 1991, its contents have remained largely unchanged.

In 2000, the NSW State Government introduced new Operating Licences for Sydney Water Corporation (Sydney Water) and the Sydney Catchment Authority (Catchment Authority). These licences contain significant requirements for water quality, customers and the environment. It is important to consider Hunter Water's Operating Licence in the context of these new Licences.

The Independent Pricing and Regulatory Tribunal (the Tribunal) is to review Hunter Water's current Licence and recommend the terms of an amended or new Operating Licence. The review is to be conducted under Part 4B of the *Independent Pricing and Regulatory Tribunal Act 1992*. The Tribunal's Terms of Reference (see Attachment 1) require it to make its recommendations to the Minister by 1 March 2002, with the new Operating Licence to come into effect no later than 1 July 2002.

1.1 Review process

To inform the review, the Tribunal invites submissions from Hunter Water, stakeholder organisations and members of the public on any issues they believe it should consider. The Tribunal will also conduct a public workshop to obtain the views of stakeholders, and will publicise the arrangements for this workshop. The Tribunal will appoint a consultant to provide advice on appropriate system performance standards and customer service measures for inclusion in Hunter Water's Operating Licence.

The timetable for the review is:

Action	Timeframe
Release of Issues Paper	19 July 2001
Hunter Water's submission due	20 August 2001
Public submissions due	20 September 2001
Public workshop	15 November 2001
Final report to Minister	1 March 2002

To assist stakeholders to make their submissions, this issues paper provides information about Hunter Water and its Operating Licence. It also discusses key issues that the Tribunal particularly wishes to receive comments from stakeholders, including:

- drinking water quality standards
- systems performance standards
- customer and consumer rights
- environmental requirements
- public reporting arrangements.

1.2 How to make a submission

The Tribunal encourages interested parties to comment on the issues raised in this paper, and provide information on any additional matters relevant to this review. All submissions must be made in writing. If your submission is more than 15 pages long, it must also be provided on a computer disk in word processor, PDF, or spreadsheet format.

All confidential parts of submissions must be clearly marked. However, confidentiality cannot be guaranteed as the *Freedom of Information Act 1989* and section 22A of the *Independent Pricing and Regulatory Tribunal Act 1992* provide measures for public access to documents in certain circumstances.

Submissions should be sent to:

Hunter Water Corporation Licence Review (Matter No. 01/368)
Independent Pricing and Regulatory Tribunal of New South Wales
PO Box Q290
QVB Post Office NSW 1230

Comments or inquiries about this review or the lodgement of submissions can be directed by telephone to Felicity Hall (02) 9290 8432 or Michael Sedwell (02) 9290 8487.

2 HUNTER WATER'S FUNCTIONS AND REGULATORY ENVIRONMENT

The Terms of Reference for this review require the Tribunal to consider the primary functions of Hunter Water in the light of its regulatory environment and recent reviews the Tribunal has conducted in relation to the Operating Licences of Sydney Water Corporation and the Sydney Catchment Authority.

The Tribunal believes that the Operating Licences of other water authorities within Australia are also a useful reference point for the current review. A comparison of Hunter Water's Licence with that of other water utilities is provided in Attachment 2.

2.1 Primary functions

Hunter Water's primary functions, as set out in Section 13 of the *Hunter Water Act 1991*, are to:

- provide, construct, operate, manage and maintain efficient, coordinated and commercially viable systems and services for supplying water, providing sewerage services and disposing of waste water
- provide, operate, manage and maintain a drainage service
- ensure that its systems and services meet the quality and performance standards specified in its Operating Licence.¹

2.2 Regulatory environment

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 this criteria. The intent of the Operating Licence, as expressed by Parliament, is to protect customers by ensuring that Hunter Water does not abuse its monopoly. It does this by placing certain performance obligations on Hunter Water.² The current Operating Licence:

- allows Hunter Water to carry out water, sewerage and drainage services within a defined area of operation³
- prohibits Hunter Water from hindering competition within this area⁴
- establishes minimum standards in relation to the quality of drinking water it provides,⁵ and the performance of its systems (or infrastructure)
- requires Hunter Water to establish procedures to facilitate customer consultation,⁶ and contains a Customer Contract setting out the terms and conditions upon which it can provide services to its customers⁷

¹ Section 13, *Hunter Water Act 1991*.

² NSW Parliament, Legislative Assembly, *Hansard*, 12 November 1991, p 4245.

³ Hunter Water Corporation, *Operating Licence*, Clause 2.1.

⁴ Hunter Water Corporation, *Operating Licence*, Clause 7.1.

⁵ Hunter Water Corporation, *Operating Licence*, Clause 4.1a and Parts 1 to 10 of Schedule 3.

⁶ Hunter Water Corporation, *Operating Licence*, Clause 6.1.

⁷ Hunter Water Corporation, *Operating Licence*, Schedule 2.

- provides for annual independent Operational Audits of its performance against its Operating Licence.⁸

The Hunter Water Act provides the minimum requirements for the Operating Licence (see Attachment 3) and Customer Contract (Attachment 4).

Hunter Water is subject to a range of regulators. These include:

- **Independent Pricing and Regulatory Tribunal (IPART)**, which has responsibility for monitoring Hunter Water's compliance with its Operating Licence through annual Operational Audits, advising the relevant Minister on issues relating to this compliance, and imposing penalties on Hunter Water if it contravenes the licence.⁹ IPART is also responsible for determining the maximum prices Hunter Water may charge for its monopoly services
- **Department of Land and Water Conservation (DLWC)**, which is responsible for managing the catchment Special Areas from which Hunter Water draws raw water to supply customers.¹⁰ DLWC controls Hunter Water's use of water from these catchments through a Water Management Licence granted to Hunter Water, which regulates water extractions, imposes environmental flow requirements, and deals with other resource management issues.¹¹ DLWC also administers the *Hunter Water Corporation Limited (Special Area) Regulation 1997*, which regulates land use and development within the catchment areas.¹²
- **Environment Protection Authority (EPA)**, which is responsible for monitoring and regulating the discharges from Hunter Water's sewerage system and the quality of the receiving waters
- **NSW Health**, which is responsible for monitoring and regulating the safety and quality of the drinking water Hunter Water provides to customers.

The relationships between Hunter Water the EPA, NSW Health and DLWC are clarified in Memoranda of Understanding (MOUs) between it and each of these agencies.

2.3 Regional factors

The Terms of Reference (see Attachment 1) for the review of Hunter Water's Operating Licence require the Tribunal to consider regional factors such as geography, local economy and trends in industry development and growth.

Hunter Water provides water, sewerage and some stormwater drainage services to a population of almost 500,000 within the local government areas of Newcastle, Lake Macquarie, Maitland, Cessnock and Port Stephens.

⁸ Hunter Water Corporation, *Operating Licence*, Clause 8.1.

⁹ Section 17, *Hunter Water Act 1991*.

¹⁰ Section 52, *Hunter Water Act 1991*.

¹¹ Independent Pricing and Regulatory Tribunal, *Hunter Water Corporation Operational Audit 1999/2000*, p 10.

¹² Independent Pricing and Regulatory Tribunal, *Hunter Water Corporation Operational Audit 1999/2000*, p 9.

The region's workforce is predominantly employed within the services sector, with retail trade, health and community services being the largest sources of employment in this sector.¹³ The manufacturing industry is also a strong contributor, being the second largest area of employment.¹⁴

Agriculture, mining and transport are also important industries within the Hunter region, particularly with respect to export earnings. The coal industry located in the Hunter Valley earns approximately \$5 billion per annum, whilst total agricultural production was valued at \$429.7 million in 1996/97.¹⁵

Despite the relative strength of certain industries in the region, industry restructuring and downsizing have contributed to higher rates of unemployment than for the Sydney metropolitan region and the NSW average. Average weekly household earnings are also lower than the average for the state as a whole.¹⁶

2.4 Principles for Operating Licences

In reviewing Hunter Water's Operating Licence it is important to establish the key principles underpinning the licence. In summary, these principles are:

- implementing simple and unambiguous obligations
- providing customer protection and adequate service delivery
- ensuring the robustness of water, sewerage and stormwater systems
- avoiding regulatory overlap
- assessing compliance against measurable and auditable criteria
- monitoring and reporting performance.¹⁷

It is important that the Licence promotes an effective and efficient operation. Hunter Water must meet Government and community objectives in a cost-effective manner.

Each principle is explained below in the context of Hunter Water's Operating Licence.

2.4.1 Implementing simple and unambiguous Licence obligations

Simple and unambiguous obligations allow regulated businesses and those assessing compliance to know with certainty what is required to comply with their Licences.

To meet some regulatory objectives, Licence obligations may prescribe certain actions, or simply require particular outcomes. Specifying, outcomes rather than actions can minimise compliance costs by allowing businesses freedom to choose how they meet the Licence conditions. On the other hand, prescribing actions can optimise regulatory certainty, which may be more desirable in some instances.

¹³ Hunter Economic Development Corporation website.

¹⁴ Hunter Economic Development Corporation website.

¹⁵ Hunter Economic Development Corporation and Hunter Valley Research Foundation websites.

¹⁶ Australian Bureau of Statistics, *Regional Statistics New South Wales 2001*, p 2-11.

¹⁷ Independent Pricing and Regulatory Tribunal, *Review of Electricity and Gas Licensing Regimes in NSW Issues Paper*, June 2001, p 6.

Where the regulatory objective requires an appropriate form of behaviour, or the desired outcomes are difficult to define, licence obligations may have to prescribe a process or a system. Licensees are then required to implement the process or system to a qualitative standard.

2.4.2 Providing customer protection and adequate service delivery

The objectives of Hunter Water's Operating Licence include providing protection for customers and ensuring adequate service delivery. The specification of minimum performance standards helps achieve this objective. Because, Hunter Water provides monopoly services, performance standards are particularly important, as Hunter Water does not have strong market incentives to meet customer expectations.

In the past, water authorities have been able to develop service standards based on system capacity, rather than customer requirements.¹⁸ Although, it should be noted that less formal mechanisms have previously been in place to protect customers.

The Tribunal welcomes comments as to the adequacy of Hunter Water's existing arrangements, particularly with respect to the system performance and customer service standards, which are detailed in Chapters 4 and 6 of this Issues Paper.

Given that clean water is a basic human need, drinking water quality standards are fundamental to protecting customers. Hunter Water's current performance and regulatory arrangements, along with options for enhancing these arrangements are set out in Chapter 3.

Some water and energy utilities have standard form contracts which automatically apply to their customers. These contracts can be useful in protecting the customer and clearly stating the rights and obligations of both parties, including the right to compensation if substandard service is received. Hunter Water's current arrangements in respect of its Customer Contract have remained largely unchanged for 10 years and tend to emphasise the rights of Hunter Water over the customer. Issues concerning the Customer Contract are discussed in further detail in Chapter 6 of this Issues Paper.

2.4.3 Ensure robustness of water, sewerage and stormwater systems

Maintaining adequate service delivery from water, sewerage and stormwater assets is fundamental to the Operating Licence. In providing its services Hunter Water utilises assets worth approximately \$1.9 billion.¹⁹ If these assets are allowed to deteriorate, the standard of service provided to customers will also decline over time.

The Tribunal considers that performance standards and indicators should be stated in the Operating Licence, to provide an impetus for appropriate levels of investment in Hunter Water's infrastructure. This is necessary to ensure the robustness of these systems and hence, levels of service delivery to customers. This issue is discussed in Chapter 4 of this Issues Paper.

¹⁸ Halcrow Management Sciences Ltd, *New South Wales Water Agencies Review – Summary December 1999*, p 19.

¹⁹ Hunter Water Corporation, *Annual Report 1999-2000*, p 5.

2.4.4 Avoid regulatory overlap

Wherever possible, the Operating Licence should avoid duplicating other legislative or regulatory requirements. Overlap could waste resources, confuse priorities and reduce the regulated entity's level of accountability. The Tribunal's approach to this issue is discussed in Chapters 4 and 5.

2.4.5 Monitoring and reporting performance

An integral part of the Operating Licence and associated audit regimes for Hunter Water, Sydney Water and the Catchment Authority is the requirement to obtain an independent annual report on performance. The audit reports are public documents which are forwarded to the Government.

These annual Operational Audits provide the Government and community with a public account of the performance of these monopoly utilities. In order to provide a meaningful report on the agencies' performance, the Tribunal considers that the objectives in the Operating Licence must reflect the core objectives of the agency, including matters such as: public health, system performance, customer protection and environmental performance. This issue of public reporting is discussed in Chapter 7, and in relation to environmental reporting in Chapter 5 of this Issues Paper.

2.4.6 Assessing compliance measurable and auditable criteria

The primary mode of assessing Hunter Water's compliance with its Licence will be via annual Operational Audits. Therefore, it should be easy to verify and audit the performance measures established in the Operating Licence.

Previous Audit Reports have called upon Hunter Water to develop more measurable objectives, where appropriate, for its Environmental Management Plan. At present, that plan contains more general objectives which are not subject to the same level of scrutiny as other aspects of the Licence. Chapter 5 of this Issues Paper seeks comments on this issue.

2.5 Possible approaches to Licence regulation

In setting the conditions and obligations to be included in Hunter Water's Operating Licence, the Tribunal could:

1. Prescribe specific actions

A prescriptive approach may be the simplest method available if there is a simple relationship between actions and outcomes.

An example of this approach in Hunter Water's current Licence is the requirement to maintain procedures to consult with its customers.²⁰

2. Prescribe systems and processes

The regulated business is required to develop systems and processes that will create a culture of 'desirable' behaviour. Incentives may be provided by requiring information disclosure, qualitative assessment of the system or process, and/or quantitative assessment of the outcomes over a suitable timeframe.

This approach is illustrated in parts of both the Sydney Water and the Catchment Authority Licences, which require the implementation of plans of management for certain catchment areas and wetlands.²¹

3. Set quantitative performance standards

Once minimum performance standards have been set, they may be supplemented by higher target performance levels. Businesses may set their own targets, or an independent body may set the standards through some public process.

This approach has been taken in Hunter Water's current Licence with respect to the system performance standards, which are fixed minimum conditions that Hunter Water is required to meet.

4. Require performance to be reported against common performance indicators

The regulated businesses are required to report periodically against performance indicators common to all business. Incentives are provided by independent evaluation of performance, comparative competition such as a 'league table' and public reporting.

This type of regime currently exists in Victoria, where the performance of Melbourne's three water retail businesses is measured against common indicators and reported by the Office of the Regulator-General to encourage competition by comparison.

In NSW this approach is currently impractical, given the wide range of standards and indicators applied by the various water authorities.

²⁰ Hunter Water Corporation, *Operating Licence*, Clause 6.1.

²¹ Sydney Water Corporation, *Operating Licence*, Clause 9.5 and Sydney Catchment Authority, *Operating Licence*, Clause 7.2.

5. Allow self regulation, but require public disclosure

This scenario requires the regulated authorities set their own performance standards and obligations, but they must publicly disclose their actions and performance regarding certain areas of policy interest.

Currently, Hunter Water's Licence requires it to report its performance and progress against its Environmental Plan. This Plan is largely an internal management document, and thus Hunter Water sets its own targets and actions.

3 DRINKING WATER QUALITY STANDARDS

3.1 Introduction

Safe drinking water is essential to human life. Thus, the provision of healthy drinking water is central to Hunter Water’s obligations to the community. Drinking water of a high standard is typically delivered by Australian water authorities.²² However, incidents such as the *Cryptosporidium* and *Giardia* contamination of Sydney’s water supply in 1998, underscore the need for water utilities to be subject to adequate regulatory and reporting arrangements to safeguard water quality.

Hunter Water’s Operating Licence requires it to meet drinking water quality standards based on the Draft 1994 Australian Drinking Water Guidelines established by the National Health and Medical Research Council (NHMRC) and the Agriculture and Resource Management Council of Australia and New Zealand (ARMCANZ). These guidelines are the most widely recognised drinking water standards in Australia.

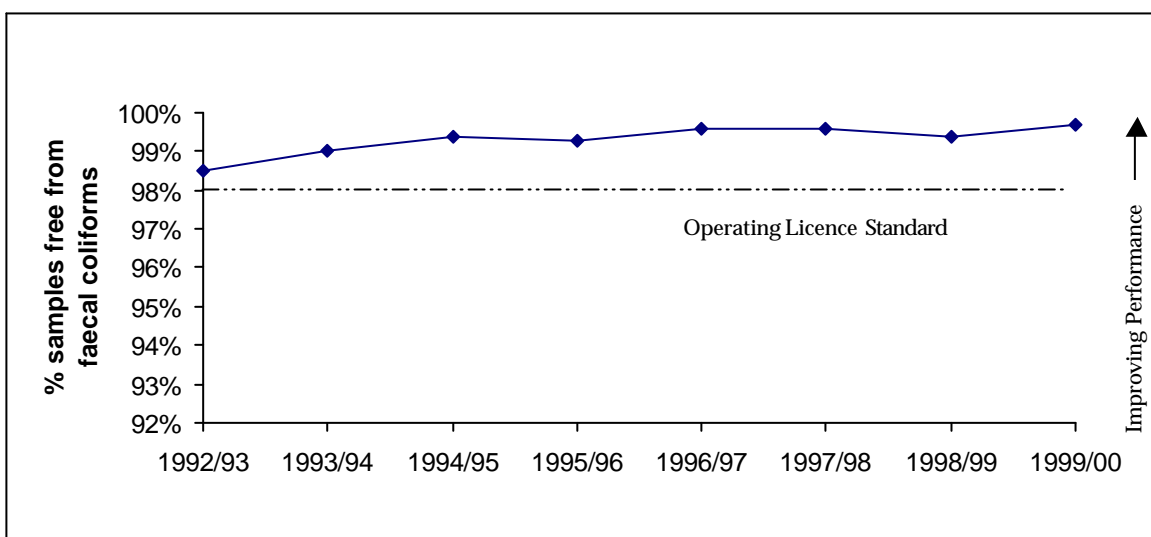
Key issues on which the Tribunal seeks comments are:

- **What standards of drinking water quality are appropriate for inclusion in Hunter Water’s Operating Licence?**
- **Should the requirements of Hunter Water’s Memorandum of Understanding with NSW Health be codified as part of the Licence?**

3.2 Performance criteria

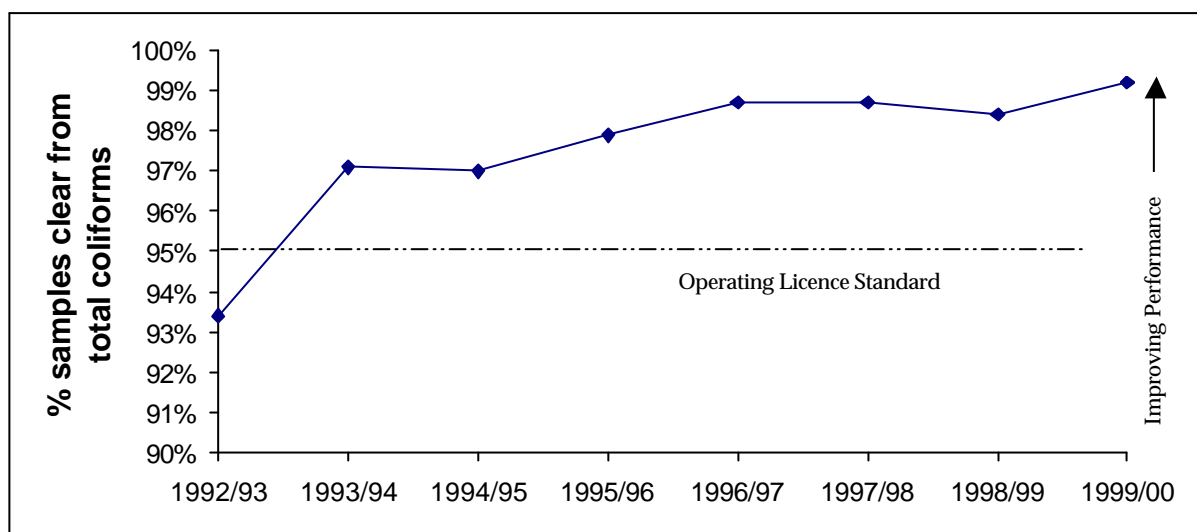
As Figure 3.1 and 3.2 show, in the past nine years, Hunter Water’s performance in key aspects of the drinking water guidelines has been strong.

Figure 3.1 Microbiological testing of water



²² Water Services Association of Australia, *WSAAfacts 2000 – The Australian Urban Water Industry*, p 33.

Figure 3.2 Microbiological testing of water



Although it is only required to meet the Draft 1994 Guidelines, Hunter Water actually meets NHMRC/ARMCANZ's latest, more stringent guidelines²³ (the 1996 Australian Drinking Water Guidelines). Hunter Water has agreed to have its performance assessed against the latest Guidelines during its 2000/2001 Operational Audit.²⁴

Most Australian metropolitan water authorities are required to comply with the 1996 Australian Drinking Water Guidelines.²⁵ Sydney Water's Operating Licence also requires it to comply with any revisions that the NHMRC and ARMCANZ make to the health-related aspects of these guidelines, as specified by NSW Health.

The Tribunal seeks comments on appropriate drinking water quality standards for inclusion in Hunter Water's Operating Licence. Should Hunter Water be required, like Sydney Water, to comply with revisions to the health-related aspects of the Australian Drinking Water Guidelines, where specified by NSW Health?

3.3 Reporting requirements

A key aspect of the regulation of drinking water quality within Hunter Water's area of operations is contained in an MOU between Hunter Water and NSW Health. The MOU formally sets out the terms of a cooperative relationship between the parties. It defines their respective roles and responsibilities in relation to drinking water quality and the protection of public health. The MOU lists reporting requirements, such as the preparation of annual drinking water quality monitoring plans and reports, annual water quality improvement plans, and incident management plans.²⁶ These requirements allow NSW Health, as the primary health regulator, to closely monitor and influence Hunter Water's management of its water system.

²³ Hunter Water Corporation, *Annual Report 1999-2000*, p 5.

²⁴ Correspondence from Hunter Water to IPART of 8 May 2001.

²⁵ Water Services Association of Australia, *WSAAfacts 2000 - The Australian Urban Water Industry*, p 33.

²⁶ Independent Pricing and Regulatory Tribunal, *Hunter Water Corporation Operational Audit 1999/2000*, p 15.

Similar reporting requirements in relation to drinking water quality are set out in Sydney Water's Operating Licence, along with a requirement that Sydney Water enter into an MOU with NSW Health. The Tribunal believes that the inclusion of these requirements in Sydney Water's Operating Licence provides greater transparency and accountability to the public.

The Tribunal seeks comments on whether the requirements specified in Hunter Water's MOU with NSW Health should be included in the Operating Licence.

4 SYSTEM PERFORMANCE STANDARDS AND MEASURES

4.1 Introduction

Performance standards are an important regulatory mechanism. They ensure that a water utility delivers satisfactory service levels to customers, and makes appropriate investments in assets to maintain a robust system. This chapter considers the setting of performance standards in relation to Hunter Water's engineering infrastructure, including water, sewerage and stormwater assets. Performance standards in relation to customers are considered in Chapter 6.

Hunter Water's Operating Licence contains a number of system performance standards, most of which were developed in 1991. Issues on which the Tribunal seeks feedback are:

- ***Are the current system performance standards appropriate?***
- ***Should any additional standards or indicators be included?***
- ***Are the current standards adequately defined and appropriately measured?***
- ***Do the standards reflect customer needs and preferences?***
- ***Do the standards provide sufficient incentives for Hunter Water to improve its performance?***
- ***What are the costs and benefits of amending the performance standards and including indicators?***

In determining the appropriateness of the current system performance standards for Hunter Water, we must consider:

- general principles
- current standards and past performance
- limitations of current standards
- use of performance indicators.

4.2 General principles

Measures of system performance can either require a water utility to achieve a particular target (performance standard) or report the level of service provided (performance indicator). Standards provide only a small number of targets to be achieved and do not provide a total picture of a utility's performance. Performance indicators can supplement the standards by providing additional information on the performance of the water, sewerage and stormwater systems.

²⁷ The percentage of properties affected by surcharges (Sewer Surcharges) was included as part of the Operating Licence in 1995.

The Tribunal considers that each individual system performance standard should:

- be relevant to a core function of the business, and meet the needs of customers
- measure a system output in objective terms with reasonable accuracy but without undue cost
- be concise, unambiguous and understood by all stakeholders.²⁸

General principles for performance standards include: customer needs and preferences, incentives to improve performance, and definitions and measurement.

4.2.1 Customers needs and preferences

System performance standards included in an Operating Licence need to fulfil two roles - to provide an overall measure of system performance, and to ensure adequate service levels for customers.

In its report to the Tribunal for the Review of NSW Water Agencies in December 1999, Halcrow Management Sciences Ltd (Halcrow) identifies significant variations in the service standards and performance targets of NSW water agencies. Halcrow concluded that service levels appear to have been chosen to reflect the capability of the system rather than customer expectations of water services.²⁹ In relation to Hunter Water, Halcrow commented that the standards of service set by the licence are not a comprehensive reflection of customer expectations of water services.³⁰

However, at present little is known about customer expectations and levels of satisfaction with the various performance measures, and the relative importance of each standard to customers. In the future, customer research will be required to gain a better understanding of these issues, and whether customers are willing to pay for higher service levels.

Do the current system performance standards reflect customer needs and preferences? If not, how could they be modified to better reflect customer needs and preferences?

4.2.2 Incentives to improve performance

The system performance standards have not changed significantly since the implementation of the Operating Licence in 1991. Section 4.4 shows that Hunter Water has, in most cases, met the compliance targets over the last 9 years.

As Hunter Water has generally out performed the system performance standards, it could be argued that these standards have not provided any incentive for Hunter Water to improve its performance.

In addition to meeting customers' requirements, do the individual standards at their current levels provide sufficient incentive for Hunter Water to improve its performance?

²⁸ Halcrow Management Sciences Ltd, *Review of System Performance Standards in Sydney Water Corporation's Operating Licence*, March 2001, p 11.

²⁹ Halcrow Management Sciences Ltd, *New South Wales Water Agencies Review – Summary* December 1999, p 19.

³⁰ Halcrow Management Sciences Ltd, *New South Wales Water Agencies Review - Summary* December 1999, p 32.

In considering this question, it is important to note that increased standards may also drive increased costs, which will be passed on to customers in the form of higher water and sewerage charges.

4.2.3 Definitions and measurement

The system performance standards and the measurement of these standards are not defined in Hunter Water's current Operating Licence. Hunter Water has interpreted these definitions itself, and established its own measurement and sampling procedures, as documented in its Service Performance Evaluation Manual. This manual is not referred to in the Operating Licence. The 1999/2000 Operational Audit recommended that the manual be referenced in the Operating Licence conditions.³¹

The Tribunal seeks comments as to whether the definition and measurement procedures for the standards are adequate and whether they should be incorporated in the Operating Licence.

4.2.4 Comparison with other water utilities

Hunter Water has roughly the same area of operations as Sydney Water but only one-ninth of the customer base. As a result, Hunter Water has 2,178km of watermains per 100,000 properties whereas Sydney Water has 1,308km of watermains per 100,000 properties. These geographic and hydrological differences have implications for the cost of achieving different service levels and need to be taken into account when formulating performance standards.

It is difficult to compare the system performance standards of different water agencies, but the establishment of similar reporting and measurement targets enable a supplementary means of regulation to occur through benchmarking. A general overview of standards across water utilities in Australia is provided in Attachment 5. Attachment 6 details the indicators used by OFWAT to monitor performance by water and wastewater companies in the United Kingdom and Wales.

The Tribunal recently conducted a review of Sydney Water's system performance standards and the consultancy report³² is publicly available on the IPART website.³³

The Tribunal seeks comments on whether the system performance standards in Hunter Water's Operating Licence should be made consistent with the standards of Sydney Water or other utilities.

In comparing performance standards, it is important to consider; the type of performance standard, the definitions and measurement of performance, and the compliance target.

³¹ Independent Pricing & Regulatory Tribunal, *1999/2000 Hunter Water Corporation Operational Audit*, p 82.

³² Halcrow Management Sciences Ltd, *Review of System Performance Standards in Sydney Water Corporation's Operating Licence*, March 2001.

³³ www.ipart.nsw.gov.au

4.3 Current standards

Hunter Water's current Operating Licence requires that its systems meet specific performance standards in relation to the supply of water and the management of wastewater, as shown in Table 4.1.

Table 4.1 Current system performance standards for Hunter Water³⁴

Levels of service	Standard
Water	
Continuity of water supply	92% of customers per annum will not incur interruptions to their water supply for a duration of more than 5 hours
Water pressure	95% of water customers per annum will not experience a verified low pressure incident of less than 20 metres head measured at the service meter
Security of water supply during drought ³⁵	To maintain and provide works sufficient to meet a probable occurrence of drought ³⁶ at no less than 10 yearly intervals
Wastewater	
Wastewater treatment works	Discharges from the wastewater treatment works must meet the standards set in the licences issued by the Environmental Protection Authority
Sewer surcharges	Reported surcharges will occur at no more than 1.4 incidents per kilometre of main per annum, and 96% of customers per annum will not experience a sewage overflow on their property

4.4 Past performance

The sections below show Hunter Water's past performance against the system performance standards in the Operating Licence. Section 4.5 discusses the limitations of the current standards and makes comparisons with other utilities.

4.4.1 Water standards

Continuity of water supply

Hunter Water has consistently met its licence target for continuity of water supply over the past 9 years, as indicated in Figure 4.1. The drop in compliance in 1996/97 was due to several significant system failures which affected a large number of customers. The auditor commented that the incidents demonstrated limitations in Hunter Water's management systems and inconsistent response procedures relating to critical assets.³⁷

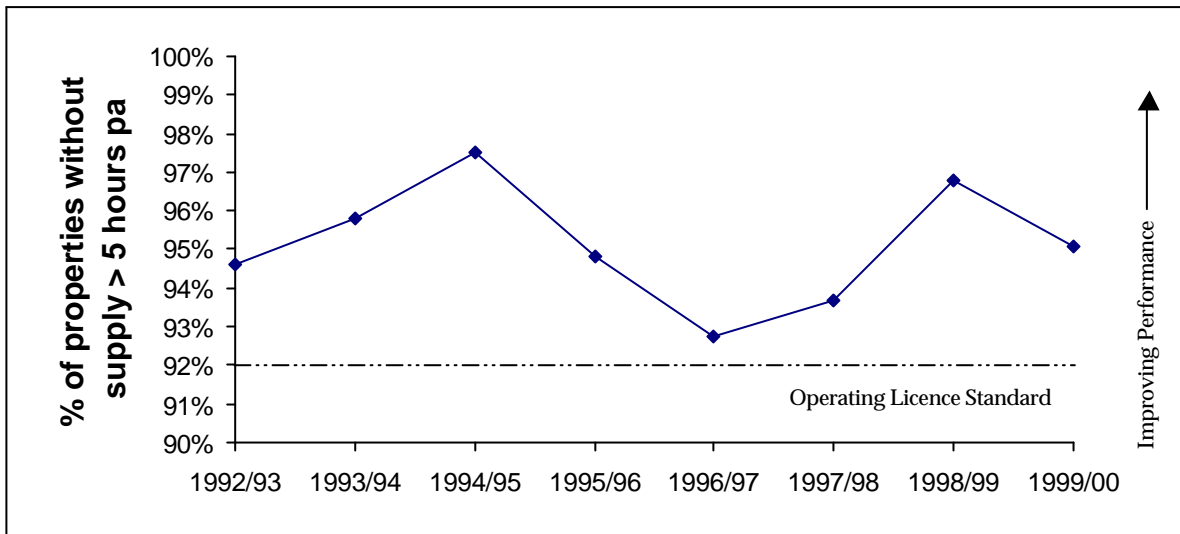
³⁴ Hunter Water Corporation Operating Licence, Schedule 4.

³⁵ Hunter Water Corporation Operating Licence, Clause 5.3.

³⁶ Clause 5.3 of the Operating Licence defines a drought when the amount of bulk water held in the special areas is at 60 per cent or less of available storage capacity.

³⁷ Licence Regulator, *Hunter Water Operational Audit 1996/97*, p 36.

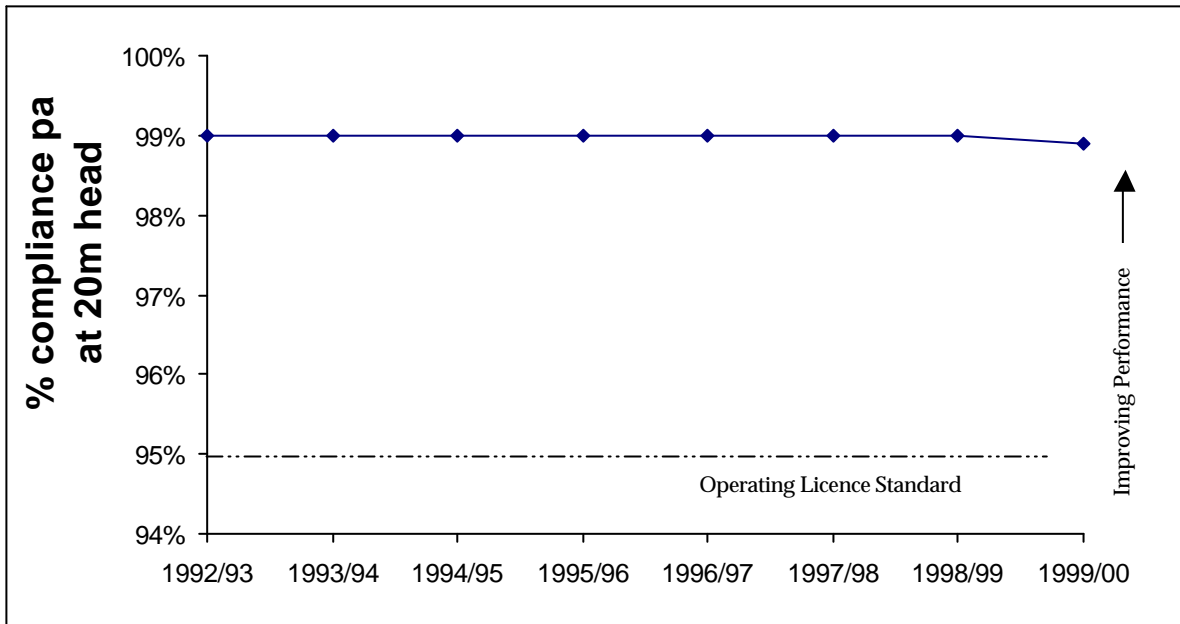
Figure 4.1 Discontinuity of water supply – service interruptions



Water pressure

Figure 4.2 indicates that Hunter Water has consistently achieved a percentage greater than 98 per cent, well above the Operating Licence target of 95 per cent. This is despite the fact that Hunter Water takes a conservative approach to measurement and registers all complaints which could lead to a potential incident, even though they may not be verified.³⁸

Figure 4.2 Water pressure



³⁸ A verified pressure incident is defined when the customer reports the complaint to Hunter Water.

Security of water supply against drought

Hunter Water’s compliance with this measure is assessed using a computer model of the supply system. Each water supply system has a separate module. Individual inputs depend on customer demand and analysis of rainfall and stream flow records. Successive annual Operational Audits have found that Hunter Water has complied with this standard. The model is discussed further in Section 4.5.1.

4.4.2 Wastewater standards

Wastewater treatment works

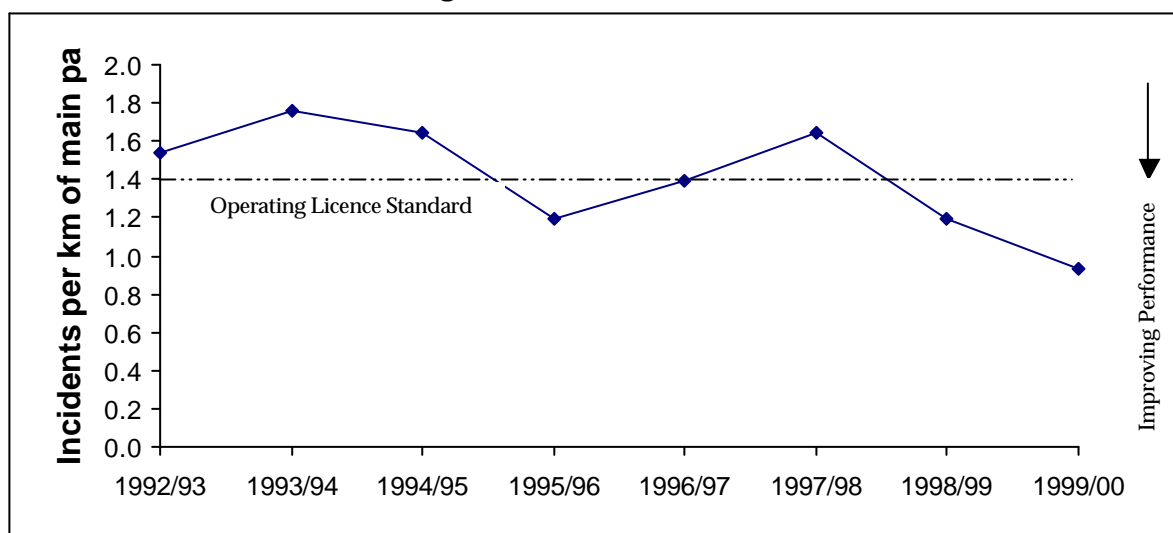
In general, Operational Audits show that Hunter Water has complied with the wastewater treatment works standard since its introduction into the Operating Licence. Hunter Water provides the Environmental Protection Authority (EPA) with quarterly and annual reports of monitoring data for each of the wastewater treatment works and an annual Certificate of Compliance for each plant. Based on this information, the EPA provides the auditor with an assessment of compliance against the Operating Licence. Only recently has this assessment been quantified and expressed as a percentage of compliance.

Sewer surcharges

Hunter Water is one of the few utilities which has a standard for the number of surcharge incidents per kilometre of main. A sewer surcharge is a build up of sewage in the pipe network which may or may not have resulted in an overflow on the customer’s property.³⁹ It includes blockages, pump problems and breaks in gravity and rising sewer mains.

Figure 4.3 indicates that in recent years the sewer surcharge target has been met, with non-compliance mainly occurring prior to 1995/96. In 1995, Hunter Water implemented a Sewer Surcharge Reduction Strategy to reduce the number of repeat surcharge events, particularly from the house service line, the interface between the Hunter Water asset and the property owner’s asset. An important factor affecting the number of sewer surcharge incidents is the rainfall pattern, which accounts for some of the variability in performance.

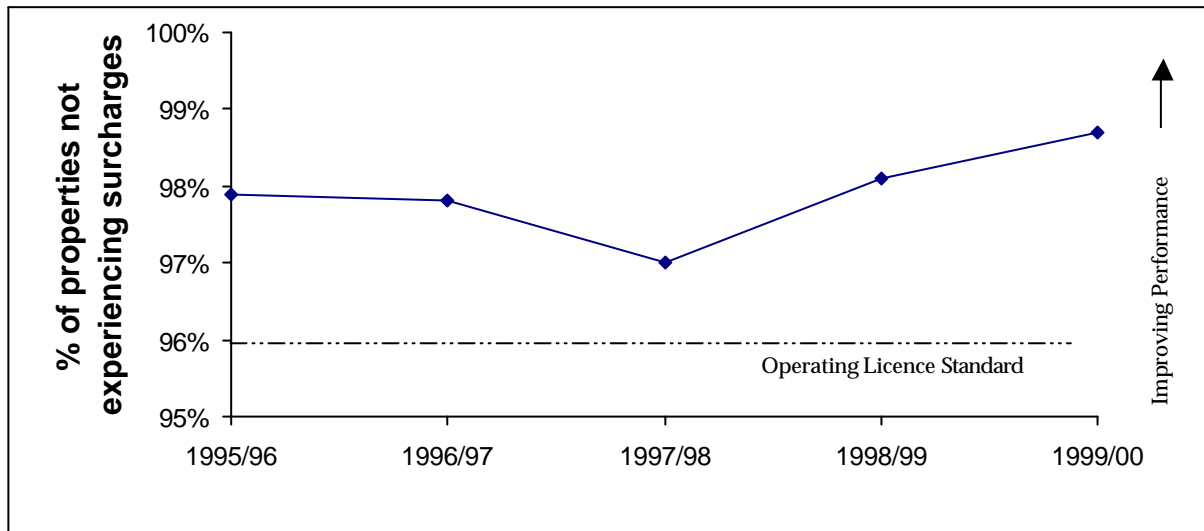
Figure 4.3 Sewer incidents



³⁹ Hunter Water Corporation, *Service Performance Evaluation Manual May 2000*, Section 2.

In the 1995 review of the Operating Licence, an additional measure based on the percentage of properties who experienced a sewer overflow over a year was introduced. Hunter Water defines a sewer overflow as an overflow of sewage on to a customer's property.⁴⁰ No distinction is made between wet weather and dry weather events. Full compliance with this standard has been achieved in the past five years, as indicated in Figure 4.4.

Figure 4.4 Properties experiencing a sewer overflow per annum



The past performance of Hunter Water in relation to the standards set in its Operating Licence is summed up by Halcrow in its December 1999 Review of the NSW Water Agencies.

Hunter Water is a proven performer, with the capability of continuing to improve in the future.⁴¹

4.5 Limitations of current standards

Apart from the issues raised regarding the adequacy of standards, the Tribunal has concerns with the individual standards and current measurement methods. There is also concern that the Operating Licence in its current form does not support service levels for the stormwater system, or the management of the assets that make up its water supply and wastewater systems.

One measurement issue, addressed in the review of Sydney Water's system performance standards in April 2001, is the use of absolute numbers rather than percentages as the basis for the standard measure. For example, specifying that no more than 32,000 properties will be affected, rather than 95 per cent. Presentation in this way makes it easier for customers to understand.

Standards are just one way of monitoring performance. Other measures, such as indicators often achieve similar results and supplement the outcomes required from standards. The definition and use of indicators is discussed in detail in section 4.6.

⁴⁰ Hunter Water Corporation, *Service Performance Evaluation Manual May 2000*, Section 2.

⁴¹ Halcrow Management Sciences Ltd, *Review of NSW Water Agencies - Summary December 1999*, p 31.

4.5.1 Water standards

Water continuity

The purpose of a continuity standard is to ensure customers have continuous, reliable access to the water supply system. The current performance measure does not distinguish between planned or unplanned interruptions and does not monitor properties experiencing repeat shut-offs in the supply of water.

Recent submissions from the Public Interest Advocacy Centre (PIAC) and customer research by Sydney Water indicate that there is greater inconvenience experienced by the customer with unplanned interruptions and repeat occurrences.⁴² Regulation of these incidents would ensure that customer's expectations are addressed.

In past Annual Reports, Hunter Water has already distinguished between total numbers of planned and unplanned interruptions over a range of durations.

The Tribunal seeks comments on the adequacy of the water continuity standard in addressing customer's expectations of a reliable water supply.

Water pressure

Halcrow's report on system performance standards for Sydney Water comments that customers are likely to judge the adequacy of their water supply by flow rather than pressure.⁴³ This additional measure for water pressure has been introduced by other utilities, as seen in Attachment 5.

The Tribunal seeks comments on the targets and measurement of the water pressure standard.

Security of supply

Hunter Water is responsible for the management of the bulk water supply system. Customers need to be confident that the water supply is being managed responsibly and must understand when and why restrictions are necessary.

A computer model used to measure compliance with the security of supply standard has been developed by Hunter Water. However, it is not run every year, due to its complexities and long term horizon. The ambiguous way the security of supply standard is measured makes external scrutiny difficult.

An additional consideration in relation to security of supply is losses from the water system. This issue is considered in Section 5.3.2.

The Tribunal seeks comments on the appropriateness of the security of supply standard.

⁴² Information provided for the Review of the Sydney Water's System Performance Standards.

⁴³ Halcrow Management Sciences Ltd, *Review of System Performance Standards in Sydney Water Corporation's Operating Licence*, March 2001, p 40.

4.5.2 Wastewater standards

There are two types of sewerage incidents; those which have the most impact on individual customers, and catchment overflow events which are primarily an environmental performance issue.⁴⁴

Wastewater treatment works

A fundamental reason for including performance standards in the Operating Licence is to ensure that adequate investment in the infrastructure is occurring to maintain a satisfactory service to the community.

This standard is based on the EPA licences, which are designed primarily to prevent pollution and to protect the environment. The Tribunal does not wish to duplicate the role of the EPA, however the nature of the information requirement is similar.

The Tribunal seeks comments on the purpose of this standard and whether its role can be incorporated in alternative sewerage measures.

Sewer surcharges

The current sewer surcharges standards do not distinguish between events occurring in wet weather and dry weather conditions. Separating these conditions helps to assess leakage from the system during normal flow conditions.

Another concern in this area is repeat occurrences on properties. Hunter Water provides rebates via its Customer Charter to customers who experience more than three overflows on their property. This is currently a voluntary provision.

The review of Sydney Water's system performance standards questioned whether repeat events should be regulated.

The Tribunal seeks comments as to whether the current standard for sewer surcharges is sufficient.

4.5.3 Stormwater

Overall management of the stormwater system is organised through stormwater catchment plans which are jointly produced by Hunter Water and Local Councils. While the Councils control the development of the Catchment Areas, Hunter Water has responsibility for managing stormwater pipes and channels in; Cottage Creek, Throsby Creek, Dark Creek, Wallsend Plattsburg stormwater channel, the Winding Creek system and, the Cessnock stormwater channel system. Approximately 30 per cent of Hunter Water's customers have a drainage service.⁴⁵

⁴⁴ Halcrow Management Sciences Ltd, *Review of System Performance Standards in Sydney Water Corporation's Operating Licence*, March 2001, p 40.

⁴⁵ Properties liable for drainage service compared to water properties, *1999/2000 Hunter Water Annual Report*, p 103.

The Operating Licence does not currently address the provision of stormwater or drainage services. This is at odds with the requirements of the Hunter Water Act, which specifies that the Operating Licence must include terms and conditions in relation to the provision, operation and maintenance of a drainage service.⁴⁶ The Act has an additional clause in relation to drainage. This states that Hunter Water is not required to upgrade or improve the drainage system.⁴⁷ This raises debate as to what level of service Hunter Water is expected to provide and whether any incentives for improved performance should be included in the Operating Licence.

Hunter Water has stated its stormwater objectives in its Environmental Management Plan (EMP). These are assessed during the Operational Audits. The EMP requirements relate to participation in relevant Catchment Management Committees and to work with local councils in the preparation of Stormwater Management Plans.

Attachment 5 demonstrates that the Water Corporation in Western Australia has a drainage standard incorporated in its Operating Licence. This applies to areas where flooding has been reported, and for all infrastructure designed since 1996. In Melbourne new development must be secured from flooding in storms of less than a 1 in 100 year return frequency.

The Tribunal seeks comments on whether standards or indicators should be adopted to measure stormwater performance, and seeks suggestions for measurement.

4.5.4 Asset management

A principal objective of system performance standards is to ensure that regulated agencies maintain their systems adequately to ensure they will be able to provide efficient, high-quality services in the long term. However, individual targets are often insufficient to ensure appropriate investment.

The Water Corporation of Western Australia has a requirement under its Operating Licence to provide for, and maintain an asset management system which is to be independently reported on annually. The Melbourne water utilities have similar requirements. An Asset Management Strategy sets out the regulatory framework and individual asset strategies that drive its capital, operation and maintenance programs.⁴⁸

It is important to note that Hunter Water is responsible for the maintenance of assets with a total value of approximately \$1.9 billion and as such its asset management strategy may be too detailed to be readily assessed each year as part of the Operational Audit.

How should the issue of asset management be dealt with in the Operating Licence?

⁴⁶ Hunter Water Act 1991 No 53, Part 5.

⁴⁷ Hunter Water Act 1991, Part 5 Division 9 Section 62.

⁴⁸ Independent Pricing and Regulatory Tribunal, *Hunter Water Operational Audit Report 1999/2000*, p 77.

4.6 Use of indicators

In its review of Sydney Water's System Performance Standards the Tribunal recommended the introduction of a range of performance indicators to supplement the performance standards.

Performance standards and indicators can be used to complement each other. Standards provide targets that must be achieved, but in many cases supporting information is required. This can be provided through indicators. They can also be useful in the short to medium term as the basis for developing appropriate and meaningful system performance standards.

The Tribunal's review of system performance standards for Sydney Water recommended indicators to support standards for: water pressure, water continuity, security of supply, sewerage overflows, sewerage system investment, stormwater and customer service.

In most cases the indicators were seen as necessary to provide supporting information for the system performance standards to:

- provide an understanding of the operation of the business
- serve as an incentive to improve performance
- indicate any long term improvement or reduction in the level of service.

The Tribunal seeks comments on the types of indicator that could apply to Hunter Water and their use.

4.7 Costs and benefits

When considering the amendment of standards or the introduction of indicators, the implications in terms of the costs and benefits must be taken into account, along with how decision making in the business will change.

The consultant appointed by IPART to review Hunter Water's system performance standards and customer service measures will consider the financial implications for Hunter Water and the broader community. In the Operating Licence, performance standards should be set at levels which reflect current performance. The intent is to avoid imposing unreasonable costs on Hunter Water in the short term and to avoid introducing costs that customers will be unwilling to pay.

The Tribunal believes it is not appropriate to set higher compliance targets for the performance standards which would impose substantial new costs on Hunter Water and therefore customers. The next pricing review for Hunter Water will be the relevant forum to discuss the trade-off between higher performance standards and higher prices.

5 ENVIRONMENTAL REQUIREMENTS

5.1 Introduction

The provision of water, sewerage and drainage services has fundamental impacts on the environment – it involves extracting a large amount of raw water from water storages and rivers, treating it and then supplying it to consumers. Creating storages and extracting water from rivers reduces the amount of water flowing through river systems, which can reduce water quality and the ability of natural flows to maintain the equilibrium of ecological processes. Disposing of treated sewage and stormwater waste in the ocean and other waterways can also reduce water quality and disturb aquatic ecosystems, as well as affecting public health and amenity by contaminating swimming areas.

Hunter Water is regulated by the Environment Protection Authority (EPA) and the Department of Land and Water Conservation (DLWC). The EPA grants Hunter Water licences which regulate the operation of and discharges from its sewage treatment plants, and requires Hunter Water to establish pollution reduction programs through special conditions under these licences. The EPA also has an MOU with Hunter Water, which defines the relationship between the two agencies. DLWC regulates the management of Hunter Water's catchment areas and bulk water resources – for example, by setting standards in relation to demand management, environmental flows and bulk water quality – primarily through Hunter Water's Water Management Licence.

Hunter Water's Operating Licence also includes some requirements in relation to its environmental impact. These include a system performance standard requiring to compliance with EPA Licences for the Corporation's sewage treatment plants. Another requirement is that progress in implementing its Environmental Management Plan (EMP) be assessed as part of the annual Operational Audit of Hunter Water.

The Tribunal recognises the primacy of the EPA and DLWC in setting and regulating environmental objectives for Hunter Water. The Tribunal believes environment requirements included in the Operating Licence should relate to the measurement and reporting of environmental performance. The impact of Hunter Water's operations on the environment remains an important accountability, given the public interest in environmental issues. Stakeholders and the community should therefore have access to transparent information about Hunter Water's performance in this area.

The Tribunal seeks comments concerning appropriate environment requirements for inclusion in the Operating Licence. For example, these might include requirements for:

- ***an environmental management plan, monitoring and reporting on compliance with this plan***
- ***demand management, water efficiency, and reuse***
- ***environmental and ecologically sustainable development indicators***
- ***energy management***
- ***water resource and catchment management.***

5.2 Environmental Management Plan

The main environmental provision in Hunter Water's existing Operating Licence is subclause 8.5 of Schedule 5, which states:

The Operational Audit will extend to the assessment of and reporting on the performance and progress of the Licensee in relation to its Environment Plan.

This provision is less detailed than the requirements included in the Operating Licences of Sydney Water and the Catchment Authority. These licences require each authority to have an Environment Plan, and to consult with the public when developing and amending this plan. They also require that the plan include measurable performance targets, and that the compliance with the plans be assessed as part of the annual Operational Audits.

Hunter Water's five year Environmental Management Plan (EMP) establishes its environmental objectives and actions for its five core activities: water resources, wastewater, community consultation, stormwater and corporate responsibility. The EMP is viewed by Hunter Water as essentially an internal management document.⁴⁹ However, many of the EMP's provisions form part of the Corporation's annual Environmental Report to the public.

As Hunter Water's current Operating Licence only requires the Operational Audit to report on progress towards EMP objectives, there has not been the same level of scrutiny of these objectives as there has been on other aspects of the Licence. In recognition of this, the 1999/2000 Operational Audit Report called on Hunter Water to develop, where possible and appropriate, measurable performance targets rather than reporting on more general, less-focussed objectives.⁵⁰

Hunter Water has previously expressed the view that the imposition of strict compliance targets would provide it with a disincentive to adopt more ambitious environmental targets and programs.

Should a requirement for an Environment Plan be included in the Operating Licence, and if so, what should be the role of that plan?

⁴⁹ Hunter Water Corporation, *Operating Licence Options for Hunter Water Corporation*, 31 January 2000, p 20.

⁵⁰ Independent Pricing and Regulatory Tribunal, *Hunter Water Corporation Operational Audit Report 1999/2000*, p 37.

5.3 Demand management, water efficiency and reuse

Water conservation is widely accepted as an important environmental issue. Australian rainfall patterns are characterised by long periods of both dry and wet weather. Available information on climate change suggests that this variability may increase and therefore, there is a long term need to adaptively manage for this variability. In this situation, demand management is likely to become increasingly important to ensure that the competing interests of customers and the environment (eg environmental flows in water catchments) can be balanced.

In recognition of this, the Tribunal seeks comments on whether Hunter Water's Operating Licence should include incentives for Hunter Water to manage the demand for water in its area and increase water efficiency, recycling and reuse. These incentives might include, for example, targets for requirements in relation to:

- ***demand management***
- ***the reduction of water leakages from the water system***
- ***the promotion of water efficient appliances***
- ***water recycling and reuse.***

Each of these issues is discussed in more detail below.

5.3.1 Demand management

Sydney Water's Operating Licence includes the requirement to reduce per capita water consumption by 35 per cent from 1990/1991 consumption levels by 2010/2011.⁵¹ Sydney Water is attempting to meet this target by reducing leakages, promoting the use of water efficient appliances and investigating options to increase water recycling.⁵²

The issue arises as to how the question of demand management should be handled with respect to Hunter Water. The 1999/2000 Operational Audit recommended that Hunter Water develop a water conservation strategy and encourage the community to achieve continued reductions in water usage.⁵³

The community served by Hunter Water has the second lowest household usage of the 19 major Australian water authorities,⁵⁴ a rate of which, on average, is well below that of Sydney.

Hunter Water was the first Australian water authority to introduce users pays pricing, and this policy has played a major part in reducing demand. It is also undertaking a number of non-pricing demand management initiatives, such as community education.

Water consumption in the Hunter region is disproportionately influenced by changes to the industrial structure – that is, major new industrial entrants would substantially increase consumption while departures could reduce consumption.

⁵¹ Sydney Water Corporation, *Operating Licence*, Clause 8.1.

⁵² Licence Regulator, *1999 Operational Audit of Sydney Water Corporation*, July 2000, p 363.

⁵³ Independent Pricing and Regulatory Tribunal, *Hunter Water Corporation Operational Audit Report 1999/2000*, p 44.

⁵⁴ Water Services Association of Australia, *WSAAfacts 2000 – The Australian Urban Water Industry*, p 24.

Hunter Water is currently undertaking a program of work at its Grahamstown dam to improve dam safety and increase storage capacity by around 52 per cent. This project is scheduled for completion over the next five years. The main driver for this work is Hunter Water's drought reliability standard, which based on the Corporation's water supply modelling, will be breached by 2008.⁵⁵

How should the issue of demand management be handled in Hunter Water's Operating Licence?

5.3.2 Reduction of water leakages

In 1999/2000, Hunter Water reported that 15.5 per cent of all water supplied from its bulk water storages was lost from the water system prior to delivery to customers. This was the highest overall rate of leakage reported by a metropolitan water authority in Australia.⁵⁶

Hunter Water believes that a fairer measure of leakage is provided by another indicator reporting water main breaks and leaks per 100km of main. This measure takes into account Hunter Water's large geographic area and low customer density, which impacts upon leakage performance as water loss is related to the length of mains in a system.

Using this measure, in 1999/2000 the Corporation experienced 48.01 main breaks and leaks per 100km of main, compared to the average of 29.58 for Australian metropolitan water authorities.⁵⁷

Whatever the measure used, leakage represents a significant loss in terms of water wastage. Hunter Water has in the past periodically tested for leaks in its mains (concentrating on older mains in suspected problem areas), finding only a small number of leaks which warranted repair. Hunter Water is currently undertaking a further intensive leak detection program.

Should the issue of leakage be addressed as part of Hunter Water's Operating Licence, if so how?

5.3.3 Promotion of water efficient appliances

Hunter Water's EMP already includes some initiatives aimed at promoting the use of water efficient appliances, including providing community education about water efficiency, being involved in Newcastle City Council's Water Conservation Committee, and sponsoring the Ecohome project.⁵⁸

It may be appropriate to strengthen these existing initiatives by including in Hunter Water's Operating Licence a requirement to participate in the National Water Conservation Rating and Labelling Scheme. This scheme involves water authorities, white-goods manufacturers and other manufacturers working together to promote the use of water efficient devices. The advantage of including such a requirement in the licence is that it would enable Hunter

⁵⁵ Independent Pricing and Regulatory Tribunal, *Hunter Water Corporation Operational Audit Report 1999/2000*, p 34.

⁵⁶ Water Services Association of Australia, *WSAAfacts 2000 – The Australian Urban Water Industry*, p 68.

⁵⁷ Water Services Association of Australia, *WSAAfacts 2000 – The Australian Urban Water Industry*, p 66.

⁵⁸ Independent Pricing and Regulatory Tribunal, *Hunter Water Corporation Operational Audit Report 1999/2000*, p 43.

Water's actions in support of the scheme to be assessed and reported on as part of its annual Operational Audit. Sydney Water is required under its Operating Licence to support this scheme and to report annually on its activities in relation to the scheme.

Should a requirement relating to the promotion of water efficient appliances be included in Hunter Water's Operating Licence?

5.3.4 Water recycling and reuse

Water recycling has a number of positive environmental benefits, including reducing demand for potable (drinking) water and reducing the discharge of effluent into the ocean and other waterways. Reuse may also provide economic advantages for business, allowing access to lower quality, recycled water for use in industrial processes (eg coal washing) at a lower cost.

Sydney Water's Operating Licence requires it to work towards reducing the discharge of effluent into waterways by promoting the reuse of water. As part of this requirement, Sydney Water has a reuse target of 58ML per day, and must develop a long-term reuse strategy to help achieve this target.⁵⁹

Hunter Water's Licence includes no such requirements. However, Hunter Water has been active in exploring and taking up reuse opportunities, particularly in partnership with industry in the Newcastle region. In 1999/2000 it recycled around 4050ML of effluent, equivalent to approximately nine per cent of dry weather flows. The extent of Hunter Water's reuse program is considerably greater than that of Sydney Water and most other major water authorities in Australia.⁶⁰

Hunter Water has commented that the market for recycled water is heavily dependent on economic conditions and fluctuates as a result of factors such as industry establishments and closures.⁶¹ These conditions are beyond the control of Hunter Water and illustrate the difficulties in setting realistic fixed reuse targets. In these circumstances, indicators rather than set targets may be more appropriate.

How should the issue of water reuse be handled in Hunter Water's Operating Licence?

5.4 Environmental and ecologically sustainable development indicators

The Operating Licences for both Sydney Water and the Catchment Authority place considerable emphasis on reporting environmental and ecologically sustainable development (ESD) indicators.⁶² These indicators are designed to provide stakeholders and the community with data on both the impact the agencies' activities are having on the environment, and the extent to which these activities are sustainable. They do not set environmental standards and targets, but report on the agencies' environmental performance.

⁵⁹ Sydney Water Corporation, *Operation Licence*, Clause 8.3.

⁶⁰ Hunter Water Corporation, *Environmental Report 1999/2000*, p 40.

⁶¹ Hunter Water Corporation, *Operating Licence Options for Hunter Water Corporation*, 31 January 2000, p 22.

⁶² Sydney Water Corporation, *Operating Licence*, Clauses 9.1 and 9.2 and the Sydney Catchment Authority, *Operating Licence*, Clause 9.2.

Should Environmental and ESD Indicators be included in Hunter Water's Operating Licence?

5.5 Energy management

Given their need to treat both water and wastewater and to transport it through distribution and collection systems, water agencies tend to be relatively high users of electricity. They are therefore responsible for significant greenhouse gas emissions. In 1999/2000, Hunter Water used 66.2 million kilowatt hours of electricity – equivalent to consumption by around 19,000 households.⁶³

The NSW Government has undertaken to work towards lower and sustainable levels of energy use and greenhouse gas emissions. To achieve this aim, it has established the NSW Government Energy Management Policy. An aim of this policy is to reduce the total energy consumption of government buildings by 25 per cent of the 1995 level by 2005.⁶⁴ Other strategies include requiring certain Government agencies to purchase a percentage of their total energy consumption from green power sources.

The above target in relation to energy consumption is included in the Operation Licences of both Sydney Water and the Catchment Authority.⁶⁵ Hunter Water's Licence does not currently include such a target. However, recent Operational Audits have recommended that Hunter Water investigate opportunities for greenhouse gas reductions and energy savings at its sewage treatment plants.⁶⁶

Energy management or greenhouse targets could be used to build on Hunter Water's voluntary initiatives in this field, such as the establishment of hydro-electric generation facilities at Chichester Dam and Dungog Water Treatment Plant.⁶⁷

It should be noted that the inclusion of this type of requirement in Hunter Water's Licence could impose cost increases on an organisation which already spends almost \$4 million on electricity per annum.⁶⁸

Is it appropriate for Energy Management policies and targets to be incorporated into Hunter Water's Operating Licence?

⁶³ Information supplied by Hunter Water Corporation.

⁶⁴ NSW Government, *Government Energy Management Policy – Reducing Greenhouse Emissions from Government Operations*, 1998, p 1.

⁶⁵ Sydney Water Corporation, *Operating Licence*, Clause 9.4 & Sydney Catchment Authority, *Operating Licence*, Clause 9.1.5.

⁶⁶ Licence Regulator, *Hunter Water Corporation Operational Audit Report 1998/1999*, p 48.

⁶⁷ Hunter Water Corporation, *Environmental Report 1999/2000*, p 48.

⁶⁸ Information supplied by Hunter Water Corporation.

5.6 Water resource and catchment management

Hunter Water's use of bulk water resources and its catchment management activities are closely regulated by the DLWC, primarily through the Water Management Licence it issues to Hunter Water. The Water Management Licence authorises Hunter Water to take and use bulk water from approved extraction areas such as Chichester and Grahamstown Dams. The licence also requires Hunter Water to:

- comply with regional water management plans
- comply with environmental flow requirements for the Chichester River
- comply with NSW Dams Safety Committee and local emergency disaster plans for flooding
- monitor conditions and limits on extraction from groundwater sources
- comply with water quality monitoring and reporting plan
- publish a demand management strategy.⁶⁹

Any breach of these conditions can result in the imposition of penalties under the *Water Act 1912* of up to \$500,000 with further amounts of \$20,000 per day for continuing contravention.

The Water Management Licence is supported by an MOU between Hunter Water and the DLWC. The MOU sets out the roles and responsibilities of both parties and provides for a consultative approach in managing bulk water resources.

The Williams River Catchment Regional Environment Plan, Regional Planning Strategy and the Healthy Rivers Commission report on the Williams River, all place additional requirements on Hunter Water with respect to this catchment. The river is of particular importance to Hunter Water as it is used to supply Grahamstown Dam, which provides around 40 per cent of Hunter Water's supply needs.

Hunter Water fulfils these obligations by participating in total catchment management forums, making environmental releases from Chichester Dam, and assisting with revegetation and fencing along parts of the river. These actions also form part of its EMP and are reported on as part of the Operational Audit.⁷⁰

The DLWC is also heavily involved in Hunter Water's catchment management functions, with primary responsibility for the administration of the *Hunter Water Corporation Limited (Special Areas) Regulation 1997*, which regulates development and other activities in the Chichester, Grahamstown (including the Williams River), Nelson Bay and Tomago Sandbed Catchment Areas.⁷¹ As part of its EMP, Hunter Water undertakes voluntary catchment initiatives relating to total catchment management and Landcare.⁷²

⁶⁹ Independent Pricing and Regulatory Tribunal, *Hunter Water Corporation Operational Audit Report 1999/2000*, p 10.

⁷⁰ Independent Pricing and Regulatory Tribunal, *Hunter Water Corporation Operational Audit Report 1999/2000*, p 17-19.

⁷¹ Independent Pricing and Regulatory Tribunal, *Hunter Water Corporation Operational Audit Report 1999/2000*, p 9.

⁷² Independent Pricing and Regulatory Tribunal, *Hunter Water Corporation Operational Audit Report 1999/2000*, p 37.

The Tribunal recognises the primacy of DLWC with respect to the management of bulk water resources and the need to avoid conflicting regulation and duplication of resources where possible. Nevertheless, the Tribunal believes Hunter Water's performance in relation to its water resource and catchment management obligations should continue to be publicly reported as part of the Operational Audit.

To what extent should the Operating Licence include provisions dealing with Hunter Water's water resource and catchment management functions?

6 CUSTOMER AND CONSUMER RIGHTS

A fundamental principle of an Operating Licence is to protect the rights of customers who rely on their services. As Hunter Water is a monopoly, its customers cannot switch to an alternative supplier if they are unhappy with the service they receive – there is not a strong incentive to meet the needs and expectations of individual customers.

Operating Licences, and the Customer Contracts they contain, are one of the main regulatory instruments used to ensure that the rights of customers and consumers are protected and they receive appropriate levels of service.

In general, Hunter Water's current Operating Licence sets out requirements to ensure it operates its water and wastewater systems to meet certain standards, targets, or aggregate measures of performance. The Customer Contract included in this Licence sets out Hunter Water's rights and obligations in providing individual customers with its services.

In addition, Hunter Water has supplemented the Customer Contract with a Customer Charter which focuses on compensating customers for poor service. However, whilst Hunter Water's obligations in its Operating Licence and Customer Contract are legally binding and subject to annual audit, the Customer Charter does not have the legal status of a contract and is not subject to audit.

The key issues in relation to customer and consumer rights on which the Tribunal seeks comments are:

- ***Does the current Customer Contract reflect the needs and preferences of customers, and are the rights and obligations it includes adequate?***
- ***Are the provisions of the Customer Charter adequate and should they be made legally binding by including them in the Customer Contract?***
- ***Should any additional obligations to consumers be included in Hunter Water's Operating Licence?***
- ***Are there any areas in which the Customer Contract could be simplified or streamlined?***

6.1 Customer Contract

Under the *Hunter Water Act 1991*, Hunter Water's Operating Licence must include a requirement to have a standard form of contract with its customers. This Customer Contract forms Schedule 2 to the Operating Licence and sets out the conditions by which Hunter Water will provide its services to customers, unless otherwise agreed by both parties. The references in the Act to the Customer Contract are set out in Attachment 4.

The current contract was first developed in 1991 and has remained virtually unchanged. It includes provisions for:

- Hunter Water's obligation to provide water, sewerage and other services.
- Hunter Water's powers to levy charges on customers, and its rights in relation to notifying customers of charges.
- Customers' obligations to make payments, and Hunter Water right to levy interest on overdue amounts.
- Hunter Water's rights in relation to interruptions and limitation of supply, its obligations to meet Operating Licence standards in providing water and sewerage services, and the right of customers to use these services.
- The customers' obligations in relation to use of the sewerage system, disposal of trade waste, and stormwater infiltration.
- Hunter Water's rights in relation to the installation, maintenance and reading of meters.
- The customers' obligations concerning connection to water and sewerage services.
- Hunter Water's rights of gaining access to land and requiring customers to carry out rectification works, and the customers' right to compensation for damage.
- Conditions relating to the commencement and termination of the Customer Contract.

Compared to more recently developed Customer Contracts, Hunter Water's contract places a much stronger emphasis on its own rights in relation to supply of services and the levying of charges, and the customers' obligations in receiving those services, than it places on what Hunter Water's customers should expect from the organisation. More recent utility Customer Contracts place an equal focus on these matters.

For example, Sydney Water's current Customer Contract sets out the legal rights and obligations of customers and Sydney Water. Part A sets out each customer's rights in relation to:

- supply of water, sewerage and stormwater drainage services
- consultation and information, including involvement in planning and decision making processes and the establishment of Customer Councils
- notice of interruption to supply of services, and entry on to the customer's land
- maintenance and repairs to the water supply and sewerage system
- assistance, redress and compensation, including an explanation of the complaint handling and resolution process
- charges, meters and accounts, such as assistance with paying accounts, and accuracy of meter readings
- disconnection and reconnection to the water or sewer main.

Attachment 7 summarises customer service obligations and customer rights provided by other water utilities, both in Australia and in the United Kingdom.

As part of its review of Sydney Water's current Customer Contract, the Tribunal developed a set of principles which it believes underlie good practice in customer contracts, and are relevant to Hunter Water's Customer Contract. The principles for Customer Contracts are:

- transparency and full information – they provide full, clear information to customers concerning terms and conditions, consumer rights and tariffs
- service quality – they include issues such as customer communications, billing, payment options, and conflict resolution procedures
- redress – they provide free and consumer-friendly systems for complaints handling, compensation and independent resolution of conflict
- security and reliability – they protect customers against service restriction or disconnection procedures, where warranted
- representation and active participation – they provide opportunities for consumers to voice their views to the agency, for example through customer councils.

Should Hunter Water's current Customer Contract be modified to be more consistent with these principles? If so, how should it be modified?

6.2 Customer Charter

Hunter Water voluntarily developed a Customer Charter in 1995. This charter has two main parts. The first states Hunter Water's objectives in responding to service interruptions that affect individual properties. These objectives are to:

- assess the urgency of the problem within 30 minutes of being contacted by a customer and dispatch repair crews according to the priority assigned to the problem
- reinstate water or sewer services within six hours
- give two days notice of any planned interruptions to water supply
- provide alternative water or toilet services wherever practicable if the problem cannot be fixed within six hours.

The second part sets out the rebates Hunter Water will provide to customers if its service standards are not met over the course of a year. These include rebates of availability charges for either water (\$25.07 per year) or the sewerage system (\$210 per year). Circumstances under which the customer may be eligible for these rebates include:

- water supply interruptions of more than 24 hours in one year
- low pressure events (less than 12 metres per head at the meter) on more than five occasions in a year
- more than three sewer surcharge events (overflows) on a property in a year.

Rebates do not apply in events beyond Hunter Water's control, including drought, sabotage, national emergency, fire, flood, earthquake, power shortage, extreme rainfall or industrial actions.

Should the provisions of the Customer Charter be given legal status by inclusion in Hunter Water's Customer Contract and Operating Licence?

In Sydney Water’s Operating Licence, the agency’s obligations in relation to customer service provision and rebates are set out in the Customer Contract. This makes it easier for customers to access them, as the primary rights and obligations of both Sydney Water and customers are set out in the one document. It also means that these obligations and rebates are legally binding on the parties.

Table 6.1 below sets out the main obligations and rebates included in Sydney Water’s Customer Contract.

Table 6.1 Customer Contract obligations for Sydney Water

Type of service	Customer Contract obligation
Drinking water continuity	If a customer experiences a discontinuity in the supply of water or sewerage services ⁷³ that lasts more than 1 hour without notice, or 6 hours, if notice was given, Sydney Water is obliged to pay a 10% rebate on the water and/or sewerage availability charge.
Drinking water pressure	Sydney Water must supply water at a pressure that is 15 metres head at the main tap, except for areas that its Licence has designated as low pressure areas. ⁷⁴
Sewage overflows	Sydney Water is obliged to take action to minimise any damage and inconvenience and to clean up the affected area if a sewerage surcharge occurs on a customer’s property due to the failure of Sydney Water’s sewerage system.

As part of the Tribunal’s recent review of Sydney Water’s system performance standards, stakeholders have commented that to be an effective economic instrument and to ensure customer service, rebates may need to be larger than currently provided for.⁷⁵ Otherwise, it may be more cost effective for water utilities to pay a rebate to customers rather than to maintain its systems. Another consideration is whether customers would prefer to receive a rebate if the performance of the system is unsatisfactory, or to have the problem with the system rectified.

In the United Kingdom, the OFWAT Guaranteed Standards Scheme⁷⁶ requires a company which fails to meet any of the guaranteed standards to compensate customers. This compensation normally amounts to £20 for domestic customers and £50 for business customers each time the company fails to meet the standards. There are two exceptions:

- a payment of £25 (approx A\$62.50) for low pressure problems, and
- a rebate of up to £1000 (approx A\$2,500) for a sewage overflow incident.

Are Hunter Water’s obligations as set out in the Customer Charter adequate? In particular, are the requirements for customer rebates and compensation adequate?

⁷³ Section 6.3 and 9.1 of the Customer Contract specify that the rebate is payable in cases where a discontinuity in the supply of water or sewerage services is due to damage to any part of the works (for example by bursting, blockages or breakdown), or if Sydney Water reasonably believes it is necessary to inspect, maintain, repair or replace any part of the works.

⁷⁴ The designated low pressure areas include some urban areas adjacent to reservoirs in the Blue Mountains as well as some non-urban properties in Bayview, West Campden, Llandilo, Berkshire Park, Castlereagh, North Richmond, Oakville, Riverstone, Shofields and the Blue Mountains.

⁷⁵ Public Interest Advocacy Centre, submission to the IPART review of Sydney Water system performance standards, 12 February 2001, p 4.

⁷⁶ OFWAT, *The Guaranteed Standards Scheme, Information Note No.4*, September 2000.

6.3 Additional obligations

Sydney Water's Operating Licence includes a range of additional obligations in relation to consumer and customer protection which are not included in Hunter Water's current Operating Licence or are less stringent. These obligations relate to: complaints handling and dispute resolution, debt and disconnection, community consultation, and customer service standards and indicators.

6.3.1 Complaints handling and dispute resolution

Sydney Water's Operating Licence requires it to establish internal and external complaint handling procedures. Information about these procedures is to be made available to customers and consumers. The annual audit must report on the effectiveness of Sydney Water's internal and external dispute resolution schemes and systemic problems arising from the complaints. Any complaints not resolved by the internal dispute resolution procedures are referred to the Energy and Water Ombudsman New South Wales (EWON). EWON's role is to investigate and resolve complaints for customers of Sydney Water and electricity providers in New South Wales. This scheme is funded by the participating utilities, and is free of cost to customers and consumers.

Hunter Water's existing Licence does not contain conditions for monitoring and handling complaints or dispute resolution. Instead, the agency has established a Complaints Handling Policy based on the Australian Standard AS4269-1995. This has been incorporated into its Customer CARE system.

This system is designed to record and track customer inquiries and to record complaints by category. Hunter Water uses the statistics to monitor trends and target areas for improvement. Information about customer complaints is not required to be publicly reported. However, in recognition of the importance of complaint measures, previous Operational Audits of Hunter Water included an assessment of customer service performance with specific reference to complaint handling.

Should conditions in relation to complaints handling measures be included in Hunter Water's Operating Licence? And should Hunter Water participate in an external dispute resolution scheme?

6.3.2 Debt and disconnection

Sydney Water's Operating Licence requires it to develop a code of practice and procedures for debt and disconnection. It also requires that the code provide options for deferred payment or payment by instalment of consumption bills, and that customers be informed about these payment options in consumption bills. Sydney Water intends to include information about this code in its Customer Contract and to make it freely available.⁷⁷

Hunter Water's Licence does not include a requirement to have a debt and disconnection policy or procedures. However, the supply of water and sewerage services is an essential service and disconnection of the supply can cause severe hardship for affected customers.

⁷⁷ Sydney Water Corporation, Submission to Review of Sydney Water's Customer Contract, June 2001, p 31-32.

Including a requirement that a policy on debt and disconnection be included in the Licence could ensure the protection of customers who have difficulty paying their bill.

Hunter Water's Customer Contract does include provisions for debt and disconnection. Customers are to be given 48 hours notice in writing of Hunter Water's intention to discontinue or restrict supply if a customer fails to pay charges for services received and these charges remain unpaid. Alternative payment options are not detailed.

Should Hunter Water's Operating Licence include a code of practice and procedure on debt and disconnection?

6.3.3 Community consultation

Sydney Water's Operating Licence requires it to establish and regularly consult with Customer Councils, comprising various consumer and interest groups. It also requires that Sydney Water develop Customer Consultation Charters in consultation with the Customer Council members, describing the types of matters to be referred to the Councils.

In contrast, Hunter Water's Operating Licence only requires it to consult with its customers at regular intervals, and to conduct and publish an annual customer survey. Hunter Water's Environmental Management Plan also includes the following objective:

To consult with and educate the community to ensure people are well informed on the Corporation's policies and plans, ensure that they have adequate input; and that the Corporation responds appropriately to their concern.⁷⁸

Hunter Water's 1999/2000 Operational Audit report states that these licence requirements have been met, and that Hunter Water holds Consultative Forums quarterly and Open Board Meetings monthly. The public can attend these Board Meetings and the minutes are made publicly available.⁷⁹

In December 1998 the Hunter Water Board recommended to the Licence Regulator that its Customer Survey should be conducted every two years on the basis that there was little or no change in results on an annual basis. This proposal was accepted and was implemented in July 2000. Hunter Water is currently revising the survey to reflect changes that have occurred within its organisation and in customer expectations. It is intended that two different surveys will be conducted in alternate years. One survey will gather information on customer perceptions. The other will measure the satisfaction of people who have lodged complaints with Hunter Water.

Are the obligations in relation to community consultation in Hunter Water's Operating Licence adequate? If not, what additional measures should be included?

⁷⁸ Independent Pricing and Regulatory Tribunal, *Hunter Water Corporation Operational Audit Report 1999/2000*, p 56.

⁷⁹ Independent Pricing and Regulatory Tribunal, *Hunter Water Corporation Operational Audit Report 1999/2000*, p 56.

6.3.4 Customer service standards and indicators

Hunter Water's engineering functions are regulated through the System Performance Standards included in the Operating Licence (discussed in Chapters 3 and 4). However, the Licence does not include any standards or indicators in relation to customer service performance.

To ensure that the systems established for interacting with customers provide efficient and effective levels of service, customer service standards could be included in the Operating Licence. This would mean that if Hunter Water failed to meet those standards it would be in breach of its Licence. Alternatively, indicators of customer service performance could be incorporated in the Operating Licence. These indicators would enable customer service performance to be monitored, but would not require particular levels of service to be met. The indicators would be auditable and publicly reported in the audit report, thus providing an incentive for Hunter Water to achieve acceptable performance levels. However, failing to meet any particular service level would not result in a breach of its licence.

Other water utilities in Australia and the United Kingdom, measure levels of customer service, but there seems to be significant variation as to what is measured and the form of measurement. The Water Corporation of Western Australia's Operating Licence specifies standards in terms of telephone contacts and responding to customer complaints. In South Australia, complaints are also regulated in terms of response times to any system failures which may have adverse consequences for public health or disrupt a customer's business.⁸⁰ In Victoria, the Office of Regulator-General does not set official minimum standards of service for customers, but strong competition and comparative reporting between the three retail businesses act as effective incentives.

In the UK, the Office of Water Service uses four primary customer performance indicators complemented by secondary indicators. Some of these are associated with guaranteed standards. The primary indicators are:

- written and telephone billing contacts received and the number dealt with in 5, 10, 20 and more than 20 working days
- written complaints received and the number dealt with in 5, 10, 20 and more than 20 working days are reported
- metered customers who receive at least one bill during the year based on an actual meter reading
- telephone contact answering times, number of abandoned calls, and total time the primary contact numbers were busy.

No formal compliance targets are set for these standards. However they are graded into bands showing levels of performance. The results of the companies are published.

⁸⁰ Halcrow Management Sciences Ltd, *Review of System Performance Standards in Sydney Water Corporation's Operating Licence*, March 2001, p 74.

As part of the review of Sydney Water's system performance standards, the Tribunal has recommended the following customer service indicators:

- time taken to provide a substantive response to customer complaints whether written, telephone, or face-to-face
- time taken to answer telephone calls made to primary contact numbers (service difficulties and emergency line, account and general enquiry line)
- percentage of properties receiving a bill based on a reading (as opposed to estimating the meter reading)
- time taken to provide a substantive response to account contacts by customers (eg queries about overcharging)
- total number of disconnection, flow restrictions and debt recovery actions.

Should customer service standards or indicators such as these be included in Hunter Water's Operating Licence?

IPART will be seeking suitably qualified consultants to advise and report on customer service measures for inclusion in the Operating Licence.

7 PUBLIC REPORTING AND OTHER ISSUES

7.1 Reporting on the Operational Audit

An integral part of the Operating Licence and associated audit regimes for Hunter Water, Sydney Water and the Catchment Authority is the requirement to publish an independent annual report on performance against the Licence. All these reports are forwarded to the Minister responsible for the particular water utility, to enable the Minister to review the utility's operational performance and to issue directions or requirements to improve this performance if necessary.

In the case of both Sydney Water and the Catchment Authority, the responsible Ministers are required by law to table the Audit Reports in the NSW Parliament each year.⁸¹ The Tribunal is also responsible for printing and distributing copies of the audit reports to stakeholders and community groups, as well as publicly displaying the reports on the IPART website.

In the case of Hunter Water, there is no requirement for the audit report to be tabled in Parliament, although Hunter Water is required to make public the outcome of the Operational Audit.⁸² The Tribunal is concerned to ensure that interested members of the community are able to gain ready access the Hunter Water's annual audit reports.

Are the current public reporting arrangements for Hunter Water's Operating Licence appropriate?

Should the annual audit report be tabled in the NSW Parliament, and responsibility for publicising the outcomes of the audit process remain with Hunter Water?

7.2 Term of Licence

Hunter Water's current Operating Licence provides for an initial term of three years, with an allowance for renewal of the Licence by the Governor of NSW for up to five years at a time.⁸³ The Operating Licences for both Sydney Water and the Catchment Authority provide for a five year term.⁸⁴

The Tribunal believes that in the interests of consistency, Hunter Water's Operating Licence should provide for an initial five year term in keeping with those of Sydney Water and the Catchment Authority.

The Tribunal seeks views on the appropriate term of Hunter Water's Operating Licence.

⁸¹ Section 33, *Sydney Water Act 1994* and *Sydney Water Catchment Management Act 1998*.

⁸² Hunter Water Corporation, *Operating Licence*, Clause 8.1.

⁸³ Section 15(2), *Hunter Water Act 1991*.

⁸⁴ The terms can be found in the Introductions to both Operating Licences.

7.3 Review of Operating Licence

The Operating Licences for both Sydney Water and the Catchment Authority provide for a mid-term review of the Licence (approximately halfway through the terms of the Licence) and an end-of-term review (at the end of the fourth year of the Licence). Both reviews must be conducted by IPART or another body determined by the relevant Minister. The Licence Review Body is required to conduct public consultation as part of this process. The mid-term review is considered necessary to ensure that the Operating Licence regime reflects the authorities recent performance and latest developments in the water industry.

Hunter Water has expressed a preference for an end-of-term review only, given the smaller scale of the organisation and the resourcing required to participate in a review.

The Tribunal seeks comments on the appropriate timeframes or triggers for reviewing Hunter Water's Operating Licence.

GLOSSARY

ANCOLD	Australian National Committee on Large Dams
ARMCANZ	Agriculture and Resource Management Council of Australia and New Zealand
Catchment Authority	Sydney Catchment Authority
CSIRO	Commonwealth Science and Industrial Research Organisation
DLWC	Department of Land and Water Conservation
EMP	Environmental Management Plan
EPA	Environmental Protection Authority
ESD	Ecologically sustainable development
EWON	Energy and Water Ombudsman New South Wales
Halcrow	Halcrow Management Sciences Ltd
Hunter Water	Hunter Water Corporation
HWC	Hunter Water Corporation
IPART	Independent and Regulatory Tribunal of NSW
ML	Megalitres
MOU	Memorandum of Understanding
NHMRC	National Health and Medical Research Council
NSW	New South Wales
NSW Health	NSW Health Department
OFWAT	Office of Water Services, United Kingdom
PIAC	Public Interest Advocacy Centre
PDF	Portable Document Format
SA	South Australia
Sydney Water	Sydney Water Corporation
Tribunal	Independent Pricing and Regulatory Tribunal of NSW
UK	United Kingdom
WA	Western Australia

ATTACHMENT 1 TERMS OF REFERENCE

Amended or substituted operating licence for Hunter Water Corporation (HWC)

1. The Tribunal is requested, pursuant to Section 18A of the *Hunter Water Act 1991* and Part 4B of the *Independent Pricing and Regulatory Tribunal Act 1992*, to draft the recommended terms of an amended or substituted operating licence for HWC.
2. The Tribunal should recommend the terms of the next HWC operating licence, including terms relating to:
 - a) the provision, construction, operation, management and maintenance of efficient, coordinated and commercially viable systems and services for supplying water, providing sewerage and drainage services and disposing of waste water
 - b) ensuring the systems and services meet quality and performance standards in relation to water quality, service interruptions and any other matters
 - c) the Corporation maintaining procedures to consult with its customers in relation to the provision of the systems and services
 - d) obligations in terms of clear customer service standards and guarantees
 - e) the adequacy of Hunter Water's and customers' obligations under the Customer Contract (which is a schedule to the Operating Licence)
 - f) indicators of the direct impact of HWC's activities on the environment
 - g) the processes, timeframes and other triggers for review and amendment of the licence
 - h) any other matters considered appropriate.
3. The Tribunal is not required to include any terms that amend, substitute or modify the provisions of the *Hunter Water Act 1991* in its recommendations for the amended or substituted operating licence.
4. The Tribunal is not required to include any terms modifying the area of operations of HWC in its recommendations for the amended or substituted operating licence.
5. When recommending the terms of the operating licence, the Tribunal must:
 - a) consider the functions of HWC, as provided for in section 4A and section 12 of the *Hunter Water Act 1991*
 - b) consider the regulatory environment the financial management framework within which HWC operates
 - c) take into account relevant considerations of the reviews of the licences of the Sydney Water Corporation and the Sydney Catchment Authority, along with reviews of the Sydney Water Corporation's system standards and its customer contract;
 - d) give due consideration to regional factors (geography, local economy, trends in industry development and growth)
 - e) take into account drinking water quality issues covered by the Memorandum of Understanding between Hunter Water Corporation and the Department of Health
 - f) consult with relevant parties as necessary, and
 - g) consider the impacts of quality and performance standards on the cost of service provision.

The Tribunal's recommended terms for HWC's operating licence must be provided by 1 March 2002.

ATTACHMENT 2 HIGH LEVEL COMPARISON OF OPERATING LICENCE CONDITIONS

The table below summarises the conditions of a number of Operating Licences. If there is no requirement in the Licence, this is indicated with a cross (x), even though in some cases, the organisation may provide voluntary information outside the requirements of its Operating Licence.

If the condition is not related to the utility's responsibilities under its Act, this is marked by N/A.

Operating Licence Requirement	Hunter Water	Sydney Water	Catchment Authority	Water Corporation (Western Australia)	Melbourne Utilities South East, Yarra Valley, City West Water
Provision of Services					
Management of Catchment Infrastructure Works	x	N/A	✓	N/A	N/A
Bulkwater Supply	✓	N/A	✓	✓	N/A
Water Distribution & Provision of Services	✓	✓	N/A	✓	✓
Wastewater Conveyance, Disposal & Provision of Services	✓	✓	N/A	✓	✓
Stormwater Conveyance & Disposal	x ⁸⁵	✓	N/A	✓	N/A
Memoranda of Understanding					
Water Administration Ministerial Corporation	x	✓	✓	N/A	N/A
NSW Health	x	✓	✓	N/A	N/A
EPA	x	✓	✓	x	x
Customer/Consumer Rights					
Customer Contract	✓	✓	✓ ⁸⁶	x	✓
Customer Charter	x ⁸⁷	x	x	✓	x ⁸⁸
Customer Councils/Committees	x	✓	✓	✓	✓
Annual Customer Survey	✓	x	x	✓	✓
Complaints Handling Procedures & Reporting	x	x	✓	✓	✓
Dispute Resolution Scheme	x	✓	x	✓	✓
Performance Standards					
Water Quality	✓	✓	✓	✓	✓
Drought Security	✓	x ⁸⁹	x	x	x
Water Supply Interruptions	✓	✓	✓	✓	✓

⁸⁵ Provision of Stormwater Services required under the *Hunter Water Act 1991*, No 53.

⁸⁶ Individual Customer Agreements are required under the Operating Licence.

⁸⁷ Voluntary Customer Charter established 1995.

⁸⁸ A Customer Charter exists to summarise the Customer Contract.

⁸⁹ A standard has been recommended in the recent review of system performance standards (April 2001).

Operating Licence Requirement	Hunter Water	Sydney Water	Catchment Authority	Water Corporation (Western Australia)	Melbourne Utilities South East, Yarra Valley, City West Water
Water Pressure	✓	✓	X	✓ ⁹⁰	X
Water Flow	X	X	X	✓ ⁹¹	✓
Sewer Surcharges	✓	✓	N/A	✓	✓
Drainage Standard	X	X	N/A	✓	N/A
Customer Complaints	X	X ⁹²	X	✓	✓
Telephone Answering	X	X ⁹³	X	✓	X
Asset Management	X	X ⁹⁴	X	✓	✓
Environmental Performance & Objectives					
Water Conservation Targets/Plan	X	✓	X	X	✓
Demand Management Strategy	X	✓	✓	X	X
Water Re-Use Targets	X	✓	N/A	X	✓
Environmental & ESD Indicators	X	✓	✓	X	X
5 Year Environmental Plan	X	✓	✓	X	X
Energy Management Policy compliance	X	✓	✓	X	X
EPA Pollution Reduction Targets	X	✓	X	X	X
Catchment Management Objectives	✓	N/A	✓	X	N/A
Environmental Flow Reporting	X	N/A	✓	X	X
ANCOLD Guidelines for Dam Safety	X	N/A	✓	X	N/A
Operational Audits					
Annually	✓	✓	✓	✓	✓
Available to Public	✓	✓	✓ ⁹⁵	X	X
Term of Licence	2 years	5 years	5 years	25 years	5.5 years

Legend

X	Does not include a provision in its Operating Licence
✓	Does include a provision in its Operating Licence
N/A	The provision is not relevant to the functions of the utility

⁹⁰ Areas exempt from these standards apply.

⁹¹ Areas exempt from these standards apply.

⁹² Indicators have been recommended in the *Review of System Performance Standards*, April 2001.

⁹³ Indicators have been recommended in the *Review of System Performance Standards*, April 2001.

⁹⁴ Recommended to be included in the Operating Licence in the recent review of system performance standards, April 2001.

⁹⁵ The Authority must advertise publicly and notify customers of the areas of non-compliance.

ATTACHMENT 3 REFERENCES TO OPERATING LICENCE IN THE HUNTER WATER ACT 1991

Division 1 of the *Hunter Water Act 1991* No 53 outlines the content of the Operating Licence under the following sections:

12 Granting of a licence

- (1) The Governor may grant an operating licence to the Corporation to enable the Corporation in accordance with this Act, in the area of operations specified in the licence, to provide, construct, manage and maintain systems and services for:
 - (a) supplying water, and
 - (b) providing sewerage and drainage services, and
 - (c) disposing of waste water
- (2) Except to the extent to which this Act expressly provides, nothing in an operating licence limits the requirements imposed by or under any other Act or law with respect to the provision, construction, operation, management or maintenance of any system or service referred to in subsection (1).

13 Terms & conditions of operating licence

- (1) The operating licence is subject to the terms and conditions determined by the Governor but must include terms or conditions under which the Corporation is required:
 - (a) to provide, construct, operate, manage and maintain efficient, co-ordinated and commercially viable systems and services for supplying water, provide sewerage services and disposing of waste water, and
 - (b) to provide, construct, operate, manage and maintain a drainage service within the capacity of the drainage service included in the business undertaking transferred under Part 3 by the Hunter Water Board to the Corporation.
 - (c) 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.
- (2) The operating licence must also include terms and conditions that require the Corporation to maintain procedure under which the Corporation is to consult with its customers at regular intervals in relation to the provision of the systems and services referred to in this section

14 Amendment of operating licence

The operating licence may only be amended in the manner specified in the operating licence.

15 Term of operating licence

- (1) Initial term is to expire on 30 June 1995
- (2) Governor may renew the operating licence for a maximum of 5 yrs at a time
- (3) The operating licence may be renewed even if its term has expired.

Section 16 outlines the areas covered by operating licence. **Sections 17 and 18** cover the contravention and cancellation of the operating licence respectively.

Division 6 outlines the contract charges under customer contracts, availability charges on land on which a main is available for connection, environmental levies on unserviced land, and rates on land within declared drainage areas which may be specified under the operating licence.

A complete copy of the Hunter Water Act is available on the NSW Consolidated Acts website, www.austlii.edu.au.

ATTACHMENT 4 REFERENCES TO CUSTOMER CONTRACT IN THE HUNTER WATER ACT 1991

Division 5 of the *Hunter Water Act 1991* No 53 outlines the content of the customer contract under the following sections:

35 Publication of terms and conditions of customer contracts

- (1) The initial terms and conditions of a customer contract are to be set out in the operating licence
- (2) The Corporation must, before the commencement of section 36, publish, in a daily newspaper circulating in the area of operations, a notice setting out the terms and conditions on which the Corporation will provide water supply and sewerage services to customers pursuant to the operating licence
- (3) The terms and conditions set out in the notice must include particulars of the contract charges or of the manner in which the contract charges are to be calculated or determined in relation to the provision of water supply or sewerage services to customers by the Corporation
- (4) The terms & conditions set out in the notice must be in a form specified by or authorised under the operating licence.

36 Owner of land taken to have entered into a customer contract

- (1) An owner of land that is connected to a water main or sewer main owned by the Corporation is taken to have entered into a customer contract with the Corporation, on terms and conditions published under Section 35 as varied from time to time in accordance with Section 38, for the provision of water supply or sewerage services, or either of them, to the land.
- (2) A customer contract is not unconscionable, harsh or oppressive for the purpose of the law.

37 Division not to apply to certain contracts

This Division does not apply to the extent that the terms and conditions of a contract for the provision of water supply or sewerage services, or either of them, have been specifically agreed to by the Corporation and a customer.

38 Terms and conditions of customer contracts may be varied on 6 months notice

- (1) The terms and conditions of a customer contract may, subject to the approval of the Governor, be varied by the Corporation publishing, in a daily newspaper circulating in the area of operations, a notice setting out the variation at least 6 months, or a shorter period to which the Minister agrees, before the variation becomes effective
- (2) A copy of the notice published under this section is to be given to the customer by the Corporation with the next account for service charges
- (3) A statement in a notice published under this section that the Governor has approved of the variation of the terms and conditions set out in the notice is prima facie evidence that the Governor has approved of the variation of the terms and conditions unless the contrary is proved.

A complete copy of the Hunter Water Act is available on the NSW Consolidated Acts website, www.austlii.edu.au

ATTACHMENT 5 SYSTEM PERFORMANCE STANDARDS COMPARISON

SYSTEM PERFORMANCE STANDARD (in the Operating Licence)	HUNTER WATER CORPORATION	SYDNEY WATER CORPORATION ⁹⁶	SYDNEY CATCHMENT AUTHORITY	WATER CORPORATION (Western Australia)	SA WATER ⁹⁷	MELBOURNE UTILITIES South East, Yarra Valley, City West Water
Water Discontinuity	92% of customers will not incur interruptions to their water supply for a duration of more than 5 hours in any year	95% of properties are not to have an interruption to their service for more than 6 hours annually	N/A ⁹⁸	75% of properties are not to have an interruption exceeding one hour	Restoration of service will occur for 80-99% of properties within 5 hours (depending on severity), and the remainder in 12-24 hrs	95% (92.5% for City West Water) of unplanned water supply interruptions are not to exceed 5 hours in the year
Water Pressure	95% of water customers each year will not experience a verified low pressure incident of less than 20 metres head measured at the service metre	98% of customers are to have water pressure at the main tap in excess of 15 metres of head annually (Exclusions apply for low pressure areas)	N/A	99.8% of customers will meet the min. flow of 20 litres per minute, at the min. static pressure of 15 metres of water in the metropolitan area (13 metres in rural areas) at the outlet of the water meter (low pressure areas apply)	The minimum head at the meter is 17 metres, with the target 20 meters The minimum flow is 20 L/min and the target is 27 L/min	A customer's water supply will be at least equal to the minimum flow rate, depending on the diameter of pipe, as specified in the Customer Contract ⁹⁹
Security of Water Supply Against Drought	To maintain and provide works sufficient to meet a probable occurrence of drought at no less than 10 yearly intervals ¹⁰⁰	N/A	The level of operating storage will not fall below 5% more often than one month in 100,000 months ¹⁰¹	N/A	N/A	N/A

⁹⁶ The performance standards existing in the current Operating Licence have been presented, even though the recent review of the system performance standards, April 2001, to the Minister recommended changes.

⁹⁷ The conditions required in SA Water Contract of Supply, as advised by SA Water.

⁹⁸ If the condition is not a requirement in the Operating Licence, this is marked by N/A.

⁹⁹ City West Water Customer Contract, February 2000, 4.2.

¹⁰⁰ A drought is defined when the amount of bulk water held in the special areas is at 60% or less of available storage capacity.

¹⁰¹ SCA Operating Licence, Schedule 2, Catchment Infrastructure Works Performance Criteria (d).

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SYSTEM PERFORMANCE STANDARD (in the Operating Licence)	HUNTER WATER CORPORATION	SYDNEY WATER CORPORATION⁹⁶	SYDNEY CATCHMENT AUTHORITY	WATER CORPORATION (Western Australia)	SA WATER⁹⁷	MELBOURNE UTILITIES South East, Yarra Valley, City West Water
Wastewater Treatment Works	Discharges from the wastewater treatment works must meet the standards set in the licences issued by the Environmental Protection Authority	N/A	N/A	N/A	Required effluent quality specified for the Wastewater Treatment Plants	N/A
Sewer Surcharges	Reported surcharges will occur at no more than 1.4 incidents per kilometre of main per annum, and 96% of customers per annum will not experience a sewage overflow on their property	96% of all properties connected to its Sewerage system will not have their land affected by a sewerage overflow	N/A	99.8% of customers will not experience a wastewater overflow on their property	Performance is based on time to restore services, attendance to overflows and clean-ups	90% of Priority 1 spills and Priority 2 spills are to be fully contained within 5 hours ¹⁰²
Stormwater/ Drainage	N/A	N/A	N/A	Design of infrastructure to protect against flooding from peak flows of stormwater runoff from rainfall events with intensities up to 1 in 5 years (residential) and 1 in 10 years (commercial)	N/A	New developments are to be secured from flooding in storms of less than a 1 in 100 year return frequency

¹⁰² Definitions of Priority 1 and Priority 2 spills contained in Schedule 2, City West Water Ltd, Water and Sewerage Licence.

ATTACHMENT 6 OFWAT LEVELS OF SERVICE INDICATORS

The levels of service indicators for the water industry used by the Office of Water Services in the United Kingdom are summarised below.

Inadequate pressure

The indicator shows the number of connected properties that have received, and are likely to continue to receive, pressure below the reference level when demand for water is not abnormal.

The reference level of service is defined as ten metres head of pressure at a boundary stop tap with a flow of nine litres per minute. This should be sufficient to fill a one-gallon (4.5 litre) container in 30 seconds from a ground floor kitchen tap.

There are a number of exceptions to this, to allow for circumstances beyond a company's control. Many pressure problems, for example, are caused by a customer's own plumbing.

Since it is impractical to measure the pressure and flow at the boundary of every customer's property, companies are allowed to report against an alternative reference level of 15 metres head of pressure in the distribution main supplying the property. This is a sufficiently high pressure, even allowing for the connection from the water main to the property boundary.

Companies are expected to maintain registers which identify the properties at risk of receiving low pressure.

Supply interruptions

This indicator shows the number of properties experiencing interruptions to their supply of greater than 6 hours, 12 hours and 24 hours duration which are the responsibility of the water company, but which are not planned and not warned.

Incidents of supply interruptions are excluded if:

- they are caused by a third party, or
- they are a result of planned maintenance work and customers have been given reasonable advance warning.

Companies are required to maintain registers that identify those properties affected by supply interruptions.

Restrictions on use of water

This indicator shows the percentage of a company's population that has experienced water-usage restrictions. Water-usage restrictions can be divided into a number of categories:

- voluntary reductions, encouraged by a publicity campaign
- hosepipe restrictions
- drought orders restricting non-essential use of water
- drought orders imposing standpipe usage or rota cuts.

Companies are required to report the percentage of population affected by the above water usage restrictions.

Flooding from sewers

This indicator examines company performance in respect of internal sewage flooding of properties.

Companies report their assessment of the risk of flooding due to sewer capacity under two categories – more than once in 10 years, and twice in 10 years. Companies also report on sewer flooding incidents in two causal categories – overloaded sewers, and other causes (temporary problems).

Billing contacts

This indicator shows the total number of written and telephone billing contacts received and the number dealt with in 2, 5, 10, 20 and more than 20 working days.

A billing contact is any enquiry regarding a bill – for example, an account query, change of address, request for alternative payment arrangements – which is not a complaint.

Written complaints

This indicator shows the total number of written complaints received and the number dealt with in 2, 5, 10, 20 and more than 20 working days.

A written complaint is any letter, however mildly worded, that draws attention to any service provided by or action taken by the company or its representatives which falls short of the expectation of the correspondent. All complaints, including those about general levels of charging or other policy issues, and complaints which are not justified must be included.

Bills for metered customers

This indicator shows the percentage of metered customers who receive at least one bill during the year based on an actual meter reading.

Actual meter readings are classified as a reading undertaken by the water company or provided to the company by the customer (either in response to an estimated bill or as a result of a request to supply such details).

Ease of telephone contact

This indicator identifies the ease with which customers can make telephone contact with their local water company.

This indicator monitors incoming telephone traffic on principal, advertised customer contact numbers which are linked to, for example, the customer service department or accounts section or the main switchboard. The indicator measures:

- total calls received on customer contact lines
- total calls answered
- calls answered within three time bands – within 15 seconds, 15 to 30 seconds and over 30 seconds

- average time to answer calls
- all lines busy – that is, inability to make contact with the company.

ATTACHMENT 7 CUSTOMER SERVICE OBLIGATIONS FOR OTHER WATER UTILITIES

Service	Obligation	Jurisdiction
Water quality	<ul style="list-style-type: none"> To ensure that water is clear and free from objectionable taste and odour To implement water quality improvement programs in certain areas and to conduct water quality monitoring program To carry out free water testing and provide test results to the customer when the customer notifies a potential water quality problem to the company To compensate customers for damage done by discoloured water, and expenses incurred in running off discoloured water To respond to water quality complaints in a specified time 	Melb, SA Melb WW, North, and DC WW, North and SW SA
Flow rate	<ul style="list-style-type: none"> To ensure that a customer's flow rate is at least equal to a minimum rate 	Melb, SA
Customers with special needs	<ul style="list-style-type: none"> If a customer has health or special needs, to, for example, minimise inconvenience where water supply is interrupted, and not to restrict supply for non-payment 	Melb
Sewerage system	<ul style="list-style-type: none"> To take reasonable care to operate the sewerage system so that odours are not prevalent To field test sewer spill contingency plans To clear sewer blockages in the service provider's pipes 	Melb, SA Melb Melb, SA
Restoration of property	<ul style="list-style-type: none"> To restore a street or property after work has been conducted, and ensure that these areas are fenced and lit so that they do not constitute a hazard To compensate customer if their property is not left in the same condition as it was when company's staff arrived 	Melb, SA 3V
Access to property	<ul style="list-style-type: none"> To compensate customers who have difficulty accessing their home, if for example, the company is conducting work in the street 	3V, SW
Repair	<ul style="list-style-type: none"> To provide free non-emergency repair of private water services pipes, including repair of leaky pipes To replace lead service pipes free of charge To replace old or damaged meters free of charge 	ST, WW and York WW and SW SA
Leaks	<ul style="list-style-type: none"> To adjust a bill with a high meter reading due to a leak in the customer's pipework 	North
Meter reading	<ul style="list-style-type: none"> To provide a meter reading on the day a customer moves house 	WW and North
Usage audits	<ul style="list-style-type: none"> To carry out a free water usage audit of household premises on request. To provide advice on efficient water usage 	WW
Compensation for water restrictions	<ul style="list-style-type: none"> To compensate customers for restrictions on water use due to drought To compensate customers for notices to boil or refrain from drinking water 	SS, Bourn & W Hamp, WW, SW, and DC SS, WW, North and SW
Court action	<ul style="list-style-type: none"> To compensate customers if the company wrongly issues a summons to a customer for non-payment of charges 	York and SW
Direct debiting	<ul style="list-style-type: none"> To provide a refund or compensation if the company makes a direct debiting error on a customer's account 	York and SW
Penalty payments	<ul style="list-style-type: none"> To pay customers if a due payment has not been made to a customer within a specified time 	3V and DC

Note: In this table the following abbreviations have been used:

Melb = Melbourne water utilities (City West Water, South East Water and Yarra Valley Water), SA = S A Water contract conditions for United Water, WW = Wessex Water (UK), North = Northumbrian Water (UK), DC = Dwr Cymru Welsh Water (UK), SW = South West Water (UK), 3V = 3 Valleys Water (UK), ST = Severn-Trent Water (UK), York = Yorkshire Water (UK), SS = South Staffordshire Water (UK), Bourn & W Hamp = Bournemouth & West Hampshire Water (UK).

Melbourne water utilities are regulated by the Office of the Regulator General, UK water utilities are regulated by OFWAT.