



Independent Pricing and Regulatory Tribunal

Cost Benefit Analysis of proposed changes to Sydney Water Corporation's Operating Licence

Water Licensing — Draft Report
February 2015



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Invitation for submissions

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

Submissions are due by 7 April 2015.

We would prefer to receive them electronically via our online submission form <www.ipart.nsw.gov.au/Home/Consumer_Information/Lodge_a_submission>.

You can also send comments by mail to:

Review of Sydney Water's Operating Licence
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If you would like further information on making a submission, IPART's submission policy is available on our website.

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1 | Executive Summary

1.1 The review of Sydney Water's operating licence

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

We last reviewed Sydney Water's operating licence in 2010.² The current Sydney Water operating licence expires on 30 June 2015 and may be renewed for a maximum period of five years.³ We will recommend that the new operating licence has a term of five years, from 1 July 2015 to 30 June 2020.

The role or purpose of the operating licence

The primary role of the operating licence is to ensure that Sydney Water provides an adequate level of service to its customers, given that it is a monopoly provider of an essential service. This is consistent with the requirements of the operating licence under Part 5 of the *Sydney Water Act 1994*.

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

1.2 The scope of the Draft Cost Benefit Analysis

We have conducted a Cost Benefit Analysis (CBA) of proposed changes to Sydney Water's operating licence and the associated reporting manual.⁴ This CBA is part of the end of term review of Sydney Water's operating licence.

¹ The Sydney Water operating licence is granted under Part 5 of the *Sydney Water Act 1994*.

² Sydney Water Operating Licence 2010-2015.

³ As allowed by s17 of the *Sydney Water Act 1994*.

⁴ The reporting manual consolidates and details all reporting requirements imposed under the operating licence, including the format and timetable of reporting; and details required performance indicators.

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

The timeframe of the CBA is the 5-year period from 1 July 2015 to 30 June 2020. This period aligns with the expected term of Sydney Water's next operating licence. The decision to limit the time frame for the CBA to five years was made in order to simplify the process and data requirements.

As part of this CBA, we sent a request for information (RFI) to Sydney Water asking it to provide information on the costs and benefits of proposed changes to the operating licence. Sydney Water provided its response to IPART on 24 November 2014.⁵ Much of the analysis in this document is informed by Sydney Water's response.

Where possible, we have sought to quantify costs and benefits. However, in many instances we have assessed costs and benefits in qualitative terms. This reflects available information, as well as the nature of the proposed changes to the operating licence. In most instances, our proposed changes will not substantially change Sydney Water's operations over the short to medium term relative to its 'business as usual' practices. Over time, however, they will provide assurance to stakeholders, ensure Sydney Water is operating efficiently and effectively, help to minimise risks of service or system failure, and reduce regulatory costs.

Where we have proposed changes that result in increased efficiency, cost savings or improved standards of service, we would expect that these benefits should flow through to Sydney Water's customers.

1.3 Overview of proposed changes

On 16 June 2014, as part of the end of term review of Sydney Water's operating licence, we released an Issues Paper that identified a number of proposed changes to Sydney Water's operating licence. Since that time, we have considered Sydney Water's and other stakeholder feedback and have further developed and revised our proposed changes to the operating licence. The proposed changes are outlined below. Our default position is to maintain the existing operating licence conditions unless the CBA clearly demonstrates that a proposed change will likely result in a net benefit to society.

⁵ Sydney Water, Response to IPART request for information, 24 November 2014.

Our proposed changes to Sydney Water's operating licence and reporting manual include the following:

1. Water Quality

- ▼ Require Sydney Water to implement and maintain a Drinking Water Quality Management System (DWQMS) that is consistent with the Australian Drinking Water Guidelines (ADWG).
- ▼ Require Sydney Water to implement and maintain a Recycled Water Quality Management System (RWQMS) that is consistent with the Australian Guidelines for Water Recycling (AGWR).
- ▼ Require Sydney Water to:
 - Notify NSW Health and IPART of any significant changes to the DWQMS or RWQMS.
 - Provide a compliance and performance report on its management of the quality of drinking water and recycled water.
 - Remove the requirement to produce a 5-year Drinking Water Quality Management Plan (DWQMP) from the operating licence, as this type of plan is an output of the ADWG framework and therefore does not require a separate obligation in the operating licence.

2. Infrastructure

Asset Management System

- ▼ Require Sydney Water to develop an Asset Management System consistent with ISO 55001:2014 by 30 June 2018 and have it certified by 30 June 2019.

Response times to main breaks and leaks

- ▼ Remove the standards for response times for priority 4, 5 and 6 water main breaks and leaks from the operating licence and place these in the reporting manual as performance indicators.
- ▼ Introduce an additional performance indicator for priority 5 water main breaks and leaks, for the percentage of breaks and leaks attended within 24 hours.
- ▼ Require Sydney Water to provide to IPART and make available on its website its process for responding to water main breaks and leaks and the factors that influence Sydney Water's response times

MoU with FRNSW

- ▼ Require Sydney Water to use its best endeavours to establish, maintain and comply with a Memorandum of Understanding (MoU) with Fire and Rescue NSW (FRNSW).

The Priority Sewerage Program (PSP)

Remove redundant Priority Sewerage Program (PSP) obligations (ie, where Sydney Water has already complied with licence obligations to deliver wastewater services to specific areas by required dates), while maintaining other PSP obligations including the requirement for Sydney Water to provide an annual report on its progress in implementing the PSP in the remaining PSP areas. Further, require this annual report to be made publicly available.

3. Water Conservation (or 'Water Quantity')

- ▼ Require Sydney Water to submit to IPART by 31 December 2015 a report that outlines and explains its methodology for determining the economically efficient level of its water conservation activity, including in relation to water leakage, recycled water and water efficiency (including demand management). Sydney Water would then be required to submit a revised report to IPART if it amends its methodology.
- ▼ Require Sydney Water to submit to IPART and make publicly available an annual Water Conservation Report, which details and explains each element of Sydney Water's water conservation program for the previous year and for the upcoming five years, explains how this program and Sydney Water's progress against it relates to the Metropolitan Water Plan (MWP), and provides information on key water conservation measures.
- ▼ Require Sydney Water to use its best endeavours to develop a protocol with the Metropolitan Water Directorate (MWD), which outlines the respective roles and responsibilities of Sydney Water and the MWD in developing and implementing the MWP.

4. Environment

- ▼ Remove the requirement for a five year Environmental Management Plan (EMP) and subsequent annual report, to reduce duplication of requirements with the provision requiring a certified Environmental Management System (EMS).

5. Customer Rights

- ▼ Increase the minimum rebate payment to customers for supply interruptions or failures by about 15% to account for CPI
- ▼ Replace rebates for repeat incidents of supply interruptions or disruptions to service with a single, lump sum rebate (rather than the same aggregate rebate amount spread over the next four quarterly bills).
- ▼ Require Sydney Water to advertise the measures available to address financial hardship in a Sydney based newspaper, at least annually.

- ▼ Allow Sydney Water to charge a fee for late payment of customer bills, subject to a maximum amount and terms and conditions specified by IPART. (We note that this would not apply to customers on hardship arrangements.)
- ▼ Require Sydney Water to use its best endeavours to co-operate with each licensed network operator or licensed retail supplier within its area of operations that seeks to establish a code of conduct with Sydney Water.

6. Other Areas

- ▼ Require Sydney Water to develop, implement and certify a Quality Management System (QMS) by 30 June 2018, and to notify IPART of any significant changes that it proposes to make to the QMS.
- ▼ Changes to the wording of the operating licence to clarify Sydney Water's rights and obligations in relation to stormwater – namely in relation to its ability to augment its system.

1.4 Preliminary cost benefit analysis findings

Table 1.1 below summarises the results of the CBA for each proposed change to Sydney Water's operating licence. These results are discussed further in subsequent sections of this paper. In evaluating proposed changes to the operating licence, we have considered the full costs and benefits of proposed changes, both internal and external to Sydney Water's business.

Table 1.1 Cost and benefits of proposed changes to operating licence

Proposed change	Costs	Benefits	Assessment
Water Quality			
Maintain DWQMS consistent with ADWG	▼ Negligible	<ul style="list-style-type: none"> ▼ Reduce risk of adverse water quality incidents ▼ Assurance to stakeholders ▼ Reduce costs (eg, auditing) 	Net benefit
Maintain RWQMS consistent with AGWR	▼ \$0 to \$300,000	▼ As above	Net benefit
Remove requirement to produce a DWQMP	▼ No cost	▼ Potentially some cost saving from removing duplication of requirements	Net benefit
SW to notify NSW Health and IPART of changes to DWQMS or RWQMS	▼ Negligible	<ul style="list-style-type: none"> ▼ Reduce risk of adverse water quality incidents ▼ Assurance to stakeholders ▼ Reduce regulatory costs 	Net benefit

Proposed change	Costs	Benefits	Assessment
Infrastructure			
Develop an AMS consistent with ISO 55001:2014	▼ \$150,000 over 3 years	<ul style="list-style-type: none"> ▼ Enhanced service levels ▼ Reduced risk of asset failure ▼ Asset cost savings ▼ Assurance to stakeholders ▼ Audit cost savings 	Net benefit
Change water main break response times from standards to performance indicators	▼ \$60,000 to \$300,000 in water	<ul style="list-style-type: none"> ▼ Cost savings to Sydney Water (eg, \$500,000 per annum) ▼ Reduced interruptions to service at inconvenient times ▼ Improved well-being of Sydney Water staff 	Net benefit
Additional reporting requirements around water main break response times/processes	▼ Negligible	<ul style="list-style-type: none"> ▼ Increased transparency has the potential to minimise costs (to Sydney Water, its customers and the broader community) and enhance service levels 	Net benefit
Establish and maintain an MoU with FRNSW	▼ Expected to be relatively minor.	<ul style="list-style-type: none"> ▼ Potentially enhanced efficiency of firefighting measures across SW's area of operations 	Net benefit
Remove redundant clauses for PSP areas. Retain other clauses including requirement for Sydney Water to report annually on progress against PSP. Make report publically available.	▼ No cost.	<ul style="list-style-type: none"> ▼ Enhanced information and transparency to stakeholders 	Net benefit
Water Conservation			
Protocol with MWD	▼ \$196,000 in administrative costs.	<ul style="list-style-type: none"> ▼ Enhanced efficiency in water planning, including avoided supply augmentation and/or demand management costs 	Net benefit
Methodology for determining economic level of water conservation and Annual Water Conservation Report	▼ Up to \$500,000 over 5 years	<ul style="list-style-type: none"> ▼ As above 	Net benefit

Proposed change	Costs	Benefits	Assessment
Changing water leakage and water usage from standards to reporting measures (as part of Annual Water Conservation Report)	▼ None	<ul style="list-style-type: none"> ▼ Reduced risk of under or over investment in water conservation measures ▼ Assurance to stakeholders, through public accountability and transparency around these measures 	Net benefit
Environment			
Remove the requirement for a 5 year EMP and subsequent report	▼ None	<ul style="list-style-type: none"> ▼ Potentially some cost saving from removing duplication of requirements 	Net benefit
Customer Rights			
Increase minimum rebate amount by about 15% to account for inflation	▼ No additional economic costs, aims to maintain real value of rebate	<ul style="list-style-type: none"> ▼ Maintains real value of compensation to customers ▼ Maintains incentive for Sydney Water to minimise service disruptions or interruptions 	Net benefit
Replace subsequent quarterly rebates for repeat incidents of interruptions to service with a single lump sum payment	▼ Minor cost in amending rebate system	<ul style="list-style-type: none"> ▼ Potential for greater customer awareness when a lump sum payment is received ▼ Potential for reduced ongoing administrative costs 	Net benefit
Advertise financial hardship measures in a Sydney based newspaper at least annually	▼ Negligible	<ul style="list-style-type: none"> ▼ Increased customer awareness of assistance measures for those experiencing financial hardship ▼ Possible reduction in non-payment or late payment of bills 	Net benefit
Late payment fee	▼ Costs in establishing fee	<ul style="list-style-type: none"> ▼ Ongoing reduced costs to Sydney Water and its broader customer base 	Net benefit
Sydney Water to use best endeavours to co-operate with licensed network operators and retail suppliers seeking to establish a Code of Conduct	▼ Negligible	<ul style="list-style-type: none"> ▼ Minimise cost of negotiations ▼ Reduction in establishment costs of WICA schemes (hence potential benefits to consumers and the broader community of enhanced competition) ▼ Reduced risk of system or service failure 	Net benefit

Proposed change	Costs	Benefits	Assessment
Other Areas			
Require Sydney Water to develop and implement a Quality Management System	▼ Initial outlay of around \$160,000	<ul style="list-style-type: none"> ▼ Enhanced efficiency (cost savings and/or service improvements) ▼ Reduced risk of service/system failure ▼ Assurance to stakeholders 	Net benefit
Clarification of rights and obligations for stormwater	▼ None	▼ Avoided administrative and delay costs	Net benefit

1.5 Structure of this paper

The rest of this paper explains our proposed changes to the various sections of the operating licence, the reasons for these changes and the costs and benefits of the changes. The structure of the paper is as follows:

- ▼ Chapter 2 outlines our proposed changes to **water quality**
- ▼ Chapter 3 outlines our proposed changes to **infrastructure**
- ▼ Chapter 4 outlines our proposed changes to **water conservation**
- ▼ Chapter 5 outlines changes relating to the **environment**
- ▼ Chapter 6 outlines proposed changes related to **customer rights**
- ▼ Chapter 7 relates to changes to **other areas** of the licence.

2 | Water Quality

The water quality section of Sydney Water's operating licence is aimed at ensuring that Sydney Water provides its customers with drinking water and recycled water of an acceptable standard, and that public health is protected.

2.1 Current water quality provisions in the operating licence

Under the current operating licence, Sydney Water is required to:

Drinking water

- ▼ manage drinking water quality to the satisfaction of NSW Health and in accordance with the ADWG⁶ (unless NSW Health specifies otherwise)
- ▼ develop a five-year Drinking Water Quality Management Plan (DWQMP) outlining strategies for the management of the quality of drinking water
- ▼ implement procedures and processes for the appropriate management of the drinking water supply system, taking into account planning and risk management and their implementation across the entire drinking water supply system
- ▼ comply with the fluoridation plant operating targets set out in the *Fluoridation Code*
- ▼ report on drinking water quality monitoring as outlined in the reporting manual.⁷

Recycled water

- ▼ manage recycled water quality in accordance with the AGWR and any other guidelines specified by NSW Health to the satisfaction of IPART⁸
- ▼ report on recycled water quality monitoring in the manner and form outlined in the reporting manual.⁹

⁶ National Health and Medical Research Council, *Australian Drinking Water Guidelines*, December 2013.

⁷ *Sydney Water Operating Licence 2010-2015*, cl 2.1.

⁸ National Health and Medical Research Council, Environment Protection and Heritage Council, Australian Health Ministers Conference, *Australian Guidelines for Water Recycling: Managing Health and Environmental Risks (Phase 1)*, November 2006.

⁹ *Sydney Water Operating Licence 2010-2015*, cl 2.2.

Changes to the management of water quality

- ▼ notify and receive approval from NSW Health of any proposed changes to Sydney Water's processes for managing and reporting on drinking water quality or recycled water quality, where such changes may have a material impact on public health.

2.2 Proposed changes to the water quality provisions in the operating licence

Our proposed changes to the water quality section of the operating licence include:

- ▼ Require Sydney Water to implement and maintain:
 - a Drinking Water Quality Management System (DWQMS) that is consistent with the Australian Drinking Water Guidelines (ADWG)
 - a Recycled Water Quality Management System (RWQMS) that is consistent with the Australian Guidelines for Water Recycling (AGWR).
- ▼ Remove the requirement to produce a five year Drinking Water Quality Management Plan (DWQMP) from the operating licence.
- ▼ Require Sydney Water to:
 - Notify NSW Health and IPART of any significant changes to the DWQMS or RWQMS.
 - Provide a compliance and performance report on its management of the quality of drinking water and recycled water.

The rationale for, and costs and benefits of, these proposed changes are outlined below.

2.3 Implementation of Drinking and Recycled Water Quality Management Systems (DWQMS and RWQMS)

Sydney Water currently has many elements of the above-mentioned water quality management systems, and maintains a high level of water quality and water quality management.

The aim of this proposed licence change is to ensure that Sydney Water applies a comprehensive and systematic approach to water quality management, and continues to maintain best practice water quality management processes. This would align the obligations in the operating licence with the intent of both the ADWG and the AGWR.

Sydney Water notes that the outputs of the water quality management systems will be:

- ▼ **Drinking Water and Recycled Water Manuals** – which will describe how Sydney Water manages drinking water and recycled water through a management system consistent with the ADWG or the AGWR (as relevant)
- ▼ **Five year rolling Drinking Water and Recycled Water Improvement Plans** – which will be produced with a five year outlook, consistent with the term of the operating licence, but will be reviewed and updated annually.

Sydney Water estimates that the cost of developing a recycled water manual and improvement plan, and integrating these into its management system, is about \$300,000.¹⁰ It has not provided cost estimates for developing a drinking water manual and improvement plan.

Sydney Water states, however, that these manuals and improvement plans would be a part of its standard operating practice, and would therefore impose no additional costs relative to the base case of business as usual.

This may also suggest minimal benefits relative to the base case. Nevertheless, we consider the proposed licence requirements for a DWQMS and a RWQMS would have the following benefits:

- ▼ Ensure that Sydney Water develops these management systems – which represent best practice approaches to managing water quality and can therefore improve the efficacy of water quality management approaches and reduce the risk of system failure.
- ▼ Bring Sydney Water’s operating licence into line with Hunter Water’s operating licence, and provide greater consistency for utilities, IPART, licence auditors and the public. In turn, this can enhance the effectiveness of the regulatory regime (eg, through greater scrutiny and accountability), and therefore reduce the risk of any water quality incidents or failures.

Sydney Water also notes that the proposed licence requirements for water quality management systems (and associated Manuals and Improvement Plans) would:

- ▼ Align operating licence requirements with its normal business processes and systems (including its Service Delivery Integrated Management System) and therefore avoid duplication (between licence requirements and business processes) and ensure licence requirements are seamlessly integrated into its business systems and processes.
- ▼ Enhance assurance for stakeholders in relation to Sydney Water’s water quality management processes and reduce the auditing burden on both Sydney Water and its regulators.

¹⁰ Sydney Water, Response to IPART request for information, 24 November 2014.

The DWQMS and RWQMS requirements should benefit Sydney Water, its customers and ultimately the broader community.

Sydney Water noted that it could comply with our proposed requirement to implement and maintain a DWQMS from 1 July 2015. However, it requested a later due date for its RWQMS of 30 June 2016, as this aligns with its internal timeframes for developing such a system.

We understand, however, that Sydney Water should have many elements of the RWQMS in place, and we consider it reasonable to require Sydney Water to have implemented, and be maintaining, a RWQMS by 1 July 2015.

2.4 Removing the requirement to produce a Drinking Water Quality Management Plan (DWQMP)

We propose to remove the requirement to produce a five year Drinking Water Quality Management Plan (DWQMP) from the operating licence, as a DWQMS would incorporate long-term planning, which is the objective of producing a 5-year DWQMP.

This proposed change will therefore impose no additional costs on Sydney Water or other stakeholders, and reduce unnecessary duplication in the licence.

2.5 Additional notification requirements on Sydney Water

We propose to require Sydney Water to:

- ▼ Notify NSW Health and IPART of any significant changes to the DWQMS or the RWQMS.
- ▼ Provide a compliance and performance report on its management of the quality of drinking water and recycled water.

Sydney Water supports these proposed requirements and states that there would be no or negligible costs relative to the base case.

The benefits of these requirements are that they can allow regulators to scrutinise water quality management systems and plans, provide feedback on these systems and plans and target future audits and compliance checks. In turn, this can reduce regulatory costs, provide greater assurance to stakeholders and reduce the risk of water quality incidents or failure.

3 Infrastructure

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

3.1 Current infrastructure provisions in the operating licence

There are a number of obligations in Sydney Water's current operating licence that relate directly to infrastructure. The main infrastructure obligations, which are detailed in Chapter 3 of the licence, include:

- ▼ **Asset management**
 - the requirement for Sydney Water to manage its assets consistent with an Asset Management Framework¹¹
 - requirements for the content and outcomes of the Asset Management Framework.¹²
- ▼ **System performance standards, performance indicators and response time requirements**
 - targets for 3 system performance standards (the water pressure, water continuity and sewage overflow standards)¹³ and response times requirements to priority leaks and breaks¹⁴
 - requirements for record systems for measurement and reporting of indicators.
- ▼ **Priority Sewerage Program (PSP)**
 - The operating licence outlines a government requirement to provide sewerage services to a number of peri-urban areas. This requirement includes the dates for the service to be provided and the number of lots to be connected in each area.¹⁵

¹¹ *Sydney Water Operating Licence 2010-2015*, cl 3.1.1.

¹² *Sydney Water Operating Licence 2010-2015*, cl 3.1.2.

¹³ *Sydney Water Operating Licence 2010-2015*, cl 3.3.1, 3.3.2 and 3.3.3.

¹⁴ *Sydney Water Operating Licence 2010-2015*, cl 3.5.

¹⁵ *Sydney Water Operating Licence 2010-2015*, cl 3.6.

3.2 Overview of proposed changes to the infrastructure provisions in the operating licence

We propose the following changes to the operating licence:

Asset Management System

- ▼ Require Sydney Water to develop an Asset Management System consistent with ISO 55001:2014 by 30 June 2018, have it certified by 30 June 2019, and then maintain this certification for the term of the operating licence.

Service performance standards and indicators

Remove the standards for water main break response times for priority 4, 5 and 6 breaks from the operating licence and place these in the reporting manual as performance indicators.

- ▼ Introduce an additional performance indicator for priority 5 breaks, for the percentage of breaks attended within 24 hours.
- ▼ Require Sydney Water to provide to IPART and make available on its website its process for responding to water main breaks and leaks and the factors that influence Sydney Water's response times.

We note that, as is currently the case with performance standards, we also propose requiring Sydney Water to annually report on the following in relation to the above-mentioned performance indicators:

- ▼ the major factors (both positive and negative) that have influenced its performance in relation to water main break and leak response times, and
- ▼ reasons for any significant variation (both positive and negative) between Sydney Water's performance in the financial year and performance in prior years.

MoU with Fire and Rescue NSW

- ▼ Require Sydney Water to use its best endeavours to establish, maintain and comply with a Memorandum of Understanding (MoU) with Fire and Rescue NSW.

Priority Sewerage Program

- ▼ Remove redundant Priority Sewerage Program (PSP) obligations – ie, where Sydney Water has already complied with licence obligations to deliver wastewater services to specific areas by required dates – and maintain other PSP obligations including the requirement for Sydney Water to provide an annual report on its progress in implementing the PSP in the remaining PSP areas.

These proposed changes are discussed below.

3.3 Asset Management System

The ISO 55001:2014 provides organisations with a systematic and structured approach for developing asset management systems. It allows organisations sufficient flexibility to align activities and processes with their own objectives and resources. ISO 55001:2014 represents the application of best practice principles in asset management. If implemented properly, ISO 55001:2014 should lead to improved asset management outcomes.

Sydney Water notes that its existing asset management framework meets nearly all of the requirements of the ISO standard. Further, it states that, regardless of the provisions in the new operating licence, it is planning to align its asset management system with the ISO standard and have the system certified.

According to Sydney Water, the costs of aligning its asset management system to the ISO standard and attaining accreditation is comparatively minor (about \$150,000 in total over three years).

Requiring Sydney Water to certify its asset management system to ISO 55001:2014 will ensure that it adheres to best practice asset management, consistent with the latest international standards. This can have the following benefits:

- ▼ achieve efficiencies in asset planning and management, and thereby enhance service levels, achieve cost savings and/or reduce the risk of asset failure
- ▼ provide assurance to stakeholders, including water users, regulators and the general community
- ▼ reduce auditing costs.

In terms of auditing costs (final point above), Sydney Water has suggested that once its asset management system is certified, IPART will no longer need to audit its asset management system as part of our annual licence compliance audits. We are yet to determine our auditing regime and approach once Sydney Water's system is certified. However, auditing costs may decline – particularly over the medium to longer-term.

We are unable to quantify the above-mentioned potential benefits of this proposed change to the operating licence. However, given the importance of asset management to a capital-intensive business such as Sydney Water, and therefore the potential benefits of enhanced asset management, we consider the benefits of this proposed licence change are likely to significantly exceed its costs.

3.4 Response times for water main breaks and leaks

Water main breaks can potentially damage property, cause road closures and pose risks to human health. They also result in the loss of water.

Burst water mains may reflect a failure of the operation of the utility's infrastructure. Data about asset failures, such as burst water mains, provides information about the performance of the infrastructure and the effectiveness of asset management activities.

The current operating licence includes main break response times for Priority 4, 5 and 6 breaks as **standards**.¹⁶ It requires that Sydney Water's response to water main breaks and leaks (as measured from the time Sydney Water receives notification of a break or leak to the time Sydney Water stops the loss of water) will be as follows:

- ▼ Priority 6 breaks/leaks 90% of jobs within 3 hours.¹⁷
- ▼ Priority 5 breaks/leaks 90 % of jobs within 6 hours.¹⁸
- ▼ Priority 4 breaks/leaks 90% of jobs within 5 days.¹⁹

3.4.1 Sydney Water's proposal

Sydney Water requested that these standards be removed from the operating licence and placed in the reporting manual as performance indicators. It also requested that, if this is not accepted, then the response time for 90% of Priority 5 breaks/leaks should be increased to the 'next working day'.²⁰

Sydney Water argued that the response time target for Priority 5 breaks/leaks is not driving improvement in its operations and is instead negatively impacting on the water continuity standard. According to Sydney Water, the emphasis on isolating water mains breaks earlier in order to meet the required response time for water main breaks puts upward pressure on the number of properties affected by unplanned water discontinuity events greater than five hours. It notes that in order to meet the current standard for Priority 5 break response times, it can be forced to turn off the water supply at times that cause significant disruption to customers, such as in the middle of the night or during times of peak water demand.²¹

¹⁶ *Sydney Water Operating Licence 2010-2015*, cl 3.5.

¹⁷ A Priority 6 break/leak is a leak that results in a major loss of water; causes damage to property or poses immediate danger to the environment or people. An example of a Priority 6 leak is water gushing or spurting from the ground and resulting in a major loss of water.

¹⁸ A Priority 5 break/leak is a leak that results in the moderate loss of water; causes service disruption to a customer or customers; threatens damage to property; or poses a potential risk to the environment or people. An example would be a leak running at a rate greater than the full flow of a garden tap.

¹⁹ A Priority 4 break/leak is a leak that results in a minor loss of water; causes a limited service disruption to customers or minor leak on a roadway; and is not a danger to the environment or people. An example would be a leak running at a rate less than the full flow of a garden tap.

²⁰ Sydney Water submission to the Review of the Operating Licence for Sydney Water, July 2014, p 50.

²¹ Sydney Water submission to the Review of the Operating Licence for Sydney Water, July 2014, p 50.

Sydney Water is seeking to be able to reschedule Priority 5 breaks/leaks that are not posing a risk to people, property or the environment if allowed to run for a longer period. Sydney Water states that it would still assess every break/leak and it estimates that around 20% of breaks/leaks would be rescheduled.²²

3.4.2 Our proposal to change from standards to performance indicators, but include additional reporting requirements

Rather than retain the above-mentioned standards in the operating licence, we propose to move them to the reporting manual to be included as performance indicators. Sydney Water would be required to report against these measures, rather than meet them as standards. We are also proposing to include an additional performance indicator for priority 5 breaks/leaks, in order to show what percentage of these breaks/leaks would be attended within 24 hours.

The relevant performance indicators would be:

- ▼ Percentage of Priority 6 breaks/leaks in drinking water mains that Sydney Water attended in 3 hours
- ▼ Percentage of Priority 5 breaks/leaks in drinking water mains that Sydney Water attended within 6 hours
- ▼ Percentage of Priority 5 breaks/leaks in drinking water mains that Sydney Water attended within 24 hours
- ▼ Percentage of Priority 4 breaks/leaks in drinking water mains that Sydney Water attended within 5 days.

As is currently the case with performance standards, we also propose requiring Sydney Water to annually report on the following in relation to the above-mentioned performance indicators:

- ▼ the major factors (both positive and negative) that have influenced its performance in relation to water main break and leak response times, and
- ▼ reasons for any significant variation (both positive and negative) between Sydney Water's performance in the financial year and performance in prior years.

Further, we propose requiring Sydney Water to provide to IPART and make available on its website its process for responding to water main breaks and leaks and the factors that influence Sydney Water's response times.

²² Sydney Water, Response to IPART request for information, 24 November 2014.

We consider these changes would maintain accountability and transparency around Sydney Water's response times and processes, allowing IPART and Sydney Water's customers to track Sydney Water's performance, while also providing Sydney Water with sufficient operational flexibility to ensure that it does not incur or impose (on customers or other members of the community) any unnecessary costs.

Sydney Water states that it does not propose to change its approach to responding to Priority 4 and Priority 6 breaks. However, it sees benefit in allowing for greater flexibility around its responses to Priority 5 breaks. It notes that sending a team to repair the leaks during evening meal times or at night in order to meet the current standard can cause major noise and disruption to customers and surrounding residents.²³ As outlined in the section above, Sydney Water noted that the emphasis on isolating water main breaks and leaks earlier in order to meet required response times for water main breaks and leaks puts upward pressure on the number of properties affected by unplanned water discontinuity events greater than five hours.

Even with greater flexibility in responding to Priority 5 breaks and leaks, Sydney Water notes that it would still send a first call assessor to assess the leak and take any immediate action required. In some instances, it may then send a repair team as soon as possible. In other cases, it may let leaks run longer to enable it to send a repair team at a more convenient time for customers. It states that leaks and breaks that are assessed to have safety and/or damage risks will not be deferred.²⁴

Sydney Water estimates that if it responded to 90% of Priority 5 breaks/leaks within the 'next working day', rather than in accord with the current 'within 6 hours' standard, water leakage from its system would increase by 0.4 ML/day (or 146 ML per annum), which is less than 0.4% of our current leakage target of 105 ML/day. This is a small amount compared to its overall system leakage (about 0.4% of total system leakage in 2013/14), and represents a cost of between \$62,050 (\$2011/12) and \$306,600 (\$2011/12) in forgone water per annum.²⁵ (Sydney Water also notes that in drought conditions it would apply tighter response practices.)²⁶

Sydney Water also states that if it responded to 90% of Priority 5 breaks and leaks within the next working day, rather than within the current 6-hour standard, it would save costs of about \$500,000 per annum.

²³ Sydney Water submission to the Review of the Operating Licence for Sydney Water, July 2014, p 51.

²⁴ Ibid, p 51.

²⁵ Depending on whether the water is valued at short run marginal cost (about \$0.43 per kL for conventionally treated water) or long run marginal cost (last estimated at about \$2.10 per kL).

²⁶ Sydney Water, Response to IPART request for information, 24 November 2014.

It also identifies other benefits of enhanced flexibility around leak response times, including:

- ▼ reduced interruptions to customers during inconvenient times (both for customers having water supply turned off and for those interrupted by repair crews at night)
- ▼ improved well being for Sydney Water staff through reduced night shifts and better fatigue management.²⁷

These benefits are difficult to quantify. However, we consider they would exceed the costs of this proposal.

We considered the option of maintaining the response times as standards, but changing the Priority 5 standard response time from ‘within 6 hours’ to ‘within 24 hours’ or ‘next working day’. However, we consider that performance indicators, combined with the associated additional reporting requirements outlined above, strike the right balance between holding Sydney Water accountable for its performance in this area, while providing it with some flexibility in scheduling and prioritising works.

We note that response time standards may restrict the operational judgement of Sydney Water of how best to respond to leaks and breaks with a range of factors in mind. Responses to leaks and breaks are more appropriately determined by the Asset Management Framework/System, rather than standards in a licence.

3.5 System performance criteria regarding firefighting

In its submission in response to our Issues Paper, Fire and Rescue NSW (FRNSW) raised a number of issues in relation to water pressure requirements for firefighting purposes.²⁸ These include:

- ▼ As a result of Sydney Water’s pressure management program, FRNSW has observed pressures and flows across the network that do not appropriately support FRNSW intervention activities.
- ▼ In areas where insufficient pressures and flows are provided, the implications for the community include possible delays in fire brigade intervention, with potentially adverse consequences for property and safety.
- ▼ FRNSW recommends that Sydney Water’s operating licence incorporate an ongoing community safety obligation and requirement to provide minimum pressures and flows across its network to facilitate fire brigade intervention as well as hydrants placed at regular intervals to facilitate access.

²⁷ Sydney Water, Response to IPART request for information, 24 November 2014.

²⁸ Fire and Rescue NSW submission to the Review of the Operating Licence for Sydney Water Corporation, 19 August 2014, p 2.

FRNSW stated that its crews are almost entirely dependent on the reticulated water infrastructure installed and maintained by Sydney Water to undertake their (FRNSW's) legislated community safety responsibilities.

There is currently no obligation in the operating licence that addresses system performance criteria regarding firefighting. However, a Memorandum of Understanding (MOU) between Sydney Water, Fire and Rescue NSW (FRNSW) and the Rural Fire Service (RFS) already exists that addresses the use of recycled water for firefighting.

The submission by FRNSW has raised issues that warrant further in-depth review, beyond the scope of this operating licence review. Key questions may include:

- ▼ The costs and benefits of changes to water pressure across the network.
- ▼ The costs and benefits of alternative means of supporting fire-fighting capacity.
- ▼ The appropriate regulatory instrument or means to effect optimal firefighting requirements (ie, the respective roles of the operating licence and planning and building legislation).
- ▼ Who should pay for ensuring adequate flows for firefighting purposes.
- ▼ Potential implications for other water utilities and their areas of operation.

These and related questions require substantial analysis and stakeholder consultation in their own right. Initially at least, they also require discussions and information exchange between Sydney Water and FRNSW, as well potentially between FRNSW and other water utilities.

We therefore propose to include a requirement in the operating licence for Sydney Water to use its best endeavours to develop, maintain and comply with a MoU with FRNSW.

The MoU would include, at a minimum:

- ▼ arrangements regarding information sharing between the organisations
- ▼ arrangements for Sydney Water to consult with FRNSW in its design of new assets and planning of system maintenance – particularly where planning indicates that the pressure and flow requirements may not be met
- ▼ establishment of a working group, comprised of representatives from each organisation, to determine the optimal responses of each organisation to the issue of water flows for firefighting purposes.

Rationale for proposed change

The purpose of the MoU would be to form the basis for co-operative relationships between Sydney Water and FRNSW. In particular, to develop an understanding of the roles, responsibilities and needs of each organisation as they relate to each other, and to determine the most optimal way of ensuring adequate firefighting capability.

Sydney Water supports the proposed requirement for an MoU with FRNSW. Sydney Water:

- ▼ notes that firefighting capability comes from the sum of many factors
- ▼ recognises the benefits of a coordinated approach to the management of activities that support firefighting capability
- ▼ notes that it has met with FRNSW to discuss a range of issues relating to firefighting capability, including hydrant markings, hydrant maintenance, information sharing and water pressure issues
- ▼ states that it will be proposing to FRNSW that an MoU be established to put more formal arrangements around the management of activities that support firefighting and collaborate to ensure an efficient firefighting capability is maintained.

As part of its 'business as usual' practices, Sydney Water expects to have an MoU in place with FRNSW and RFS in the first half of 2015. However, it has requested a due date of June 2016 in the licence, to accommodate any unforeseen delays. Given the importance of this issue, we consider 31 December 2015 is a reasonable due date for establishment of the MoU.

Sydney Water also notes that its costs of developing an MoU are not likely to be significant.

To the extent that the MoU can enhance the efficiency of firefighting measures within Sydney Water's area of operations, its benefits are likely to be significant and far greater than its costs.

Additionally, these benefits are likely to be largely 'external' in nature, with the broader community benefitting from the enhanced efficiency of firefighting measures.

We note that, even though Sydney Water's obligation is to use its 'best endeavours' to establish the MoU, its performance in this regard will be independently audited and reported to the Minister at least once during the licence term (as per all licence requirements).

3.6 Priority Sewerage Program (PSP)

The PSP was announced by the NSW Government in 1997 and was a component of the Government's waterways package to address wastewater and stormwater problems by 2021.²⁹ The aim of the PSP is to achieve environmental improvements and reduce human health risks by improving the sewerage management in unsewered areas in Sydney and the Illawarra. The PSP consisted of 2 stages. Stage 1 included the initial 16 suburbs, towns and villages in areas with high environmental sensitivity. A further 20 unsewered urban village areas were added in the Stage 2 extension of the program in 2001.³⁰

3.6.1 Current Priority Sewerage Program (PSP) provisions in the operating licence

PSP obligations have been included in the infrastructure section of Sydney Water's previous two operating licences. These obligations have required Sydney Water to meet certain milestones in the completion of the planning and delivery of Stage 1 and Stage 2 areas.

The current licence requires Sydney Water to:

- ▼ Deliver 16 of the Stage 2 areas by the end of the term of the licence (clause 3.6(a)).
- ▼ Commence planning for the Yanderra area by 30 June 2015 (clause 3.6(b)).
- ▼ Provide sewerage services to Austral, Menangle or Menangle Park within 24 months of either Sydney Water or a WICA licensee providing wastewater services to a significant development in an adjoining area.³¹ Sydney Water is not required to do this if a WICA licensee provides wastewater services to the relevant area of the PSP.³² (Clause 3.6(c) to (d)).

Schedule 4 of the operating licence also includes Nattai and Scotland Island as Stage 2 areas for the PSP. However, there are no requirements in the current licence with regard to the planning or construction of these areas.

²⁹ Department of Infrastructure, Planning and Natural Resources, *Sydney Water Corporation Priority Sewerage Program Jamberoo Director General's Report Section 115C of the Environmental Planning and Assessment Act*, September 2003 available online at: http://www.planning.nsw.gov.au/assessingdev/pdf/d-g_reprt_jamberoo.pdf.

³⁰ Gosford City Council and Sydney Water Corporation, *Brooklyn, Dangar Island, Mooney Mooney and Cheero Point Preferred Strategy for improved sewerage services*, December 2003, Available online at: http://www.gosford.nsw.gov.au/customer/document_gallery/public_studies/prefss_for_mooney_cheero_bdi.pdf

³¹ *Sydney Water Operating Licence 2010-2015*, cl 3.6(a) - (c).

³² *Sydney Water Operating Licence 2010-2015*, cl 3.6(a) - (d).

The licence also imposes two reporting obligations on Sydney Water:

- ▼ to write to the Minister to advise reasons for delays (in the event of delays by consent authorities) (Clause 3.6(e))
- ▼ an annual report to IPART on the progress of the scheme's implementation (clause 3.6(f)).

3.6.2 Sydney Water's progress in implementing the PSP

To date, Sydney Water has achieved full compliance with its PSP obligations.

Sydney Water has complied with clause 3.6(a) in the current operating licence, with wastewater services provided to the PSP areas as outlined in Table 3.1 below.

Table 3.1 Completion status of PSP areas

PSP Areas	Status
Agnes Banks and Londonderry	Services were made available by December 2010
Glossodia, Freeman's Reach and Wilberforce	Services were made available by January 2011
Hawkesbury Heights and Yellow Rock	Services were made available by June 2010
Appin	Completed in June 2012
Wilton and Douglas Park	Services were made available by June 2014
West Hoxton	Services were made available by December 2013
Bargo and Buxton	Services were made available by June 2014
Cowan	Services became available by December 2013
Galston and Glenorie	Detailed planning was complete in early 2014. Construction was scheduled to commence in 2014.

Source: Sydney Water PSP Annual Report to IPART 2014.

In servicing PSP areas, Sydney Water states that it considers all feasible alternatives, including both centralised and decentralised systems.³³

Sydney Water's progress in 'commencing planning' for Yanderra (clause 3.6(b) of the current licence) will be monitored through the upcoming 2014/15 operating licence audit.

³³ Sydney Water, internal communication with IPART.

The remaining PSP areas

In terms of the remaining PSP areas listed in the current operating licence, Sydney Water notes that Austral, Menangle and Menangle Park are within or near major development areas that have now been released for greenfield development by the NSW Government. Sydney Water is therefore planning to deliver staged wastewater services to these areas, aligned to the sequencing and timing of proposed development. It notes that this is “a more cost effective and efficient way to deliver wastewater services for these areas than through delivering a PSP scheme in isolation.”³⁴ The planned timelines for delivering these proposed schemes are as follows:³⁵

- ▼ Austral between 2022 and 2027
- ▼ Menangle between 2020 and 2025, and
- ▼ Menangle Park between 2018 and 2023.

Sydney Water provides no indication of when it plans to service the other three remaining PSP schemes of Yanderra, Nattai and Scotland Island. However, it notes that they would be some of the most expensive in the program, and would add nearly \$5 per annum to the bill of each of Sydney Water’s 1.7 million wastewater customers for a period of 78 years – if funded by the broader customer base.³⁶ Table 3.1 below provides Sydney Water’s estimated costs of servicing these schemes, with the cost per property more than 10 times the cost of providing wastewater services to a typical new growth area (which costs around \$12,000 per property).

Sydney Water also states that its operating licence is not the appropriate instrument for requiring it to deliver specific, localised community service obligations (CSOs) or programs, such as providing sewerage services to the remaining PSP areas. Instead, it argues that a formal direction under the *State Owned Corporations Act* is a more appropriate mechanism.³⁷

Sydney Water’s submission states that it is happy to work with the Government to develop concepts and frameworks for alternative ways that these three remaining PSP schemes could be delivered.³⁸

³⁴ Sydney Water submission to the Review of the Operating Licence for Sydney Water, July 2014, p 54.

³⁵ Sydney Water submission to the Review of the Operating Licence for Sydney Water, July 2014, p 54-55.

³⁶ Sydney Water submission to the Review of the Operating Licence for Sydney Water, July 2014, p 56

³⁷ Ibid, p 57.

³⁸ Ibid, p 57.

Table 3.2 Estimated cost of remaining PSP schemes

Scheme	Approximate number of lots	Estimated capital cost (\$2014/15)	Capital cost per lot (\$2014/15)
Yanderra	220	\$51 million	\$234,000
Scotland Island	350	\$82 million	\$235,000
Nattai	30	\$4 million	\$137,000

Source: Sydney Water submission to the Review of the Operating Licence for Sydney Water, July 2014, p 55.

3.6.3 Proposed changes to PSP provisions in the operating licence

We propose to remove the requirement outlined in clause 3.6(a) of the current licence, as this clause is redundant (ie, Sydney Water has delivered wastewater services to the areas listed). Similarly, we propose to remove Clause 3.6(b) from the current operating licence (the requirement to commence planning for the Yanderra area by 30 June 2015), as this will be monitored through the upcoming 2014/15 operating licence audit, making this clause also redundant.

We propose to maintain all other clauses that relate to the PSP for the 2015 operating licence, including the requirement for Sydney Water to provide an annual report on its progress in implementing the PSP. The proposed licence will require this report to be made publically available, which will provide transparency and information to stakeholders around the delivery of wastewater services to the remaining PSP areas of Austral, Menangle, Menangle Park, Yanderra, Nattai and Scotland Island. The remaining areas will be clearly specified in Sydney Water's operating licence.

Relative to the current operating licence requirements, there will be no additional costs of the proposed changes, as we would simply be removing redundant clauses from the operating licence. The benefits of the proposed licence requirements would relate to enhanced transparency and information to stakeholders from the public reporting requirement.

We note that if the Government would like Sydney Water to provide services to the remaining PSP areas within a specified time (which is not included in the current licence), it could issue a direction under the *State Owned Corporations Act 1989* or contract with another provider to undertake the work.³⁹

In doing so, we recommend the Government consider the full economic costs and benefits of delivering these schemes. Sydney Water's indicative cost estimates are outlined above. Benefits would likely include improved environmental and amenity outcomes.

³⁹ As noted by Sydney Water, such directions are intended for delivering projects or outcomes that are not commercial, but may be of public interest and/or represent exceptional circumstances.

4 | Water Conservation

In the absence of the pressures of a competitive market, the operating licence is intended to ensure that Sydney Water provides its essential services efficiently and to the satisfaction of customers.

The primary objectives of water conservation obligations in the operating licence are to ensure that:

- ▼ Customer's do not pay for inefficient supply augmentation projects (eg, due to sub-optimal long-term planning) and/or face unnecessarily harsh or frequent water restrictions.
- ▼ Sydney Water's water supplies are secured efficiently (ie, the demand/supply balance is managed efficiently).

4.1 Current water conservation obligations in the operating licence (the base case)

Sydney Water's operating licence has contained provisions relating to water conservation since it was first granted in 1995,⁴⁰ although it is not a specific requirement of the Act.

The obligations in Sydney Water's current operating licence that relate directly to water conservation are listed in Chapter 7 of the operating licence and include requirements for:

- ▼ **Water usage level**
 - reduce the quantity of drinking water it draws from all sources to meet a water usage level of no greater than 329 litres per person per day by 30 June 2011 (allowing for reasonable adjustments to be made for the effects of weather on water usage)
 - maintain the water usage level for the remainder of the term of the licence and, if not, demonstrate to the satisfaction of IPART that it would not have been reasonable to meet the water usage level in that year

⁴⁰ *Sydney Water Corporation Operating Licence 1995-2000*, pp 10-11; *Sydney Water Operating Licence 2000-2005*, pp 20-21; *Sydney Water Operating Licence 2005-2010*, pp 26-27; *Sydney Water Operating Licence 2010-2015*, pp 30-31.

- review the water usage level as part of the end of term review of the licence.⁴¹
- ▼ **Water leakage**
 - ensure that the water leakage level from its drinking water system does not exceed 105 megalitres per day
 - determine the economic water leakage level and submit a report to IPART on this by December 2011.⁴²
- ▼ **Water efficiency programs**
 - undertake and promote water efficiency programs and give due consideration to water efficiency and other water conservations measures as part of planning for future provisions of its services.⁴³
- ▼ **Water recycling program (including stormwater)**
 - promote, foster and encourage the production and use of recycled water in its area of operations
 - meet any target relating to the production and/or use of recycled water set by the Minister from time to time, consistent with the objectives of the Metropolitan Water Plan (MWP), and implement any particular recycled water schemes indicated by the Minister to do so (although Sydney Water is not required to undertake any recycled water scheme where it is not financially viable to do so).⁴⁴
- ▼ **Water conservation strategy document and annual report**
 - prepare and submit to IPART and the Minister by 31 December 2010 a 5-year water conservation strategy document covering the term of the licence, including strategies relating to water leakage, recycled water, water efficiency, and how these contribute to the objectives and targets outlined in the Metropolitan Water Plan
 - provide an annual report on its progress in implementing its water conservation strategies.⁴⁵

⁴¹ *Sydney Water Operating Licence 2010-2015*, cl 7.1.

⁴² *Sydney Water Operating Licence 2010-2015*, cl 7.2.

⁴³ *Sydney Water Operating Licence 2010-2015*, cl 7.3.

⁴⁴ *Sydney Water Operating Licence 2010-2015*, cl 7.4.

⁴⁵ *Sydney Water Operating Licence 2010-2015*, cl 7.5.

4.2 Proposed changes to water conservation obligations in the operating licence

In place of the above-mentioned requirements, we propose Sydney Water's operating licence and reporting manual include the following provisions:

Protocol with the MWD for the MWP

- ▼ Sydney Water must use its best endeavours to:
 - Develop and agree a Roles and Responsibilities Protocol with the Metropolitan Water Directorate (MWD) for the development and implementation of the Metropolitan Water Plan (MWP)
 - Maintain and comply with any Roles and Responsibilities Protocol that has been agreed and development under the clause above.

Economic level of water conservation

- ▼ Sydney Water must submit to IPART by 31 December 2015 a report that outlines and explains its methodology for determining the economically efficient level of its water conservation activity, including in relation to (but not limited to) each of the following elements of water conservation:
 - water leakage
 - recycled water
 - water efficiency, including demand management.
- ▼ Sydney Water must submit to IPART a revised report if it amends its methodology. The revised report must incorporate and explain the amendments and be provided in conjunction with the associated annual Water Conservation Report outlined below.

Annual Water conservation Report

Sydney Water must submit a Water Conservation Report to IPART for each financial year, and make this report publically available. Sydney Water must submit the report by 1 September following the end of the relevant financial year, or at a later date agreed to by IPART. The report must:

- ▼ Include the elements of Sydney Water's water conservation activities for the previous financial year and for at least the next five years, including:
 - Sydney Water's strategies, programs and projects relating to water leakage, recycled water and water efficiency
 - Sydney Water's water conservation objectives, targets and timetables, and
 - how each of these elements relate to the economically efficient level of water conservation activity and the above-mentioned methodology.
- ▼ Describe and explain Sydney Water's progress against each of the elements of its water conservation program for the previous financial year, including any deviations from this program.

- ▼ Describe and explain any changes to Sydney Water’s water conservation program relative to the previous annual Water Conservation report (where applicable).
- ▼ Outline how Sydney Water’s water conservation program relates to the MWP and its progress against the MWP, and
- ▼ Include information on key water conservation measures for the previous financial year, as well as earlier financial years of the licence term (where applicable), including:
 - the level of water leakage from Sydney Water’s drinking water supply system against the economic level of leakage for that year
 - the volume of water sourced from recycled water
 - the quantity of potable water drawn by Sydney Water from all sources.

We consider these proposed changes will achieve the water conservation objectives of the operating licence, at minimal cost.

The rationale for, and costs and benefits of, these proposed changes are outlined below.

4.2.1 Sydney Water to use its best endeavours to develop a protocol with the MWD for the development and implementation of the MWP

The MWP outlines the Government’s preferred approach to managing the water supply/demand balance and ensuring water security for greater Sydney.⁴⁶ The MWP is reviewed periodically by the Government, taking into account the latest data, techniques and research. The 2010 MWP (the 2010 Plan) is currently being reviewed by the MWD, with the new plan expected to be released in 2015.⁴⁷

Objective/rationale

We propose the operating licence require Sydney Water to use its best endeavours to develop a protocol with the MWD for the development and implementation of the MWP.

The intent of this requirement is to ensure there is an effective working relationship and exchange of information between the MWD (the government policy body responsible for Sydney’s water planning) and Sydney Water (the region’s primary water utility), to ensure the MWP is optimally developed and implemented and that Sydney’s water demand and supply balance is managed efficiently.

⁴⁶ NSW Office of Water, *2010 Metropolitan Water Plan: Water for people and water for the environment*, August 2010.

⁴⁷ Metropolitan Water Directorate informal discussions.

This requirement recognises that:

- ▼ Sydney Water has data and modelling capabilities that are important to the development and review of the MWP.
- ▼ Sydney Water may play a lead role in implementing elements of the plan.
- ▼ Sydney Water's long-term planning is likely to be enhanced by the certainty and advice that can be gained from an interagency process, such as the MWP.
- ▼ Sydney Water and the MWD should work together in applying an adaptive approach to water planning, taking into account changes in technologies, water user behaviour and other factors affecting the optimal mix of water supply augmentation and/or conservation measures.
- ▼ The current review of the MWP is yet to be finalised, and therefore we cannot recommend further specific requirements in relation to the MWP for inclusion in the operating licence.

Sydney Water notes that its participation, along with that of other relevant agencies, in the MWP process can allow:

- ▼ whole of society costs and benefits of water planning to be better understood
- ▼ a clearer understanding of government policy and its application to urban water
- ▼ sharing of information – including research and findings of community engagement that are undertaken by other agencies.

We also note this licence requirement would be consistent with Hunter Water's operating licence, which includes a requirement for Hunter Water to use its best endeavours to:

- ▼ develop and agree a Roles and Responsibilities Protocol with the MWD for the development of the Lower Hunter Water Plan
- ▼ maintain and comply with any Roles and Responsibilities Protocol that has been agreed and developed under the above clause.⁴⁸

We propose to limit this requirement to develop a protocol with the MWD to 'best endeavours', to ensure that Sydney Water's ability to comply with the licence obligation is not directly dependent on a third party.

However, we note that, even though the proposed licence provision is 'best endeavours', we will audit and report on Sydney Water's performance against this clause.

⁴⁸ *Hunter Water Corporation Operating Licence 2012-2017*, cl 3.3.1.

Costs and benefits of Sydney Water's participation in the MWP process

Sydney Water is currently involved in the metropolitan water planning process, including the development of the MWP.

According to Sydney Water, this current involvement costs it about \$750,000 a year in operating expenditure. This largely relates to staff costs to support the following functions:

- ▼ long term demand forecasts and restrictions savings forecasts
- ▼ administration, meeting support, agency liaison and reporting
- ▼ determining system and asset operating costs to include in planning processes
- ▼ data provision to understand likely supply side modifications, costs and technical feasibility
- ▼ input into development and feasibility of demand management programs
- ▼ water quality model maintenance and support.

The capital costs to Sydney Water over the upcoming operating licence period of implementing elements of the MWP are unknown, as the latest version of the MWP is currently subject to review and yet to be finalised.

In this context, we note that in setting Sydney Water's maximum prices, our approach is to only allow Sydney Water's prudent and efficient costs of delivering its monopoly services.⁴⁹ We consider that other non-economic activities relating to the implementation of Government policy should be funded by the Government, on behalf of the broader community, as a Community Service Obligation.

The benefits of Sydney Water's participation in the MWP process are difficult to quantify. However, to the extent that they enhance the water planning process, and therefore lead to more efficient water supply augmentation and/or conservation measures, they are likely to be significant. This is shown by the potential magnitude of water supply augmentation and/or conservation expenditure (and hence cost savings). Sydney Water, for example, estimates that the avoided supply augmentation costs of demand management programs are in the order of \$100 million per year.⁵⁰

⁴⁹ However, under section 16A of the *Independent Pricing and Regulatory Tribunal Act 1992*, the portfolio Minister may direct IPART to include in prices the efficient costs of complying with a specified requirement imposed on the agency.

⁵⁰ Sydney Water, Response to IPART request for information, 24 November 2014.

Costs and benefits of our proposed operating licence requirement

Sydney Water states that the requirement to establish a protocol with the MWD would formalise its existing working relationship with the MWD and its contribution to the development of the MWP.

This suggests that, relative to the 'base case' of Sydney Water's business as usual practices, the costs and benefits may not be major.

Costs

Sydney Water has provided the following cost estimates for developing and maintaining the protocol with the MWD:

- ▼ \$20,000 in 2015/16 (the first year of the new licence period) and then again in 2019/20 (assuming the protocol is reviewed every four years) – to develop the protocol⁵¹
- ▼ \$14,500 per annum from 2016/17 to 2019/20 – to monitor and report against the protocol.⁵²

We assume the protocol would impose similar costs on the MWD.

Therefore, the administrative costs to Sydney Water and the MWD of developing and maintaining the protocol equate to about \$196,000 over the five year term of the operating licence.

Benefits

Benefits relate to the potential for the protocol to enhance water planning outcomes and management of the water supply/demand balance in the Sydney region. As outlined above, these benefits are difficult to quantify, yet potentially very significant.

We consider these benefits of the proposed operating licence requirement will exceed its costs.

⁵¹ This cost estimate assumes one average FTE for 10% of their time in developing the protocol (to lead negotiations, seek advice from within the business and develop documentation), and one FTE at manager level for 2% of their time (to review and approve).

⁵² This cost estimate assumes one average FTE for 8% of their time (to coordinate review and reporting activities) and one average FTE at manager level for 1% of their time (to review and approve).

4.2.2 Sydney Water to produce methodology for determining the economic level of water conservation and an annual water conservation report

Objective/rationale

We also propose the operating licence requires Sydney Water to:

- ▼ submit to IPART a report that explains its methodology for determining the economically efficient level of its water conservation activity
- ▼ report annually on its water conservation program for the previous financial year and for (at least) the next five years, including its performance against key water conservation measures.

This is similar to the requirement in the current licence to develop a water conservation strategy document and annual report, with the exception that the proposed new annual water conservation report would be both backward and forward looking (by at least five years) and explicitly require Sydney Water to report against its assessment of the efficient level of water conservation activity as well as specific water conservation measures.

As noted above, efficient water planning and conservation activities can deliver significant benefits to water users and the community (while sub-optimal water conservation activities can impose considerable costs).

The intent of this requirement is to promote transparency, and therefore accountability, around Sydney Water's water conservation and planning activities – rather than being overly prescriptive in terms of what water conservation activities Sydney Water should undertake or what water conservation targets it should meet.⁵³ There is a risk that overly prescriptive targets or requirements could be arbitrarily set or become outdated – resulting in under investment or over investment in water conservation activities. In this context, we note that there are presently no robustly set water conservation or water use targets available, particularly as the MWP is currently being reviewed.

⁵³ We note that during our reviews of Sydney Water's prices, we will assess the prudence and efficiency of its expenditure. That is, we will set Sydney Water's maximum prices at a level to enable to recover its prudent and efficient costs.

This requirement would cover the water conservation elements of the current licence, although with some variations:

- ▼ Sydney Water's current operating licence requires it to prepare a five year water conservation strategy and to report annually on its implementation of this fixed five year strategy. The proposed new annual water conservation report would be both backward and forward looking and explicitly require Sydney Water to relate its water conservation program to the efficient level of water conservation and to report against specific water conservation measures. The rolling nature of the reporting program (each annual report would look forward by at least five years) allows Sydney Water to regularly review, and where necessary update, its water conservation program. This ensures it remains relevant to current conditions.
- ▼ Sydney Water's current operating licence requires it to ensure water usage does not exceed 329 litres per day. The proposed new operating licence requirement would require Sydney Water to report water usage, within its annual water conservation report, rather than needing to comply with a water usage target – which is difficult to meaningfully set.
- ▼ Sydney Water's current operating licence requires it to ensure the level of leakage from its drinking water system does not exceed a specified target (105 megalitres per day), to determine its economic level of leakage, and to provide a report to IPART on its economic level of leakage. The proposed new operating licence requirement would remove the specific leakage target, but effectively maintain the requirement for Sydney Water to determine its efficient level of leakage (within the context of its overall water conservation program) and report on its performance against this (within its annual water conservation report).
 - In this context, we note that the proposed new operating licence requirement would extend the current requirements related to leakage – where we require Sydney Water to determine and report against efficient levels of leakage – to all water conservation measures.
- ▼ Sydney Water's current operating licence requires it to consider, undertake and promote, where appropriate, water efficiency and water recycling programs. The proposed operating licence provision would require Sydney Water to determine the most efficient mix of these activities and report on its progress in undertaking these programs.

Costs and benefits

According to Sydney Water, developing a methodology or framework for determining its prudent and efficient water conservation activities is part of its business as usual practice.

Information provided by Sydney Water indicates that it would cost it about \$500,000 over the five year term of the operating licence to develop and submit a water conservation methodology and annual water conservation report.⁵⁴

However, the incremental costs of our proposed operating licence requirement relative to the 'base case' would be less than this. The current operating licence requires Sydney Water to develop a water conservation strategy and provide an annual report on its progress in implementing this strategy. Further, according to Sydney Water, developing a methodology or framework for determining its prudent and efficient water conservation activities is part of its business as usual practice.

We consider the benefits of our proposed operating licence requirements will exceed the costs. The proposed requirements would require Sydney Water to relate its water conservation program to the efficient level of water conservation. As outlined previously, the benefits of efficient water conservation measures can be significant. Further, by definition, efficient water conservation measures should result in a net economic benefit.⁵⁵

4.2.3 Removal of other water conservation provisions

We have proposed removal of the operating licence provisions relating specifically to the water usage target, the water leakage target, water efficiency programs and water recycling programs.

However, as outlined above, many elements of these provisions are addressed through our proposed operating licence requirements relating to the economic level of water conservation and the annual water conservation report.

Our proposed approach is aimed at promoting transparency, and therefore accountability, around Sydney Water's water conservation and planning activities - rather than being overly prescriptive in relation to what water conservation activities Sydney Water should undertake or what targets should be meet.⁵⁶ The proposed operating licence conditions focus on requiring Sydney Water to determine the optimal level and mix of water conservation activity, and then to regularly report on its progress against this program.

⁵⁴ Sydney Water estimates that developing, maintaining, testing and reporting against a multi-criteria framework for identifying prudent and efficient water conservation activities would cost it about \$440,000 over five years. It also estimates that the water conservation strategy and annual report requirements of the current licence cost if about \$525,000 over five years.

⁵⁵ Alternatively, in other words, the economically efficient level of water conservation activity could be explained as where Sydney Water meets its customers' demand for water at lowest economic cost, using the optimal combination of supply augmentation and water conservation measures (where water conservation measures include leakage management, water recycling and water efficiency activities).

⁵⁶ We note that during our reviews of Sydney Water's prices, we will assess the prudence and efficiency of its expenditure. That is, we will set Sydney Water's maximum prices at a level to enable to recover its prudent and efficient costs.

This recognises the following:

- ▼ The optimal level and mix of water conservation activity can change over time and an adaptive, rather than overly prescriptive, approach to planning is required (as evidenced from the periodic reviews and updates to the MWP).
- ▼ There is a risk that overly prescriptive targets or requirements (eg, volumetric targets for water usage, leakage or recycled water) could be arbitrarily set or become outdated – resulting in under investment or over investment in water conservation activities.

We also note the following in relation to specific provisions of the current operating licence:

Water usage target

Sydney Water has been meeting the water usage target in the current operating licence (329 litres per person per day).⁵⁷ However, there appears to be little basis for maintaining this specific target. The figure was based on a 35% saving from 1990/1991 baseline levels.⁵⁸

We also note there are a range of factors that influence water consumption that are beyond Sydney Water's control, such as population and demographic changes, economic growth and weather conditions. These factors could influence Sydney Water's ability to meet a defined water usage level, and/or also significantly increase the costs to meet a defined water usage level.

Leakage target

Sydney Water notes that having a fixed water leakage target for a set period of time can lead to inefficient investment and leakage management, relative to the Economic Level of Leakage (ELL).

It states that the ELL from its water network is likely to be higher than the current target in the licence (105ML/d), and that moving to an ELL is estimated to achieve savings of \$300,000 per year.⁵⁹

According to SWC, "Having a more flexible approach to leakage will provide significant qualitative benefits to Sydney Water and the community, as Sydney Water will not be forced to implement inefficient leakage initiatives in order to meet a fixed volumetric target. This allows Sydney Water to manage leaks in an economic manner, and helps to keep customer bills as low as possible."⁶⁰

⁵⁷ *Sydney Water Operating Licence 2010-2015*, cl 7.1(a).

⁵⁸ *Sydney Water Operating Licence 1995-2000*, cl 5.14.

⁵⁹ Sydney Water, Response to IPART request for information, 24 November 2014.

⁶⁰ *Ibid.*

Sydney Water also notes that the ELL can vary over time, and that sometimes there may be a case from deviating from the ELL (eg, during drought). This further supports an approach to water conservation in the operating licence that is not too prescriptive.

Water efficiency

The current operating licence does not prescribe specific water efficiency programs Sydney Water must implement. It only requires Sydney Water to undertake and promote water efficiency programs, and give them due consideration (along with other water conservation measures) as part of planning for future provisions of its services.⁶¹

We consider this is broadly consistent with our proposed operating licence provisions relating to the economic level of water conservation and the annual water conservation report.

Recycled water

The current operating licence requires Sydney Water to meet a recycled water target and/or implement specific recycled water schemes only if required to do so by the Minister.⁶² The Minister has not yet set any such targets during the term of the operating licence.

The operating licence also requires Sydney Water to promote, foster and encourage the production and use of recycled water in its area of operations.⁶³

The 2010 MWP gives a target to recycle 70 billion litres of water per year.⁶⁴ However, Sydney Water is only required to implement increased recycling to homes in Rouse Hill, Hoxton Park and Ropes Crossing.⁶⁵ The Minister has not yet required Sydney Water to implement these schemes.

The current operating licence does not require Sydney Water to undertake any recycled water scheme that is not financially viable.⁶⁶

We consider our proposed operating licence provisions relating to water conservation are broadly consistent with recycled water provisions in the current operating licence.

⁶¹ *Sydney Water Operating Licence 2010-2015*, s 7.4.

⁶² *Sydney Water Operating Licence 2010-2015*, cl 7.4(b).

⁶³ *Sydney Water Operating Licence 2010-2015*, cl 7.4(a).

⁶⁴ NSW Office of Water, *2010 Metropolitan Water Plan: Water for people and water for the environment*, August 2010, p 5.

⁶⁵ NSW Office of Water, *2010 Metropolitan Water Plan: Water for people and water for the environment*, August 2010, p 60.

⁶⁶ *Sydney Water Operating Licence 2010-2015*, cl 7.4(c).

5 | Environment

Sydney Water can impact on the environment through its extraction of water from the natural environment, its discharges of wastewater to the environment, its use of energy and other inputs to its supply processes, and its construction activities.

It is important to note, however, that Sydney Water is subject to a robust environmental regulatory regime beyond its operating licence. For example:

- ▼ the **Environment Protection Authority (EPA)** regulates Sydney Water's wastewater discharges to the environment through Environment Protection Licences (EPLs) issued under the *Protection of the Environment Operations Act 1997 (POEO Act)*⁶⁷
- ▼ under the *Water Management Act 2000*, the **NSW Office of Water (NOW)** regulates Sydney Water's (and the SCA's):
 - extractions of water from the natural environment through the issuing of water access licences
 - works in river systems and waterways through the issuing of water supply works approvals - this includes, for example, Sydney Water's works in managing the Botany Wetlands.⁶⁸

In recommending provisions in the operating licence, we aim not to duplicate the requirements of other regulatory instruments.

The environment provisions of the operating licence are intended to ensure Sydney Water performs at a suitable level, consistent with its statutory objectives and the expectations of its customers.

⁶⁷ *Protection of the Environment Operations Act 1997*, s 48.

⁶⁸ *Water Management Act 2000*, s 56(1) and (2).

5.1 What are the current environment obligations in the operating licence?

There are several obligations in Sydney Water's current operating licence that relate directly to the environment. These obligations, which are listed in Chapter 6 of the licence, include the requirement to:

- ▼ maintain an Environmental Management System (EMS) certified to AS/NZS ISO 14001:2004
- ▼ prepare, and annually report against, a 5-year Environmental Management Plan (EMP)
- ▼ report on its performance against environmental indicators.⁶⁹

5.2 Proposed changes to environment provisions in the operating licence

We propose to remove the licence requirement for Sydney Water to prepare and annually report against a 5-year EMP. This is because similar requirements would be imposed on Sydney Water through the EMS licence provision and associated reporting requirements in the Reporting Manual.

A certified EMS has a number of outputs - including the requirement to develop and publish an environmental policy (see Box 5.1). The Act also requires Sydney Water to publish an annual report on its environmental performance (to be reviewed by the EPA). The combination of these two requirements could be seen as duplicating the separate licence requirement for the 5-year EMP.

⁶⁹ *Sydney Water Operating Licence 2010-2015*, cl 6.1 and 6.2.

Box 5.1 Requirements of an EMS

An EMS provides a framework for an organisation to identify and target the environmental impact of its business activities.

ISO 14001:2004 specifies requirements to enable an organisation to develop and implement plans and policies that take into account the organisation's environmental impacts and its legal requirements. It does not duplicate or replace regulatory requirements, but is a mechanism to collate all regulatory requirements together. It also helps ensure compliance with these requirements

ISO 14001:2004 requires the organisation to:

- ▼ develop an environmental policy and make this available to the public
- ▼ identify activities it undertakes that can significantly impact on the environment
- ▼ determine and document environmental objectives, targets and programs
- ▼ monitor and assess these targets and programs
- ▼ evaluate compliance
- ▼ undertake internal and external review
- ▼ produce a continual improvement report.

Source: AS/NZS ISO 14001:2004 Environmental Management Systems – Requirements with guidance for use, 2004.

Sydney Water states that removal of the specific requirement for a 5-year EMP will not have any material cost implications for it, since environmental planning will continue as part of the certified EMS. Sydney Water comments that removal of the requirement for a standalone EMS would simply remove the current duplication of requirements in the operating licence, but would not result in any cost savings for the organisation.

We propose to replace the requirement to report on progress against the EMP each year with a requirement to report performance against the environmental objectives and targets identified by the EMS. Sydney Water recognises that this would not involve a difference in the amount of effort/resources required for reporting and therefore represents no additional costs or savings for Sydney Water.

We note, however, there are several benefits (which are difficult to quantify) of removing the operating licence requirement for a 5-year EMP. These include:

- ▼ removal of unnecessary duplication in the operating licence – which can assist in ensuring a more effective regulatory instrument, and therefore enhance regulatory outcomes (through more targeted compliance), and
- ▼ better integration of environmental planning with corporate and business planning processes within Sydney Water.

Such benefits can be achieved without a reduction in environmental planning and management by Sydney Water, as the proposed EMS and associated reporting provisions of the operating licence and reporting manual require robust processes for the identification, management and reporting of environmental risks, objectives and actions.

We note that when introducing requirements for a certified EMS into the operating licences of other public water utilities, we have removed the separate requirement for an ongoing EMP.

6 | Customer rights

As the largest water utility in Australia, Sydney Water provides drinking water, wastewater, recycled water and stormwater services to about 4.7 million customers in Sydney, the Illawarra and the Blue Mountains.⁷⁰

Australia has a legislative framework that is aimed at protecting consumers from unfair practices of suppliers, for example, the *Competition and Consumer Act 2010* (Cth).

However, customers of utility services in Australia have traditionally been afforded even greater protection.⁷¹ This is particularly the case where the utility is a monopoly and provides essential services to customers.

Sydney Water is no exception and has customer protection provisions within its operating licence.

⁷⁰ Sydney Water, *Summary Annual Report*, 2013, p 2.

⁷¹ *Sydney Water Act 1994*, Division 7, *Hunter Water Act 1991*, Division 5.

6.1 Current customer requirements in the operating licence

Sydney Water's customer obligations are listed in Chapters 4 and 5 of the current operating licence. Schedule 2 of the current operating licence also outlines Sydney Water's full customer contract.

The current operating licence includes the following:

- ▼ the full customer contract⁷²
- ▼ required practices and procedures relating to customer hardship, debt, water flow restrictions and disconnection for non-payment⁷³
- ▼ an obligation to appoint and consult with at least one Customer Council, with associated obligations regarding this group's charter⁷⁴
- ▼ a requirement to establish and maintain internal and external dispute resolution processes⁷⁵
- ▼ an obligation to extend complaint handling and complaint resolution procedures to consumers (property renters) in the same manner that customers (property owners) are treated.⁷⁶

6.2 Proposed changes to the customer requirements in the operating licence

Under clauses 7.2 to 7.4 of the current Customer Contract, Sydney Water pays rebates to residential and non-residential customers. These rebates are important as they provide:

- ▼ compensation to customers for interruptions or disruptions to service
- ▼ incentives to Sydney Water to ensure such interruptions or disruptions are minimised.

Under the Customer Contract, Sydney Water currently pays the following repeats:

- ▼ 10% of a customer's quarterly water and/or wastewater service charge, subject to a minimum payment of \$30 - for a 'planned interruption', a 'unplanned interruption', or a 'low pressure' event
- ▼ 10% of a customer's quarterly wastewater service charge, subject to a minimum payment of \$50 - for a 'wastewater overflow'
- ▼ the greater of \$20 or twice the value of the average maximum daily consumption of a customer's property - for 'dirty water'

⁷² Sydney Water's Operating Licence 2010- 2015, cl 4.1.

⁷³ Sydney Water Operating Licence 2010-2015, cl 4.4 and Schedule 2, s 5 and 6.

⁷⁴ Sydney Water Act 1994, s 15 and Sydney Water Operating Licence 2010-2015, cl 4.5.

⁷⁵ Sydney Water Operating Licence 2010-2015, cl 5.1 and 5.2.

⁷⁶ Sydney Water Operating Licence 2010-2015, Schedule 2, cl 4.3.

- ▼ \$30 – for a ‘boil water alert’ caused by Sydney Water
- ▼ a rebate equal to the whole wastewater service charge, less any concessions, for the next four quarters – after two or more wastewater service disruptions or internal wastewater overflows on a customer’s property in a 12 month period due to capacity constraints in Sydney Water’s system (ie, ‘recurring wastewater service disruption or internal wastewater overflows’)
- ▼ a rebate equal to the whole water service charge, less any concessions, for the next four quarters – after three or more water service interruptions over one hour to a customer’s property in a 12-month period (ie, ‘recurring unplanned water interruptions’).

We are proposing the following changes to the Customer Contract in relation to rebates:

- ▼ Increase the above-mentioned current minimum rebate payment amounts to account for inflation. This would be a one-off increase in the first year of the 2015 operating licence. In line with elements of Sydney Water’s proposal:
 - the above-mentioned minimum amounts of \$30 and \$50 would increase to \$35 and \$60, respectively
 - the minimum rebate for ‘dirty water’ would increase from \$20 to \$35.
- ▼ For recurring disruptions or interruptions, maintain the rebate amount (whole service charge less any concessions), but make it payable as a lump sum after the second (wastewater) or third (water) event – rather than payable for ‘the next four quarters’ after the second or third event.

Additionally, we are proposing that:

- ▼ Sydney Water advertise the measures available to address financial hardship in a Sydney based newspaper at least annually.
- ▼ Sydney Water be allowed to charge a fee for late payment of customer bills, subject to a maximum amount and terms and conditions set by IPART. We note that this would not apply to customers on hardship arrangements.

We are also proposing some other editorial changes to the Customer Contract. However, we consider these to be largely immaterial.

Rationale for proposed changes

Increase the minimum rebate payments by about 15%

We are proposing to increase the minimum rebate payments by about 15%, to account for inflation. Sydney Water supported this change as part of its proposed package of changes to rebates in its submission. Sydney Water stated that a 15% increase to the value of rebates would reflect an average annual CPI increase of 3%, over 5 years.⁷⁷

We consider that it is appropriate to increase the minimum rebate amount to reflect increases in inflation. This assists in maintaining the value of rebates in real terms (ie, ensuring they are not eroded by inflation).

Moving to a lump sum rebate payment for repeat interruptions or overflows

Currently, the rebate for repeat interruptions or overflows is payable as a service charge deduction over the following four quarters. We are proposing that this rebate would now be payable as a lump sum in the next quarter after the second (wastewater) or third (water) incident. Sydney Water supported this change as part its suite of proposed changes to rebates it put forward in its submission to our Issues Paper.⁷⁸

This change will likely increase customer awareness of when a rebate has been paid. It may also help simplify Sydney Water's billing system, and therefore reduce administrative costs.

We consider the costs of this change are not significant, and likely to be outweighed by its benefits.

Requirement for Sydney Water to advertise financial hardship measures

We propose to introduce a requirement in the operating licence for Sydney Water to advertise annually the types of account relief available for customers experiencing financial hardship. Advertising the availability of account relief will increase customer awareness of the availability of these measures and their rights to access them, and may encourage those experiencing financial hardship to apply for account relief. We consider that the potential benefits of allowing customers to access financial hardship measures are potentially significant (eg, reduced non-payment of bills), and will outweigh the minimal costs of an annual newspaper advertisement.

⁷⁷ Sydney Water submission to the Review of the Operating Licence for Sydney Water, July 2014, p 80.

⁷⁸ Ibid, p 80.

Fee for late payment of customer bills

In its submission to our Issues Paper, Sydney Water proposed changes to overdue account balance provisions in order to be able to charge a late payment fee in the future to recover the cost of administration associated with late payment and overdue bills. Sydney Water proposed the fee would be based on cost recovery of Sydney Water's loss.⁷⁹

We consider that it is appropriate for Sydney Water to be able to charge a late payment fee to recover the costs associated with the late payment of bills, including administration costs and interest costs. We are proposing to include a clause in the Customer Contract to allow Sydney Water to charge a fee for the late payment of bills. This fee would be determined by IPART and set at a cost reflective level, so that Sydney Water would only be able to recover the administrative and interest costs associated with the late payment of bills. In determining the maximum late payment fee, IPART would also specify the terms and conditions under which the late payment fee could be charged, such as when reminder notices would be required to be sent before the late payment fee could be charged. We note that those customers on hardship arrangements (eg, agreed deferred payment dates or subject to agreed arrangements to pay by instalments) would not be subject to the late payment fee.

A late payment fee would enable Sydney Water to recover its late payment costs from late paying customers (ie, those who create the costs). In turn, this will reduce costs to Sydney Water's other customers – who do pay on time.

Over time, a late payment fee may also reduce the number of late payments, which would reduce costs to Sydney Water and all of its customers.

Our proposal for a late payment fee would result in moderate costs in terms of determining and applying the appropriate fee. However, we consider that the potential benefits outlined above, in terms of reduced costs to Sydney Water and its broader customer base, would outweigh these costs.

⁷⁹ Ibid, p 81.

6.3 Establishment of a Code of Conduct between Sydney Water and private water utilities in their area of operation

In the current operating licence, there are no requirements for a Code of Conduct between Sydney Water and private water utilities.

6.3.1 Proposed change

We propose to include a clause in the operating licence that states:

Until a Code of Conduct is established under the *Water Industry Competition (General) Regulation 2008*, Sydney Water is required to use its best endeavours to co-operate with each licensed network operator and retail suppliers within its areas of operation that seeks to establish a Code of Conduct with Sydney Water.

Rationale for proposed change

We consider that the proposed change is appropriate as it will reduce risks and enhance co-operation between Sydney Water, licensed network operators and retail suppliers in Sydney Water's area of operation. This will enable Sydney Water to work more closely with private water utilities and foster a co-operative relationship with Sydney Water and private water utilities until a Code of Conduct is established.

Sydney Water noted that WICA licensed network operators are already required to establish a Code of Conduct with Sydney Water as a condition of their licence.⁸⁰ Sydney Water acknowledged that customers may see value in including an obligation that requires Sydney Water to cooperate with WICA licensees, even though Sydney Water states that it already does so as part of good business practice.

We consider that there will be net benefits of introducing the proposed change.

Co-operation between Sydney Water and WICA licensees can result in the following benefits:

- ▼ Assist in establishing a more even playing field in terms of regulatory requirements (and hence negotiations) between Sydney Water and WICA licensees.
- ▼ Reduce the establishment costs of WICA schemes.
- ▼ Clarify responsibility for interconnected infrastructure, which can reduce the risk of system or service failure for both organisations.

⁸⁰ Sydney Water, Response to IPART request for information, 24 November 2014.

The first two points above can assist in enhancing the potential for competition in the water industry – which can lead to a range of benefits, including greater innovation, lower costs, and enhanced service levels.

We consider the costs of this proposed change are negligible.

7 | Other areas

This chapter considers our proposed changes to two other areas of Sydney Water's operating licence, namely in relation to the implementation of a Quality Management System and Sydney Water's rights and responsibilities in relation to its stormwater network.

7.1 Quality Management System (QMS)

Currently, there are no obligations in the operating licence to maintain a Quality Management System (QMS).

In its submission to our Issues Paper, Sydney Water stated that it has developed and continues to maintain various ISO 9000 certified quality management systems for key processes across its business including water treatment plants, water networks and management of the supply of drinking and recycled water, among others.

Proposed change

For the 2015 operating licence, we propose that Sydney Water must:

- ▼ develop a Management System that is consistent with the Australian Standard AS/NZS ISO 9001:2008 Quality Management Systems - requirements (**Quality Management System**) by 30 June 2017
- ▼ ensure that:
 - by 30 June 2018, the QMS is certified by an appropriately qualified third party to be consistent with the Australian Standard AS/NZS ISO 9001:2008 - Quality Management Systems - requirements; and
 - once the QMS is certified, the certification is maintained during the remaining term of the licence
- ▼ ensure that by 30 June 2018, the QMS is fully implemented and that all relevant activities are carried out in accordance with the system
- ▼ notify IPART of any significant changes that it proposes to make to the QMS in accordance with the Reporting Manual.

Rationale for proposed change

Introducing the requirement for Sydney Water to implement and maintain a QMS to ISO 9001:2008 will ensure that Sydney Water effectively manages its systems and assets in order to deliver and maintain a suitable level of service. It will also ensure the consistency of quality management across the organisation, with all areas of the business being managed consistently with an internationally recognised standard. It should result in efficiencies in terms of maintaining standardised documentation and procedures across all areas of the organisation. The decision to require Sydney Water to implement an organisational wide QMS is in line with requirements placed upon Hunter Water to maintain a similar system.

Sydney Water has supported a licence requirement to implement a Quality Management System (QMS) covering key processes. Sydney Water also provided further examples of potential benefits of implementing a single organisational wide certified QMS. These were that it will:

- ▼ provide assurance that its key business processes are integrated, enabling staff to carry out their work in an efficient manner
- ▼ reduce current duplication of some processes across systems, and
- ▼ reduce the resource effort required to manage these multiple systems.

In its submission to our Issues Paper, Sydney Water stated that the development and implementation of an organisation wide certified QMS would involve an initial outlay of around \$160,000.⁸¹

However, Sydney Water has stated that it is planning to implement a QMS regardless of the operating licence obligation.

As outlined above, the benefits of a QMS largely relate to reduced risk of system failure and enhanced efficiency. In this context, we note that based on the above figure of \$160,000, the development and implementation of a QMS represents less than 0.02% of Sydney Water's annual average operating expenditure.⁸² Therefore, only a very minor improvement in efficiency would be required for the implementation of a QMS to yield significant net benefits.

In relation to when Sydney Water should be required to implement a QMS and have it certified, we considered that Sydney Water already has various ISO 9000 certified quality management systems for key processes across its business and that it should be able to implement the QMS in line with our proposed dates. Additionally, having a QMS in place earlier in the operating licence will ensure that the benefits of the QMS are able to be experienced earlier.

⁸¹ Sydney Water submission to the Review of the Operating Licence for Sydney Water, July 2014, p 95.

⁸² Sydney Water's annual average operating expenditure excluding bulk water costs over 2012-2016. This figure was approximately \$900 million (\$2011/12).

We consider that the benefits outlined above of implementing a QMS are likely to outweigh the potential costs, and will align the requirements in Sydney Water's operating licence with those placed on Hunter Water. We consider that implementing and maintaining a QMS represents a best practice approach to quality management.

7.2 Clarification of rights and obligations for stormwater

Under Clause 1.3 of the current operating licence, Sydney Water:

...must provide, operate, manage and maintain a stormwater drainage system as described in section 14(1)(b) of the Act, except to the extent that the Minister is satisfied under sections 14(4) and 14(5) of the Act that satisfactory arrangements have been made for the service to be provided by another appropriate body, including a council (within the meaning of the *Local Government Act 1993* (NSW)).

Sydney Water has expressed some concern with the wording of this clause, in that it may be seen as limiting Sydney Water to maintaining the existing capacity of stormwater systems and not allowing investment in amplification of stormwater assets. According to Sydney Water, the absence of a specific reference to 'construct' in clause 1.3 of the current operating licence had caused uncertainty about Sydney Water's ability to construct stormwater assets generally.⁸³

We note that Sydney Water's obligations in relation to stormwater assets only apply where it is responsible for these stormwater assets. For example, other authorities such as local Councils are responsible for some stormwater assets in Sydney Water's area of operations.

Proposed change

We propose to maintain the above-mentioned clause in the operating licence, but also add the following clause:

Sydney Water may provide, construct, operate, manage and maintain efficient, co-ordinated and commercially viable stormwater drainage systems and services within the Area of Operations including for the purpose of increasing the capacity of the stormwater drainage system included in the business undertaking (referred to in Part 3 of the Act) transferred under Part 3 of the Act from the Water Board to Sydney Water as at the date of the transfer of the business undertaking.

⁸³ Sydney Water submission to the Review of the Operating Licence for Sydney Water, July 2014, p 101.

Rationale for proposed change

Our proposed change will clarify that Sydney Water has the ability to amplify its own stormwater assets, subject to normal business and regulatory considerations being satisfied.

We note that, as part of our reviews of Sydney Water's prices, we review the prudence and efficiency of Sydney Water's expenditure - including its stormwater expenditure. We then set water, sewerage and stormwater prices to allow Sydney Water to recover its efficient level of expenditure (net of revenue for expenditure it may receive from other sources, such as developer charges).

The benefits of the proposed change are greater clarity surrounding Sydney Water's rights to amplify or construct stormwater assets. This can avoid administrative costs and costs of delay around the construction of stormwater assets.

This proposed change to the operating licence should not impose any costs, as it is simply clarifying that Sydney Water may construct stormwater assets and increase the capacity of its stormwater drainage system within its area of operations.

We therefore expect that this change will result in a net benefit.