

Sydney Water Corporation Operating Licence

End of Term Review

Water Licensing — Report to the Minister
May 2015



Independent Pricing and Regulatory Tribunal

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Contents

Summary	1
1 IPART’s approach and process for this review	4
1.1 The purpose of the review	4
1.2 Scope of the review	5
1.3 Our approach to the review	5
2 Guiding principles for developing the new licence	10
3 Changes to the licence	13
3.1 Major obligations that were updated or changed in the existing licence	14
3.2 Major new obligations not present in the current licence	18
3.3 Other changes to the current licence	21
Appendices	27
A Recommended operating licence	29
B Recommended reporting manual	127
C Cost benefit analysis report	201
Glossary	267

Summary

The Independent Pricing and Regulatory Tribunal (IPART) has conducted an end of term review (review) of the current Sydney Water Corporation's (Sydney Water's) operating licence (the licence). We have consulted interested stakeholders extensively and undertaken a cost benefit analysis of our recommended changes.

The current licence requires that we engage in public consultation, and prepare a report on our findings and any recommendations arising. We provide this report to the Minister administering the Sydney Water Act (the Minister). The Minister may accept or reject our recommendations, before endorsing a new licence for approval by the Governor of NSW and subsequent gazettal.

In summary, we are proposing the following significant changes to the operating licence:

Updates or changes to major obligations from the current licence:

- ▼ Replace by mid-2017 prescriptive water usage and leakage targets within the current licence with a new requirement for Sydney Water to develop a Methodology to determine the Economic Level of Water Conservation (ELWC) and utilise the Methodology to develop a five-year rolling water conservation program. In the interim, we propose to retain the prescriptive targets.
- ▼ Replace the existing prescriptive asset management framework with a requirement to adopt an asset management system (AMS) consistent with the International Standard (ISO 55,001).¹ This standard represents best industry practice for asset management.
- ▼ Clarify the requirements placed on Sydney Water in respect to the remaining schemes within the Priority Sewerage Program (PSP). We have recommended that Sydney Water co-operate and participate in a recommended review to examine the priority and funding options of the remaining schemes (see recommendation below).

¹ International Standard ISO 55001:2014 Asset Management Systems – Requirements.

Major new obligations not present in the current licence:

- ▼ Develop a Quality Management System (QMS) consistent with the Australian Standard (9001:2008)² in line with best industry practice and to ensure consistency between the large public water utility licences.
- ▼ Include a Roles and Responsibilities Protocol with Metropolitan Water Directorate (MWD) to encourage a close working relationship between these two bodies to assist in the development and implementation of the Metropolitan Water Plan.
- ▼ Develop a memorandum of understanding (MoU) with Fire and Rescue NSW (FRNSW) to form the basis of a co-operative relationship between Sydney Water and FRNSW. Further, we recommend that the government undertake a comprehensive review examining firefighting water capacity requirements within NSW. This review should identify any “regulatory gaps” or necessary improvements to regulatory arrangements. It should also examine water distribution network solutions and other options to enhance water availability for firefighting (see recommendation 3 below).

Other proposed amendments to the current licence include:

- ▼ Change the licence authorisation to clarify Sydney Water’s role in augmenting existing stormwater infrastructure.
- ▼ Implement the Water Quality Systems in the Australian Drinking Water Guidelines and Australian Guidelines for Water Recycling.
- ▼ Require Sydney Water to review public reporting requirements for water quality, in consultation with NSW Health and Sydney Water’s Customer Council.
- ▼ Redraft the System Performance Standards for clarity and consistency with other major water utilities.
- ▼ Change system performance standards relating to response time to water mains breaks to performance indicators in the reporting manual.
- ▼ Include two new customer performance indicators in the reporting manual to assist in determining the impacts of water service interruptions on non-residential customers.
- ▼ Make minor changes to customer rebate payments that will improve the administration of payments and result in the majority of impacted customers receiving slightly higher rebates.
- ▼ Include a definition of “Rouse Hill stormwater catchment area” in Sydney Water’s customer contract, as defined in IPART’s price determination.³ This will provide additional clarity to customers and Sydney Water.

² AS/NZ ISO 9001:2008 Quality Management Systems.

³ IPART, *Prices for Sydney Water Corporation’s water, sewerage, stormwater drainage and other services*, Determination No.1, June, 2012 p 72.

- ▼ Expand the membership of Sydney Water’s customer council to include representatives of business groups, including small, medium and large business and non-residential customers.
- ▼ Include a requirement to develop a Code of Conduct with network operators and retail suppliers licensed under the *Water Industry Competition Act, 2006* (WICA) that operate in Sydney Water’s area of operation. This obligation will mirror similar obligations already placed on WICA licensees.
- ▼ Remove the requirement for a 5-year environmental management plan and annual environmental reporting and replace with annual reporting of outputs from Sydney Water’s Environmental Management System (EMS).

Recommendations

As a result of the end of term review of Sydney Water’s licence, we make the following three recommendations:

- 1 That the Minister endorses the recommended operating licence for Sydney Water as outlined in Appendix A for approval by the Governor and subsequent gazettal. 13
- 2 That the Government undertake a review of the PSP to determine if remaining schemes are still a priority and if so, the timing, the form of delivery and funding for such schemes. 18
- 3 That the Government undertake a comprehensive review examining firefighting water capacity requirements within NSW. This review should identify any “regulatory gaps” or necessary improvements to regulatory arrangements. It should also examine water distribution network solutions and other options to enhance water availability for firefighting. 21

1 | IPART's approach and process for this review

Sydney Water is a State Owned Corporation wholly owned by the NSW Government. Sydney Water's primary role is to provide drinking water, recycled water and sewerage services to greater Metropolitan Sydney. Sydney Water's roles and responsibilities are prescribed by the *Sydney Water Act 1994* (the Act), the *State Owned Corporations Act 1989* and the operating licence (the licence) issued to Sydney Water under Part 5 of the Act.

1.1 The purpose of the review

The primary purpose of this review is to determine whether the current licence (2010-2015) is fulfilling its objectives and to recommend to the Minister for Lands and Water (the Minister) conditions to be included in Sydney Water's new licence which will commence on 1 July 2015 for a term of five years.

The objective of the Licence is to enable and require Sydney Water to provide services within its Area of Operations. Consistent with this objective, the licence sets out the obligations on Sydney Water to meet legislative requirements, comply with quality and performance standards, recognise the rights given to customers and consumers, and be subject to operational audits. It is also to promote informed choice and competence and safety. This is consistent with the requirements of the licence under the Act, as outlined above.

Many provisions in the licence would not be required if Sydney Water were operating in a competitive market. In this sense, the licence is aimed at replicating the pressures of a competitive market in regulating Sydney Water's performance.

In considering the role of the licence and potential licence requirements, we were mindful that many of the potential environmental and health impacts of Sydney Water are regulated by other instruments. In recommending the terms of the licence, we are seeking, as much as possible, to avoid regulatory duplication.

1.2 Scope of the review

Sydney Water's current licence requires that an end of term review be undertaken to:

- ▼ determine whether the licence is fulfilling its objectives
- ▼ determine whether there are any issues which have arisen during the term of the licence, which may affect the effectiveness of the licence
- ▼ determine the terms of any renewal of the licence.

Our review has considered all aspects of Sydney Water's operations and included a review of its customer contract, which forms part of the licence, and the reporting manual, which is required by the licence.

1.3 Our approach to the review

In undertaking the review we drew on best practice regulatory principles, including those outlined in our recent report on *Reforming licensing in NSW – Review of licence rationale and design* and our associated Licensing Framework (*A best practice approach to designing and reviewing licensing schemes*). This framework includes:

- ▼ Considering whether government action is required to address a specific problem or risk and, if so, whether licensing is appropriate.
- ▼ Assessing whether the licence is well designed – taking into account how its objectives relate to its coverage, duration, reporting requirements, fees and charges, conduct rules and mandatory attributes.
- ▼ Assessing whether the licence is administered effectively and efficiently.
- ▼ Confirming that licensing is the best response when comparing its costs and benefits against other options.⁴

The current licence requires that we engage in public consultation, and report to the Minister our findings and recommendations. The Minister may accept or reject our recommendations, before endorsing a new licence for approval by the Governor of NSW and subsequent gazettal.

Table 1.1 lists the steps we took in the review.

⁴ IPART, *Reforming licensing in NSW – Review of licence rationale and design - Draft Report*, October 2013, p 42.

Table 1.1 Steps in the Sydney Water licence review

Action	Timing
Issues paper released	June 2014
Public submissions	June-August 2014
Review of stakeholder submissions	September 2014
Request for information on costs of proposed clauses	September – November 2014
Draft CBA of licence conditions prepared	November 2014 – January 2015
Draft licence and reporting manual prepared	September 2014 – January 2015
Public release of draft licence package ^a	February 2015
Public forum and submissions	March 2015
Review of stakeholder submissions	March 2015
Final draft licence package prepared	April 2015
Final targeted stakeholder consultation	April 2015
Final licence package prepared	May 2015

^a The draft licence package included the Draft Operating Licence (including the customer contract), Draft Reporting Manual and Draft Cost-Benefit Analysis (CBA) report.

1.3.1 Issues paper

The issues paper, released in June 2014, raised a number of matters and questions and summarised our preliminary views on proposed changes to the licence.⁵ These included:

- ▼ The proposed adoption of a systems standard approach to asset, water quality and quality management areas in the licence.
- ▼ Seeking clarity of the role of the licence in delivery of the Priority Sewerage Program (PSP).
- ▼ A discussion on water usage and leakage targets and the need for clarity around the objectives and obligations relating to water conservation.
- ▼ Proposed changes to the licence to make it clearer and more effective (eg, remove regulatory duplication, unnecessary legislative references and draft the licence using plain English).

We received 15 written submissions in response to the issues paper from a variety of stakeholders including:

- ▼ Australian Food and Grocery Council
- ▼ Australian Industry Group
- ▼ Energy and Water Ombudsman
- ▼ Environment Protection Authority

⁵ IPART, *Review of the Operating Licence for Sydney Water Corporation – Issues Paper*, June 2014, pp 23, 28, 41, 44 and 51.

- ▼ Fire and Rescue NSW
- ▼ Flow Systems
- ▼ Institute of Sustainable Futures
- ▼ Nature Conservation Council of NSW
- ▼ NSW Ministry of Health
- ▼ Pittwater Council
- ▼ Public Interests Advocacy Centre
- ▼ Scotland Island Residents Association
- ▼ Sydney Water
- ▼ Total Environment Centre
- ▼ An anonymous individual.

The submissions were generally supportive of the proposed move to systems based obligations and the simplification of the licence by removing regulatory duplication. The following specific issues were raised by stakeholders for further consideration by IPART:

- ▼ the Priority Sewerage Program arrangements
- ▼ network flow capacity for firefighting
- ▼ response times for mains breaks
- ▼ the need for a roles and responsibilities protocol between the Metropolitan Water Directorate (MWD) and Sydney Water to develop and/or implement the Metropolitan Water Plan (MWP)
- ▼ water conservation activities/requirements.

1.3.2 Draft licence package

Based on our analysis and informed by the above submissions, we prepared and released a draft licensing package which contained a draft licence (including a revised customer contract), a draft reporting manual and a draft Cost Benefit Analysis (CBA) report on the proposed changes to the licence and reporting manual. The draft package was publicly released on 10 February 2015.

1.3.3 Public forum and submissions on draft licensing package

In March 2015 we invited all interested stakeholders to a public forum in Sydney to discuss the draft licence package. A number of key stakeholders were given an opportunity to present their comments on the draft licensing package at the forum. Further, all other interested groups and individuals also had the opportunity to provide comments on the draft licence package.

Following the public forum we received 38 written submissions in response to the draft licence package from:

- ▼ Association of Hydraulic Services Consultants of Australia
- ▼ Australian Food and Grocery Council
- ▼ City of Sydney
- ▼ Energy and Water Ombudsman
- ▼ Environment Protection Authority
- ▼ Fire and Rescue NSW
- ▼ Flow Systems (Commercial-in-confidence)
- ▼ Institute of Sustainable Futures
- ▼ Network Plumbing
- ▼ NSW Council of Social Services
- ▼ NSW Office of Water (Metropolitan Water Directorate)
- ▼ Pittwater Council
- ▼ Property Council of Australia
- ▼ Public Interests Advocacy Centre
- ▼ Scotland Island Residents Association
- ▼ Sydney Water
- ▼ 22 individuals.

Submissions were generally supportive of the proposed draft licence and reporting manual. Some of the main issues raised included:

- ▼ While the majority of submissions supported changes to the water conservation obligations, several submissions recommended that an independent body should approve Sydney Water's Economic Level of Water Conservation Methodology (ELWC). Further, Sydney Water requested further time to develop the ELWC Methodology.
- ▼ The PSP and clarity around who was responsible for implementation and timeframe for implementation. In particular, the majority of submissions regarding this issue supported the construction of a sewerage service by Sydney Water at Scotland Island.
- ▼ Inclusion of system performance standards relating to unplanned interruptions for non-residential customers to address the impact of these interruptions on these customer types.

- ▼ Changes to the customer contract including:
 - ability for IPART to set late payment fees
 - changes to the amount of rebate charges
 - the definition of the Rouse Hill stormwater catchment area.
- ▼ Issues around pressure and water flows for firefighting including the need to further strengthen the proposed memorandum of understanding (MoU) between Sydney Water and Fire and Rescue NSW (FRNSW).

1.3.4 Final Licensing package

In March, April and May 2015 we conducted further targeted consultation, where relevant, with Sydney Water, the MWD and NSW Health on the following issues:

- ▼ ELWC requirements
- ▼ customer rebates
- ▼ MoU with FRNSW
- ▼ PSP
- ▼ public reporting frequency for water quality.

Based on our analysis and taking account of the public forum and subsequent submissions received, we have finalised our review and revised the draft licence, reporting manual and CBA as set out in our recommended package (Appendices A-C respectively).

1.3.5 Structure of this report

The remainder of this report is structured as follows:

- ▼ Chapter 2 discusses our guiding principles in developing the amended licence.
- ▼ Chapter 3 discusses the changes to the licence we considered during our review, in the following sections:
 - major obligations that were updated or changed in the current licence
 - major new obligations not in the current licence
 - other changes to the current licence.
- ▼ Appendix A presents the recommended licence.
- ▼ Appendix B presents the recommended reporting manual.
- ▼ Appendix C presents the cost-benefit analysis report.

2 Guiding principles for developing the new licence

In undertaking the review we drew on best practice regulatory principles, including those outlined in our 2013 Report on *Reforming licensing in NSW – Review of licence rationale and design* and our associated Licensing Framework (*A best practice approach to designing and reviewing licensing schemes*). This framework includes:

- ▼ considering whether government action is required to address a specific problem or risk and, if so, whether licensing is appropriate
- ▼ assessing whether the licence is well designed – taking into account how its objectives relate to its coverage, duration, reporting requirements, fees and charges, conduct rules and mandatory attributes
- ▼ assessing whether the licence is administered effectively and efficiently
- ▼ confirming that licensing is the best response when comparing its costs and benefits against other options.⁶

The licence should be outcomes focused and provide a net benefit to society. That is, the licence conditions should regulate Sydney Water to ensure it achieves the desired outcomes without imposing unnecessary compliance and administrative costs. This approach is consistent with the evolution of good regulatory practice for public water utilities.

Positive cost-benefit outcome

The licence should include obligations expected to have a positive cost-benefit outcome. That is, where benefits exceed the costs.

We investigated the costs and benefits of different licence obligations during the review. We considered the cost of compliance, and the needs of stakeholders, the environment and the public. The Cost Benefit Analysis (CBA) report provides further details (Appendix C).

⁶ IPART, *Reforming licensing in NSW – Review of licence rationale and design – Draft Report*, October 2013, p 42.

Non-prescriptive approach

The licence should encourage Sydney Water to develop sensible and efficient business processes, and should avoid being prescriptive where possible.

Sydney Water is well placed to consider the concerns of its stakeholders and make decisions on how best to operate its business. By using a systems-based approach to regulation, we can provide a framework in which Sydney Water must meet certain operational outcomes, but allow it to decide how best to achieve its objectives.

Avoid regulatory duplication

The licence should not duplicate existing legislative or other requirements imposed by other government agencies.

Sydney Water is already required to comply with the external regulatory instruments and therefore repeating these obligations in the licence is redundant. Duplication can also cause confusion as to who the appropriate regulatory authority is, and adds an additional layer of compliance which may not have been intended. Further, if one instrument changes during the life of the licence, then this also risks inconsistency in regulatory requirements.

Rather, a licence should complement and be consistent with other regulatory requirements imposed on Sydney Water.

We aimed to remove any regulatory duplication where it did not provide any additional guidance or auditable benefit. We have included notes in the recommended licence, referencing external requirements where they relate to the requirements of the licence. This provides the necessary information while minimising the obligations on Sydney Water.

Avoid obligations on external parties

The licence is a regulatory tool that describes the requirements for the operations and management of Sydney Water, and should not place obligations on external parties, unless it is a requirement under the Act or provides additional emphasis to the regulatory requirement.

Relevant reporting and performance monitoring

The licence should require Sydney Water to provide useful and effective reporting on their performance against licence obligations.

IPART monitors Sydney Water's compliance with the licence through regular reporting and auditing. In reviewing the licence and preparing the reporting manual, we reviewed all the existing reporting that Sydney Water is required to

provide to IPART, NSW Health, Environmental Protection Authority (EPA) and the public. Sydney Water should only be required to report where that reporting is directly related to a licence obligation.

Sydney Water should also only report where that reporting is considered useful by IPART or other stakeholders.

3 | Changes to the licence

This chapter presents a summary of the changes as a result of the licence review. These changes are broken into the following categories:

- ▼ major obligations that were updated or changed in the current licence
- ▼ major new obligations not present in the current licence
- ▼ other changes to the current licence.

In addition, we have made some structural changes to the licence. We have changed the order of chapters and consolidated several chapters to make the licence consistent with the structure of the other major public water utility licences and also for ease of reading. This has included:

- ▼ The Water Conservation chapter has been moved and renamed “Water Quantity”.
- ▼ The Infrastructure Performance chapter has been renamed “Assets”.
- ▼ Both of the chapters relating to customers (customer and consumer rights and complaints and dispute handling) have been consolidated into a single chapter, “Customers and Consumers”.
- ▼ We have added a chapter on “Quality Management”.
- ▼ All licence obligations relating to reporting obligations have been moved to a new chapter “Performance Monitoring”.

The changes outlined in this chapter are incorporated into the recommended licence and reporting manual in appendices A and B.

Recommendation

- 1 That the Minister endorses the recommended operating licence for Sydney Water as outlined in Appendix A for approval by the Governor and subsequent gazettal.

During the review of the licence we have identified two issues which would be better addressed through other mechanisms, rather than the licence. In these cases we have provided additional recommendations for the Minister to consider.

3.1 Major obligations that were updated or changed in the existing licence

3.1.1 Water Quantity (or 'Water Conservation')

We recommend a new comprehensive approach to water conservation within the licence. This is based on Sydney Water developing a Methodology to determine its ELWC and utilise this to develop a 5-year rolling water conservation program.

Water conservation obligations in the current licence are focussed on prescriptive targets relating to water usage and leakage. It also includes a requirement to prepare a water conservation plan over a static 5-year period.

We propose that the new licence include the following obligations:

- ▼ by 1 November 2015, Sydney Water must provide a report to IPART (for approval) that outlines its approach and principles for developing an ELWC Methodology
- ▼ by 31 December 2016, Sydney Water must use the approach and principles to develop an approved (by IPART) ELWC Methodology.

To support this, we recommend new reporting obligations, which require Sydney Water to submit an annual Water Conservation Report to IPART. The Report must:

- ▼ Include the elements of Sydney Water's water conservation program 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 timetable.
 - How each of these elements relates to the ELWC activity and the Methodology.
- ▼ Describe and explain Sydney Water's progress against each of the elements of the 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.
- ▼ Outline how Sydney Water's water conservation program relates to the MWP and its progress against the MWP.
- ▼ Include information on the following measures for the previous financial year:
 - 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 drinking water drawn by Sydney Water from all sources, expressed in gigalitres per year, litres per person per day and kilolitres per person per year.

This will enable Sydney Water to report water usage within the context of its water conservation strategy, rather than needing to comply with a (seemingly) arbitrary or outdated targets. It also allows and ensures that Sydney Water can be responsive to a changing environment.

It will also provide public transparency and accountability regarding Sydney Water's water usage levels and water conservation program.

A transition process has also been included to ensure water conservation continues to be addressed, while the ELWC Methodology is developed. Until the ELWC Methodology is determined and approved, Sydney Water is required to meet the following targets:

- ▼ Maintain the quantity of drinking water it draws from all sources of water equal to, or less than, 329 litres/person/day (water usage level).
- ▼ Ensure that the level of water leakage from its drinking water supply system does not exceed 121 megalitres/day (water leakage level).
- ▼ Promote, foster and encourage the efficient use of water and the production and use of recycled water, where it is financially viable.

The replacement of Sydney Water's static water conservation targets with the ELWC has been broadly supported by stakeholders. With the principle area of discussion being the need for a third party to approve the Methodology, in this case we recommend that this is IPART, due to our combined pricing and licensing functions and expertise.

The process of converting the current fixed five year strategy into a rolling 5-year strategy should not require significant additional resources of Sydney Water. Requiring it to be a rolling strategy will ensure it is reviewed and updated and remains relevant to current conditions.

There were also concerns regarding the interpretation of "Economic" and the impact this may have on the final Methodology developed. A potential solution was the inclusion of a definition in the licence. We felt that a better outcome would be for this definition to become part of the process of determining the principles and approach which will likely involve some form of consultation. In light of this, we included the requirement for Sydney Water to submit the proposed approach and principles to IPART for approval by November 2015.

3.1.2 Assets

Asset Management System

We propose that the existing prescriptive asset management framework obligations be replaced with an Asset Management System (AMS) requirement consistent with (ISO 55001:2014).⁷ The AMS must be implemented by 30 June 2018 and certified by 30 June 2019.

ISO 55001:2014 provides organisations with a systematic and structured approach for developing an AMS. It also allows organisations sufficient flexibility to align activities and processes with their own objectives and resources. This standard represents the application of best practice principles in asset management.

Introducing this requirement will align Sydney Water's obligations with similar obligations applied to other major water utilities. Further, Sydney Water indicates that there is sufficient overlap between its current asset management framework and the standard to allow a simple transition.

Until it is certified, Sydney Water will be required to maintain the existing Asset Management Framework as outlined in its 2010-15 licence and replicated in Schedule 2 of the proposed licence.

Priority Sewerage Program

We propose that existing Priority Sewerage Program obligations are drafted to require Sydney Water to cooperate, implement and participate in any Government review of the PSP and if required, to implement and comply with the outcomes of any review.

The current licence requires Sydney Water to provide sewerage services (under the PSP) to a number of peri-urban areas by set deadlines.⁸ Sydney Water has delivered all schemes where deadlines have been specified. However, there are six remaining sites where no timeframes for completion have been specified. These areas have been listed in the last two Sydney Water licences without delivery deadlines. These outstanding schemes are as follows:

- ▼ Austral with 50 lots
- ▼ Menangle and Menangle Park with 220 lots combined
- ▼ Nattai with 30 lots
- ▼ Yanderra with 220 lots, and
- ▼ Scotland Island with 350 lots .

⁷ International Standard ISO 55001:2014 Asset Management System - Requirements.

⁸ *Sydney Water Operating Licence 2010-2015*, cl 3.6.

Sydney Water has indicated that the planned timetable for the delivery of these proposed schemes are as follows:

- ▼ Austral between 2022 and 2027
- ▼ Menangle between 2020 and 2025, and
- ▼ Menangle Park between 2018 and 2023.⁹

The remaining three schemes, Yanderra, Nattai and Scotland Island are not yet scheduled for completion by Sydney Water. This is primarily as they would be very expensive and therefore would incur significant costs to Sydney Water's customers. As outlined in the CBA and according to Sydney Water, these schemes 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 from the broader customer base rather than the beneficiaries of these schemes.¹⁰

The PSP is a government program that dates back to 1997. In undertaking the end of term licence review, including stakeholder engagement with agencies such as the EPA, it has been difficult to determine the policy intent or origin of the inclusion of these PSP obligations in the licence. Further, it is difficult to understand how sites were prioritised, and how timeframes were assigned.

In the absence of a clear rationale for their inclusion and the potential significant costs involved in meeting the obligations, it is not appropriate to assign timeframes for the delivery of the remaining areas. However, the inclusion of these areas in the licences, without delivery deadlines, creates the perception that Sydney Water is still responsible for their delivery, when there may be better options. This, in turn, appears to be leading some residents to defer maintenance and upgrades to their onsite systems because they believe that a centralised sewerage service will shortly be provided by Sydney Water.

There are a number of alternative mechanisms available to the Government to ensure the remaining areas of the PSP are serviced - if this is its intent. These alternative mechanisms include: a direction to Sydney Water under the *State Owned Corporations Act 1989 (NSW)*; or the Government seeking bids from the market to service specific PSP areas via competitive tender, with Sydney Water as a potential public sector comparator. All options require a determination of who should be paying for such schemes: the taxpayer, the whole of Sydney Water's customer base or just the beneficiaries of the schemes.

⁹ Sydney Water submission to the Review of the Operating Licence for Sydney Water, July 2014, p 54.

¹⁰ Sydney Water submission to the Review of the Operating Licence for Sydney Water, July 2014, pp 54-55.

Completing a review of the PSP would ensure Sydney Water is only required to service these areas if there is a clear policy case for doing so and/or it is the Government's intention for this to occur. A review would also provide additional transparency around the appropriate funding of the PSP scheme. Any review should determine if completion of these schemes continues to be a priority for the Government and, if so:

- ▼ the mechanism for delivery of the schemes (including alternative mechanisms)
- ▼ the appropriate timeframes for delivery, and
- ▼ the funding arrangements.

This review could be undertaken as a section 9 review by IPART¹¹ or undertaken by another agency such as the NSW Office of Water.

Recommendation

- 2 That the Government undertake a review of the PSP to determine if remaining schemes are still a priority and if so, the timing, the form of delivery and funding for such schemes.

3.2 Major new obligations not present in the current licence

3.2.1 Quality management system

We recommend the inclusion of a new chapter (Chapter 7) on a Quality Management System (QMS) for Sydney Water.

Sydney Water is to develop a Management System that is consistent with the Australian Standard AS/NZ ISO 9001:2008: Quality Management Systems – requirements by 30 June 2017 and to have it certified by 30 June 2018. This is in line with industry best practice and consistent with similar obligations placed on other large public water utilities. A significant component of the QMS also covers components of the other management systems required within the licence, such as corporate responsibility, record keeping, staff training, continual improvement and document management.

3.2.2 Inclusion of a Roles and Responsibilities Protocol with Metropolitan Water Directorate

We recommend that Sydney Water use its best endeavours to develop a roles and responsibility protocol with the Metropolitan Water Directorate (MWD) regarding the development and implementation of the Metropolitan Water Plan (MWP).

¹¹ *Independent Pricing and Regulatory Tribunal Act 1992 (NSW)*, s9.

The aim of the protocol is to encourage a close working relationship between the government policy body responsible for water supply/demand planning for the Greater Metropolitan Sydney area and the associated primary water utility. This requirement is limited to best endeavours to ensure Sydney Water's ability to comply with the obligation is not impacted by a third party that is not subject to this requirement.

IPART has not included any prescription regarding the contents of this protocol. In general, IPART prefers that parties to such agreements take control of their own negotiations. Consistent with that approach, given that Sydney Water and the MWD are both within the Minister's portfolio, matters of compliance or dispute resolution can be dealt with outside the operating licence.

3.2.3 Interaction with Fire and Rescue NSW (FRNSW)

We recommend a new obligation in the licence requiring Sydney Water to use its best endeavours to develop and comply with a MoU with FRNSW.

The purpose of the MoU is to form the basis of a co-operative relationship between Sydney Water and FRNSW. Specifically the MoU is required to:

- ▼ develop the roles and responsibilities of the parties to the MoU as they relate to each other
- ▼ identify the needs and constraints of the parties to the MoU as they relate to each other, and
- ▼ identify and develop strategies for efficient and effective provision of firefighting water consistent with the goals of each party to the MoU.

Both parties are to also develop a working group to consider:

- ▼ Arrangements regarding information sharing between Sydney Water and FRNSW.
- ▼ Agreed timelines and a format for Sydney Water to provide a report to FRNSW detailing the network performance with regard to availability of water for firefighting (taking into account the minimum available flow and pressure in localised zones of the network).
- ▼ Arrangements for Sydney Water to consult with FRNSW in the design of new assets and planning of system maintenance, where planning indicates that minimum available flow and pressure may unduly impact firefighting in the network section under consideration.
- ▼ Other matters as agreed by both parties to the MoU.

IPART has stipulated this level of prescription in the MoU to outline its expectations of the instrument and therefore it is appropriate that Sydney Water undertake its best endeavours to comply with the MoU.

FRNSW also raised concerns around meeting water flow required for firefighting from the drinking water network and the potential for large infrastructure solution to be required. Specifically FRNSW initially raised concerns that Sydney Water's leakage reductions programs may be having an impact on firefighting in some areas.

At present there is no regulatory requirement for Sydney Water to provide water for firefighting purposes. The Building Code of Australia (BCA) places a responsibility for provision of firefighting water on the owners of certain classes of buildings,¹² however it is not always clearly defined and some classes of buildings do not have any obligations placed on the building owner. In the absence of a regulatory requirement, IPART considers that an obligation for Sydney Water to work closely with FRNSW is necessary.

The proposed MoU is a major step towards resolving these issues. However, further stakeholder submissions and comments at the public forum indicated that the issue is broader and is influenced by the actions of a number of government agencies including local councils, planning and developers and the issues being raised may also be relevant in other areas of NSW.

The submissions received on this issue warrant further in-depth review, beyond the scope of this licence review. Key questions for the review may include:

- ▼ The costs and benefits of changes to water pressure and minimum flow rates across the network.
- ▼ The costs and benefits of other non-network means of supporting fire-fighting capacity (ie, upgrades to pump and pipe systems attached to the network, but located within private developments or alternate supply points).
- ▼ Identifying the current regulatory arrangements and gaps, relating to responsibilities in this area, that may prevent the implementation of reasonable, cost effective solutions.
- ▼ The appropriate regulatory instrument or means to effect optimal flows for firefighting requirements (ie, the respective roles of the licence and planning and building legislation).
- ▼ Who should pay for ensuring minimum flows for firefighting purposes?
- ▼ Potential similar implications for other water utilities across NSW.

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.

¹² Australian Building Codes Board 2014. National Construction Code volume one and two – Building Code of Australia (BCA). Canberra, ACT.

To address the breadth of this issue, we recommend that the Government undertake a comprehensive review to address the key issues outlined above.

Recommendation

- 3 That the Government undertake a comprehensive review examining firefighting water capacity requirements within NSW. This review should identify any “regulatory gaps” or necessary improvements to regulatory arrangements. It should also examine water distribution network solutions and other options to enhance water availability for firefighting.

3.3 Other changes to the current licence

3.3.1 Licence authorisation

We recommend an additional clause relating to the stormwater drainage system obligations to increase clarity around Sydney Water’s ability to increase the capacity of the stormwater drainage system rather than merely maintain the current stormwater drainage system. While Sydney Water is not responsible for constructing new stormwater infrastructure, there has been some confusion as to its ability to augment existing infrastructure in light of increased capacity needs, which is usually the result of infill development.

3.3.2 Water Quality

We recommend that the licence obligations in relation to water quality be changed to require Sydney Water to develop and implement water quality management systems that are consistent with the water quality framework in the Australian Drinking Water Guidelines (ADWG) and the Australian Guidelines for Water Recycling (AGWR) – for its drinking water and recycled water schemes, respectively. This change is in line with the intentions of both the ADWG and AGWR and international best practice.

The inclusion of drinking water obligations in the licence are a duplication of requirements under the *Public Health Act (NSW) 2011*. However, NSW Health has requested that these obligations remain in the licence as IPART has a mature auditing and compliance program and NSW Health relies on these licence obligations to provide additional oversight of Sydney Water.

As previously discussed Sydney Water is required to develop a water quality management system that complies with the ADWG and AGWR. To meet the Guidelines the system will need to incorporate long term planning and continual improvement. This outcome is a duplication of the current requirement to produce a 5-year drinking water quality plan and report annually against it. To reduce regulatory duplication we recommend that the requirement for Sydney Water to produce a five year water quality monitoring plan and annually report

against its progress is removed. To ensure continued transparency we recommend that Sydney Water report against the implementation and outputs of the water quality management systems.

We also recommend that Sydney Water undertake a review of public reporting of water quality monitoring. The current public reporting requirements could be simplified to make it more meaningful to the general public. We have included an obligation for Sydney Water, its Customer Council and NSW Health to review the current public reporting requirements in this area and provide a report to IPART.

3.3.3 System performance standards

Response times

We recommend the removal of the main break response time *standards* from the licence and instead place them in the reporting manual as performance *indicators*.

Sydney Water meets its licence performance standards in this area. As a consequence, these standards are not driving improvement in Sydney Water's operations. The emphasis on isolating water main breaks earlier in order to meet the required response time target may also lead to perverse outcomes for customers. To meet the current standard Sydney Water may be required to turn off water at inconvenient times for customers in order to fix the leak. Sydney Water also cites increased overtime costs for Sydney Water as a result of the response time target.

Changing these standards to performance indicators maintains public accountability and transparency around Sydney Water's performance in this area, while providing Sydney Water with greater flexibility in scheduling and prioritising response time works (and thus avoiding any unnecessary costs or unintended consequences of the standard).

Rewording of system performance standard

We recommend a change in the wording of some system performance standards for the purpose of clarity. This includes allowing an exemption for actions by third parties, including power failures for the water continuity standard. These changes will make these standards more consistent with standards that apply to Hunter Water.

3.3.4 Customers and consumers (including the Customer contract)

Code of conduct

We recommend that Sydney Water use its best endeavours to develop a Code of Conduct with network operators and retail suppliers licensed under the *Water Industry Competition Act, 2006 NSW (WICA)* who operate in Sydney Water's area of operation. This obligation will mirror similar obligations placed on WICA licensees.

Currently, WICA licensees are required to develop a code of conduct with any other network operator or retail supplier in their area of operations. In most situations this is Sydney Water. Stakeholder comments provided to the issues paper indicated WICA licensees are concerned that the requirement to develop a code of conduct was placed on them and there is no corresponding requirement on Sydney Water.

Provision of information

The licence will now require Sydney Water to advertise the measures available to address financial hardship in a Sydney based newspaper at least annually.

Customer Contract

Sydney Water's customer contract is required by legislation to be part of the licence.

We recommend a number of changes to the customer contract, most are editorial however some are more material.

We recommend the following changes for rebates paid by Sydney Water to customers:

- ▼ An increase in the current minimum rebate payment amounts to account for inflation. This would be a one-off increase in the first year of the 2015 licence.
- ▼ Remove the wording in rebates that relates to 10% of the service charge, so that these rebates are based solely on the minimum rebate payment amount adjusted by CPI.
- ▼ For the dirty water rebate, base the rebate solely on the minimum rebate amount.
- ▼ For recurring disruptions or interruptions, maintain the rebate amount (whole service charge less any concessions), but make it payable as an upfront payment after the second (wastewater) or third (water) event – rather than payable for 'the next four quarters' after the second or third event.

These minor changes to customer rebate payments will improve the administration of payments and result in the majority of impacted customers receiving slightly higher rebates.

Additionally, we recommend that 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 as part of a separate review (note, this is separate to the upcoming price determination).

Definition of Rouse Hill Stormwater Area

We recommend that the customer contract include a definition of the Rouse Hill stormwater catchment area as per the pricing determination for Sydney Water.¹³ This extends the protections of the customer contract to these customers and provides clarity to customers in the Rouse Hill area of their rights and obligations under the customer contract. The definition of the area is linked to the price determination as updated and is currently reviewed every four years.

Customer Council

We recommend that representatives of business groups, including small, medium and large business and non-residential customers are included in the membership of the Customer Council.

Stakeholder consultation indicated that the relationship between Sydney Water and businesses, which are not large customers of Sydney Water, could be further improved and this proposal would help to address that concern.

3.3.5 Performance reporting – customer indicators

We recommend the inclusion of two new customer indicators in the reporting manual recognising, for the first time, non-residential customers. These changes are specifically in response to concerns raised by stakeholders.

The Food and Grocery Council made two submissions to us regarding the impact that water interruptions can have on manufacturing businesses. The submissions noted that system performance standards are based on properties rather than impact, making an illustrative example that a large manufacturing business which suspends its production for a number of hours, would only count as 1 property despite large potential losses of revenue.

The Food and Grocery Council put forward the idea that the System Performance Standards should be based on impacts upon customers (including non-residential customer impacts such as financial losses). We do not consider it

¹³ IPART, *Prices for Sydney Water Corporation's water, sewerage, stormwater drainage and other services*, Determination No.1, 2012.

practical nor appropriate to create system performance standards based on impacts such as financial losses, nor would Sydney Water have information available to measure such losses. However we do acknowledge that impacts of system failures on some non-residential customers can be very different to residential customers. We can separate residential and non-residential properties for the purpose of measuring and tracking the extent of these failures by recognising the number of non-residential customers that experienced unplanned water interruptions and tracking minutes of lost service for this class of customers. This information will provide baseline data for use in future licence reviews to determine the impact of such events on non-residential customers.

3.3.6 Environment

We recommend minimal changes to the licence in relation to environmental requirements.

We recommend that Sydney Water continue to be required to maintain an Environmental Management System (EMS) certified to Australian Standard AS/NZ ISO 14001:2004.

In addition, we recommend the removal of the licence obligations requiring Sydney Water to develop and annually report against a 5-year Environmental Management Plan (EMP).

Consultation with stakeholders, especially with the EPA, indicated that they did not use the EMP and associated annual reports currently produced by Sydney Water. EPA relies on separate reports provided by Sydney Water under the Act.¹⁴

We recommend the reporting requirements be linked to the outputs of the EMS to provide consistency with Hunter Water's operating licence and streamline reporting.

¹⁴ *Sydney Water Act 1994 (NSW)*, s22 (6 & 7).



Appendices

3 Changes to the licence

A | Recommended operating licence

A Recommended operating licence

Sydney Water Corporation Operating Licence 2015-2020

Water – Operating Licence
July 2015

Independent Pricing and Regulatory Tribunal of New South Wales
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Contents

1	Licence and Licence authorisation	1
1.1	Objective of this Licence	1
1.2	Licence authorisation	1
1.3	Stormwater Drainage System	1
1.4	Term of this Licence	2
1.5	Licence amendment	2
1.6	Connection of Services	2
1.7	Non-exclusive Licence	2
1.8	Availability of Licence	3
1.9	Pricing	3
2	Water quality	4
2.1	Drinking Water	4
2.2	Recycled Water	5
2.3	Fluoridation Code	5
3	Water quantity	6
3.1	Roles and Responsibilities Protocol	6
3.2	Economic level of water conservation	6
4	Assets	8
4.1	Asset Management System	8
4.2	System Performance Standards	9
4.3	Response time for water main breaks	11
4.4	Priority Sewerage Program	11
5	Customers and Consumers	13
5.1	Customer Contract	13
5.2	Providing information	13
5.3	Consumers	14
5.4	Assistance Options for Payment Difficulties and Actions for Non-Payment	14
5.5	Customer Council and Customer Council Charter	15
5.6	Internal complaints handling	17
5.7	External dispute resolution scheme	18
5.8	Code of conduct	18

6	Environment	19
6.1	Environment management	19
6.2	Environmental indicators	19
7	Quality management	20
7.1	Quality Management System	20
8	Performance monitoring	21
8.1	Operational audits	21
8.2	Reporting	22
8.3	Provision of information	22
8.4	Performance indicators and system performance standards	23
9	Memorandum of understanding	24
9.1	NSW Health	24
9.2	Environment Protection Authority	24
9.3	Water Administration Ministerial Corporation	25
9.4	Fire and Rescue NSW	25
10	End of Term Review	27
10.1	End of Term review	27
11	Notices	28
12	Definitions and Interpretations	29
12.1	Definitions	29
12.2	Interpretation	35
	Schedules	37
Schedule 1	Area of Operations	39
Schedule 2	Asset Management Framework	41
Schedule 3	Priority Sewerage Program	42
Schedule 4	Customer Contract	43

1 | Licence and Licence authorisation

1.1 Objective of this Licence

- 1.1.1 The objective of this Licence is to enable and require Sydney Water to provide the Services within its Area of Operations. Consistent with this objective, this Licence requires Sydney Water to:
- a) meet the objectives and other requirements imposed on it in the Act and other applicable laws;
 - b) comply with the quality and performance standards specified in this Licence;
 - c) recognise the rights given to Customers and Consumers; and
 - d) be subject to Operational Audits.

1.2 Licence authorisation

- 1.2.1 This Licence is granted to enable and require Sydney Water to provide, construct, operate, manage and maintain efficient, co-ordinated and commercially viable systems for providing the Services within the Area of Operations.

1.3 Stormwater Drainage System

- 1.3.1 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 applicable Service to be provided by another appropriate body, including a council (within the meaning of the *Local Government Act 1993* (NSW)).
- 1.3.2 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.

1.4 Term of this Licence

1.4.1 The term of this Licence is 5 years from the Commencement Date.

[Note: the Commencement Date is 1 July 2015, which means that the term of this Licence will end on 30 June 2020.]

1.5 Licence amendment

1.5.1 Subject to the Act and clause 1.5.2, this Licence may be amended by the Governor by notice in the New South Wales Government Gazette.

1.5.2 Before notice of a proposed amendment to this Licence is tabled in Parliament under section 16 of the Act, the Minister must provide Sydney Water with reasonable notice of the proposed amendment to enable it to comply with the amendment if it takes effect.

[Note: The Customer Contract may be varied in accordance with section 59 of the Act and clause 14.2 of the Customer Contract. Such a variation is not an amendment to this Licence for the purpose of section 16 of the Act.]

1.6 Connection of Services

1.6.1 Subject to any applicable laws, Sydney Water must ensure that Drinking Water and Wastewater Services are available on request for connection to any Property situated in the Area of Operations.

1.6.2 Connection to Sydney Water's systems for the supply of Services relating to Drinking Water and Wastewater is subject to any conditions that Sydney Water may lawfully determine to ensure the safe, reliable and financially viable supply of its Drinking Water and Wastewater Services to Properties situated in the Area of Operations in accordance with this Licence.

1.7 Non-exclusive Licence

1.7.1 This Licence does not prohibit any other person from providing Services in the Area of Operations that are the same as, or similar to, the Services, if the person is lawfully entitled to do so.

1.8 Availability of Licence

- 1.8.1 Sydney Water must make a copy of this Licence available to any person, free of charge:
- a) on its website for downloading; and
 - b) upon request made to the Contact Centre.

1.9 Pricing

- 1.9.1 Sydney Water must set the level of fees, charges and other amounts payable for its Services subject to the terms of this Licence, the Act and the maximum prices and methodologies for fixing maximum prices determined from time to time by IPART under the IPART Act.

2 | Water quality

2.1 Drinking Water

- 2.1.1 Sydney Water must maintain a Management System that is consistent with the Australian Drinking Water Guidelines, except to the extent that NSW Health specifies otherwise (the **Drinking Water Quality Management System**).

[Note: Sydney Water is to implement the Drinking Water Quality Management System to the Drinking Water system under its control in light of its knowledge of the entire drinking water supply system (from the water catchment to the Consumer).

It is expected that the Drinking Water Quality Management System will be consistent with the “Framework for Management of Drinking Water Quality”. However, where NSW Health considers it appropriate, the application of the Australian Drinking Water Guidelines may be amended or added to, to take account of Sydney Water’s circumstances and/or Drinking Water quality policy and practices within New South Wales.]

- 2.1.2 Sydney Water must ensure that the Drinking Water Quality Management System is fully implemented and that all relevant activities are carried out in accordance with the Drinking Water Quality Management System, and to the satisfaction of NSW Health.
- 2.1.3 Sydney Water must notify IPART and NSW Health, in accordance with the Reporting Manual, of any significant changes that it proposes to make to the Drinking Water Quality Management System.
- 2.1.4 Sydney Water must obtain NSW Health’s approval for any significant changes that it proposes to make to the Drinking Water Quality Management System before implementing, or carrying out its activities in accordance with, such changes.

- 2.1.5 By 31 December 2016, Sydney Water must:
- a) in consultation with its Customer Council and NSW Health, complete a review of its public reporting on water quality. The review must address (at a minimum) the frequency of Sydney Water's public reporting and the key parameters reported on water quality; and
 - b) provide IPART with a report detailing the outcomes of the review referred to in clause 2.1.5(a).

2.2 Recycled Water

- 2.2.1 Sydney Water must maintain a Management System that is consistent with the Australian Guidelines for Water Recycling, except to the extent that NSW Health specifies otherwise (the **Recycled Water Quality Management System**).

[Note: It is expected that the Recycled Water Quality Management System will be consistent with the Australian Guidelines for Water Recycling, including the "Framework for Management of Recycled Water Quality and Use". However, where NSW Health considers it appropriate, the application of the Australian Guidelines for Water Recycling may be amended or added to, to take account of Sydney Water's circumstances and/or Recycled Water quality policy and practices within New South Wales.]

- 2.2.2 Sydney Water must ensure that the Recycled Water Quality Management System is fully implemented and that all relevant activities are carried out in accordance with the Recycled Water Quality Management System, and to the satisfaction of NSW Health.
- 2.2.3 Sydney Water must notify IPART and NSW Health, in accordance with the Reporting Manual, of any significant changes that it proposes to make to the Recycled Water Quality Management System.
- 2.2.4 Sydney Water must obtain NSW Health's approval for any significant changes that it proposes to make to the Recycled Water Quality Management System before implementing, or carrying out its activities in accordance with, such changes.

2.3 Fluoridation Code

- 2.3.1 Sydney Water must comply with the Fluoridation Code.

3 | Water quantity

3.1 Roles and Responsibilities Protocol

3.1.1 Sydney Water must use its best endeavours to:

- a) develop and agree a Roles and Responsibilities Protocol with the Metropolitan Water Directorate for the development and implementation of the Metropolitan Water Plan; and
- b) maintain the Roles and Responsibilities Protocol that has been developed and agreed under clause 3.1.1(a).

3.2 Economic level of water conservation

3.2.1 By 1 November 2015, Sydney Water must submit to IPART (for IPART's approval) a report outlining Sydney Water's approach to, and principles for, developing a methodology for determining the economic level of water conservation, including (at a minimum) each of the following elements of water conservation:

- a) water leakage;
- b) water recycling; and
- c) water efficiency (including demand management).

3.2.2 Once the approach and principles referred to in clause 3.2.1 are approved by IPART, Sydney Water must develop a methodology (**Methodology**) in accordance with the approach and principles.

3.2.3 By 31 December 2016, Sydney Water must obtain IPART's approval for the Methodology.

3.2.4 Once the Methodology is approved by IPART, Sydney Water must, from the date that such approval is given:

- a) notify IPART, in accordance with the Reporting Manual, of any significant changes that it proposes to make to the Methodology; and

- b) obtain IPART's written consent to make any significant changes to the Methodology prior to making such changes.

3.2.5 Until Sydney Water has developed and obtained IPART's approval for the Methodology (in accordance with clauses 3.2.2 and 3.2.3), Sydney Water must:

- a) maintain the weather corrected quantity of Drinking Water that it draws from all sources to a level of water usage equal to, or less than, 329 litres per person per day (the **Water Usage Level**). In calculating water usage for the purpose of the Water Usage Level, Sydney Water may make reasonable adjustments to account for the effects of weather on water usage, using a methodology approved by IPART;
- b) ensure that the level of water leakage from its Drinking Water supply system (the **Water Leakage Level**) does not exceed 121 megalitres per day; and

[Note: The water leakage target in the licence that was the immediate predecessor to this Licence was 105 megalitres per day. Sydney Water's performance against this target was calculated using actual and estimated data. As a result, IPART accepted an uncertainty allowance of +/- 16 megalitres per day when determining Sydney Water's performance against the water leakage target. It is intended that IPART will not apply an uncertainty allowance when calculating Sydney Water's performance against the water leakage target set out in this Licence (121 megalitres per day). Therefore, the water leakage target in this Licence is effectively equivalent to the water leakage target in the licence that was the immediate predecessor to this Licence.]

- c) promote, foster and encourage the efficient use of water and the production and use of Recycled Water, where financially viable.

[Note: Clause 3.2: (a) permits Sydney Water to develop and implement a Methodology for determining the economic level of water conservation over an 18 month period; and (b) requires Sydney Water to maintain existing water conservation requirements while the Methodology is being developed.]

3.2.6 Sydney Water must report to IPART, in accordance with the Reporting Manual, on water conservation.

4 | Assets

4.1 Asset Management System

- 4.1.1 By 30 June 2018, Sydney Water must develop a Management System that is consistent with the International Standard ISO 55001:2014 Asset Management System - Requirements (the **Asset Management System**).
- 4.1.2 Sydney Water must ensure that:
- a) by 30 June 2019, the Asset Management System is certified by an appropriately qualified person to be consistent with the International Standard ISO 55001:2014 Asset Management System - Requirements; and
 - b) once the Asset Management System is certified, the certification is maintained during the remaining term of this Licence.
- 4.1.3 Once the Asset Management System has been certified in accordance with clause 4.1.2(a), Sydney Water must notify IPART, in accordance with the Reporting Manual, of any significant changes that it proposes to make to the Asset Management System.
- 4.1.4 By 30 June 2019, Sydney Water must ensure that the Asset Management System is fully implemented and that all relevant activities are carried out in accordance with the Asset Management System.
- 4.1.5 Until the Asset Management System has been developed in accordance with clause 4.1.1, certified in accordance with clause 4.1.2(a) and implemented in accordance with clause 4.1.4:
- a) Sydney Water must continue to maintain and implement the asset management framework that was required to be maintained and implemented by Sydney Water under the licence that was the immediate predecessor to this Licence (the **Asset Management Framework**), as set out in Schedule 2 of this Licence;

- b) to avoid doubt, until the Asset Management System has been developed in accordance with clause 4.1.1, Sydney Water may only make changes to the Asset Management Framework that will assist in the transition of the Asset Management Framework to the Asset Management System; and
- c) Sydney Water must notify IPART, in accordance with the Reporting Manual, of any significant changes that it proposes to make to the Asset Management Framework.

[Note: Clause 4.1.5 permits Sydney Water to transition, over several years, its current Asset Management Framework to an Asset Management System that is consistent with International Standard ISO 55001:2014 Asset Management System – Requirements.]

4.2 System Performance Standards

4.2.1 Water Pressure Standard

- a) Sydney Water must ensure that, in any financial year, no more than 6,000 Properties experience a Water Pressure Failure (the **Water Pressure Standard**).
- b) A Property is taken to have experienced a Water Pressure Failure:
 - i) when a person notifies Sydney Water that the Property has experienced a Water Pressure Failure and Sydney Water confirms that the Property has experienced a Water Pressure Failure; or
 - ii) when Sydney Water identifies that the Property has experienced a Water Pressure Failure (including through its data collection systems and hydraulic analysis).
- c) Despite clause 4.2.1(b), a Property will not be taken to have experienced a Water Pressure Failure if that Water Pressure Failure occurred only because of:
 - i) water usage in the case of a fire or other abnormal demand; or
 - ii) a short term or temporary operational problem (such as a main break) which is remedied within 4 days of its commencement.
- d) For the purpose of the Water Pressure Standard:
 - i) each separately billed part of a Multiple Occupancy Property is to be counted as a separate Property; and

[Note: For example, a complex of 5 townhouses where each townhouse receives a separate bill from Sydney Water is to be counted as 5 separate Properties. However a block of 5 flats that only receives 1 bill from Sydney Water is to be counted as a single Property]

- ii) each Property that experiences 1 or more Water Pressure Failures in a financial year is to be counted once only in that financial year.

4.2.2 Water Continuity Standard

- a) Sydney Water must ensure that, in any financial year:
 - i) no more than 40,000 Properties experience an Unplanned Water Interruption that lasts for more than 5 continuous hours; and
 - ii) no more than 14,000 Properties experience 3 or more Unplanned Water Interruptions that each lasts for more than 1 hour (**the Water Continuity Standard**).
- b) Sydney Water must use the best available data (taking account of water pressure data, where available) to determine whether a Property has experienced an Unplanned Water Interruption and the duration of the Unplanned Water Interruption.
- c) If a Property experiences an Unplanned Water Interruption that was caused by a Third Party or a power failure, the Property is taken not to have experienced an Unplanned Water Interruption for the purpose of clause 4.2.2(a).
- d) For the purpose of the Water Continuity Standard:
 - i) each separately billed part of a Multiple Occupancy Property is to be counted as a separate Property;
[Note: For example, a complex of 5 townhouses where each townhouse receives a separate bill from Sydney Water is to be counted as 5 separate Properties. However, a block of 5 flats that only receives 1 bill from Sydney Water is to be counted as a single Property.]
 - ii) for the purpose of clause 4.2.2(a)(i) each separate instance, in a financial year, of a single Property experiencing an Unplanned Water Interruption that lasts for more than 5 continuous hours is to be counted as a separate Property that has experienced, in that financial year, an Unplanned Water Interruption that lasts for more than 5 continuous hours; and
 - iii) for the purpose of clause 4.2.2(a)(ii), each Property that experiences, in a financial year, 3 or more Unplanned Water Interruptions that each lasts for more than 1 hour is to be counted once only in that financial year.

4.2.3 Wastewater Overflow Standard

- a) Sydney Water must ensure that, in any financial year:
 - i) no more than 14,000 Properties (other than Public Properties) experience an Uncontrolled Wastewater Overflow in dry weather; and
 - ii) no more than 175 Properties (other than Public Properties) experience 3 or more Uncontrolled Wastewater Overflows in dry weather (the **Wastewater Overflow Standard**).
- b) For the purpose of the Wastewater Overflow Standard:
 - i) each Multiple Occupancy Property is to be counted as a single Property;
[Note: For example, a complex of 5 townhouses where each townhouse receives a separate bill from Sydney Water is to be counted as a single Property]
 - ii) for the purpose of clause 4.2.3(a)(i), each separate instance, in a financial year, of a single Property experiencing an Uncontrolled Wastewater Overflow in dry weather is to be counted as a separate Property that has experienced, in that financial year, an Uncontrolled Wastewater Overflow in dry weather; and
 - iii) for the purpose of clause 4.2.3(a)(ii), each Property that experiences 3 or more Uncontrolled Wastewater Overflows in a financial year is to be counted once only in that financial year.

4.2.4 Interpretation of standards

In the case of any ambiguity in the interpretation or application of any System Performance Standard, IPART's interpretation or assessment of the application of the System Performance Standard will prevail.

4.3 Response time for water main breaks

- 4.3.1 Sydney Water must report, in accordance with the Reporting Manual, on response times for water main breaks and leaks.

4.4 Priority Sewerage Program

- 4.4.1 Sydney Water must co-operate with, and participate in, any Government review of the Priority Sewerage Program.

- 4.4.2 If required by the Minister, Sydney Water must implement and comply with any outcomes (including timeframes) of a Government review of the Priority Sewerage Program.

[Note: The areas to which the Priority Sewerage Program applies are Austral, Menangle, Menangle Park, Nattai, Scotland Island and Yanderra as listed in Schedule 3 of this Licence.]

5 Customers and Consumers

5.1 Customer Contract

- 5.1.1 The Customer Contract sets out the rights and obligations of Customers and Sydney Water in relation to the Services provided in accordance with this Licence.

[Note: Section 54 of the Act requires the terms and conditions of the Customer Contract to be set out in this Licence. The Customer Contract is set out in Schedule 4 of this Licence.]

- 5.1.2 Sydney Water must make a copy of the Customer Contract available to any person, free of charge:
- a) on its website for downloading; and
 - b) upon request made to the Contact Centre.

5.2 Providing information

- 5.2.1 Sydney Water must prepare a pamphlet that:
- a) provides a brief explanation of the Customer Contract;
 - b) summarises the key rights and obligations of Customers under the Customer Contract;
 - c) refers to the types of account relief available for Customers experiencing financial hardship;
 - d) outlines the rights of Customers to claim a rebate and the conditions that apply to those rights;
 - e) contains information regarding how to contact Sydney Water by telephone, email or post; and
 - f) contains information regarding the ability for a Customer to enter into agreements with Sydney Water (separate to the Customer Contract) for the provision by Sydney Water of Services to the Customer.

5.2.2 Sydney Water must update the pamphlet prepared under clause 5.2.1 to reflect any variations made to the Customer Contract.

5.2.3 Sydney Water must:

- a) provide the pamphlet prepared under clause 5.2.1 and pamphlet updates made under clause 5.2.2, free of charge to:
 - i) Customers at least annually with their Bills; and
 - ii) any person upon request made to the Contact Centre; and
- b) make the pamphlet prepared under clause 5.2.1 and pamphlet updates made under clause 5.2.2 available on its website for downloading by any person, free of charge, within 60 days of the commencement of the Customer Contract or pamphlet update as the case may be.

5.2.4 Sydney Water must advertise in a Sydney-based newspaper at least annually on:

- a) the types of account relief available for Customers experiencing financial hardship; and
- b) rights of Customers to claim rebates and the conditions that apply to those rights.

5.3 Consumers

5.3.1 Sydney Water's obligations under the Customer Contract relating to Complaint handling and Complaint resolution procedures are extended to Consumers as if Consumers were parties to the Customer Contract.

5.4 Assistance Options for Payment Difficulties and Actions for Non-Payment

5.4.1 Sydney Water must maintain and fully implement the following:

- a) a financial hardship policy that assists residential Customers experiencing financial hardship to better manage their current and future Bills;
- b) procedures relating to a payment plan for residential Customers who are responsible for paying their Bills and who are, in Sydney Water's reasonable opinion, experiencing financial hardship;
- c) procedures for identifying the circumstances under which Sydney Water may disconnect or restrict the supply of water to a Customer's Property; and

- d) provisions for self-identification, identification by community welfare organisations and identification by Sydney Water of residential Customers experiencing financial hardship,
(the Assistance Options for Payment Difficulties and Actions for Non-Payment).

5.4.2 Sydney Water must set out, in the Customer Contract:

- a) the Assistance Options for Payment Difficulties and Actions for Non-Payment; and
- b) the options under the Assistance Options for Payment Difficulties and Actions for Non-Payment that are available to Private Residential Tenants who pay usage charges to Sydney Water.

5.4.3 Sydney Water must provide, free of charge, an explanation of the Assistance Options for Payment Difficulties and Actions for Non-Payment to:

- a) residential Customers, at least annually with their Bills;
- b) residential Customers who Sydney Water identifies as experiencing financial hardship on the date that Sydney Water first identifies that the Customer is experiencing financial hardship; and
- c) any other person upon request made to the Contact Centre.

5.4.4 Sydney Water must make the explanation of the Assistance Options for Payment Difficulties and Actions for Non-Payment referred to in clause 5.4.3 available on its website for downloading by any person, free of charge.

5.5 Customer Council and Customer Council Charter

5.5.1 Sydney Water must maintain and regularly consult with organisations representing a broad cross-section of its Customers and Consumers through the Customer Council.

5.5.2 Sydney Water must utilise the Customer Council to, among other things, obtain advice on the interests of Sydney Water's Customers and Consumers, the Customer Contract and such other key issues related to Sydney Water's planning and operations as Sydney Water may determine, consistent with the Customer Council Charter (referred to in clause 5.5.4).

5.5.3 Sydney Water must:

- a) ensure that, at all times, the membership of the Customer Council is appointed and determined by Sydney Water in accordance with the Customer Council Charter; and
- b) use its best endeavours to include, as members of the Customer Council, at least one person representing each of the following categories:
 - i) business groups, including small, medium and large business and non-residential customers;
 - ii) consumer groups;
 - iii) organisations representing low income households;
 - iv) people living in rural and urban fringe areas;
 - v) residential consumers;
 - vi) environmental groups;
 - vii) local government;
 - viii) older people;
 - ix) people with disabilities;
 - x) Indigenous Australians; and
 - xi) people from non-English speaking backgrounds.

5.5.4 Sydney Water and members of the Customer Council must, for the term of this Licence, maintain a charter (the **Customer Council Charter**) that addresses all of the following issues:

- a) the role of the Customer Council;
- b) selection criteria on how members of the Customer Council will be drawn from the community and information on how vacancies for membership will be advertised;
- c) the processes for appointment of new members;
- d) the term for which members are appointed;
- e) information on how the Customer Council will operate;
- f) a description of the type of matters that will be referred to the Customer Council and how those matters will be referred;
- g) procedures for the conduct of Customer Council meetings, including the appointment of a chairperson and the requirement to invite, on an annual basis, a co-chair of the Customer Council from Customer representatives;
- h) procedures for communicating the outcomes of the Customer Council's work to the public;
- i) procedures for monitoring issues raised at meetings of the Customer Council and ensuring appropriate follow-up of those issues; and
- j) funding and resourcing of the Customer Council by Sydney Water.

- 5.5.5 Sydney Water must provide the Customer Council with information in Sydney Water's possession or under its control necessary to enable the Customer Council to discharge the tasks assigned to it, other than information or documents that are confidential (including documents that are subject to client legal privilege).
- 5.5.6 Sydney Water must make a copy of the Customer Council Charter and minutes from proceedings of the Customer Council, available to any person, free of charge:
- a) on its website for downloading; and
 - b) upon request made to the Contact Centre.
- 5.5.7 Sydney Water and the Customer Council may each propose any amendments to the Customer Council Charter. However, such amendments will not be effective until they have been approved by both Sydney Water and the Customer Council.

5.6 Internal complaints handling

- 5.6.1 Sydney Water must maintain a procedure for receiving, responding to and resolving Complaints, which is consistent with the Australian Standard AS/NZS 10002:2014 - Guidelines for complaint handling in organisations (AS/NZS 10002:2014) (the **Internal Complaints Handling Procedure**).
- 5.6.2 Sydney Water must ensure that the Internal Complaints Handling Procedure is fully implemented and that all relevant activities are carried out in accordance with the Internal Complaints Handling Procedure.
- 5.6.3 Sydney Water must provide to Customers, at least annually with their Bills, information concerning internal complaints handling, which explains how to make a Complaint and how Sydney Water will receive, respond to and resolve Complaints.
- 5.6.4 Sydney Water must make the information concerning internal complaints handling referred to in clause 5.6.3 available to any person, free of charge:
- a) on its website for downloading; and
 - b) upon request made to the Contact Centre.

5.7 External dispute resolution scheme

- 5.7.1 Sydney Water must be a member of the Energy and Water Ombudsman NSW to facilitate the resolution, by a dispute resolution body, of disputes between Sydney Water and its Customers and Consumers.
- 5.7.2 Sydney Water must:
- a) prepare a pamphlet that explains the operation of the dispute resolution service provided by the Energy and Water Ombudsman NSW, including any right to have a Complaint or dispute referred to the Energy and Water Ombudsman NSW and how such a Complaint or dispute can be assessed;
 - b) provide a copy of the pamphlet prepared under clause 5.7.2(a), free of charge to Customers at least once a year with their Bills; and
 - c) make a copy of the pamphlet prepared under clause 5.7.2(a) available to any person, free of charge:
 - i) on its website for downloading; and
 - ii) upon request made to the Contact Centre.

5.8 Code of conduct

Sydney Water must use its best endeavours to co-operate with each Licensed Network Operator and Licensed Retail Supplier within the Area of Operations that seeks to establish with Sydney Water a code of conduct of the kind referred to in clause 25 of the WIC Regulation.

6 | Environment

6.1 Environment management

- 6.1.1 Sydney Water must maintain a Management System certified to Australian Standard AS/NZS ISO 14001:2004: Environmental Management Systems – Requirements with guidance for use (the **Environmental Management System**).
- 6.1.2 Sydney Water must fully implement, and carry out all relevant activities in accordance with, the Environmental Management System.
- 6.1.3 Sydney Water must notify IPART, in accordance with the Reporting Manual, of any significant changes that it proposes to make to the Environmental Management System.
- 6.1.4 Sydney Water must provide IPART, in accordance with the Reporting Manual, with a report on the outputs of the Environmental Management System.

6.2 Environmental indicators

- 6.2.1 Sydney Water must:
 - a) prepare indicators of the direct impact on the environment of Sydney Water’s activities (the **Environmental Performance Indicators**);
 - b) monitor and compile data on the Environmental Performance Indicators; and
 - c) report on the Environmental Performance Indicators in accordance with the Reporting Manual.

[Note: Under section 14(1)(d) of the Act, this Licence must require Sydney Water to compile indicators of the direct impact on the environment of its activities to: (a) enable preparation of an annual report on Sydney Water’s performance; and (b) provide information for a year to year comparison in relation to Sydney Water’s performance in this area.]

7 | Quality management

7.1 Quality Management System

- 7.1.1 By 30 June 2017, Sydney Water must develop a Management System that is consistent with the Australian Standard AS/NZS ISO 9001:2008: Quality Management Systems - Requirements (the **Quality Management System**).
- 7.1.2 Sydney Water must ensure that:
- a) by 30 June 2018, the Quality Management System is certified by an appropriately qualified person to be consistent with the Australian Standard AS/NZS ISO 9001:2008: Quality Management Systems - Requirements; and
 - b) once the Quality Management System is certified under clause 7.1.2(a), the certification is maintained during the remaining term of this Licence.
- 7.1.3 By 30 June 2018, Sydney Water must ensure that the Quality Management System is fully implemented and that all relevant activities are carried out in accordance with the Quality Management System.
- 7.1.4 Sydney Water must notify IPART, in accordance with the Reporting Manual, of any significant changes that it proposes to make to the Quality Management System.

8 | Performance monitoring

8.1 Operational audits

- 8.1.1 IPART may undertake, or may appoint an Auditor to undertake, an audit of Sydney Water's compliance with any of the following:
- a) this Licence
 - b) the Reporting Manual; and
 - c) any matters required by the Minister,
(the **Operational Audit**).
- 8.1.2 Sydney Water must, within a reasonable time period of a receiving a request from IPART or an Auditor to provide information, provide IPART or the Auditor with all the information in Sydney Water's possession, or under Sydney Water's custody or control, which is necessary to conduct the Operational Audit, including any information that is reasonably requested by IPART or an Auditor.
- 8.1.3 For the purpose of any Operational Audit or verifying a report on an Operational Audit, Sydney Water must, within a reasonable time period of receiving a request from IPART or an Auditor, permit IPART or the Auditor to:
- a) access any works, premises or offices occupied by Sydney Water;
 - b) carry out inspections, measurements and tests on, or in relation to, any such works, premises or offices;
 - c) take on to any such premises or offices any person or equipment necessary for the purpose of performing the Operational Audit or verifying any report on the Operational Audit;
 - d) inspect and make copies of, and take extracts from, any books and records of Sydney Water that are maintained in relation to the performance of Sydney Water's obligations under this Licence (including the Reporting Manual); and
 - e) discuss matters relevant to the Operational Audit or any report on the Operational Audit with Sydney Water, including Sydney Water's officers and employees.

8.2 Reporting

- 8.2.1 Sydney Water must comply with its reporting obligations set out in the Reporting Manual, which include:
- a) reporting to IPART and NSW Health in accordance with the Reporting Manual;
 - b) making reports and other information publicly available, in the manner set out in the Reporting Manual; and
 - c) reporting to IPART on Sydney Water's performance against the National Water Initiative Performance Indicators.
- 8.2.2 Sydney Water must maintain sufficient record systems that enable it to report accurately in accordance with clause 8.2.1.

8.3 Provision of information

- 8.3.1 Sydney Water must provide IPART with information relating to the performance of any of Sydney Water's obligations under clause 8.2 (including providing IPART with physical and electronic access to the records required to be kept under clause 8.2) within a reasonable time period of Sydney Water's receiving a request from IPART for that information.
- 8.3.2 Sydney Water must provide IPART with such information as is reasonably required to enable IPART to conduct any review or investigation of Sydney Water's obligations under this Licence within a reasonable time period of Sydney Water's receiving a request from IPART for that information.
- 8.3.3 If Sydney Water contracts out any of its activities to any person (including a subsidiary) it must take all reasonable steps to ensure that, if required by IPART or an Auditor, any such persons provide information and do the things specified in clause 8.1 as if that person were Sydney Water.
- 8.3.4 If IPART or an Auditor requests information under clause 8 which is confidential, the information must be provided to IPART or the Auditor, subject to IPART or the Auditor entering into reasonable arrangements to ensure that the information remains confidential.
- 8.3.5 Sydney Water must provide NSW Health with information relating to water quality in the manner and form specified by NSW Health within a reasonable time period of receiving NSW Health's request.

[Note: Under section 19 of the Public Health Act 2010 (NSW), the Director General of the NSW Ministry of Health may require Sydney Water to produce certain information.]

8.4 Performance indicators and system performance standards

- 8.4.1 Sydney Water must maintain record systems that are sufficient (to IPART's satisfaction) to enable Sydney Water to measure accurately its performance against the performance indicators and System Performance Standards specified in the Reporting Manual.
- 8.4.2 In the case of any ambiguity in the interpretation or application of any performance indicators specified in the Reporting Manual, IPART's interpretation or assessment of the application of the indicators will prevail.

9 | Memorandum of understanding

9.1 NSW Health

- 9.1.1 Sydney Water must maintain the memorandum of understanding with NSW Health entered into under section 35 of the Act.
- 9.1.2 The purpose of the memorandum of understanding referred to in clause 9.1.1 is to form the basis for co-operative relationships between the parties to the memorandum of understanding. In particular, the purpose of the memorandum of understanding referred to in clause 9.1.1 is to recognise the role of NSW Health in providing advice to the NSW Government in relation to Drinking Water quality standards and the supply of water which is safe to drink.
- 9.1.3 The memorandum of understanding referred to in clause 9.1.1 must include arrangements for Sydney Water to report to NSW Health information on any events in relation to Sydney Water's systems or Services, which may pose a risk to public health.

9.2 Environment Protection Authority

- 9.2.1 Sydney Water must maintain the memorandum of understanding with the Environment Protection Authority entered into under section 35 of the Act.
- 9.2.2 The purpose of the memorandum of understanding referred to in clause 9.2.1 is to form the basis for co-operative relationships between the parties to the memorandum of understanding. In particular, the purpose of the memorandum of understanding referred to in clause 9.2.1 is to recognise the role of the Environment Protection Authority as the environment regulator of New South Wales and to commit Sydney Water to environmental obligations.

9.3 Water Administration Ministerial Corporation

- 9.3.1 Sydney Water must maintain the memorandum of understanding with the Water Administration Ministerial Corporation (**WAMC**) entered into under section 35 of the Act.
- 9.3.2 The purpose of the memorandum of understanding referred to in clause 9.3.1 is to form the basis for co-operative relationships between the parties to the memorandum of understanding. In particular, the purpose of the memorandum of understanding referred to in clause 9.3.1 is to recognise the role of WAMC in regulating water access, use and management and Sydney Water's right to use water vested in WAMC.

9.4 Fire and Rescue NSW

- 9.4.1 Sydney Water must use its best endeavours to develop and enter into a memorandum of understanding with Fire and Rescue NSW (**FRNSW**) by 31 December 2015.
- 9.4.2 Once the memorandum of understanding referred to in clause 9.4.1 is developed and entered into, Sydney Water must use its best endeavours to comply with the memorandum of understanding.
- 9.4.3 The purpose of the memorandum of understanding referred to in clause 9.4.1 is to form the basis for co-operative relationships between the parties to the memorandum of understanding. In particular, the purpose of the memorandum of understanding referred to in clause 9.4.1 is to:
 - a) develop the roles and responsibilities of the parties to the memorandum of understanding as they relate to each other;
 - b) identify the needs and constraints of the parties to the memorandum of understanding as they relate to each other; and
 - c) identify and develop strategies for efficient and effective provision of firefighting water consistent with the goals of each party to the memorandum of understanding.

9.4.4 The memorandum of understanding referred to in clause 9.4.1 must require:

- a) the establishment of a working group, comprised of representatives from Sydney Water and FRNSW; and
- b) the working group to consider the following matters (at a minimum):
 - i) arrangements regarding information sharing between Sydney Water and FRNSW;
 - ii) agreed timelines and a format for Sydney Water to provide a report to FRNSW detailing the network performance with regard to availability of water for firefighting (taking into account the minimum available flow and pressure in localised areas of the network);
 - iii) arrangements for Sydney Water to consult with FRNSW in the design of new assets and planning of system maintenance, where planning indicates that minimum available flow and pressure may unduly impact firefighting in the network section under consideration; and
 - iv) other matters as agreed by both parties to the memorandum of understanding.

[Note: Clauses 9.1.1, 9.2.1, 9.3.1 and 9.4.1 do not limit the persons with whom Sydney Water may be a party to a memorandum of understanding.]

10 | End of Term Review

10.1 End of Term review

- 10.1.1 It is anticipated that a review of this Licence will commence in the first quarter of 2019 to investigate:
- a) whether this Licence is fulfilling its objectives; and
 - b) any issues which have arisen during the term of this Licence, which may affect the effectiveness of this Licence,
- (the **End of Term Review**).
- 10.1.2 Sydney Water must provide the person undertaking the End of Term Review with such information as is reasonably required to enable the person to undertake the End of Term Review. Sydney Water must provide that person with such information as the person requests within a reasonable time period of receiving that request.

11 | Notices

Any notice or other communication given under this Licence must be made in writing addressed to the intended recipient at the address shown below or the last address notified by the recipient.

Sydney Water	IPART
The Managing Director	The Chief Executive Officer
Sydney Water	Independent Pricing and Regulatory Tribunal
1 Smith Street	Level 15, 2-24 Rawson Place
Parramatta NSW 2150	Sydney NSW 2000

12 Definitions and Interpretations

12.1 Definitions

In this licence:

Act means the *Sydney Water Act 1994* (NSW).

Area of Operations means the area of operations specified in section 10(1) of the Act, a description of which is set out in Schedule 1 of this Licence.

[Note: Sydney Water has the same Area of Operations that Sydney Water had immediately before it ceased to be a company State Owned Corporation. Section 10(1) requires that an licence contain a schedule that details the area of operations to which the licence applies.]

Asset Management Framework has the meaning given in clause 4.1.5(a).

Asset Management System has the meaning given in clause 4.1.1.

Assets mean the land, structures, plant, equipment, corporate and business systems of Sydney Water, which cause, allow, or assist the delivery of the Services.

Auditor means a person appointed by IPART to undertake an Operational Audit.

Australian Drinking Water Guidelines means the document entitled *Australian Drinking Water Guidelines 2011* published by the National Health and Medical Research Council and the Natural Resource Management Ministerial Council of Australia and New Zealand (as amended or updated from time to time).

Australian Guidelines for Water Recycling means the document entitled *Australian Guidelines For Water Recycling: Managing Health and Environmental Risks (Phase 1)* and published by the Environment Protection and Heritage Council, the Natural Resource Management Ministerial Council and the Australian Health Ministers' Conference in November 2006 (as amended or updated from time to time).

Bill means a bill sent by Sydney Water to a Customer for the provision of the Services.

Commencement Date is the date by law on which this Licence commences.

Complaint means an expression of dissatisfaction made to Sydney Water, related to its products or Services, staff or the Complaints-handling process itself, where a response or resolution is explicitly or implicitly expected or legally required.

Consumer means any person who consumes or uses the Services and includes, but is not limited to, a tenant or occupier.

Contact Centre means the call centre that Sydney Water's Customers and Consumers may contact for assistance.

Controlled Wastewater Overflow is a sewage overflow that is directed by Sydney Water via a designed structure to a predetermined location such as a Stormwater Drainage System or waterway in order to prevent overloaded or blocked sewers from discharging at sensitive locations, on private property or within buildings thus endangering public health or causing a public nuisance.

Customer means any person who:

- a) is taken to have entered into a Customer Contract under section 55 of the Act, or to have entered into a contract on terms relating to the imposition of charges under sections 64 or 65 of the Act; or
- b) owns a Property within the Rouse Hill Stormwater Catchment Area.

Customer Contract means the Customer Contract as set out in Schedule 4 of this Licence.

Customer Council means a group of organisations representing a broad cross-section of Sydney Water's Customers and Consumers that are determined by the Customer Council Charter. Sydney Water may have more than one Customer Council.

Customer Council Charter has the meaning given in clause 5.5.4.

Drinking Water means water intended primarily for human consumption but which has other personal, domestic or household uses such as bathing and showering.

Drinking Water Quality Management System has the meaning given in clause 2.1.1.

Energy and Water Ombudsman NSW means the NSW industry complaints scheme for the water industry of that name and any successor to that scheme.

Environmental Management System has the meaning given in clause 6.1.1.

Environmental Performance Indicators has the meaning given in clause 6.2.1(a).

Fluoridation Code has the meaning given to that expression in the *Fluoridation of Public Water Supplies Regulation 2012* (NSW).

Internal Complaints Handling Procedure has the meaning given in clause 5.6.1.

IPART means the Independent Pricing and Regulatory Tribunal of NSW constituted by the IPART Act.

IPART Act means the *Independent Pricing and Regulatory Tribunal Act 1992* (NSW).

Licence means this licence granted under section 12 of the Act to Sydney Water or any renewal of it, as in force for the time being.

Licensed Network Operator means an entity that holds a Network Operator's Licence under the *Water Industry Competition Act 2006* (NSW).

Licensed Retail Supplier means an entity that holds a Retail Supplier's Licence under the *Water Industry Competition Act 2006* (NSW).

Management System means a set of interrelated elements or compounds used by Sydney Water to develop and implement its policies and to manage any of its activities, products or Services, and includes organisational structure, planning activities, responsibilities, practices, procedures, processes and resources.

Methodology has the meaning given in in clause 3.2.2.

Metropolitan Water Directorate means the NSW Government agency that is responsible for the development of the Metropolitan Water Plan.

Metropolitan Water Plan means the latest version of the NSW Government's published plan to ensure a sustainable and secure water supply for greater Sydney.

Minister means the Minister responsible for administering those provisions of the Act relating to Sydney Water's licence.

Multiple Occupancy Property means real property comprised of more than one individual dwelling or individual premises capable of being separately occupied, which may be used for any purpose.

National Water Initiative Performance Reporting Indicators means the "National Water Initiative Performance Reporting Indicators" set out in the National Performance Frameworks: Urban performance reporting Indicators and definitions handbook.

NSW Health means the NSW Ministry of Health.

Operational Audit has the meaning given in clause 8.1.1.

Planned Water Interruption means an event which:

- a) commences when the supply of Drinking Water at the first cold water tap of a Property is interrupted following receipt by the Customer or Consumer of a prior water interruption notice from Sydney Water; and
- b) ceases when a normal supply of Drinking Water is restored to the Property referred to in paragraph (a).

Priority Sewerage Program means the program (incorporating the principles of least cost technology) for improving wastewater Services in unsewered areas listed in Schedule 3 of this Licence.

Private Residential Tenant means a person who occupies premises under a residential tenancy agreement, excluding premises managed by a Social Housing Provider.

Property means:

- a) an individual dwelling or individual premises for any purpose;
- b) land whether built on or not, which is owned by a person (whether jointly or individually); or
- c) a lot in a strata plan that is registered under the *Strata Schemes (Freehold Development) Act 1973* (NSW) or the *Strata Schemes (Leasehold Development) Act 1986* (NSW),

which is:

- a) connected to, or for which a connection is available to Sydney Water's water supply system or the sewerage system;
- b) within an area of land declared by an Order of the Governor to be a drainage area for the purpose of section 65 of the Act; or
[Note: For the purpose of the Wastewater Overflow Standard, a Multiple Occupancy Property may be considered a Property.]
- c) within the Rouse Hill Stormwater Catchment Area.

Public Property means real property vested in or under the control of a Minister of the Crown or public authority excluding so much of such real property as is leased, licensed or used for private purposes.

Quality Management System has the meaning given in clause 7.1.1.

Recycled Water means water which, upon appropriate treatment, is suitable for its intended re-use application.

Recycled Water Quality Management System has the meaning given in clause 2.2.1.

Reporting Manual means the Reporting Manual entitled Sydney Water Reporting Manual and published by IPART (as updated from time to time).

Roles and Responsibilities Protocol means the protocol referred to in clause 3.1.1(a).

Rouse Hill Stormwater Catchment Area means the area of land located in the Rouse Hill stormwater catchment as identified in any determination made by IPART of maximum prices that may be levied by Sydney Water for stormwater Services, as in force from time to time.

Services means, subject to this Licence, any applicable law and any order made by the Governor under section 10(2) of the Act, the provision, construction, operation, management and maintenance by Sydney Water of systems and services for:

- a) storing and supplying water (including Recycled Water and Drinking Water);
- b) providing sewerage services;
- c) providing stormwater drainage systems; and
- d) disposing of wastewater.

Social Housing Provider means any of the following:

- a) the New South Wales Land and Housing Corporation;
- b) the Aboriginal Housing Office;
- c) an organisation registered under part 5 of the *Aboriginal Housing Act 1998*; and
- d) a registered housing provider under the “National Regulatory System for Community Housing” (as established under the Community Housing Providers National Law).

Stormwater Drainage System means the stormwater drainage channels, land for drainage, pipes, detention structures and stormwater quality improvement devices and other equipment that Sydney Water provides, manages, operates and maintains under the Act to provide stormwater services.

Sydney Water means the Sydney Water Corporation constituted as a corporation by the Act.

System Performance Standards means the Water Pressure Standard, the Water Continuity Standard and the Wastewater Overflow Standard.

Third Party means a person who is not employed, contracted by or working on behalf of Sydney Water.

Uncontrolled Wastewater Overflow is a sewage overflow that is not a Controlled Wastewater Overflow and will be taken to have commenced on the earlier of the following:

- a) when a person notifies Sydney Water that a Property (which may include a Public Property) has experienced a sewage overflow which Sydney Water confirms is an uncontrolled wastewater overflow; and
- b) when Sydney Water's systems (which may include modelling undertaken by Sydney Water) identify that a Property (which may include a Public Property) has experienced an uncontrolled sewage overflow.

Unplanned Water Interruption is an event which:

- a) commences when the supply of Drinking Water at the first cold water tap of a Property is interrupted without the Customer or Consumer having received prior notice of that interruption from Sydney Water; and
- b) ceases when a normal supply of Drinking Water is restored to the Property referred to in paragraph (a).

Wastewater means an effluent stream comprising elements such as sewage, trade waste discharges and grey water.

Wastewater Overflow is the discharge of untreated or partially treated sewage from any part of Sydney Water's wastewater system which may occur in dry weather or in wet weather.

Wastewater Overflow Standard has the meaning given in clause 4.2.3(a).

Water Board means the water board constituted under the *Water Board Act 1987* (NSW).

Water Continuity Standard has the meaning given in clause 4.2.2(a).

Water Leakage Level has the meaning given in clause 3.2.4(b).

Water Pressure Failure means a situation in which a Property experiences a pressure of less than 15 metres head of pressure for a continuous period of 15 minutes or more measured at the point of connection of the Property to Sydney Water's Drinking Water supply system, usually at the point of connection known as the 'main tap'.

Water Pressure Standard has the meaning given in clause 4.2.1(a).

Water Usage Level has the meaning given in clause 3.2.5(a).

WIC Regulation means the *Water Industry Competition (General) Regulation 2008* (NSW).

12.2 Interpretation

- a) In this Licence, unless the contrary intention appears:
 - i) the word person includes an individual, a body corporate, an unincorporated body or other entity and one or more of each of them;
 - ii) headings are for convenience only and do not affect the interpretation of this Licence;
 - iii) notes do not form part of this Licence but may be used to assist with interpretation if there is an ambiguity;
 - iv) words importing the singular include the plural and vice versa;
 - v) a reference to a law or legislation (including the Act) includes regulations made under the law or legislation;
 - vi) a reference to regulations includes ordinances, codes, licences, orders, permits and directions;
 - vii) a reference to a law or regulation includes consolidations, amendments, variations, re-enactments, or replacements of any of them;
 - viii) a reference to a legislative provision that is re-numbered extends to the corresponding re-numbered legislative provision;
 - ix) a reference to a person includes a reference to the person's executors, administrators, successors, substitutes (including, but not limited to, persons taking by novation) and assigns;
 - x) a reference to a year means a calendar year that ends on 31 December;
 - xi) a reference to a financial year means a period of 12 months commencing on 1 July and ending on the following 30 June;
 - xii) a reference to a clause or schedule is to a clause or schedule of this Licence; and
 - xiii) a reference to a quarter is a period of 3 months beginning on 1 July, 1 October, 1 January or 1 April in a year.
- b) If any part of this Licence is prohibited, void, voidable, illegal or unenforceable, then that part is severed from this Licence but without affecting the continued operation of the remainder of this Licence.
- c) A reference in this Licence to any organisation, association, society, group or body will, in the event of it ceasing to exist or being reconstituted, renamed or replaced or if its powers or functions are transferred to any other entity, body or group, refer respectively to any such entity, body or group, established or constituted in lieu thereof or succeeding to similar powers and functions.
- d) A reference in this Licence to a document (original document) is a reference to the original document as amended or revised or, where the original document is replaced, to the replacing document, or the document that most closely approximates the original document.

- e) Except where a contrary intention appears in this Licence, where there is disagreement between Sydney Water and IPART as to the proper interpretation of any term of this Licence, the matter must be referred to the Minister for resolution by the Minister.
- f) Information provided to IPART under this Licence may be used by IPART for the purpose of an investigation or report under the IPART Act in relation to Sydney Water, or in the discharge of any function lawfully conferred on IPART.



Schedules

Schedule 1 Area of Operations

Area of Operations means:

- ▼ the local government areas specified in this Schedule 1;
- ▼ the islands in Sydney Harbour;
- ▼ the deemed areas described in this Schedule 1;
- ▼ any area of land within an area declared or deemed to be a special area under section 21 of the *Water Board Act 1987* (NSW) which is deemed to be a controlled area by section 88(3) of the Act;
- ▼ any area of land within a special area, deemed special area or controlled area which was continued in force by virtue of Part 2, Schedule 9 of the Act as at the date Sydney Water was established as a statutory state-owned corporation; and
- ▼ any areas declared from time to time to be controlled in accordance with section 88 of the Act,

as adjusted by any variation to the Area of Operations made by the Governor in accordance with section 10 of the Act.

Local government areas		
Ashfield	Ku-ring-gai	Strathfield (Municipal)
Auburn (City)	Lane Cove (Municipal)	Sutherland (Shire)
Bankstown (City)	Leichhardt (Municipal)	Sydney (City)
Blacktown (City)	Liverpool (City)	The Council of the City of Canada Bay
Blue Mountains (City)	Manly	The Council of the City of Botany Bay
Burwood	Marrickville	The Council of the Municipality of Hunter's Hill
Camden	Mosman (Municipal)	The Council of the Shire of Hornsby
Campbelltown (City)	Municipality of Kiama	The Hills (Shire)
Canterbury (City)	North Sydney	Warringah
Council of the City of Ryde	Parramatta (City)	Waverley
Fairfield (City)	Penrith (City)	Willoughby (City)
Hawkesbury (City)	Pittwater	Wingecarribee (Shire) (Part)
Holroyd (City)	Randwick	Wollondilly (Shire)
Hurstville (City)	Rockdale (City)	Wollongong (City)
Kogarah (City)	Shellharbour (City)	Woollahra (Municipal)

Deemed areas

Any land under the waters of Port Jackson and adjoining the boundaries of the City of Sydney upon which there is erected any wharf, pier, jetty, building or other structure will be deemed to be within the Area of Operations of Sydney Water.

[Note: Under section 10(1) of the Act, the Area of Operations for Sydney Water is the same as the area current for the Water Board as at the date of corporatisation. The area of operations for the Water Board was identical in extent to the area of operations proclaimed under the Metropolitan Water Wastewater & Drainage Board Act 1924 (NSW).]

Schedule 2 Asset Management Framework

Sydney Water's **Asset Management Framework** must demonstrate:

- a) Robust and transparent methodologies for determining and prioritising licensing and other regulatory requirements and current and future services levels as well as identifying the infrastructure needed to achieve those service levels and requirements.
- b) Robust, transparent and consistent processes, practices and programs to ensure sustainable delivery of service levels and regulatory requirements, based on sound risk management, including:
 - i) asset inventory;
 - ii) asset planning incorporating both business and technical assessments;
 - iii) maintenance of adequate records and robust and reliable data;
 - iv) asset replacement, rehabilitation, augmentation, creation/acquisition and/or substitution (asset and non-asset substitutions);
 - v) management of service provision, including contracts;
 - vi) monitoring and condition assessment;
 - vii) proactive and reactive maintenance;
 - viii) operations;
 - ix) training and resourcing;
 - x) contingency planning covering both emergency management; business continuity; and
 - xi) asset realisation and disposal.
- c) Robust and transparent decision making processes that balance acceptable risks with cost and service provision to achieve prudent, efficient and effective operating and capital investment.
- d) An approach that achieves the lowest cost of service delivery through the effective life cycle management of the asset base.
- e) Robust and transparent processes of review and continuous improvement in asset management.

Schedule 3 Priority Sewerage Program

The following areas are included in the Priority Sewerage Program

Table 1 Priority Sewerage Program – Sydney Water Area of Operations

Area	Estimated number of lots
Stage 2 Areas	
Yanderra	220
Austral	50
Nattai	30
Scotland Island	350
Menangle, Menangle Park	220
Total	870

Schedule 4 Customer Contract



Schedule 4

Customer Contract

Schedule 4 <i>Customer Contract</i>	1
Foreword	6
1 Introduction	6
1.1 Words used in this contract	6
1.2 Understanding the contract	6
2 What is a <i>Customer Contract</i> and who is covered by it?	6
2.1 What is a <i>Customer Contract</i> ?	6
2.2 Who is covered by this contract?	7
2.3 Other agreements with us	7
2.4 When does this <i>Customer Contract</i> commence?	8
3 What services does Sydney Water provide?	8
3.1 <i>Water supply services</i>	8
3.2 <i>Wastewater services</i>	9
3.3 <i>Stormwater services</i>	10
3.4 Factors affecting service	11
4 What you pay	12
4.1 Responsibility to pay the account	12
4.2 Publication of charges	12
4.3 Concessions	12
4.4 Your bill	13
4.5 Undercharging	15
4.6 Overcharging	15
4.7 Billing disputes	15
4.8 <i>Wastewater</i> usage charges	15
4.9 How prices are determined	16
4.10 Notification of price variations	16
4.11 Other costs and charges	16
4.12 Exchange of information	17
5 What can I do if I am unable to pay my bill?	17

5.1	Payment difficulties and assistance options	17
6	<i>Restriction or disconnection of water supply and wastewater services</i>	19
6.1	<i>Restriction or disconnection</i>	19
6.2	Notice of <i>restriction or disconnection</i> of supply of water for non-payment by <i>customers</i>	19
6.3	Conditions for <i>restriction or disconnection</i> of supply of water for non-payment by customers	20
6.4	<i>Restriction or disconnection</i> for other reasons	20
6.5	Occupiers (tenants) may pay charges to avoid <i>restriction or disconnection</i>	21
6.6	Minimum flow rate during <i>restriction</i>	22
6.7	Limitations on <i>restriction or disconnection</i>	22
6.8	<i>Disconnection by a customer</i>	22
6.9	Restoration of water supply after <i>restriction or disconnection</i>	23
6.10	Costs for debt recovery activities	23
7	Redress	24
7.1	Notification	24
7.2	Rebates	24
7.3	Rebates for recurring <i>unplanned interruptions</i>	25
7.4	Rebates for recurring <i>wastewater service</i> disruption or internal <i>wastewater overflows</i>	25
7.5	Redress	25
7.6	Claim for damages	26
7.7	Limitation of liability	27
8	Responsibilities for maintenance	27
8.1	Water pipes	27
8.2	Wastewater pipes	28
8.3	Pressure wastewater systems	29
8.4	Private joint water or wastewater pipes	29
8.5	Stormwater connections, coverings and bridges	29
8.6	Water efficiency	29
8.7	Defective work	30
8.8	Giving notice of system failures	30
8.9	Building work	30
8.10	Connections to services	31

Schedule 4

Customer Contract

8.11	Altering and unauthorised connection or use	31
8.12	Removal of trees	31
9	Entry onto a customer's property	32
9.1	Access to Sydney Water's systems	32
9.2	Identification	32
9.3	Notice of access	32
9.4	Impact on <i>customer's property</i>	33
10	Water meter reading, installation, testing and maintenance	33
10.1	Installing and maintaining a <i>meter</i>	33
10.2	Measuring water supplied	34
10.3	Meter testing	34
10.4	Access to the water meter	35
10.5	<i>Meter</i> replacement	36
11	Who can I speak to if I have any questions or want to make enquiries?	37
11.1	Telephone <i>enquiries</i>	37
11.2	Internet <i>enquiries</i>	37
11.3	Written <i>enquiries</i>	37
11.4	Leaks and faults assistance	37
11.5	Interpreter and TTY Service	37
12	If I am unhappy with the service provided by Sydney Water what can I do?	38
12.1	<i>Customer complaints</i>	38
12.2	<i>Complaints</i> review	38
12.3	Resolution of complaints	38
12.4	External dispute resolution	39
13	Consultation, information and privacy	40
13.1	Involving customers in service planning	40
13.2	Providing information	40
13.3	Privacy	40
14	When does this contract with Sydney Water terminate?	40

14.1	Termination of this contract	40
14.2	Variation of this contract	41
15	Definitions and interpretation	42
15.1	Definitions	42
15.2	Interpretations	48

Foreword

Sydney Water provides **water supply services**, **wastewater services** and some **stormwater services** to people in Sydney, the Illawarra and the Blue Mountains.

Sydney Water's key objectives are protecting public health, protecting the environment and operating as a successful business.

This **Customer Contract** outlines your rights and obligations as a **customer** and sets out the minimum standards of customer service that you can expect. It is our service guarantee to our **customers**. It also outlines Sydney Water's rights and obligations to help us meet our key objectives.

For more information about Sydney Water and the services we provide, visit sydneywater.com.au or call us on 13 20 92.

1 Introduction

1.1 Words used in this contract

Words that are bold and italicised in this contract have a special meaning. The meanings are set out in the definitions in clause 15.1 at the end of this contract.

1.2 Understanding the contract

There are a number of provisions in clause 15.2 at the end of this contract that may assist you in interpreting the contract.

Other than clause 7.7, which sets out how our liability is limited to the extent permitted by law, nothing in this contract is intended to remove or limit any statutory rights you may have under legislation that cannot be excluded, including the consumer guarantees regime under the **Australian Consumer Law**.

2 What is a Customer Contract and who is covered by it?

2.1 What is a Customer Contract?

This contract is between us, Sydney Water and you, the **customer**.

This contract provides the terms under which we provide, where available, **water supply services**, **wastewater services**, and **stormwater services** to you. This contract also sets out rights and obligations including your rights in any dispute with us.

This contract is a legally enforceable document and is a requirement of the **Act**.

This contract is summarised in a separate brochure called 'Our contract with you'. Copies of this brochure are available on our website or by contacting us.

2.2 Who is covered by this contract?

You are our **customer** and are covered by relevant clauses of this contract if:

- you are the owner of **property** within our **area of operations** that is connected to a water main or **wastewater system** owned by us and that connection has been authorised or approved by us, and/or
- you receive **water supply services** and/or **wastewater services** from us.

If you have a contract for **water supply services** and/or **wastewater services** from a supplier licensed under the **WIC Act**, this contract only applies to you for the services you receive from us.

You are also our **customer** and covered by relevant clauses of this contract if:

- you are the owner of **property** that is within a **declared stormwater drainage area**, or
- you are the owner of **property** that is within the **Rouse Hill stormwater catchment area**, or
- you are liable to pay us charges for the services we provide.

You may be entitled to an exemption from **service charges** based on the use of your land.

2.3 Other agreements with us

If you have a separate agreement with us (for example, in relation to **trade waste**, **pressure wastewater systems**, **sewer mining**, stormwater harvesting or **recycled water**), the terms of that agreement will take precedence over the terms of this contract, to the extent of any inconsistency between them.

We may enter into a separate agreement with you to provide different levels of service to you where possible. Before entering into a separate agreement with you, we will provide you with an estimate of the costs of supplying you with the service requested and advise you if the service that we have agreed to provide is below the standards set out in this contract for the requested service.

Schedule 4

Customer Contract

2.4 When does this *Customer Contract* commence?

This contract commences:

- on 1 July 2015 for any person who, on that date, is taken to have entered into this contract under section 55 of the **Act** or clause 2.2 of this contract, and
- for any person who, after 1 July 2015, is taken to have entered into this contract under section 55 of the **Act** or clause 2.2 of this contract, the date that the person is taken to have entered into this contract under section 55 of the **Act** or clause 2.2 of this contract (as relevant).

On 1 July 2015, this version of the contract replaces any previous **Customer Contract** between you and us. Any rights and liabilities that have accrued under any previous contract with us are not affected by the commencement of this contract.

3 What services does Sydney Water provide?

3.1 *Water supply services*

3.1.1 Supply of water

We will supply you with water to meet your reasonable needs except:

- in the case of **unplanned interruptions** or **planned interruptions**, under clauses 3.4.2 and 3.4.3
- in the case of restrictions under clause 3.4.4
- where we are entitled to restrict or discontinue supply under clause 6, or
- in the case of events beyond our reasonable control.

To receive **recycled water** from us, your **property** must be within a Sydney Water **recycled water area** or you must enter into a separate agreement with us.

If we supply you with **recycled water**, we will give you information on the standard requirements for its safe use at the time we commence supplying **recycled water** to you. We are not responsible for your use of **recycled water** contrary to the information we provide.

3.1.2 *Drinking water* quality

The **drinking water** system and the **drinking water** we supply a **customer** will comply with the health related guidelines provided in the **Australian Drinking Water Guidelines** except to the extent otherwise specified by **NSW Health**, as required by the **Operating Licence**.

3.1.3 **Recycled water** quality

The **recycled water** system and the **recycled water** we supply a **customer** will comply with the **Australian Guidelines for Water Recycling** except to the extent otherwise specified by **NSW Health**, as required by the **Operating Licence**.

3.1.4 **Drinking water** pressure

We will ensure that the **drinking water** we supply to your **property** is at a minimum of 15 metres head of pressure at the **point of connection** to Sydney Water's **water system**. This is recognised as suitable for **residential customers** and **non-residential customers**.

3.1.5 Health or special needs

Your health provider is to notify us if you require a water supply to operate a life support machine or for other special health needs. In certain circumstances, you may be eligible for an allowance of water use that is not subject to charges.

3.2 **Wastewater services**

3.2.1 Supply of **wastewater services**

If your **property** is connected to our **wastewater system**, we will supply you with **wastewater services** to meet your reasonable needs for the discharge of domestic **wastewater** except:

- where we are entitled to discontinue supply under clause 6
- in the case of **unplanned interruptions** and **planned interruptions** under clauses 3.4.2 and 3.4.3, or
- in the case of events beyond our reasonable control.

3.2.2 **Wastewater overflow**

We will make every reasonable effort to minimise the incidence of **wastewater overflows** on your **property** due to a failure of our **wastewater system**.

In addition to any statutory rights you may have under any legislation, including the **Australian Consumer Law**, if there is a **wastewater overflow** on your property due to the failure of our **wastewater system**, we will ensure that:

- inconvenience and damage to you is minimised
- the affected area is suitably and promptly cleaned up at our cost and in a way that minimises the risk to human health and the environment, and

Schedule 4

Customer Contract

- any rebate or redress that may be due to you under clauses 7.2, 7.3, 7.4 and 7.5 are paid or provided.

3.2.3 **Trade wastewater**

You may discharge **trade wastewater** into our **wastewater system** only if you have obtained our written permission and entered into an agreement with us for this activity.

We will give you our written permission and enter into such an agreement with you only if we are able to accept, transport and process **trade wastewater** that you discharge in full compliance with applicable safety and environmental laws, the **Operating Licence** and the **Act**.

You can contact us to obtain further information on the guidelines and standards for a **trade wastewater** discharge.

3.2.4 **Pressure wastewater system** connection

If you are connected to a **pressure wastewater system** provided, owned and installed by us on or after 1 July 2015, you must enter into a separate additional service agreement covering the operation and **maintenance** of the **pressure wastewater system**.

If you were connected to a **pressure wastewater system** prior to 1 July 2015, refer to our 'responsibilities of connected customers' policy, as amended from time to time, for operation and **maintenance** requirements. This is available on our website or in print by request.

3.2.5 **Sewer mining** and stormwater harvesting

You may extract from our **wastewater system** or **stormwater drainage system** only if you have obtained our prior written permission and entered into an agreement with us for this activity.

3.3 **Stormwater services**

We will provide you with a service to transport stormwater through our **stormwater drainage systems** under our control if your **property** is within a **declared stormwater drainage area** or within the **Rouse Hill stormwater catchment area**.

If your **property** is within a **declared stormwater drainage area** or the **Rouse Hill stormwater catchment area** we will charge you for this service in accordance with the maximum prices, or methodology for fixing the maximum prices, determined by **IPART**.

We can provide information to assist you in determining whether your land is within a **declared stormwater drainage area** or within the **Rouse Hill stormwater catchment area** and whether Sydney Water stormwater pipes or channels are located within or adjacent to your **property**.

We will notify you if an area of land is newly declared to be a **declared stormwater drainage area** and the declaration affects your **property**.

3.4 Factors affecting service

3.4.1 Repairs and **maintenance**

If we undertake any work on our assets located on or adjacent to your **property**, we will leave the affected area and immediate surrounds as near as possible to its original state which existed prior to the works being undertaken, unless we have agreed to a different arrangement with you.

3.4.2 **Unplanned interruptions**

If there is an **unplanned interruption** to your **water supply service** or **wastewater service**, we will minimise the inconvenience to you by:

- restoring the service as quickly as possible
- providing as much information as practicable on a 24 hour leaks and faults telephone service (see clause 11.4), and
- providing access to emergency supplies of water where reasonably practicable and necessary having regard to the particular circumstances.

3.4.3 **Planned interruptions**

We may need to arrange **planned interruptions** to the **water supply services** and **wastewater services** provided to you to allow for planned or regular **maintenance** of our **water system** or **wastewater system**.

We will inform you of the time and duration of any **planned interruption**, at least two days in advance if you are a **residential customer**, and seven days in advance if you are a **non-residential customer**, unless you agree to another period.

We will use our best endeavours to ensure the **planned interruption** is no longer than five hours from when the supply of water is turned off until the water is turned back on.

Schedule 4

Customer Contract

3.4.4 Water restrictions

At the discretion of the **Minister** or NSW Government, we may interrupt and/or limit **water supply services** to you or place conditions on your water use. You must comply with the supply conditions while they are in place.

We will publish any water supply conditions in major newspapers throughout our **area of operations** and on our website. These may include:

- restrictions on the use of water, including the purpose for which water may be used
- a variation of charges consistent with the **Act** and **Operating Licence**, and
- other conditions that we consider appropriate, including the period or likely period of restrictions or limitations on supply and usage of water.

We will also make every reasonable effort to notify you in your next bill of changes to supply conditions.

4 What you pay

4.1 Responsibility to pay the account

You must pay us the amount on your bill by the date specified unless you have entered into an arrangement with us to defer payment or pay by instalments or you have entered into other **payment arrangements** with us.

4.2 Publication of charges

We will publish on our website up-to-date information on our charging policies and current charges in accordance with clause 4.10, 4.11 and, where possible, clause 4.11.4. This information will also be provided to you on request.

4.3 Concessions

You are eligible for a government funded pension concession if you hold one of the recognised pensioner concession cards. You must apply to us for the concession and establish your eligibility.

If you are eligible for the concession, we will ensure that it is granted from the commencement of the next **charging period** after your application for a concession was lodged.

You may contact us to obtain information on whether you are eligible for a concession. On request, we will provide information about concessions in a language other than English (where available).

4.4 Your bill

4.4.1 When will your bill be sent?

We will issue you a bill for the services that we provide to you. You will be sent a bill on a quarterly basis, unless otherwise agreed.

Non-residential customers with high water usage and **wastewater** disposal may be sent a bill on a monthly basis.

We will provide you with copies of your bills or a statement of all charges that you have incurred for the previous 12 months on request, free of charge.

4.4.2 What information is on your bill

We will ensure that your bill contains details of:

- the **charging period** to which it applies
- the total amount due
- the usage and **service charges**, separately itemised
- other fees and charges payable
- the date payment is due
- your postal address and account number
- the address of the **property** for which the charges in the account have been incurred
- options for the method of payment
- a comparison of your water usage with your past water usage, where available
- contact numbers for account enquiries, leaks and faults, and text telephone (TTY) services
- the payment assistance available
- information in community languages about the availability of interpreter services and the phone number for those services, and
- the credit balance or amounts overdue from previous bills.

4.4.3 How bills are sent

We will send your bill to the postal address you nominate.

Schedule 4

Customer Contract

If you do not nominate a postal address, the bill will be sent to:

- the **property** to which the services are available or provided, or
- your last known postal address.

On your request we may send your bill electronically.

Your bill will be considered delivered to you if it is sent by one of the above means.

4.4.4 How to make a payment

We will provide you with a range of payment options including in person, by mail, via the internet or by direct debit.

You must pay by one of the methods that we offer. We will not accept payments by other methods.

4.4.5 Overdue account balances

If you do not pay your account by the due date, you will have an overdue account balance and we may charge you:

- interest on your overdue account balance, or
- a late payment fee, but only if a maximum late payment fee amount is specified by **IPART** as part of a review conducted by **IPART** under the *Independent Pricing and Regulatory Tribunal Act 1992* (NSW).

Any late payment fee we charge you will:

- not exceed the maximum late payment fee amount specified by **IPART**, and
- be charged in accordance with any terms and conditions specified by **IPART** as part of the review (including conditions requiring us to provide you with adequate notice prior to charging you a late payment fee).

We will not charge you interest on your overdue account balance or a late payment fee if:

- we have already agreed with you a deferred payment date, or an arrangement to pay by instalments with respect to the overdue account balance, or
- you have entered into a **payment arrangement** with us.

4.5 Undercharging

If your bill states that you are required to pay us an amount that is less than what you are actually required to pay us (that is, we have undercharged you) as a result of our error, we may adjust your next bill to charge the undercharged amount as a separate item.

If the undercharging is due to:

- you providing false information
- an unauthorised connection (for example, you have not obtained our written consent in accordance with clause 8.10 or you have not obtained the required approvals for the connection)
- your breach of this contract or the **Act**, or
- building works which were not approved in accordance with clause 8.9,

you must pay the correct amount on request. We will state the amount to be paid as a separate item in your next bill.

We may also charge you from a date we determine an unauthorised connection to have occurred.

4.6 Overcharging

If your bill states that you are required to pay us an amount that is greater than what you are actually required to pay us (that is, we have overcharged you) due to our error, we will apply a credit to your next bill after we become aware of the error.

4.7 Billing disputes

If there is an unresolved dispute concerning an amount of money to be paid by you, we will not seek the disputed amount from you until the dispute has been resolved.

You are obliged to pay any undisputed charges or fees by the due date.

4.8 Wastewater usage charges

The **wastewater** usage charge applies to **non-residential customers** only. We will determine a **wastewater usage discharge factor** that is used to calculate **wastewater** charges for **non-residential customers**.

Wastewater usage and **service charges** are the sewerage usage and **service charges** set by Sydney Water in accordance with the maximum prices, or methodology for fixing the maximum prices, determined by **IPART**.

Schedule 4

Customer Contract

Where a **wastewater usage discharge factor** is varied, the revised charge will apply from the beginning of the next **charging period**. We will notify you of any change to your **wastewater usage discharge factor**, in accordance with clause 4.10.

4.9 How prices are determined

We set charges for our services in accordance with any maximum prices, or methodology for fixing the maximum prices, determined by **IPART** that applies to those services.

We may vary our charges from time to time, but only in accordance with our **Operating Licence** and the **Act** and subject to the maximum prices, guidelines and methodologies determined or issued by **IPART**.

4.10 Notification of price variations

We will publish notice of any variations to our charges on our website and provide details on your bill. The variation will commence on:

- the first day of the next quarter after the notice of the variation has been published, or
- any other date we nominate after we have published the notice of the variation.

4.11 Other costs and charges

4.11.1 Dishonoured or declined payments

If payment of your bill is dishonoured or declined, we may charge you a dishonoured or declined payment fee in an amount not exceeding the amount specified on our website, as amended from time to time.

We may refuse to accept personal cheques or card payments for a specific bill where two or more dishonoured payments have been provided. We may refuse future payments by these means if you have a history of dishonoured payments.

4.11.2 Payment adjustments

If we incorrectly apply a payment to your bill, we will reverse the payment and inform you of this reversal.

4.11.3 Costs for installing and connecting services

You must pay the installation costs of a connection from your **property** to our **water system, wastewater system or stormwater drainage system**.

Connection to our **water system, wastewater system** or **stormwater drainage system** must be approved by us and comply with the conditions we set to ensure the safe and reliable supply of services.

Where a new connection point requires works on our systems, those works can only be carried out by us or a provider listed by us. This list is available on our website or by request.

4.11.4 Charges for other services

We may charge you a fee for any other services you request from us. To the extent that any determination of maximum prices made by **IPART** applies to these fees, we will charge those fees in accordance with that determination. In circumstances where no such determination applies, we may charge you a fee in a way determined by us and advised to you. We will publish these fees on our website, where possible, and provide you with information on request.

We may also charge you other fees, charges and amounts where we are entitled to do so under the **Act**.

4.12 Exchange of information

To the extent permitted by law, we may exchange information about your creditworthiness, credit standing, credit history or credit capacity with credit reporting agencies, other credit providers, other suppliers, or our agents, contractors and franchisees.

5 What can I do if I am unable to pay my bill?

5.1 Payment difficulties and assistance options

If you are experiencing **financial hardship** you should contact us and we will provide you with information about options available to assist you. All reasonable effort will be taken to provide assistance to you.

If you are experiencing **financial hardship**, you have the right to:

- be treated sensitively on a case by case basis by us
- receive information from us on alternative **payment arrangements**, such as a payment plan
- defer payment for a short period of time

Schedule 4

Customer Contract

- negotiate an amount you can afford on an agreed instalment plan. If you are a **non-residential customer** these arrangements will be based on reasonable commercial considerations and market conditions, and
- access to a language interpreter, if required, at no cost to you.

Additionally, if you are a **residential customer** experiencing **financial hardship**, we will offer you a range of options that may assist you, including:

- the option to pay smaller amounts on a regular basis, which may fit better with your income
- information from us about an accredited welfare agency for payment assistance
- Payment Assistance Scheme (PAS) credit issued by an accredited welfare agency or us
- other appropriate government concession programs
- tailored advice on other broader assistance options, and
- referral to financial counselling services.

If you are a **private residential tenant** who pays your water usage charge, you are eligible for:

- information from us about an accredited welfare agency for payment assistance
- Payment Assistance Scheme credit issued by an accredited welfare agency or us
- tailored advice on other broader assistance options, and
- referral to financial counselling services.

If you enter into a **payment arrangement** with us, we will:

- enable you to make payments by instalments, in advance or arrears
- inform you of the following:
 - the period, or periods of the payment plan
 - the amount and frequency of each instalment
 - if you are in arrears, the completion date of the payment plan required to pay the arrears, and
 - if you choose to pay in advance, the basis on how the instalments are calculated
- provide for instalments to be calculated having regard to your consumption needs, your capacity to pay and the amount of arrears you are required to pay
- ensure that your arrears are cleared over a period of time and your debt does not continue to grow, and

- deal with your financial difficulty in a fair and reasonable manner.

If you are experiencing **financial hardship** and have entered into a **payment arrangement** with us and honour that arrangement, we will:

- not take any legal action to enforce the debt or **restriction** or **disconnection** of the supply of water to your **property**, and
- waive interest and late payment fees on the overdue amount for the period of the arrangement.

6 **Restriction or disconnection of water supply and wastewater services**

6.1 **Restriction or disconnection**

If you fail to pay your bill by the due date and have failed to make alternative arrangements for payment, we may restrict or disconnect the supply of water to your **property**. This will be done in accordance with our policies relating to, debt, water flow **restriction** and **disconnection** for non-payment, as amended from time to time.

Information on these policies will be sent to you annually with your quarterly or other bills. This information is also available on our website or on request.

6.2 **Notice of restriction or disconnection of supply of water for non-payment by customers**

If you fail to pay your bill by the due date, we will send you a reminder notice. The reminder notice will:

- state the total amount due
- state that payment is immediately due
- state that you should contact us if you are having difficulty making payment and we will provide you with payment options, including **payment arrangements**, subject to eligibility criteria, and
- advise you of your right to raise your concerns with **EWON** if you have attempted to resolve those concerns with us and are not satisfied with a decision.

If you fail to comply with the reminder notice, we will send you a **disconnection** notice advising you that:

- you must pay the bill immediately otherwise, after seven days of our issuing the **disconnection** notice to you, we may take action to restrict or disconnect the supply of water to your **property** or take legal action to recover the amount outstanding

Schedule 4

Customer Contract

- you may incur additional costs relating to us restricting or disconnecting the supply of water and/or taking legal action to recover the amount outstanding
- the supply of water to your **property** may be restricted or disconnected without further notice
- you have the right to raise your concerns with **EWON** if you have attempted to resolve your concerns with us and are not satisfied with a decision made by us
- you should contact us if you are experiencing **financial hardship** and we will provide you with information about options available to assist you.

6.3 Conditions for **restriction** or **disconnection** of supply of water for non-payment by customers

We may restrict or disconnect the supply of water to your **property** if:

- you have not paid your bill and at least seven days have elapsed since we issued the **restriction** or **disconnection** notice, or
- you have entered into a **payment arrangement** with us, but have failed to make the agreed payments.

If you are a **residential customer**, we will use our best endeavours to make further contact with you, in person, by post or by phone about the non-payment prior to **restriction** or **disconnection**.

Details are provided in our 'assistance options for payment difficulties and actions for non-payment' policy that is available on our website, as amended from time to time.

In addition to the limitations on **restriction** or **disconnection** set out in clause 6.7, we will not restrict or disconnect the supply of water for a failure to make due payment where:

- you have applied for a payment plan that is being assessed, or
- you are complying with the agreed terms of a current **payment arrangement**.

The notices referred to in this clause will be sent to you in the same manner in which bills are sent to you under clause 4.4.3.

If you receive a bill for a new **charging period** that contains an overdue amount from a previous **charging period**, we may restrict or disconnect supply on the arrears after issuing you with the appropriate notices relating to the overdue amount, as described in this section.

6.4 **Restriction** or **disconnection** for other reasons

We may also restrict or disconnect the supply of services to your **property** in the following circumstances:

- if you are connected to our **water system, wastewater system or stormwater drainage system** without our approval
- if private works for the supply of water or **wastewater** to your **property** are defective
- you have breached this contract, the **Act**, your additional services agreement or any other agreement with us
- you fail to rectify a defective or unauthorised work as per clause 8.7 of this contract
- if you use **sewer mining** or stormwater harvesting facilities that are not authorised by us or do not comply with applicable laws
- you discharge **trade wastewater** into our **wastewater system** without our written approval or you do not comply with the requirements of our written approval
- where you fail to ensure access to our **meter** for your **property**. Prior to taking this step, we will use our best endeavours to contact you to arrange reasonable access, leave a notice requesting access and provide you with a **disconnection** warning
- where you fail to meet our published metering requirements
- if you are connected to a **pressure wastewater system** that is maintained by Sydney Water and you do not comply with your agreement or operation and **maintenance** requirements
- if a serious health or environmental risk is posed by the discharge of chemicals into our **wastewater system**
- if you have not installed a backflow prevention containment device if required to do so by us
- if you have not correctly installed or maintained your backflow prevention containment device or have failed to provide an annual test report by the due date
- you use your **recycled water** in a manner inconsistent with its intended purpose or in a manner contrary to the information we provide on its safe use
- where we are entitled or required to restrict or to discontinue supply by direction of the **Minister** or under an applicable law, or
- where access to the **meter** or poor quality of your pipes prevents us from exchanging the **meter** and you have failed to address this within 30 days of our notifying you of this.

6.5 Occupiers (tenants) may pay charges to avoid **restriction** or **disconnection**

Where an amount unpaid on a bill is owed by a landlord, we may accept payment of outstanding charges by an occupier of the **property** (the tenant) who may deduct them from rents otherwise payable to the landlord, as permitted under the **Act**.

Schedule 4

Customer Contract

6.6 Minimum flow rate during *restriction*

If we restrict the supply of water to you, we will provide a flow sufficient for health and hygiene purposes. If you believe that the **restriction** will cause a health hazard you should contact us and we will consider increasing the flow.

6.7 Limitations on *restriction* or *disconnection*

Under no circumstances will we restrict or disconnect the supply of water to your **property**:

- without providing reasonable notice to the occupier of the **property** that we intend to restrict the supply
- without giving you the notices under clauses 6.2 or 6.3 (as applicable) where the reason for **restriction** or **disconnection** is non-payment of your bill, except when an order is issued under relevant legislation
- without providing the occupier with information on our policies relating to customer hardship, debt, water flow **restriction** and **disconnection** for non-payment
- if a related **complaint** is being considered for resolution by us or **EWON**, and
- without advising the occupier that in some circumstances the **Act** permits a tenant to pay outstanding charges and deduct them from rents otherwise payable to the landlord and providing the occupier with a reasonable opportunity to pay the bill.

We will only carry out a **restriction** or **disconnection** on a business day (excluding Fridays and the day before a public holiday), prior to 3pm.

6.8 *Disconnection by a customer*

You may **disconnect** your **property** from our **water system** or **wastewater system** provided that:

- you have complied with all applicable health, environmental and local council regulatory requirements
- you have complied with all requirements of Sydney Water, as detailed in the policies published on our website, as amended from time to time
- you have given us information we may reasonably require
- you have given us 10 days written notice and you have obtained our written permission, and
- the **disconnection** is undertaken by a licensed plumber and conducted in accordance with plumbing, drainage or other regulations or standards that may apply.

On **disconnecting** your **property**, we may recover any equipment that Sydney Water installed on the **property** and may continue to charge you a service availability charge in accordance with the **Act**. You may apply to us to be exempted from this charge.

6.9 Restoration of water supply after *restriction* or *disconnection*

Following **restriction** or **disconnection** of your water supply, we will provide you with information to enable you to make arrangements for the restoration of the supply. A restoration fee will apply.

When the reason for the **restriction** or **disconnection** of supply no longer exists or if there is mutual agreement to restore supply, we will restore your supply:

- on the same day, if you pay or we agree to other arrangements before 3 pm on any business day, or
- on the next business day if you pay or we agree to other arrangements after 3 pm.

When the conditions for restoration are met after 3pm, we may restore supply on the same day but you may be asked to pay an after-hours restoration fee.

6.10 Costs for debt recovery activities

We may recover from you our reasonable costs associated with debt recovery under this contract.

Schedule 4

Customer Contract

7 Redress

7.1 Notification

If you notify us of a failure by us to comply with this contract or our activities result in inconvenience, damage or loss to you or your **property** we will promptly advise you of:

- your right to a rebate or redress under clauses 7.2, 7.3, 7.4 or 7.5
- how we may rectify your problem, and
- how to seek compensation from us under clause 7.6.

7.2 Rebates

Information on rebates provided under this contract is set out in our 'allowances and rebates on your bill' policy, which may be amended from time to time. This is available on our website or in hard copy by request.

If you are a **customer**, you are entitled to a rebate for an occurrence of the following:

- **Planned interruption**

Where your **water supply service** and/or your **wastewater service** is interrupted for over five hours by a **planned interruption** you are entitled to an automatic rebate of \$35. You are eligible for this rebate for each and every event of this type that you experience.

- **Unplanned interruption**

Where your **water supply** and/or your **wastewater service** is interrupted for over five hours by an **unplanned interruption** you are entitled to an automatic rebate of \$35 for each of up to two **unplanned interruption** events. If you experience three or more **unplanned interruptions** in a 12-month period the rebate outlined in clause 7.3 will apply.

- Low water pressure

Where your **drinking water** pressure is below 15 metres head of pressure at the **point of connection** to our **water system** for a continuous period of 15 minutes, unless as a result of a supply interruption, you are entitled to a rebate of \$35. This rebate is payable for one event each quarter. A rebate will be granted automatically when this is identified through our monitoring.

- **Wastewater overflow**

If you experience a **wastewater overflow** on your **property** due to a failure of our **wastewater system**, you are entitled to a rebate of \$60. If you experience two or more **wastewater overflow** events in a 12-month period, the rebate outlined in clause 7.4 will apply.

- Dirty water

If we do not provide you with clean water suitable for normal domestic purposes, you may be entitled to a rebate of \$35 for each occasion that we do not provide you with clean water suitable for normal domestic purposes.

If the cause of the problem is identified in ***your water system*** the rebate will not apply.

- Boil water alert

If ***NSW Health*** issues a 'boil water alert' due to contamination of ***drinking water*** caused by us, you are entitled to a rebate of \$35 for each incident in relation to which the 'boil water alert/s' is/are issued.

We will pay the rebate in your next bill where possible.

7.3 Rebates for recurring ***unplanned interruptions***

If you are a ***customer*** and experience three or more ***unplanned interruption*** events to your ***property*** that last for over one hour in a 12 month period, you are entitled to a rebate equal to the whole annual water ***service charge***, less any concessions available to you, after the third event.

7.4 Rebates for recurring ***wastewater service disruption or internal wastewater overflows***

If you are a ***customer*** and experience two or more ***wastewater service*** disruptions or internal ***wastewater overflows*** on your ***property*** in a 12 month period due to capacity constraints in our system, you will be entitled to a rebate equal to the whole annual ***wastewater service charge***, less any concessions available to you, after the second event.

7.5 Redress

In addition to our obligation to pay a rebate under clauses 7.2, 7.3, and 7.4, we may provide one of the following forms of redress:

- reinstatement
- repair
- rectification
- construction of works
- providing alternative supplies of water
- emergency accommodation, or
- payment for damages as set out in clause 7.6.

Schedule 4

Customer Contract

If you are unsatisfied with the form of redress we provide you, you may request additional redress from us. We will consider your request in accordance with the timeframes in clause 12.1 as if your request were a **complaint**.

7.6 Claim for damages

In the event of physical loss or damage to you or your **property** that may be as a result of our activities or our failure to comply with this contract, the **Operating Licence** or the **Act**, we may compensate you for any loss suffered.

You should make your initial claim to your insurance company. If your loss is not covered by an insurance policy you may notify us for consideration.

All claims must be submitted in writing on an incident notification form that is available on Sydney Water's website or by contacting us. You must specify the nature of the problem and the compensation sought.

We will within five business days of receiving your claim:

- acknowledge receipt of your claim, and
- advise you of the name and contact details of our representative who will assist you with your claim.

We will undertake investigations into the circumstances surrounding the claim/incident and provide a response time for making a decision in regard to your claim.

You will be provided with a written assessment of your claim within the response time indicated. The assessment will outline the reasons for the decision in regard to your claim and the type of compensation to be provided, if any.

If you are not satisfied with our decision, you have the right to seek review of your claim under clause 12.2 or you may seek an external review under clause 12.4.

7.7 Limitation of liability

The law (including the **Australian Consumer Law**) may provide non-excludable statutory guarantees and other rights which apply to the goods and services we provide under this contract. If you are a consumer under the **Australian Consumer Law**, our goods and services come with guarantees that cannot be excluded under that law. The only additional assurances we make about the goods and services we provide under this contract, and the only conditions and warranties included in this contract are:

- those set out in this document, and
- those that the law (for example, the **Australian Consumer Law**) say are included.

However, where we are liable to you because of a consumer guarantee, our liability is to the extent permitted by law, limited to:

- replacing the goods and services to which the breach relates, or
- at our option, paying you the cost of replacing those goods, or having the services supplied again.

The limitation of our liability does not affect rights you have under a law that applies to us which says we cannot exclude or limit our liability.

8 Responsibilities for maintenance

8.1 Water pipes

You are responsible for maintaining all water pipes and fittings between our **water system** and the buildings and/or taps on your **property**. This is referred to as **your water system**.

As a **property** owner, you are responsible for any damage caused by a failure of **your water system**.

As a free service, if you notify us of a failure of **your water system**, we will repair **your water system** between our **water system** and the **meter** for your **property**. However, if the **meter** lies more than one metre along your pipe inside the **property** boundary, or there is no **meter**, we will provide this service only up to one metre along your pipe inside the **property** boundary. The **property** boundary is where private pipework leaves public land and enters private land.

If you prefer that we do not repair a failure in **your water system**, you must have the fault repaired by a licensed plumber in accordance with the **Plumbing Code of Australia** or any other acts, regulations or standards that may apply.

Schedule 4

Customer Contract

However, we are not responsible for the repair of:

- unauthorised services and water services installed contrary to appropriate codes, regulations and standards
- fire services, both inside and outside the **property** boundary
- backflow prevention devices
- water services connecting to privately owned water mains, such as in some community title subdivisions, or shared **private joint services** or extended private services, and
- faults caused by your wilful or negligent act or omission.

If we make repairs to your water pipes, we will backfill and make safe any excavations required on your **property**. We will not restore any landscaping, structures or hard surfaces.

We will also not meet the costs of installing new private services or modifying, upsizing or relocating existing private services.

We are not responsible for installing, maintaining or annual testing of backflow prevention containment devices on properties, except where the device is integrated into the **meter** supplied by Sydney Water.

8.2 Wastewater pipes

You are responsible for maintaining all **wastewater** pipes and fittings between your **property** and the connection with our **wastewater system**. This is referred to as **your wastewater system**.

The **point of connection** with our **wastewater system** may be outside your **property**. If you do not know where the **point of connection** is, you should contact us for information on where to obtain a diagram.

If a fault occurs in **your wastewater system**, you are responsible for arranging to have the fault rectified by a licensed plumber or drainer.

If the fault occurs in our **wastewater system** we will repair the fault at our cost. However, you may be liable to pay for the repair to the extent you have contributed to the fault.

As a free service, Sydney Water will repair collapsed private **wastewater** pipes where the collapse is located within a footpath or roadway and a licensed plumber has confirmed that the fault cannot be repaired without excavation of the footpath or roadway and replacement of the collapsed **wastewater** pipes.

However, if the problem is assessed by Sydney Water as able to be repaired without excavation, you will remain responsible for the cost of repair. We will not reimburse any plumbing costs.

We will not provide this service for unauthorised **wastewater systems** installed contrary to appropriate codes, regulations and standards.

8.3 Pressure wastewater systems

If you were connected to a **pressure wastewater system** prior to 1 July 2015, refer to our 'responsibilities of connected customers' policy for operation and **maintenance** requirements, as amended from time to time. This is available on our website or in print by request.

If you are connecting to, or you buy a **property** that is connected to an existing **pressure wastewater system** after 1 July 2015, you will be required to enter into an additional services agreement that outlines the operations and **maintenance** requirements of the **pressure wastewater system**.

8.4 Private joint water or wastewater pipes

If you share a **private joint service** for a water or **wastewater** pipe you are jointly responsible for the cost of its **maintenance**, including damage to private or public property resulting from a defect in the **private joint service**. Your shared responsibility starts from the **point of connection** to our main. The apportionment of costs incurred in its **maintenance** is a matter between you and others who share it.

Disconnection of private pipes from **private joint services** for either water or **wastewater** is a matter between the relevant **private joint service property** owners. We have no authority in respect of **disconnection** from **private joint services**.

8.5 Stormwater connections, coverings and bridges

You are responsible for the **maintenance** of any connections between your **property** and our stormwater channel, pipe or culvert.

You are responsible for the **maintenance** of any coverings, bridges or similar structures within your **property** that cover or cross our stormwater channels, pipes or culverts unless they are owned by us.

8.6 Water efficiency

You may install water efficient plumbing fixtures, appliances and equipment, such as those recommended under the Water Efficiency Labelling and Standards Scheme.

Schedule 4

Customer Contract

You may install water saving devices, for example:

- that collect and use rainwater for your own use. If you have a rainwater tank connected to our system, a **backflow prevention containment device** is required to be installed, and/or
- a composting toilet that does not require connection to our **water system** or **wastewater system**.

You must comply with **BASIX** requirements, plumbing regulations and health, environmental and local council requirements when installing water saving devices. Approval may be required from your local council.

On request, we will provide you with information on how to use water efficiently.

8.7 Defective work

If we become aware of any defective or unauthorised work to **your water system, your wastewater system** or your **stormwater drainage system**, that impacts or poses risks to the operation of our **water system**, our **wastewater system** or our **stormwater drainage system**, we will request the defect to be fixed within a reasonable time.

If you do not comply with the notice, we may undertake to restrict or disconnect your **water supply service** or your **wastewater** connection until it is fixed. We may also undertake to remedy the defective or unauthorised work and you may be charged the reasonable costs incurred by us in undertaking this work.

8.8 Giving notice of system failures

You should inform us if you become aware of any failure of our **water system, wastewater system, or stormwater drainage system**. If you notify us of an interruption to your water supply, a burst or leak in our **water system**, a disruption to the **wastewater** drainage from your **property** or an overflow or leakage from our system, we will ensure that the problem is attended to as soon as practicable.

8.9 Building work

You must not undertake any excavation, building, landscaping or construction work on your **property** without firstly identifying the location of our assets, and obtaining our consent if required. You can obtain a plan from us identifying the location of our assets.

We will request that you remove any unapproved structure or landscaping work that interferes with our system at your cost. If you do not comply with our request within the required timeframe, we will remove the unapproved work and charge you the reasonable costs incurred by us in undertaking this work.

Properties with an existing water service must be metered during the building period. The **meter** must be accessible (as described in clause 10.4) at all times.

8.10 Connections to services

You must apply and have our written consent to be able to connect to our services.

Once your application is approved, connections to our **water system**, **wastewater system** or **stormwater drainage system** are to be made using the services of a provider listed by us or licensed plumber and in accordance with plumbing, drainage or other regulations or standards that may apply. A list of providers is available on our website or by request.

8.11 Altering and unauthorised connection or use

You must not:

- wrongfully take, use or divert any water supplied by us
- use a dedicated **fire service** for any purpose other than firefighting or testing of the **fire service**
- wrongfully interfere with the operation of a **meter**, metering system or prevent a **meter** from registering the quantity of water supplied by us, or
- wrongfully discharge any substance into a system owned by us.

If you do not comply with the requirements in this clause, we may charge you for the estimated amount of water used. Fines may also apply and be imposed on you by a relevant authority.

You must obtain our consent before carrying out any activity that may alter, cause destruction of, damage or interfere with our **water system**, **wastewater system** or **stormwater drainage system**.

8.12 Removal of trees

If a tree on your **property** is obstructing or damaging our **water system**, **wastewater system** or **stormwater drainage system**, or is reasonably likely to do so, we may require the removal of the tree at your cost.

We will give you 14 days' notice in writing requiring you to remove the tree. You may with our consent and at your cost, take steps to eliminate the cause of damage or interference to our **water system**, **wastewater system** or **stormwater drainage system**, without removing the tree.

We will reimburse you for reasonable expenses incurred in removing the tree if:

Schedule 4

Customer Contract

- the person who planted the tree on your **property** could not have reasonably known that the planting of the tree would result in the damage or interference, and
- an easement did not exist in favour of our system when the tree was planted on your **property**.

If you fail to comply with the notice to remove the tree, by the specified date without reasonable cause (such as a delay or failure in obtaining consent from Council or refusal from Council to allow you to remove the tree), then we may remove the tree and recover the costs of removal from you.

We cannot require a tree to be removed that is the subject of a protection or conservation order under the *Heritage Act 1977*, the *National Parks and Wildlife Act 1974* or any applicable law.

9 Entry onto a customer's property

9.1 Access to Sydney Water's systems

You must ensure that we have safe access to your **property** to:

- maintain our **water system**, **wastewater system** and **stormwater drainage system**
- to ensure that this contract or the **Act** is being complied with
- for other purposes set out in the **Act** or other applicable laws, and
- to read, fit, exchange or maintain a **meter**.

9.2 Identification

When we enter your **property**, our staff or contractors will carry identification that will be shown to you (or to any person present at the time of access).

9.3 Notice of access

We will give you, or the occupier of your **property**, two days written notice of our intention to enter onto your **property** specifying the date and approximate time of our entry onto your **property**, unless you agree to a shorter notice period.

We will not give you written notice in cases where:

- entry is required urgently
- the purpose is to read, f t, exchange or maintain a **meter**
- giving notice would defeat the purposes of entry
- we intend to conduct a water restriction investigation on your **property**
- we need to investigate a health or safety issue, or
- we conduct a general **property** inspection such as verifying connection installation, **meter**, plumbing or a **backflow prevention containment device** inspection.

9.4 Impact on **customer's property**

If we enter your **property** for the reasons outlined in clause 9.1, we will ensure that we:

- cause as little disruption or inconvenience as possible
- remove all rubbish and equipment we have brought on to the **property**; and
- unless otherwise agreed, leave the **property**, as near as possible, in the condition, that it was found on entry.

You may be entitled to compensation from us under the **Act** for damage incurred by our entry to your **property**.

10 Water meter reading, installation, testing and maintenance

10.1 Installing and maintaining a **meter**

Unless Sydney Water otherwise agrees, your **property** must have a **meter** to measure the quantity of water that we supply you. Details, including who is required to supply you with the **meter** and who is required to pay for the plumbing installation are provided in our metering requirements published in our policies and guidelines that are available on our website, as amended from time to time.

If you install a **meter** in an inaccessible location, or make a **meter** inaccessible to us, we may charge you a fee for the provision of a remote reading device.

An approved **backflow prevention containment device** appropriate to the **property's** hazard rating must be fitted. Residential **properties** with low hazards serviced by either a 20mm or 25mm **meter** are exempt from this requirement because these **meters** already contain a backflow device. **Properties** with larger **meters** must comply with our requirements published in our policies on our website, as amended from time to time.

If you have a Sydney Water **data logger** on your **property** as part of a metering system, you are responsible for maintaining and paying for the continuous electricity supply to it.

Schedule 4

Customer Contract

You are responsible for installing the pipework on either side of the **meter**. You are also responsible for maintaining the pipework located on either side of the **meter**, unless we maintain it under clause 8.1. For further details, refer to our requirements published in our policies on our website, as amended from time to time.

The installed **meter** remains our property and we will maintain it. In multi-level buildings the individual unit **meter** becomes our property once transferred to us, and from such time we will maintain it. We may charge you for the cost of repair or replacement of the **meter** and its assembly if it is wilfully or negligently damaged by you.

We may charge you an unmetered **service charge** if there is no **meter** measuring the supply of water to your **property**.

We may require that you fit a **meter** to your fire service. This requirement will be noted in your connection approval.

10.2 Measuring water supplied

You will be charged for the quantity of water measured by the **meter** for your **property**, unless the **meter** is faulty and we are required to adjust what we charge you under clause 10.3.

If a **meter** is stopped, inaccessible, or damaged, an estimated usage will be calculated on a basis that is representative of your usage pattern.

Where no satisfactory basis exists to adjust a usage charge, we will negotiate with you a mutually agreeable adjustment of charges based on an estimated reading.

When the price for water or **wastewater** usage is varied on a date that falls within your **meter** reading period, we will apply the new price on a pro rata basis.

We will endeavour to provide an actual **meter** reading once every 12 months, inclusive of meter readings taken by you on our behalf.

You must not remove a **meter** from your **property** without our consent.

Where your **meter** is part of an automated meter reading system in a multi-level building we may share your **meter** reading information with the **Owners Corporation** or building manager.

10.3 Meter testing

If you consider that the **meter** is not accurately recording water passing through it, you may request that we test it. We will advise you of the **meter** reading results and make available a written report on your request.

If the test shows that the **meter** is over-recording, by more than three per cent of the actual quantity of water passing through it, we will:

- repair or replace the **meter**
- refund any charge paid by you for the test, and
- adjust your bill by calculating the measurement error on a basis that is representative of your consumption pattern.

10.4 Access to the water meter

We may enter your **property** without notice for the purposes of reading, testing, inspecting, maintaining and replacing the **meter**.

You must ensure that the **meter** is accessible for **meter** reading and **meter maintenance** purposes. The **meter** and the visible pipe connected should be clear of concrete, plants, trees bushes and other obstructions.

If you have not provided reasonable and safe access to your **meter**, we may bill you on an estimate of your usage and may also recover from you the cost of the attempted **meter** reading.

If you have not provided reasonable and safe access to your **meter** for reading or **maintenance** on two or more occasions, we may:

- ask you to relocate the **meter** at your cost
- ask you to read the **meter** yourself and provide us with the reading
- seek access at a time suitable to you, which may incur an additional fee
- ask you to install a remote reading device, which may incur an additional fee
- take action under clause 6.4 and restrict or disconnect your supply until you replace your pipes or remove the obstruction or concrete around the **meter**, or
- make other arrangements with you.

If you intend to relocate your **meter**, you should engage a licensed plumber at your cost. Your plumber should check our requirements published in our policies on our website, as amended from time to time, before relocating the **meter**.

Schedule 4

Customer Contract

10.5 **Meter replacement**

We will replace the **meter** at no cost to you if the **meter**:

- is found to be defective
- if it can no longer be reasonably maintained, or
- is replaced as part of a **meter** replacement program.

We will attempt to notify you at the time of replacement and advise you that a new **meter** has been installed. A mutually acceptable time will be negotiated with **non-residential customers** for the replacement of **meters**.

11 Who can I speak to if I have any questions or want to make enquiries?

11.1 Telephone enquiries

If you have a telephone **enquiry**, relating to a bill, payment options, concession entitlements or other information about our services, you may contact us on 13 20 92 between 8.30am and 5.30pm, Monday to Friday, excluding public holidays.

Our contact phone number is provided on your bill, in the phone directory and on our website.

If your **enquiry** cannot be answered immediately, we will provide a response to your **enquiry** within five business days of receiving it.

11.2 Internet enquiries

You can find information on a range of topics on our website at sydneywater.com.au. You can also ask questions and be provided with a response.

11.3 Written enquiries

You can also email or write to us.

Email **enquiries** should be sent to on.tap@sydneywater.com.au and written **enquiries** sent to: Sydney Water PO Box 399 Parramatta 2124.

We will reply to your written **enquiry** within five business days of receiving it by mail, where your matter cannot be responded to sooner by phone contact.

11.4 Leaks and faults assistance

In the event of a leak or break to our water main, a **wastewater overflow**, an **unplanned interruption** to supply, or a water quality or water pressure problem, you may contact our 24-hour leaks and faults phone service.

Our leaks and faults phone number is listed on your bill, in the telephone directory and on our website.

11.5 Interpreter and TTY Service

We provide an interpreter service and a TTY service for the hearing impaired at our cost.

12 If I am unhappy with the service provided by Sydney Water what can I do?

12.1 **Customer complaints**

If you have a **complaint** about our service or our compliance with this contract, the **Act** or **Operating Licence**, you should first contact us, either by telephone or by writing to us.

We will address your **complaint** promptly by providing:

- a telephone response within two business days where you have made contact with us and the matter cannot be dealt with immediately, or
- a written or email response within five business days where you have made a written or email **complaint** and the matter cannot be responded to sooner by phone contact.

The response will provide you with our intended course of action and/or identify when the action will be taken. We will also provide the name of a contact person for follow up enquiries.

12.2 **Complaints review**

If you are not satisfied with the solution offered or action taken by us, you may have the **complaint** reviewed by a Sydney Water manager.

The manager will:

- clarify your **complaint** and the outcome sought
- ensure that the **complaint** has been properly investigated
- advise you of the estimated timeframe for our proposed action
- inform you of the outcome of the manager's review
- outline the relevant facts and regulatory requirements where appropriate
- indicate what we will do to address the issue, and
- notify you of your rights to external review if you are still not satisfied with our decision.

12.3 **Resolution of complaints**

A **complaint** will be considered resolved if we provide you with a response:

- that resolves the dispute to your satisfaction or indicates how the dispute will be resolved to your satisfaction
- that provides an explanation of the relevant policy and/or regulatory requirements and why no further action is proposed in relation to the dispute

- that provides a date when the issue will be resolved if the **complaint** relates to future planned operational or capital work, or
- where 28 business days have passed since we provided you with a response and you have not sought a further review by us or lodged a claim in an external dispute resolution forum.

We will extend the 28 business days by a reasonable period if:

- within those 28 business days you have requested an extension, or
- after the 28 business days you demonstrate that, because of special circumstances, you were unable to seek an extension within the 28 business days.

Where a further communication from you or your representative is received, this shall be regarded as a new **enquiry** or **complaint**.

12.4 External dispute resolution

You have the right to seek external resolution of a dispute that has not been resolved by us to your satisfaction.

12.4.1 The Energy and Water Ombudsman, New South Wales

You have the right to refer a **complaint** or dispute arising under this contract to **EWON**. **EWON** is an independent dispute resolution body that can investigate and resolve disputes you have with us under this contract. **EWON** will work with Sydney Water and the **customer** to find a fair and reasonable outcome.

Disputes that may be referred to **EWON** include disputes about supply of service, your bill, credit or payment services, **restriction** or **disconnection**. Full details are available from **EWON**.

You should attempt to resolve the issue with Sydney Water prior to referring the matter to **EWON**.

EWON's services are available to you without cost.

12.4.2 NSW Civil and Administrative Tribunal (**NCAT**)

The **NCAT** may hear and determine consumer claims relating to services supplied by us under this contract.

12.4.3 Other legal avenues

You may also have recourse to the courts.

Schedule 4

Customer Contract

13 Consultation, information and privacy

13.1 Involving customers in service planning

To enable community involvement on issues relevant to our programs, services and decision-making processes, we have a **Customer Council**.

Further information on the role and functions of the **Customer Council** may be obtained on our website or by contacting us.

13.2 Providing information

We will respond in a timely and open manner to requests for information consistent with normal commercial practices and relevant legislation, including the *Government Information (Public Access) Act 2009*.

13.3 Privacy

We will treat your **personal information** according to the applicable provisions of the *Privacy and Personal Information Protection Act 1998* (NSW) and the *Health Records & Information Privacy Act 2002* (NSW).

Details on how we handle your **personal information** is provided in our 'privacy' policy, which is available on our website, as amended from time to time.

Privacy enquiries and **complaints** may be directed to our Privacy Coordinator, or to the NSW Privacy Commissioner.

14 When does this contract with Sydney Water terminate?

14.1 Termination of this contract

This contract, or relevant clauses of this contract, will terminate between you and us if you cease to be covered by all or part of this contract as described in clause 2.2.

The termination of this contract does not affect any rights or obligations of you or us that accrue prior to termination.

If this contract, or part of the contract, terminates because you have requested that some or all of the services that we provide to your premises be transferred to a supplier licensed under the **WIC Act**, we will comply with the Transfer Code of Conduct established under that Act to affect the transfer.

14.2 Variation of this contract

We may vary this contract with approval from the Governor and as permitted by the **Act** as follows:

- a notice identifying a variation to this contract (other than for variations of charges and fees) will be published in a daily newspaper circulating in the **area of operations** at least six months before the variation becomes effective, or a shorter period of notice approved by the **Minister**, and
- a copy of the notice will also be given to each **customer**.

This requirement to obtain approval from the Governor and to give notice of variations to the terms of the contract does not apply to variations to fees and charges made in accordance with a determination by **IPART**. Variations to charges and fees will be published in accordance with clause 4.10.

Information on all variations to this contract will be made available on our website or provided to you on request and will otherwise be made available to you in accordance with our **Operating Licence**.

Schedule 4

Customer Contract

15 Definitions and interpretation

15.1 Definitions

Act	<i>Sydney Water Act 1994</i> and any regulations in force under it.
Area of operations	The area of operations specified in section 10(1) of the Act , and described in Schedule 1 of the Operating Licence .
Australian Consumer Law	The Australian Consumer Law, as set out in Schedule 2 to the <i>Competition and Consumer Act 2010</i> (Commonwealth).
Australian Drinking Water Guidelines	The document entitled <i>Australian Drinking Water Guidelines 2011</i> published by the National Health and Medical Research Council and the Natural Resource Management Ministerial Council of Australia and New Zealand (as amended or updated from time to time).
Australian Guidelines for Water Recycling	The document entitled <i>Australian Guidelines For Water Recycling: Managing Health and Environmental Risks (Phase 1)</i> published by the Environment Protection and Heritage Council, the Natural Resource Management Ministerial Council and the Australian Health Ministers' Conference in November 2006 (as amended or updated from time to time).
Backflow prevention containment device	A device to prevent the reverse flow of water from a potentially polluted source, into the drinking water supply system.
BASIX	The NSW Government's Building and Sustainability Index, which applies to all new homes and some renovations.
Charging period	Any period for which your bill was calculated.
Complaint	An expression of dissatisfaction made to Sydney Water or its contractors related to its products or the complaint handling process itself, where a response or resolution is explicitly or implicitly expected.
Customer	Has the meaning given in clause 2.2.
Customer Contract	Means this document as found in Schedule 4 of the Operating Licence .
Customer Council	A customer council established by us under section 15 of the Act and clause 5.5 of the Operating Licence .

Data logger	This is a device that electronically measures water use. An owner may retrofit this device to the meter when they want up-to-date information on their water use.
Declared stormwater drainage area	An area declared to be a stormwater drainage area as set out in Schedule 1 of the <i>Sydney Water (Stormwater Drainage Areas) Order 2011</i> .
Disconnection	The stopping (either temporarily or permanently) of our supply of services to your property .
Drinking water	Water that is intended for human use and consumption and free of harmful chemicals and disease-causing organisms.
Enquiry	A written or verbal approach by a customer which can be satisfied by providing written or verbal information, advice, assistance, clarification, explanation or referral about a matter.
EWON	The Energy & Water Ombudsman NSW.
Financial hardship	A situation where a customer is willing but unable to pay all or some of the bill by the due date.
Fire service	A water service constructed to meet fire protection requirements under the building or fire codes and standards.
IPART	The Independent Pricing and Regulatory Tribunal of New South Wales.
Maintenance	Includes repairs and replacement and, where relevant, testing and inspection.
Meter	The device used to measure water use. This includes any remote reading equipment and associated wiring, power, data logging and servicing equipment.
Minister	The Minister responsible for administering those provisions of the Act relating to Sydney Water's Operating Licence .
NCAT	The NSW Civil and Administrative Tribunal.
Non-residential customer	A customer who is not a residential customer .
NSW Health	The New South Wales Ministry of Health.

Schedule 4

Customer Contract

Operating Licence	The licence granted to Sydney Water under section 12 of the Act .
Owners Corporation	The collective group of owners of a strata plan.
Payment arrangement	An arrangement between Sydney Water and a customer to pay their bill by instalments, in advance or in arrears.
Personal information	Any information held by us that relates to the supply of services by us, where your individual identity is apparent or can be reasonably ascertained from the information.
Planned interruption	An interruption initiated by us to allow maintenance to be undertaken.
Plumbing Code of Australia	The National Plumbing Code of Australia as produced by the Australian Building Code Board.
Point of connection	Where the private service from a property connects to our water system , wastewater system or stormwater drainage system .
Pressure wastewater system	A system where individual pumps are located in collection tanks and installed on private property . The wastewater is then pumped to the main wastewater network.
Private joint service	A private joint water or wastewater service exists when a private pipe serves more than one property , but there is a single connection to our main.
Private residential tenant	A person who occupies premises under a residential tenancy agreement, excluding premises managed by a social housing provider .
Property	Any real property that is connected to, or for which a connection is available to, our water supply system or our wastewater system or is within a declared stormwater drainage area or within the Rouse Hill stormwater catchment area . This also includes strata titled properties.
Recycled water	Water that has been appropriately treated to be suitable for re-use, other than for use as drinking water .
Recycled water area	A community or communities supplied with recycled water through a pipe network separate from the drinking water

system.

Residential customer	A customer who owns a property that is used as a principal place of residence.
Restriction	A direct intervention in the supply system by Sydney Water in order to reduce flow to a customer's property .
Rouse Hill stormwater catchment area	The area of land located in the Rouse Hill stormwater catchment as identified in any determination made by IPART of maximum prices that may be levied by Sydney Water for stormwater services , as in force from time to time.
Service charge	A charge that applies to customers for being connected to our water system and/or wastewater system and/or within a declared stormwater drainage area or the Rouse Hill stormwater catchment area .
Sewer mining	Sewer mining is the process of tapping into a wastewater pipe (either before or after the wastewater treatment plant) and extracting wastewater that is then treated and used as recycled water .
Social housing provider	A social housing provider means any of the following: <ul style="list-style-type: none">• the New South Wales Land and Housing Corporation• the Aboriginal Housing Office• an organisation registered under Part 5 of the <i>Aboriginal Housing Act 1998</i>, and• a registered community housing provider.
Stormwater drainage system	The stormwater drainage channels, land for drainage, pipes, detention structures, and stormwater quality improvement devices and other equipment that we provide, manage, operate and maintain under the Act to provide stormwater services .
Stormwater services	The services we are permitted to provide by the Operating Licence and any applicable law in respect to providing stormwater drainage systems .
Trade waste	See trade wastewater below.
Trade wastewater	Any liquid and any substances contained in it, which may be produced at the premises in a non-residential activity, and any vehicle transporting wastewater , including septic effluent and

Schedule 4

Customer Contract

wastewater from ships and boats. It includes run off from contaminated open areas. **Trade wastewater** does not include domestic **wastewater** from premises connected to our **wastewater system**.

The term **trade waste** and **trade wastewater** as used in this document are inter-changeable.

Unplanned interruption	An interruption that is caused by a fault in our water system or a fault that is our maintenance responsibility and no notice has been given to you.
Wastewater	Also known as sewage, wastewater includes the water you flush down your toilet, water that drains from your bathtub, sink, washing machine and many other sources.
Wastewater overflow	A discharge of untreated or partially treated wastewater from our wastewater system . These overflows may occur in wet or dry weather.
Wastewater service	<p>The service we are permitted to provide by the Operating Licence and any applicable law in respect to:</p> <ul style="list-style-type: none">• providing wastewater services, and• disposing of wastewater.
Wastewater system	The wastewater pipes and treatment plants and other equipment that we provide, manage, operate and maintain under the Act to provide wastewater services and disposal of wastewater .
Wastewater usage discharge factor	A wastewater usage discharge factor is a measure of the volume of wastewater discharged to the wastewater system expressed as a percentage of water delivered to the property via all Sydney Water drinking water meters .
Water supply service	The services we are permitted to provide by the Operating Licence and any applicable law in respect to storing and supplying water.
Water system	The water mains, pipes, treatment plants and other equipment that we must provide, manage, operate and maintain under the Act to supply and store water.
WIC Act	<i>Water Industry Competition Act 2006 (NSW)</i>



**Your wastewater
system**

Has the meaning given in clause 8.2.

Your water system

Has the meaning given in clause 8.1.

Schedule 4

Customer Contract

15.2 Interpretations

A person includes an individual, a body corporate, an unincorporated body or other entity.

The law includes legislation, regulations, licences, orders, mandatory codes, permits and directions.

A business day is a day other than a Saturday, Sunday or public holiday in New South Wales.

The singular includes the plural and vice versa.

If there is any inconsistency between this contract and any law, the law will prevail to the extent of the inconsistency.

The reference to document, instrument or law includes any amendments, revisions, renewals or reprints from time to time.

Where a word is defined, any other grammatical form of that word has a corresponding meaning.

A reference to we, our or us means Sydney Water Corporation, established under the **Act**, including its officers, employees, agents and contractors.

A reference to you or yours means our **customers**.

B | Recommended reporting manual



Independent Pricing and Regulatory Tribunal

Sydney Water Corporation Reporting Manual

Water – Reporting Manual
July 2015

Amendment Record

Issue No	Date Issued	Reason/s for Amendment
RM-SWC original	16 July 2010	First release
RM-SWC V2 Draft	7 May 2012	Review consultation
RM-SWC V2	12 June 2012	Second Release
RM-SWC V3	6 June 2013	Changes to performance indicators and reporting of opportunities for improvement
RM-SWC V4 Draft	9 February 2015	Draft for consultation as part of 5 year licence review
RM-SWC-V5	1 July 2015	Third release

Inquiries about this Reporting Manual and water licensing in general should be addressed to:

Director, Licensing & Compliance

Independent Pricing and Regulatory Tribunal of New South Wales
PO Box K35, Haymarket Post Shop, NSW 1240
Level 15, 2-24 Rawson Place, Sydney NSW 2000
T (02) 9290 8477

Independent Pricing and Regulatory Tribunal of New South Wales
PO Box K35, Haymarket Post Shop, NSW 1240
Level 15, 2-24 Rawson Place, Sydney NSW 2000
T (02) 9290 8400 F (02) 9290 2061
www.ipart.nsw.gov.au

Contents

1	Introduction	1
1.1	Purpose	1
1.2	Definitions and interpretation	1
1.3	Structure of this Reporting Manual	2
1.4	Changing this Reporting Manual	2
1.5	When should the information be reported?	2
1.6	How should the information be reported?	3
2	Water quality	8
2.1	Periodic reporting	8
2.2	Annual reporting	10
2.3	Intermittent reporting	12
2.4	Report on review of public reporting with respect to water quality	12
2.5	Publicly available documents	12
3	Water quantity	13
3.1	Periodic reporting	13
3.2	Annual reporting	13
3.3	Intermittent reporting	15
3.4	Publicly available documents	15
4	Assets	16
4.1	Periodic reporting	16
4.2	Annual reporting	16
4.3	Intermittent reporting	17
4.4	Publicly available documents	18
5	Customers and Consumers	19
5.1	Periodic reporting	19
5.2	Annual reporting	19
5.3	Intermittent reporting	19
5.4	Publicly available documents	19
6	Environment – indicators and management	21
6.1	Periodic reporting	21
6.2	Annual reporting	21
6.3	Intermittent reporting	22
6.4	Publicly available documents	22

7	Quality management	23
7.1	Periodic reporting	23
7.2	Annual reporting	23
7.3	Intermittent reporting	24
7.4	Publicly available documents	24
8	Performance monitoring	25
8.1	Periodic reporting	25
8.2	Annual reporting	25
8.3	Intermittent reporting	26
8.4	Publicly available documents	26
9	Other Reporting	27
9.1	Audit recommendations	27
9.2	Statement of compliance	27
	Appendices	29
A	Timeline for reporting	31
B	System Performance Standards and Water Conservation Targets	32
C	IPART performance indicators - infrastructure	34
D	IPART performance indicators - environment	40
E	IPART performance indicators - customers	44
F	Drinking Water health and aesthetic water characteristics and raw water operational monitoring characteristics	49

1 | Introduction

The Independent Pricing and Regulatory Tribunal of New South Wales (IPART) is responsible for monitoring and reporting on Sydney Water Corporation's (Sydney Water) compliance with its Operating Licence (Licence).

1.1 Purpose

The Licence contains a number of reporting obligations with which Sydney Water must comply. This Reporting Manual outlines all of Sydney Water's reporting requirements under the Licence and, with respect to those requirements, identifies when, what information and how Sydney Water is to report.

This Reporting Manual does not reproduce Sydney Water's obligations that are set out in the Licence. Therefore, it is necessary for Sydney Water to refer to the Licence and to any legislation, statutory instrument or document referred to in the Licence.

The Licence also contains a condition requiring Sydney Water to comply with any reporting obligations set out in this Reporting Manual.¹ Therefore, Sydney Water must comply with any reporting requirements that are set out in this Reporting Manual, which are additional to those set out in the Licence.

1.2 Definitions and interpretation

Terms that are defined in the Licence have the same meaning in this Reporting Manual, unless the terms are separately defined in this Reporting Manual.

The interpretation provisions in the Licence apply to this Reporting Manual, with all references to the Licence in those provisions taken to be references to this Reporting Manual.

[Note: As at the Commencement Date, the interpretation provisions are contained in clause 12.2 of the Licence.]

¹ Clause 8.2.1 of the Licence.

1.3 Structure of this Reporting Manual

This Reporting Manual is structured as follows:

- ▼ Section 1 details how and when Sydney Water is to report
- ▼ Sections 2 to 8 outline the specific reporting requirements under each clause of the Licence, and
- ▼ Section 9 outlines other general reporting obligations with which Sydney Water must comply.

1.4 Changing this Reporting Manual

We may change this Reporting Manual at any time. In particular, we may change this Reporting Manual to:

- ▼ reflect changes in the applicable law, including the Act
- ▼ include additional reporting obligations where appropriate
- ▼ include references to new Licence obligations
- ▼ delete references to Licence obligations that no longer apply
- ▼ amend the information that Sydney Water must provide to IPART and to NSW Health (as the case may be), and
- ▼ improve the reporting process.

Before we change this Reporting Manual significantly, we will consult with Sydney Water and other interested stakeholders. We will then notify Sydney Water and stakeholders of the changes to this Reporting Manual and the start date for any new reporting arrangements. In determining the start date of significant changes, we will make sure there is enough time for Sydney Water to implement new arrangements.

1.5 When should the information be reported?

Sydney Water's reporting schedule is summarised in Table 1.1. We have grouped reporting requirements into:

- ▼ periodic (ie, monthly and quarterly) reporting
- ▼ annual reporting, and
- ▼ intermittent reporting.

Appendix A of this Reporting Manual provides a summary timeline for Sydney Water's reporting requirements under the Licence.

1.6 How should the information be reported?

1.6.1 Reporting to IPART

Sydney Water should report the required information to IPART in a clear and concise report. Where this Reporting Manual requires information on more than one area (eg, water quality and environment) at the same time, Sydney Water is encouraged to provide the information in a single report. However, Sydney Water may choose to report the information in separate reports.

Any report must be approved by Sydney Water's Managing Director.

Sydney Water must lodge an electronic version of each report with IPART via email with a hard copy sent by mail. When lodging a report, Sydney Water must also provide the name and contact details (phone and email) of the primary contact at Sydney Water with whom IPART may liaise when assessing compliance and an alternative contact for those times when the primary contact is unavailable.

Electronic reports must be emailed to: compliance@ipart.nsw.gov.au

Hardcopy reports must be sent to:

The Chief Executive Officer
Independent Pricing and Regulatory Tribunal of New South Wales
PO Box K35
Haymarket Post Shop NSW 1240

1.6.2 Reporting to NSW Health

Sydney Water must provide reports to NSW Health as outlined in this Reporting Manual.

Sydney Water must lodge an electronic version of any such report with NSW Health via email. When lodging a report with NSW Health, Sydney Water must also provide the name and contact details (phone and email) of the primary contact at Sydney Water with whom NSW Health may liaise when assessing compliance, and an alternative contact for those times when the primary contact is unavailable.

Electronic reports must be emailed to: waterqual@doh.health.nsw.gov.au or to the last email address notified by NSW Health to Sydney Water.

Reporting schedule	Water quality	Water Quantity	Assets	Customer and Consumers	Environment	Quality Management	Performance Monitoring
	Section 2 of Reporting Manual	Section 3 of Reporting Manual	Section 4 of Reporting Manual	Section 5 of Reporting Manual	Section 6 of Reporting Manual	Section 7 of Reporting Manual	Section 8 of Reporting Manual
Annual	Compliance and performance report – 1 September following the end of the relevant financial year (or by a later date agreed to by IPART)	Water Conservation Report – 1 September following the end of the relevant financial year (or by a later date agreed to by IPART)	Compliance and performance report – 1 September following the end of the relevant financial year (or by a later date agreed to by IPART)	None	Compliance and performance report – 1 October following the end of the relevant financial year (or by a later date agreed to by IPART)	Compliance and performance report – 1 September following the end of the relevant financial year (or by a later date agreed to by IPART)	<p>Compliance and performance report (with environmental indicators) – 1 October following the end of the relevant financial year (or by a later date agreed to by IPART)</p> <p>Compliance and performance report (without environmental indicators) – 1 September following the end of the relevant financial year (or by a later date agreed to by IPART)</p>

Reporting schedule	Water quality	Water Quantity	Assets	Customer and Consumers	Environment	Quality Management	Performance Monitoring
	Section 2 of Reporting Manual	Section 3 of Reporting Manual	Section 4 of Reporting Manual	Section 5 of Reporting Manual	Section 6 of Reporting Manual	Section 7 of Reporting Manual	Section 8 of Reporting Manual
			Response time to breaks and leaks report – 1 September following the end of the relevant financial year (or by a later date agreed to by IPART)				
	Report on Audit recommendations by 31 March (or by another date agreed to by IPART) (Section 9.1 of Reporting Manual)						
Intermittent	Incident notification - Immediate	Report outlining approach and principles to developing the Methodology – 1 November 2015	State of the Assets report – 1 September 2015, 2017 and 2019 following the end of the relevant financial year (or by a later date agreed to by IPART)	None	Significant changes to the Environment Management System - Prior to implementing the changes]	Significant changes to the Quality Management System - Prior to implementing the changes	None

Reporting schedule	Water quality	Water Quantity	Assets	Customer and Consumers	Environment	Quality Management	Performance Monitoring
	Section 2 of Reporting Manual	Section 3 of Reporting Manual	Section 4 of Reporting Manual	Section 5 of Reporting Manual	Section 6 of Reporting Manual	Section 7 of Reporting Manual	Section 8 of Reporting Manual
	Significant changes to Drinking Water and Recycled Water Quality Management Systems – Prior to implementing the changes		Significant changes to Asset Management Framework – Prior to implementing the changes				
	Report on review of public reporting with respect to water quality – By 31 December 2016		Significant changes to the Asset Management System – Prior to implementing the changes				
		Significant changes to economic level of Water conservation methodology – Prior to implementing the changes					

2 | Water quality

This section relates to Sydney Water's reporting obligations under clause 2 of the Licence.

2.1 Periodic reporting

2.1.1 Public reporting

Sydney Water must prepare, for each quarter, a report (the **Quarterly Water Quality Monitoring Report**) on Sydney Water's performance against all health and aesthetic water characteristics and raw water operational characteristics identified in Appendix F.

Sydney Water must publish the Quarterly Water Quality Monitoring Report on its website within 4 weeks following the end of the relevant quarter.

The Quarterly Water Quality Monitoring Report must include:

- ▼ the details of the delivery system
- ▼ the number of samples in the period, and
- ▼ quarterly performance and rolling 12-month performance against health guideline values and aesthetic guideline values as per Appendix G. This does not apply to raw water operational monitoring characteristics (which may be compared with operational targets or guidelines (eg, cyanobacteria)).

[Note: Under clauses 2.1.1 and 2.1.2 of the Licence, Sydney Water must maintain and implement a Drinking Water Quality Management System, ie, a Management System that is consistent with the Australian Drinking Water Guidelines, except to the extent that NSW Health specifies otherwise. The Australian Drinking Water Guidelines provide a framework for the management of Drinking Water supplies (ie, Framework for Management of Drinking Water Quality). One of the central aspects of the framework is the use of monitoring to confirm the effectiveness of the preventive measures and barriers to contamination and to enhance Sydney Water's understanding of the performance of the Drinking Water network.]

To comply with the Australian Drinking Water Guidelines, the Drinking Water Quality Management System must include a monitoring program. This section 2.1.1 requires Sydney Water to report on aspects of its monitoring of Drinking Water quality to Customers.]

2.1.2 NSW Health reporting

Monthly

Sydney Water must prepare, for each month, a report on Sydney Water's fluoride monitoring. Sydney Water must submit the report to NSW Health within 2 weeks following the end of the relevant month.

The report must contain, for the relevant month, the information required by the Code of Practice for Fluoridation of Public Water Supplies.

[Note: Sydney Water must report on its fluoride monitoring on the basis that: (a) its performance programs must comply with monitoring requirements in the Code of Practice for the Fluoridation of Public Water Supplies, and (b) NSW Health has specified (as it is authorised to do under clause 2.1.1 of the Licence) that the monitoring and reporting of fluoridation in the Drinking Water Quality Management System must be consistent with the Code of Practice for the Fluoridation of Public Water Supplies.]

Quarterly

Sydney Water must prepare, for each quarter starting from 1 July, a report on Sydney Water's monitoring of Drinking Water and Recycled Water. Sydney Water must submit the report to NSW Health within 6 weeks following the end of the relevant quarter.

The report must include the following information for the relevant quarter:

- ▼ details of any monitoring test result that does not comply with:
 - the relevant health or aesthetic guideline value for each Drinking Water quality characteristic (each as specified in the monitoring program developed as part of the Drinking Water Quality Management System), and
 - the relevant health or aesthetic guideline value for each Recycled Water quality characteristic (each as specified in the monitoring program developed as part of the Recycled Water Quality Management System), (each, an **Exception**), and
- ▼ the relevant critical control point breached and the action taken.

The details should include:

- ▼ test results and the date or period of non-compliance with the relevant health or aesthetic guideline values
- ▼ an appraisal of the Exception, including discussion of the extent and nature of the Exception and an analysis of the risks posed by the Exception, and
- ▼ an explanation of the causes of the Exception and any action taken to rectify the Exception and prevent it from re-occurring.

If there are no Exceptions in the quarter, the report should state that to be the case.

*[Note: As explained in the note to section 2.1.1 above, Sydney Water must maintain and implement a Drinking Water Quality Management System in accordance with the Licence. Sydney Water must also maintain and implement a Recycled Water Quality Management System, being a Management System that is consistent with the Australian Guidelines for Water Recycling, in accordance with the Licence (clauses 2.2.1 and 2.2.2 of the Licence). The Australian Guidelines for Water Recycling provide a framework for good management of Recycled Water quality (ie, the Framework for Management of Recycled Water Quality and Use). To comply with the Licence, the Drinking Water Quality Management System and the Recycled Water Quality Management System (each, a **Water Quality Management System**) must each include a monitoring program. This section 2.1.2 requires Sydney Water to report on aspects of the quality of Drinking Water and Recycled Water under such monitoring programs.]*

2.2 Annual reporting

2.2.1 Compliance and performance reporting

Sydney Water must prepare, for each financial year, compliance and performance report on its management of the quality of Drinking Water and Recycled Water. Sydney Water must submit the compliance and performance report to IPART and NSW Health by **1 September** following the end of the relevant financial year, or at a later date agreed to by IPART.

The compliance and performance report must include:

- ▼ the Drinking Water and Recycled Water quality management activities and programs completed by Sydney Water in the financial year to meet its water quality objectives, including the results and outcomes from those activities and programs
- ▼ the Drinking Water and Recycled Water quality management activities and programs proposed to be undertaken by Sydney Water to meet its water quality objectives, including the expected outcomes, scope and timetable for completion

- ▼ an assessment of the performance of critical control points (as identified by the Water Quality Management Systems) over the long-term in accordance with the Australian Drinking Water Guidelines and the Australian Guidelines for Water Recycling (each, a **Guideline**) (as the case may be)
- ▼ an assessment of the review and continual improvement conducted over the previous 12-month period (as identified by the Water Quality Management Systems) in accordance with Element 12 of the relevant Guideline
- ▼ any proposed significant changes to a Water Quality Management System, and
- ▼ any non-compliance with a Water Quality Management System and the action/s taken to resolve those non-compliances.

[Note: As explained in the notes to section 2.1.1 and 2.1.2 above, Sydney Water is required, under the Licence, to maintain and implement the Water Quality Management Systems in accordance with the Licence. This section 2.2 requires Sydney Water to report on how it complies with those Licence requirements.]

The water quality objectives referred to in this section 2.2.1 are objectives Sydney Water would need to identify for the Water Quality Management Systems. Sydney Water's water quality objectives may be either:

- ▼ *the broad objectives of the Water Quality Management Systems (eg, to ensure consistent management of water quality). These objectives may cover all 12 elements of the Framework for Management of Drinking Water Quality or the Framework for Management of Recycled Water Quality and Use, such as monitoring, operation, maintenance, training, community consultation and research programs, or*
- ▼ *the target water quality criteria (ie, operational water quality objectives for each operational water quality characteristic included in the monitoring program developed as part of the Water Quality Management Systems eg, Escherichia coli numbers in raw water or sewage).*

The activities and programs set out in the Water Quality Management Systems, which are referred to in this section 2.2.1, are those that Sydney Water would identify in its risk assessments as actions or programs that are required to manage or maintain a risk below a tolerable level. Undertaking a risk assessment is part of the Framework for the Management of Drinking Water Quality and the Framework for the Management of Recycled Water Quality, with which the relevant Water Quality Management System must be consistent.]

2.3 Intermittent reporting

2.3.1 Incident and emergency reporting – Drinking Water and Recycled Water

Sydney Water must immediately report to NSW Health any incident in the delivery of its Services which may adversely affect public health.

Sydney Water must report the “incident” (as defined in a Water Quality Management System) in accordance with the reporting protocols developed in that necessary Water Quality Management System.

[Note: To comply with the Licence, each Water Quality Management System must define the word “incident” include protocols for external communications and reporting of any incident. This section 2.3.1 requires Sydney Water to report any incident in accordance with these protocols.]

2.3.2 Notification of significant changes to Water Quality Management Systems

Sydney Water must notify IPART and NSW Health of any significant changes that it proposes to make to a Water Quality Management System prior to implementing the changes.

2.4 Report on review of public reporting with respect to water quality

Sydney Water must, by **31 December 2016**:

- ▼ complete a review of its public reporting on water quality (in consultation with its Customer Council and NSW Health), and
- ▼ submit to IPART a report detailing the outcomes of the review.

[Note: This requirement is imposed under clause 2.1.5 of the Licence.]

2.5 Publicly available documents

Sydney Water must make the Quarterly Water Quality Monitoring Report available to any person, free of charge:

- ▼ on its website for downloading, and
- ▼ upon request made to the Contact Centre.

3 | Water quantity

This section relates to Sydney Water's reporting obligations under clause 3 of the Licence.

3.1 Periodic reporting

There is no periodic reporting requirement for the purpose of clause 3 of the Licence.

3.2 Annual reporting

3.2.1 Water Conservation Report

Sydney Water must prepare, for each financial year, a report with respect to water conservation (**Water Conservation Report**). Sydney Water must submit the Water Conservation Report to IPART by **1 September** following the end of the relevant financial year, or by a later date agreed to by IPART.

Until the Methodology is approved by IPART (under clause 3.2.3 of the Licence), the Water Conservation Report must provide information, in respect of the financial year to which the report relates, on:

- ▼ strategies, programs and projects relating to water conservation undertaken by Sydney Water
- ▼ steps that Sydney Water has taken to promote, foster and encourage the efficient use of water and the production and use of recycled water, where financially viable, and
- ▼ Sydney Water's performance against:
 - the water usage target and water leakage target, and
 - system performance standards WC1 and WC2 set out in Appendix B to this Reporting Manual.

Once the Methodology is approved by IPART (under clause 3.2.3 of the Licence), the Water Conservation Report must:

- ▼ include the elements of Sydney Water's water conservation activities for the previous financial year (or for the period the Methodology was approved if approved during that financial year) and for at least the next five financial years, including (but not limited to):
 - 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 economic level of water conservation activity and the Methodology
- ▼ describe and explain Sydney Water's progress against each of the elements of its water conservation program for the previous financial year (or for the period the Methodology was approved if approved during that 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 Metropolitan Water Plan and its progress against the Metropolitan Water Plan, and
- ▼ include information on the following measures for the previous financial year (or for the period the Methodology was approved if approved during that financial year), as well as earlier financial years (where applicable) of the Licence term:
 - the level of water leakage from Sydney Water's Drinking Water supply system against the economic level of leakage for that financial year
 - the volume of water sourced from Recycled Water (in Megalitres), and
 - the quantity of Drinking Water drawn by Sydney Water from all sources, expressed in Gigalitres per year (aggregate), litres per person per day (weather corrected) and kilolitres per person per year (weather corrected).

*[Note: The first Water Conservation Report to be submitted to IPART by Sydney Water after IPART approves the Methodology (**First Report**) will likely be submitted shortly after such approval is given. In those circumstances, IPART: (a) does not expect that Sydney Water will have fully implemented all of the water conservation activities set out in the First Report in accordance with the Methodology, and (b) anticipates that the five year plan set out in the First Report may be subject to change as the Methodology becomes more established.]*

3.3 Intermittent reporting

3.3.1 Economic level of water conservation – Methodology

Sydney Water must prepare a report outlining Sydney Water's approach to, and principles for, developing the Methodology. Sydney Water must submit the report to IPART by **1 November 2015**.

3.3.2 Notification and approval of significant changes to economic level of water conservation methodology

Once the Methodology is approved by IPART (under clause 3.2.3 of the Licence), Sydney Water must:

- ▼ notify IPART of any significant changes that it proposes to make to the Methodology, and
- ▼ obtain IPART's consent to make any significant changes to the Methodology prior to implementing the changes.

3.4 Publicly available documents

Sydney Water must make the Water Conservation Report available to any person, free of charge:

- ▼ on its website for downloading, and
- ▼ upon request made to the Contact Centre.

4 | Assets

This section relates to Sydney Water's reporting obligations under clause 4 of the Licence.

4.1 Periodic reporting

There are no periodic reporting requirements for the purpose of clause 4 of the Licence.

4.2 Annual reporting

4.2.1 Compliance and performance

Sydney Water must prepare, for each financial year, a report with respect to Sydney Water's performance against the System Performance Standards. Sydney Water must submit the report to IPART by **1 September** following the end of the relevant financial year, or by a later date agreed to by IPART.

The report must include the following information:

- ▼ information regarding Sydney Water's compliance or non-compliance with the System Performance Standards specified in clause 4.2 of the Licence in accordance with the template in Appendix B of this Reporting Manual, and
- ▼ an explanation of how Sydney Water has met or failed to meet the System Performance Standards, which details:
 - major factors (both positive and negative) that have influenced Sydney Water's performance, including factors that are both within and beyond Sydney Water's control, and
 - reasons for any significant variation (both positive and negative) between Sydney Water's performance in the financial year and performance in prior years.

[Note: under clause of 4.2 of the Licence, Sydney Water is required to comply with the Water Pressure Standard, Water Continuity Standard and Wastewater Overflow Standard.]

4.2.2 Response time to breaks and leaks

Sydney Water must prepare a report, for each financial year, with respect to Sydney Water's performance against the response time indicators I9 to I12 set out in Appendix C of this Reporting Manual. Sydney Water must submit the report to IPART by **1 September** following the end of the relevant financial year, or by a later date agreed to by IPART.

The report is to contain the following information:

- ▼ an explanation of major factors (both positive and negative) that have influenced Sydney Water's performance, including factors that are both within and beyond Sydney Water's control, and
- ▼ reasons for any significant variation (both positive and negative) between Sydney Water's performance in the financial year and performance in prior financial years.

[Note: under clause of 4.3 of the Licence, Sydney Water is required to report on water main breaks and leaks in accordance with the Reporting Manual.]

4.3 Intermittent reporting

4.3.1 State of the Assets report

Sydney Water must prepare, for the financial year ending 30 June 2015, 30 June 2017 and 30 June 2019, a report on the state of each group of Assets managed by Sydney Water.

Sydney Water must submit the report to IPART by **1 September** following the end of the relevant financial year, or by a later date agreed to by IPART.

The report must include the following matters as at 1 July of the financial year:

- ▼ a description of each group of Assets managed by Sydney Water
- ▼ Sydney Water's assessment of the expected capability of the Assets to deliver the Services and to meet the existing obligations consistent with the Licence, the Customer Contract, and all applicable laws with which Sydney Water must comply
- ▼ Sydney Water's assessment of the major issues or constraints on current and future performance of the Assets
- ▼ the strategies and expected costs of future investment in Assets, and
- ▼ such other matters reasonably required by IPART.

4.3.2 Notification of significant changes to the Asset Management Framework

Until the Asset Management System is certified and implemented in accordance with clauses 4.1.2(a) and 4.1.4 of the Licence, Sydney Water must notify IPART of any significant changes that it proposes to make to the Asset Management Framework prior to implementing the changes. This obligation does not apply to changes to the Asset Management Framework that will assist in the transition of the Asset Management Framework to an Asset Management System.

4.3.3 Notification of significant changes to the Asset Management System

Once the Asset Management System is certified and implemented in accordance with clauses 4.1.2 and 4.1.4 of the Licence, Sydney Water must notify IPART of any significant changes that it proposes to make to the Asset Management System prior to implementing the changes.

4.4 Publicly available documents

Sydney Water must provide to IPART and make available to any person free of charge, on its website for downloading and upon request made to the Contact Centre, a copy of:

- ▼ a document setting out its process for responding to water main breaks and leaks, and
- ▼ the report on factors that influence the time taken by Sydney Water to stop the loss of water as measured from the time that Sydney Water receives the notification of a break or leak (as required under clause 4.2.2 of the Reporting Manual).

[Note: The process and decision making framework and performance indicators must relate to water main breaks and leaks in both the trunk and reticulation components of Sydney Water's Drinking Water supply system between water treatment plants and a Property.]

5 | Customers and Consumers

This section relates to Sydney Water's reporting obligations under clause 5 of the Licence.

5.1 Periodic reporting

There is no periodic reporting requirement for the purpose of clause 5 of the Licence.

5.2 Annual reporting

There is no annual reporting requirement for the purpose of section 5 of the Licence.

5.3 Intermittent reporting

There is no intermittent reporting requirement for the purpose of section 5 of the Licence.

5.4 Publicly available documents

Sydney Water must make a copy of the:

- ▼ Customer Council Charter and minutes from proceedings of the Customer Council (as required under clause 5.5.6 of the Licence)
- ▼ Customer Contract, including any variations to it (as required under clause 5.1.2 of the Licence)
- ▼ pamphlet that explains the Customer Contract, including any variations made to it (as required under clause 5.2.3 of the Licence)
- ▼ explanation of Assistance Options for Payment Difficulties and Actions for Non-Payment (as required under clauses 5.4.3 and 5.4.4 of the Licence)
- ▼ information concerning internal Complaints handling, explaining how to make a Complaint and how Sydney Water will receive, respond to and resolve Complaints (as required under clause 5.6.4 of the Licence), and

- ▼ pamphlet that explains how the external disputes resolution scheme works and how it can be accessed (as required under clause 5.7.2(c) of the Licence),

available to any person, free of charge:

- ▼ on its website for downloading, and
- ▼ upon request made to the Contact Centre.

6 | Environment – indicators and management

This section relates to Sydney Water’s reporting obligations under clause 6 of the Licence.

6.1 Periodic reporting

There is no periodic reporting requirement for the purpose of clause 6 of the Licence.

6.2 Annual reporting

6.2.1 Compliance and performance reporting

Sydney Water must prepare, for each financial year, a compliance and performance report on Sydney Water’s Environmental Management System. Sydney Water must submit the compliance and performance report to IPART by **1 October** following the end of the relevant financial year, or by a later date agreed to by IPART.

The compliance and performance report must include:

- ▼ a summary of the objectives and targets of the Environmental Management System
- ▼ the environmental management activities and programs completed by Sydney Water in the financial year to meet the objectives and targets of the Environmental Management System
- ▼ the results and outcomes from those activities and programs
- ▼ the environmental management activities and programs proposed to be undertaken by Sydney Water to meet the objectives and targets of the Environmental Management System in the future, including the timetable for completion
- ▼ any proposed significant changes to the Environmental Management System, and
- ▼ any non-conformances with the Environmental Management System and the actions taken to resolve those non-conformances.

[Note: Under clause 6.1.1 of the Licence, Sydney Water must maintain an Environmental Management System that is consistent with the standard specified in the Licence. The standard outlines the components of an Environmental Management System, which includes identifying and developing objectives and targets for the Environmental Management System. Clause 6.1.4 of the Licence requires Sydney Water to provide IPART with a report on the outputs of the Environmental Management System in accordance with this Reporting Manual. This section 6.2.1 requires Sydney Water to report on how it complies with the requirement under clause 6.1.4 of the Licence in accordance with this Reporting Manual. The environmental management activities and programs referred to in this section 6.2.1 are those that Sydney Water would need to undertake to achieve the objectives and targets of the Environmental Management System.]

6.3 Intermittent reporting

Sydney Water must report to IPART any significant changes that it proposes to make to the Environmental Management System prior to implementing the changes.

6.4 Publicly available documents

Sydney Water must make the compliance and performance report on the Environmental Management System (referred to in section 6.2.1 of this Reporting Manual) available to any person, free of charge:

- ▼ on its website for downloading, and
- ▼ upon request made to the Contact Centre.

7 | Quality management

This section relates to Sydney Water's reporting obligations under clause 7 of the Licence.

7.1 Periodic reporting

There is no periodic reporting requirement for the purpose of clause 7 of the Licence.

7.2 Annual reporting

Under clauses 7.1.1 to 7.1.3 of the Licence, Sydney Water must, by:

- ▼ 30 June 2017, develop; and
- ▼ 30 June 2018, have certified and fully implement,

a Quality Management System. The reporting obligations set out in this section only arise once the Quality Management System has been developed and certified in accordance with the Licence.

7.2.1 Compliance and performance reporting

Sydney Water must prepare, for each financial year, a compliance and performance report. Sydney Water must submit the compliance and performance report to IPART by **1 September** following the end of the relevant financial year, or by a later date agreed to by IPART.

The compliance and performance report must include:

- ▼ the quality management activities and programs completed by Sydney Water in the relevant financial year to meet the objectives of the Quality Management System
- ▼ the results and outcomes from those activities and programs
- ▼ the quality management activities and programs proposed to be undertaken by Sydney Water to meet objectives of the Quality Management System in the future, including the timetable for completion

- ▼ any proposed significant changes to the Quality Management System, and
- ▼ any non-conformances in the Quality Management System and the action taken to resolve those non-conformances.

[Note: Under clauses 7.1.1 to 7.1.3 of the Licence, Sydney Water must develop, have certified and implement a Quality Management System that is consistent with the standard specified in the Licence. This section 7.2.1 requires Sydney Water to report on how it complies with that Licence requirement. The objectives referred to in this section 7.2.1 are those that Sydney Water would need to identify for the Quality Management System. The quality management activities and programs referred to in this section 7.2.1 are those that Sydney Water would need to undertake to achieve the objectives of the Quality Management System.]

7.3 Intermittent reporting

Sydney Water must report to IPART any significant changes that it proposes to make to the Quality Management System prior to implementing the changes.

7.4 Publicly available documents

Sydney Water must make the compliance and performance report on the Quality Management System (referred to in section 7.2.1 of this Reporting Manual) available to any person free of charge:

- ▼ on its website for downloading, and
- ▼ upon request made to the Contact Centre.

8 | Performance monitoring

This section relates to Sydney Water's reporting obligations under clause 8 of the Licence.

8.1 Periodic reporting

There is no periodic reporting requirement for the purpose of clause 8 of the Licence.

8.2 Annual reporting

8.2.1 Compliance and performance reporting

In addition to any annual reporting requirements referred to in other sections of this Reporting Manual:

- ▼ Sydney Water must prepare, for each financial year, a compliance and performance report on:
 - Sydney Water's performance against the performance indicators set out in Appendices C, D and E of this Reporting Manual for the relevant financial year, and
 - Sydney Water's analysis of any problems of a systemic nature arising from Sydney Water's performance against those performance indicators.

Sydney Water must include in the compliance and performance report information on its performance against National Water Initiative Performance Reporting Indicators (other than those that relate to environmental indicators).

[Note: The National Water Initiative Performance Indicators are outlined in the National Performance Frameworks: Urban performance reporting Indicators and definitions handbook.]

Sydney Water must submit the compliance and performance report to IPART by **1 September** following the end of the relevant financial year, or by a later date agreed to by IPART.

- ▼ Sydney Water must prepare, for each financial year, a separate compliance and performance report setting out Sydney Water's performance against the environmental indicators set out in Appendix E and National Water Initiative Performance Reporting Indicators that relate to the environment. Sydney Water must submit the report to IPART by **1 October** following the end of the relevant financial year, or by a later date agreed to by IPART.

[Note: Under clause 8.2 of the Licence, Sydney Water must comply with its reporting obligations in this Reporting Manual. This section 8.2.1 requires Sydney Water to report on its performance against performance indicators set out in this Reporting Manual.]

8.3 Intermittent reporting

There is no intermittent reporting requirement for the purpose of clause 8 of the Licence.

8.4 Publicly available documents

Sydney Water is not required to make documents or reports publicly available under this section 8 of this Reporting Manual.

[Note: IPART provides annual performance data on the public water utilities (including Sydney Water) on its website. Further, the Bureau of Meteorology prepares an annual National Performance Report with respect to all urban water utilities (including Sydney Water). This report is also publicly available.]

9 | Other Reporting

9.1 Audit recommendations

Sydney Water must report to IPART annually on the status of any audit recommendations identified in the most recent Operational Audit and outlined in IPART's audit report to the Minister.

Sydney Water must submit the audit recommendations status report to IPART by **31 March** each year, or by another date agreed to by IPART.

[Note: Under clause 8.1 of the Licence, IPART or an Auditor may undertake an Operational Audit. This section 9.1 requires Sydney Water to report on the status of implementing recommendations identified in an Operational Audit.]

9.2 Statement of compliance

IPART's Public Water Utilities Audit Guideline specifies the information that IPART requires for a statement of compliance.² Sydney Water's statement of compliance must be provided in accordance with IPART's Audit Guideline.

[Note: Under clause 8.1 of the Licence, IPART may undertake an Operational Audit on Sydney Water's compliance with the Licence. As part of the audit process, Sydney Water must provide a statement of compliance which identifies any non-compliance with the Licence of which Sydney Water is aware.]

² IPART, *Audit Guideline – Public Water Utilities*, July 2014, Appendix B.



Appendices

9 Other Reporting

A Timeline for reporting

Table A.1 Timing of regular reporting under the Sydney Water Licence

Date/frequency	Report to	Required Report
Monthly	NSW Health	▼ Reporting on fluoride monitoring
Quarterly	Public	▼ Quarterly Water Quality Monitoring Report
Quarterly	NSW Health	▼ Exception reporting on Sydney Water's monitoring of Drinking Water and Recycled Water
Annually 31 March	IPART	▼ Audit recommendation status update
Annually 1 September	IPART	▼ Compliance and performance report on: <ul style="list-style-type: none"> – Management of the quality of Drinking Water and Recycled Water – Water conservation – Compliance with Water Pressure Standard, Water Continuity Standard and Wastewater Overflow Standard – Response time to breaks and leaks – Quality Management System – Performance indicators (Appendix C and E) – NWI indicators (except for environmental indicators)
Annually 1 October	IPART	▼ Compliance and performance report on Environmental Management System, environment performance indicators (Appendix D) and NWI environmental indicators

Table A.2 Timing of submission of other specific reports by Sydney Water

Date	Plan submitted to	Event
1 November 2015	IPART	Report on outlining approach and principles to developing its methodology for the determination of economic level of water conservation
31 December 2016	IPART	Report setting out the IPART approved methodology for the determination of economic level of water conservation
1 September 2015, 1 September 2017 and 1 September 2019	IPART	State of the Assets report
Immediately upon occurrence of incident	NSW Health	Incident water quality monitoring results

B System Performance Standards and Water Conservation Targets

The table in this appendix sets out the System Performance Standards that must be reported to IPART.

Important Note: The data in the following table must be accompanied by an explanation of the performance against the requirements in the Licence which details:

- ▼ major factors (both positive and negative) that have influenced this performance, including factors that are both within and beyond Sydney Water's control and
- ▼ reasons for any variation (both positive and negative) between performance in the preceding financial year and prior 5 years.

Table B.1 System Performance Standards

Standard No.	Standard Definition
SPS 1	The Number of Properties that experience a Water Pressure Failure in the preceding financial year, as defined in the Licence.
SPS 2	The Number of Properties that experience an Unplanned Water Interruption that lasts for more than 5 continuous hours, in the preceding financial year, as defined in the Licence.
SPS 3	The Number of Properties that experience 3 or more Unplanned Water Interruptions that each lasts for more than 1 hour, in the preceding financial year as defined in the Licence.
SPS 4	The Number of Properties (other than Public Properties) that experience an Uncontrolled Wastewater Overflow in dry weather in the preceding financial year, as defined in the Licence.
SPS 5	The Number of Properties (other than Public Properties) that experience 3 or more Uncontrolled Wastewater Overflows in dry weather in the preceding financial year, as defined in the Licence.
WC 1	The quantity of potable water that Sydney Water has drawn from all sources in the preceding financial year (L/person/day); and The quantity of potable water that Sydney Water has drawn from all sources in the preceding financial year adjusted to account for the effects of weather on water usage (L/person/day).
WC 2	The amount of water leakage from the Drinking Water Supply System, averaged for the preceding financial year (ML per day).

C IPART performance indicators - infrastructure

The table in this appendix set out the infrastructure performance indicators required to be provided to IPART.

Table C1 Performance Indicators – infrastructure

IPART Indicator No.	Indicator	Definitions
I 1	The number of properties affected by an unplanned water interruption duration of more than 1 hour and less than or equal to 5 hours.	<p>Property means any real property to which either or both of the following conditions apply:</p> <ul style="list-style-type: none"> a. the real property is connected to the water utility's drinking water supply system, to the water utility's sewerage system or to the water utility's recycled water system, and a charge for the services provided by one or more of those systems is levied on the owner of the real property b. the real property is within a declared stormwater drainage area for which the utility imposes a stormwater charge upon the owner of real property in that area. <p>Water Interruption means any event causing a total loss of water supply due to any cause. Water interruption excludes those caused by bursts or leaks in the service connection to internal plumbing or planned meter replacements. All interruptions not subject to notification caused by third parties or a power failure should be included. Exclude instances of reduced service levels due to, for example, low pressure. If a property experiences more than one interruption then it should be counted for each event. A water supply interruption, which causes loss of supply to 100 customers, is counted as 100 customer interruptions.</p>
I 2	Occurrence of water interruptions to affected properties (i.e. the number of properties experiencing 3 or more Planned or Unplanned water interruptions of more than one hour duration).	<p>Planned water interruption – water interruption initiated by the water utility for which at least 24 hours notice has been given to the customer.</p> <p>Unplanned water interruption means an interruption in which an occupier of a property has not received at least 24 hours notification of the interruption or an interruption that has occurred prior to the expiry of any notice provided to an occupier advising of an interruption. It also includes outages where the duration exceeds that originally notified. In this case the entire outage is classed as unplanned.</p>
I 3	Events leading to planned or unplanned water interruption where 250 or more properties experience an interruption of over 5 hrs duration.	
I 4 (S)	The number of residential properties affected by planned water supply interruptions in peak hours (5am-9am and 5pm-11pm).	<p>Property as per I 1.</p> <p>Planned water interruption as per I 1</p> <p>Notes:</p> <ul style="list-style-type: none"> 1. For the purpose of this indicator, property refers to only residential properties. 2. Interruptions spanning any part of the peak period are to be included.

IPART Indicator No.	Indicator	Definitions
I 5	The number of properties in the water utility's drinking water supply network experiencing a water pressure failure which is occasional or recurrent, but not permanent.	<p>Property as per I 1.</p> <p>A property experiences a water pressure failure if a pressure of less than 15 metres head is experienced for a continuous period of 15 minutes or more measured at the point of connection of the Property and the water utility's water supply system, usually at the point of connection known as the "main tap". For the purpose of this indicator.</p> <ul style="list-style-type: none"> (a) Where connected properties are in multiple occupancy, each separately billed or occupied part shall be counted as one connected property. Connected properties currently unoccupied shall be included. (b) A property is taken to have experienced a water pressure failure at each of the following times: <ul style="list-style-type: none"> (i) when a person notifies the water utility that the Property has experienced a water pressure failure and that water pressure failure is confirmed by the water utility, or (ii) when the water utility's systems identifies that the Property has experienced a water pressure failure. (c) A Property will not be taken to have experienced a water pressure failure only because of a short term operational problem (such as a main break), which is remedied within four days of its occurrence or from abnormal demand (such as demand during fire fighting).

IPART Indicator No.	Indicator	Definitions
I 6	Number of High Priority sewage overflows per 100 km of sewer main responded to in a year.	<p>High Priority sewage overflow is an event assessed by the water utility as:</p> <ul style="list-style-type: none"> (a) a public health concern (b) likely to amount to significant damage to property (c) likely to have a significant environmental impact (d) an interruption of the sewerage service. <p>Medium Priority sewage overflow is an event assessed by the water utility as likely to amount to:</p> <ul style="list-style-type: none"> (a) minor property damage (b) minor environmental impact (including unpleasant odours) not posing a significant health risk. <p>The utility has defined problem codes of 'sewerage surcharge', 'plumber confirmed choke' or 'internal surcharge'. The number of events to be used is the number recorded under these codes determined to be priority High or Medium jobs.</p> <p>Note: High Priority is equivalent to a Priority 6 for Sydney Water or Priority 1 for Hunter Water Corporation. Medium Priority is equivalent to a Priority 5 for Sydney Water or Priority 2 for Hunter Water Corporation.</p>
I 7	Number of Medium Priority sewage overflows per 100 km of sewer main responded to in a year.	
I 8	Number of residential customers' dwellings affected by sewer spills not contained within 1 hour of notification.	<p>Residential customer means a customer who owns real property which is used as a principal place of residence.</p> <p>Property as per I 1.</p> <p>Sewer spills refers to a sewer spill caused by a fault in the water utility's sewerage system that discharges to a customer's dwelling. It does not include spills caused by faults in the service connection or house connection branch and the house service line.</p> <p>Contained means the sewage spill has ceased or has been alleviated. It does not include sewer spills caused by faults or blockages in the customer's pipes.</p>

IPART Indicator No.	Indicator	Definitions
I 9 (previous RT 1 - see Note A below)	Percentage of priority 6 breaks/leaks in drinking water mains that Sydney Water responded to within 3 hours.	<p>Water Main Breaks/Leaks refers to the trunk and reticulation components of Sydney Water's drinking water supply system between water treatment plants and a property.</p> <p>Response time is measured from when Sydney Water receives notification of a break or leak to the time Sydney Water stops the loss of water.</p> <p>Priority level 6 A high flow of water causing an immediate danger to people, property or the environment. A leak that:</p> <ul style="list-style-type: none"> a) is to result or results in a major loss of water b) is to cause or causes damage to property, or c) is to pose or poses immediate danger to the environment or people. <p>An example of a Priority 6 leak is water gushing or spurting from the ground and resulting in a major loss of water.</p>
I 10 (previous RT 2 - see Note A below)	Percentage of priority 5 breaks/leaks in drinking water mains that Sydney Water responded to within 6 hours.	<p>Priority level 5 A moderate flow of water representing a risk to people, property or the environment. A leak that:</p> <ul style="list-style-type: none"> a) is to result or results in the moderate loss of water b) is to cause or causes service disruption to a customer or customers c) is to threaten or may threaten damage to property, or d) is to pose or poses a potential risk to the environment or people. <p>An example of a Priority 5 leak is a leak that results in a moderate loss of water. A leak classified as a Priority 5 would be running at a rate greater than the full flow of a garden tap.</p>
I 11 (see Note A below)	Percentage of priority 5 breaks/leaks in drinking water mains that Sydney Water responded to within 24 hours.	<p>Priority level 5 A moderate flow of water representing a risk to people, property or the environment. A leak that:</p> <ul style="list-style-type: none"> a) is to result or results in the moderate loss of water b) is to cause or causes service disruption to a customer or customers c) is to threaten or may threaten damage to property, or d) is to pose or poses a potential risk to the environment or people.

IPART Indicator No.	Indicator	Definitions
		An example of a Priority 5 leak is a leak that results in a moderate loss of water. A leak classified as a Priority 5 would be running at a rate greater than the full flow of a garden tap.
I 12 (Previously RT 3 – see note A below)	Percentage of priority 4 breaks/leaks in drinking water mains that Sydney Water responded to within 5 days.	<p>Priority level 4</p> <p>A low flow of water that does not represent a risk to people, property or the environment.</p> <p>A leak that:</p> <ul style="list-style-type: none"> a) is to result or results in a minor loss of water b) is to cause or causes a limited service disruption to: <ul style="list-style-type: none"> – customers, ie lower pressure than normal or a reported – minor leak on a roadway, and c) is not a danger to the environment or people. <p>An example of a Priority 4 leak is a leak which results in a minor loss of water. A leak classified as a Priority 4 would be running at a rate less than the full flow of a garden tap.</p> <p><i>[Note: Priority level 3 breaks are those defined as creating a visible damp or wet area with no apparent flow of water. Leaks at or below Priority 3 level are not included in the above definition.]</i></p>

[Note: Under section 4.2.2 of this Reporting Manual, Sydney Water is required to report on its response times to breaks and leaks in respect of I9 to I12.]

D | IPART performance indicators - environment

The table in this appendix sets out the environmental performance indicators required to be provided to IPART as follows.

Table D.1 Performance Indicators - Environment

IPART Indicator No.	Indicator detail	Definitions
E 1	Total number of proceedings and Penalty Notices under the Protection of the <i>Environment Operations (POEO) Act 1997</i> issued to the water utility.	Proceedings refer to proceedings in connection with the POEO Act for prescribed offences. Penalty Notice is a notice to the effect that, if the person served with the notice does not wish to have a specified penalty offence dealt with by a court, the person may pay the penalty prescribed under section 227 for the offence.
E 2	Total number of proceedings and Penalty Notices under the <i>Protection of the Environment Operations (POEO) Act 1997</i> issued to contractors engaged by the water utility.	Note for E2 -this indicator refers to penalty notices which contractors inform the water utility were incurred whilst they were conducting works for the corporation. Each breach notice will be reported on the date that the contractor informed the water utility, not on the date the penalty was incurred or the date the notice was issued to the contractor.
E 3	Total electricity consumption by water assets (kWh/ML of water supplied to be included).	Water supplied is the total metered volume of water (potable or non-potable) supplied to customers over the reporting period plus estimated non-metered water supplied. This comprises the sum of residential water supplied, commercial, municipal and industrial water supplied and other water supplied (includes estimated non-metered water supplied). It Includes recycled water and urban stormwater used but excludes agricultural irrigation, environmental water and managed aquifer recharge. Sewage treated is the total volume of sewage collected by the water utility, measured as treatment plant inflow, plus sewage treated by another business on behalf of the water utility eg, wholesaler. This measure should equal the sum of volumes reported for residential, non-residential and non-trade waste collected and trade waste collected. Renewable energy is electricity sourced from non-fossil fuel sources.
E 4	Total electricity consumption by sewer assets (KWh/ML of sewage collected).	
E 5	Electricity consumption from renewable sources or generated by the water utility expressed as a percentage of total electricity consumption.	

IPART Indicator No.	Indicator detail	Definitions
E 6 (S)	Total volume of Controlled Sewage Overflows that occur in dry weather, expressed as a percentage of total sewage effluent discharged to the environment.	<p>Controlled Sewage Overflow is a Sewage Overflow that is directed by Sydney Water via a designed structure to a predetermined location, such as a stormwater system or waterway, in order to prevent overloaded or blocked sewers from discharging at sensitive locations, on private property or within buildings thus endangering public health or causing a public nuisance.</p> <p>Sewage means untreated liquid waste received in the reticulation system (includes the wastewater from homes, offices, shops, factories and other premises discharged to the sewer).</p> <p>Sewage overflow – the discharge of untreated, diluted or partially treated sewage from the sewerage system which may occur in dry weather or in wet weather.</p> <p>Dry weather overflow means where a sewer overflow has been caused by an identified blockage in the utility's sewerage system (e.g. tree root intrusion) or a system failure not related to capacity (eg, pumping station failure). It is a sewage overflow occurring when there is dry weather flow in the sewer, as determined by Sydney Water's hydraulic sewer system model.</p> <p>Effluent means sewage that has received all of the designed treatment processes at the water utility's sewage treatment plant.</p> <p>For this indicator, total sewage effluent discharged to the environment is inclusive of wet weather flows.</p> <p>Note: Indicator E 6 (S) is calculated as follows: $\text{Total Volume of all overflows from controlled structures as \%} = \frac{[\text{Total Volume of all overflows from controlled structures}]}{[\text{Total volume (treated effluent + overflows from control structures networks)}]}$</p>
E 7 (S)	Percentage of trade waste customers in compliance with their wastewater discharge limits as outlined in their water utility trade waste agreements.	<p>Trade Waste is any waste water generated from or as a result of an industrial or commercial activity undertaken, other than at domestic or household premises.</p> <p>Note: For the purpose of this indicator, customers refers to industrial customers only, and not commercial customers.</p> <p>Trade Waste agreement means a written contract authorising discharge of trade wastewater to the water utility's sewerage system and requiring compliance with set terms and conditions.</p>
E 8	Total mass of biosolids produced by the water utility.	<p>Biosolids means the stabilised organic solids derived from sewage treatment processes.</p> <p>Total Mass means the quantity in dry tonnes of biosolids captured and removed from sewage treatment plants.</p>

IPART Indicator No.	Indicator detail	Definitions
E 9	Percent of solid waste recycled or reused expressed as a percentage of solid waste generated.	<p>Solid Waste is any solid substance that is discarded, rejected, unwanted, in surplus or abandoned. It does not include gas, energy, water, wastewater, biosolids diverted for beneficial reuse and reuse water.</p> <p>Recycled means the conversion of waste materials into a usable product or resource. The process of recycling includes: the diversion or extraction of the material from the waste stream; the collection and sorting of recyclable materials; and the processing of those materials into products which can then be used (or sold for use). Materials are deemed to have been recycled when they are transferred to a facility for processing or manufacturing (eg, a recycling centre). Energy recovery (or waste-to-energy) is another form of recycling, which involves recovery of latent energy rather than a physical resource.</p> <p>Re-use is the application of a diverted waste product to a subsequent use which may be the same or different from the original purpose and which extends the life of the product, but without further manufacture. Beneficial re-use is generally taken to mean that the form of re-use delivers some benefit (economic, social or environmental).</p>
E 10 (S)	Total mass of solid waste generated by the water utility.	
E 11	Total area of clearing of native vegetation.	<p>Native vegetation indicators will be an estimate based on the production of the water utility's Environmental Management Plans and documents, or triggered by Flora and Fauna studies. It will only be reported above 0.01 Hectares.</p> <p>The definition of Native Vegetation will be derived from the <i>Native Vegetation Act 2003</i> (NV Act). The Objects of the NV Act provide guidance as to what needs to be considered when assessing whether an area will be included in the vegetation loss figures.</p> <p>Note: Indicator will include works undertaken by or on behalf of the water utility on land that is not owned by the water utility, such as offsetting impacts to one area by rehabilitation or replanting at another site. This is to be reported on a financial year basis only. Planned rehabilitation or clearing works are not to be included until such time as the works are completed.</p> <p>$E13 = E12 - E11$.</p>
E 12	Total area of native vegetation rehabilitated, including due to replanting and protection by the water utility.	
E 13	Total area of native vegetation gain due to rehabilitation, replanting and protection by the water utility.	
E 14	Total number and nature of proceedings or Penalty Notices of conditions under licences issued to the water utility by NOW for water management.	<p>Proceedings refers to proceedings in connection with the Water Management Act for prescribed offences.</p> <p>Penalty notice means a notice to the effect that, if the person served with the notice does not wish to have an alleged offence dealt with by a court, the person may pay, in accordance with the notice, the penalty specified in the notice.</p> <p>NOW means the NSW Office of Water.</p>

E | IPART performance indicators - customers

The tables in this appendix set out the customer performance indicators required to be provided to IPART as follows.

Table E.1 Performance Indicators - Customers

IPART Indicator No.	Indicator detail	Definitions
C 1	The percentage of complaints resolved within 10 business days.	<p>Complaint is defined in AS ISO 10002-2014 or the most recent up-date of that standard. This AS ISO defines a complaint as an expression of dissatisfaction made to an organisation, related to its products, services, staff or the handling of a complaint, or the complaints-handling process itself, where a response or resolution is explicitly or implicitly expected.</p> <p>The following examples are intended to provide some clarity to this definition.</p> <ul style="list-style-type: none"> – A contact requesting information is not a complaint. – A contact reporting a service difficulty or fault is not a complaint and these contacts are recorded separately. – A contact expressing dissatisfaction with repeat service difficulties and faults is a complaint. – A contact where a credit adjustment on the account has been made due to a meter misread is a complaint. – A contact that results in a water quality issue is a complaint (ie, due to particles, discolouration, smell, taste, or a health issue). – A contact that results from an internal sewage overflow is a complaint. – Any Civil actions taken through a court for loss or damage arising from the water utility's performance under the Customer Contract is a complaint. – Complaints regarding repeat service difficulties or faults where they are from separate customers arising from the same cause, are counted as separate complaints. – More than one complaint from the same customer arising from the same cause are reported separately. – A complaint that is registered with EWON is a corporation complaint. – A contact regarding a matter that is not the responsibility of the Corporation is not recorded as a complaint. – A contact regarding flooding the water utility's Stormwater system is considered to be a complaint. <p>Resolution of a complaint means that:</p> <ol style="list-style-type: none"> a. the complaint is resolved to a customer's satisfaction, or b. the customer is provided with an explanation as to why no further action is proposed in relation to the complaint, or

IPART Indicator No.	Indicator detail	Definitions
		c. the customer is provided with a date when the issue will be resolved if the complaint is relating to future planned operational or capital works.
C 2	Percent of calls abandoned	
C 3	Percent of metered accounts of customers that receive a bill not based on a business meter read for one year.	<p>Customer means any person who is taken to have entered into a Customer Contract with the water utility.</p> <p>A metered account refers to water usage metered account, which is billed based on volume. If a property has multiple meters and each metered account receives a separate bill based on a meter read, these should be reported as separate metered accounts for the purposes of this indicator. If a property has multiple meters and a single account is issued due to common ownership, the meters will also be treated as separate metered accounts for the purposes of this indicator.</p> <p>A customer meter read is one which is provided by the customer to the utility.</p> <p>A business meter read is one taken by the utility or its contractor.</p>
C 4	The total number of residential customers disconnected for non-payment of amounts owed to the water utility.	<p>Residential customer means a customer who owns real property which is used as a principal place of residence.</p> <p>Non-Residential customer means all customers not classified as a residential customer.</p> <p>Disconnection means the stopping (either temporarily or permanently) of water supply to a customer's property.</p> <p>Flow Restriction means a direct intervention in the water supply system by the utility in order to reduce flow to a customer's property.</p>
C 5	The total number of non-residential customers disconnected for non-payment of amounts owed to the water utility.	
C 6	Total number of residential customers on whom water flow restrictions have been imposed.	
C 7	Total number of non-residential customers on whom water flow restrictions have been imposed.	

IPART Indicator No.	Indicator detail	Definitions
C 8	Number of residential customers per 1000 residential properties experiencing financial difficulty who are being assisted through the water utility's hardship program or payment plans.	<p>Residential customer as per C4.</p> <p>Property means any real property to which either or both of the following conditions apply:</p> <ol style="list-style-type: none"> the real property is connected to the water utility's drinking water supply system, sewerage system or recycled water system and a charge for the services provided by one or more of those systems is levied on the owner of the real property the real property is within a declared stormwater drainage area for which the water utility imposes a stormwater charge upon the owner of real property in that area. <p>Payment plan is a plan for a residential customer experiencing payment difficulties to pay a retailer by periodic instalments, or any amount payable by the customer. A payment plan must only include an arrangement in which the customer is paying off an arrears component (of any overdue amount) and must consist of at least three instalments.</p>
C 9	Percentage of residential customers in C 8 who are: (a) not meeting ongoing water and sewerage costs (debt increasing) (b) covering ongoing water and sewerage costs (debt stable) (c) covering ongoing costs and portion of arrears (debt reducing).	Residential customer as per C4.
C 10	Percentage of residential customers in C 8 who pay by: (a) Payment plan (b) Centrepay.	<p>Residential Customer as per C4.</p> <p>Payment plan as per C8.</p> <p>Centrepay is a service offered by Centrelink that allows customers to pay their water bills by having an amount deducted from their Centrelink payments and paid directly to the water utility.</p> <p>Flow restriction as per C4.</p>
C 11	Break up by percentage of residential customers who no longer meet C 8 by exiting the water utility's hardship program or payment plans because: (a) they have paid off their outstanding debt (b) they have been flow restricted (c) other.	

IPART Indicator No.	Indicator detail	Definitions
C 12	The number of non-residential customers affected by an unplanned water interruption of greater than 1 hour duration.	<p>Non-Residential customer means all customers not classified as a residential customer.</p> <p>Water Interruption means any event causing a total loss of water supply due to any cause. Water interruption excludes those caused by bursts or leaks in the service connection to internal plumbing or planned meter replacements. All interruptions not subject to notification caused by third parties or a power failure should be included. Exclude instances of reduced service levels due to, for example, low pressure. If a property experiences more than one interruption then it should be counted for each event. A water supply interruption, which causes loss of supply to 100 customers, is counted as 100 customer interruptions.</p> <p>Unplanned water interruption means an interruption in which an occupier of a property has not received at least 24 hours notification of the interruption or an interruption that has occurred prior to the expiry of any notice provided to an occupier advising of an interruption. It also includes outages where the duration exceeds that originally notified. In this case the entire outage is classed as unplanned.</p>
C 13	The average duration of unplanned interruptions experienced by non-residential customers.	

F Drinking Water health and aesthetic water characteristics and raw water operational monitoring characteristics

Important note:

The following table outlines the characteristics to be monitored as required by NSW Health under ADWG 2011. The characteristics and / or the guideline values will only be changed between versions of the Reporting Manual with the written approval of NSW Health.

The assessment of long term performance for both health and aesthetic characteristics is detailed below:

Evaluating long term microbial performance – in agreement with NSW Health at least 98% of scheduled samples collected over the preceding 12 months contain no *Escherichia coli* (or thermotolerant coliforms).

Evaluating long term health related chemicals – the 95th percentile statistic calculated for the previous 12 months must be less than the guideline value

Evaluating long term aesthetic characteristics – the mean value (or average) of results over the preceding 12 months must be less than the guideline value

Table F.1 Public Reporting - Drinking water health and aesthetic water characteristics and raw water operational monitoring characteristics

Drinking Water Quality –					
ADWG 2011 recommendation					
Characteristics	Location	Frequency	Health/aesthetic characteristic	Guideline value (mg/L unless otherwise noted)	Key Risk Area / Comments
micro-organisms					
<i>E. coli</i> (or thermotolerant coliforms)	supply to consumer/ distribution system	at least weekly (number of samples based on population)	H	not detected/100 mL (reported as <1orgs/100 mL)	Key parameter – monitored as per ADWG 2011. An indicator of faecal contamination from warm blooded animals.
physical characteristics					
dissolved oxygen	supply to consumer/ distribution system	monthly	A	>85% sat.	Some treatment processes may reduce DO content.
hardness (as CaCO ₃)	supply to consumer/ distribution system	monthly if water treated for hardness, otherwise quarterly	A	200	Hardness is caused by calcium and magnesium salts. All water supplied by Sydney Water is relatively soft.
pH	supply to consumer/ distribution system	fortnightly	A	6.5-8.5	Key risks are buffering problems at WFPs and cement lined mains leaching lime and causing higher pH.
taste	supply to consumer/ distribution system	annually -complaints	A	acceptable (3)	May indicate undesirable contaminants. Source of problem often difficult to identify. Can occur from problems such as algae, biofilm, chlorine, dissolved solids and metals such as iron, copper manganese and zinc.

Drinking Water Quality –

ADWG 2011 recommendation					
Characteristics	Location	Frequency	Health/aesthetic characteristic	Guideline value (mg/L unless otherwise noted)	Key Risk Area / Comments
odour	supply to consumer/ distribution system	annually - complaints	A	acceptable (3)	May indicate undesirable contaminants. Source of problem often difficult to identify. Can occur from problems such as algae, biofilm, chlorine, dissolved solids and metals such as iron, copper manganese and zinc.
temperature	supply to consumer/ distribution system	weekly (normally measured when a microbiological sample is taken)	A	no value	Carried out as standard procedure with Coliform analysis. Rapid changes may bring complaints.
total dissolved solids	supply to consumer/ distribution system	quarterly	A	600	This characteristic is unlikely to vary significantly throughout the system. A high TDS can be caused by high levels of salts which can have adverse effects on some industrial processes.
true colour	supply to consumer/ distribution system	monthly	A	15	Sources of colour in water can include iron, manganese, humic and fulvic acids and dissolved plant components. Colour removal occurs in the treatment process.
turbidity	supply to consumer/ distribution system	monthly	A	5 NTU	NSW Health requires inclusion for compliance purposes. Higher turbidity may shield some micro-organisms from disinfection and create a chlorine demand. Caused by presence of suspended matter. Can be of health concern in that particulates may comprise toxic material or absorb them. Turbidity is removed through water treatment processes.

Drinking Water Quality –					
ADWG 2011 recommendation					
Characteristics	Location	Frequency	Health/aesthetic characteristic	Guideline value (mg/L unless otherwise noted)	Key Risk Area / Comments
Inorganic chemicals					
Disinfection Agents and Inorganic By-products of Disinfection					
bromate	supply to consumer/ distribution system	weekly if ozonation used, otherwise not required	H	0.02	Ozonation not used as a primary disinfectant. Monitoring not required.
chloramine – see monochloramine	supply to consumer/ distribution system	weekly if used as a disinfectant			See monochloramine
chlorine (free)	supply to consumer/ distribution system	weekly if used as a disinfectant	H A	5 0.6	Key parameter. Used as a p primary and secondary disinfectant. Unlikely to exceed health guideline value except in exceptional circumstances. Aesthetic guideline value is routinely exceeded to minimise microbiological risks.
monochloramine	supply to consumer/ distribution system	weekly if used as a disinfectant	H	3	Used as disinfectant in chloraminated systems. Odour threshold for monochloramine is 0.5 mg/L.
other inorganic chemicals					
aluminium (acid-soluble)	supply to consumer/ distribution system	weekly if aluminium salts used in clarification	A	0.2	Usually associated in drinking water with use of Aluminium salts in flocculation, or from clay soils. Alum salts are no longer used by Sydney Water.

Drinking Water Quality –

ADWG 2011 recommendation					
Characteristics	Location	Frequency	Health/aesthetic characteristic	Guideline value (mg/L unless otherwise noted)	Key Risk Area / Comments
ammonia (as NH ₃)	supply to consumer/ distribution system	monthly	A	0.5	Key characteristic – monitored in all delivery systems as of 2003/04. Ammonia is added at WFPs for disinfection purposes. Apart from addition for disinfection purposes, may indicate presence of sewage contamination and/or microbiological activity.
antimony	supply to consumer/ distribution system	quarterly	H	0.003	May result from use of antimony-tin solder – not used by Sydney Water on water mains or treatment processes.
arsenic	raw water	quarterly	H	0.01	Possibly from natural sources. Monitor for North Richmond only. Raw water monitoring is responsibility of SCA for other systems.
asbestos	supply to consumer/ distribution system	annually if at all		none	Asbestos pipe accounts for less than 1% of pipe in Sydney Water's area. The LGAs with most existing asbestos pipe are the Blue Mountains, Hawkesbury and Fairfield. Not for routine compliance monitoring as there is no guideline value. Refer to Section V (Fact Sheets) in ADWG 2011.
barium	raw water	quarterly	H	2	Barium can occur naturally from exposure to barium containing rocks. Monitor for North Richmond only. Raw water monitoring is responsibility of SCA for other systems.

Drinking Water Quality –					
ADWG 2011 recommendation					
Characteristics	Location	Frequency	Health/aesthetic characteristic	Guideline value (mg/L unless otherwise noted)	Key Risk Area / Comments
beryllium	raw water	annually if at all	H	0.06	Can occur from the weathering of rocks and burning of fossil fuels. Monitor for North Richmond only. Raw water monitoring is responsibility of SCA for other systems.
boron	raw water	Quarterly	H	4	From natural leaching of minerals and contamination, possibly from seawater intrusion. Monitor for North Richmond only. Raw water monitoring is the responsibility of SCA for other systems.
cadmium	supply to consumer/ distribution system	quarterly/specific investigation	H	0.002	Can occur from industrial or agricultural contamination or from galvanised pipe or fitting corrosion. There are still significant quantities of galvanised pipe in use for main to meter water services, although no longer installed.
chloride	supply to consumer/ distribution system	quarterly	A	250	Not considered to be a problem for Sydney's water supply, from natural mineral salts or effluent contamination.
chromium (as Cr(VI))	supply to consumer/ distribution system	quarterly	H	0.05	From industrial/agricultural contamination of raw water or corrosion of plumbing materials. Classified as human carcinogen.
copper	supply to consumer/ distribution system	monthly / specific investigation	H A	2 1	Potential for copper levels to occur due to corrosion of copper fittings by soft water. Sydney has soft water. A key WQ characteristic monitored each year.
cyanide	supply to consumer/ distribution system	annually if at all	H	0.08	From industrial wastes and some plants and bacteria.

F Drinking Water health and aesthetic water characteristics and raw water operational monitoring characteristics

Drinking Water Quality –

ADWG 2011 recommendation					
Characteristics	Location	Frequency	Health/aesthetic characteristic	Guideline value (mg/L unless otherwise noted)	Key Risk Area / Comments
fluoride	supply to consumer/ distribution system	weekly if fluoridated, otherwise quarterly	H	0.9 - 1.5	Fluoride is added to the water at all WFPs. Can also occur naturally in some waters from fluoride-containing rocks. The ADWG 2011 health guideline for fluoride is 1.5 mg/L. Sydney Water measures fluoride against the <i>Fluoridation of Public Water Supplies Act 1957</i> which requires fluoride to be between 0.9 and 1.5 mg/L. This characteristic is unlikely to vary significantly throughout each WFP system.
hydrogen sulfide	supply to consumer/ distribution system	monthly	A	0.05	Formed in water by sulfate-reducing micro-organisms or hydrolysis of soluble sulfide under anoxic conditions. Aesthetic guideline value only.
iodide	raw water	annually if at all	H	0.5	From mineral and salt deposits. Monitor for North Richmond only. Raw water monitoring is responsibility of SCA for other systems.
iron	supply to consumer/ distribution system	fortnightly, or weekly if used as coagulant	A	0.3	Key parameter. Iron (ferric chloride) is added as a coagulant aid at WFPs. Occurs naturally in water. Can result from corrosion of iron pipes. Can stain laundry Iron bacteria can block pipework, cause taste/odour and corrosion.

Drinking Water Quality –					
ADWG 2011 recommendation					
Characteristics	Location	Frequency	Health/aesthetic characteristic	Guideline value (mg/L unless otherwise noted)	Key Risk Area / Comments
lead	supply to consumer/ distribution system	monthly/specific investigation	H	0.01	Occurs in water from dissolution from natural sources or from pipes and fittings containing lead. There still exist old lead jointed mains in the Sydney area.
manganese	supply to consumer/ distribution system	fortnightly	H A	0.5 0.1	Key parameter. Occurs naturally in water, higher in oxygen depleted water. Can cause staining and taste. Less than 0.05 mg/L is desirable. Problems with manganese have been experienced in the past in several systems.
mercury	raw water	quarterly	H	0.001	Very low concentrations occur naturally. From industrial emissions/spills or possibly contaminant in chemicals. Monitor for North Richmond only. Raw water monitoring is responsibility of SCA for other systems.
molybdenum	raw water	quarterly	H	0.05	From mining, agriculture or fly-ash deposits from coal fuelled power stations. Monitor for North Richmond only. Raw water monitoring is responsibility of SCA for other systems.
nickel	supply to consumer/ distribution system	quarterly / specific investigation	H	0.02	From nickel plated fittings.

Drinking Water Quality –

ADWG 2011 recommendation					
Characteristics	Location	Frequency	Health/aesthetic characteristic	Guideline value (mg/L unless otherwise noted)	Key Risk Area / Comments
nitrate	supply to consumer/ distribution system	monthly	H	50 as NO ₃	Key characteristic in chloraminated systems. Occurs naturally. From intensive farming and sewage effluent. Presence is more likely in chloraminated systems where ammonia is used in conjunction with chlorine, for disinfection purposes.
nitrite	supply to consumer/ distribution system	monthly	H	3 as NO ₂	Key characteristic in chloraminated systems. Presence is more likely in chloraminated systems where ammonia is used in conjunction with chlorine, for disinfection purposes.
selenium	raw water	quarterly	H	0.01	Generally low levels in natural water. Can occur from selenium concentrations in some soil. Monitor for North Richmond only. Raw water monitoring is responsibility of SCA for other systems.
silver	raw water	annually if at all	H	0.1	May occur in very low concentrations in natural waters from natural sources and industrial wastes. Monitor for North Richmond only. Raw water monitoring is responsibility of SCA for other systems.
sodium	supply to consumer/ distribution system	quarterly	A	180	Natural component of water. Drinking water is generally a minor contributor to the total dietary intake of sodium.

F Drinking Water health and aesthetic water characteristics and raw water operational monitoring characteristics

Drinking Water Quality –					
ADWG 2011 recommendation					
Characteristics	Location	Frequency	Health/aesthetic characteristic	Guideline value (mg/L unless otherwise noted)	Key Risk Area / Comments
sulfate	treated water	quarterly	H A	500 250	Natural component of water, and may be added via treatment chemicals. Aluminium sulfate is not used as a coagulant at WFPs. Copper sulfate is not used to control algae in storage dams. Not considered to warrant further monitoring at this time. Possible inclusion within next 3 years for background data.
tin	raw water	annually if at all		none	Concentration in water is very low. One of least toxic metals. Raw water monitoring is responsibility of SCA for other systems, except for North Richmond. Not for routine compliance monitoring as there is no guideline value.
zinc	supply to consumer/ distribution system	monthly / specific investigation	A	3	Key characteristic. Usually occurs from corrosion of galvanised pipes, fittings and brasses. Adverse health effects from zinc are believed to relate more from too low intake rather than too high.
organic compounds					
acrylamide	treated water	quarterly	H	0.0002	Acrylamide occurs as a minor impurity in polyacrylamide. It may be contained in some polymers used as filter aids at water filtration plants or as a coagulant before thickening on recycle systems.

Drinking Water Quality –

ADWG 2011 recommendation

Characteristics	Location	Frequency	Health/aesthetic characteristic	Guideline value (mg/L unless otherwise noted)	Key Risk Area / Comments
benzene	raw water	annually if at all	H	0.001	From atmospheric deposition and chemical plant effluent. Human carcinogen. Monitor for North Richmond only. Raw water monitoring is responsibility of SCA for other systems.
carbon tetrachloride	treated water	quarterly	H	0.003	Sometimes occurs as impurity in chlorine used for disinfection. Also used in manufacture of chlorofluoromethane, in fire extinguishers, solvents and cleaning agents.
chlorobenzene	raw water	annually if at all	H A	0.3 0.01	From spills and discharges. Monitor in event of spill only. Raw water monitoring is responsibility of SCA for other systems, except for North Richmond. No routine monitoring.
dichlorobenzenes	raw water	annually if at all			Could occur from spills, discharges or leaching from contaminated soils. Monitor for North Richmond only. Raw water monitoring is responsibility of SCA for other systems.
1,2-dichlorobenzene (1,2-DCB)			H A	1.5 0.001	
1,3-dichlorobenzene (1,3-DCB)			A	0.02	
1,4-dichlorobenzene (1,4-DCB)			H A	0.04 0.0003	
dichloroethanes	raw water	annually if at all			Possibly from industrial effluents, spills, discharges or atmospheric deposition. Monitor for 1,2-dichloroethane at North Richmond only. Raw water monitoring is responsibility of SCA for other systems.
1,1-dichloroethane				none	
1,2-dichloroethane			H	0.003	

Drinking Water Quality –					
ADWG 2011 recommendation					
Characteristics	Location	Frequency	Health/aesthetic characteristic	Guideline value (mg/L unless otherwise noted)	Key Risk Area / Comments
dichloroethenes	raw water	annually if at all			
1,1-dichloroethene (1,1-DCE)			H	0.03	Rarely found in drinking water. Found occasionally in ground water from wells heavily contaminated by solvents. Monitor for North Richmond only. Raw water monitoring is responsibility of SCA for other systems.
1,2-dichloroethene (1,2-DCE)			H	0.06	
dichloromethane (methylene chloride)	raw water	annually if at all	H	0.004	Used in manufacture of paint removers, insecticides, solvents and cleaners. Monitor for North Richmond only. Raw water monitoring is responsibility of SCA for other systems.
epichlorohydrin	treated water	annually if at all	H	0.0005	Used in manufacture of some resins used in water treatment and as raw material in the manufacture of flocculants. According to ADWG 2011 the health guideline value is below the limit of detection with current analytical procedures however previous testing in Australia has detected at levels as low as 0.0002 mg/L.
ethylbenzene	raw water	annually if at all	H A	0.3 0.003	Component of petrol and petroleum products. Monitor for North Richmond only. Raw water monitoring is responsibility of SCA for other systems.

Drinking Water Quality –

ADWG 2011 recommendation

Characteristics	Location	Frequency	Health/aesthetic characteristic	Guideline value (mg/L unless otherwise noted)	Key Risk Area / Comments
ethylenediamine tetraacetic acid (EDTA)	raw water	annually if at all	H	0.25	Metal complexing agent widely used in industry and agriculture. Monitor for North Richmond only. Raw water monitoring is responsibility of SCA for other systems. Lab with NATA accredited method not identified.
hexachlorobutadiene	raw water	annually if at all	H	0.0007	Industrial solvent. Monitor for North Richmond only. Raw water monitoring is responsibility of SCA for other systems.
nitritotriacetic acid (NTA)	raw water	annually if at all	H	0.2	Chelating agent in laundry detergents. May enter water through sewage contamination. Monitor for North Richmond only. Raw water monitoring is responsibility of SCA for other systems. Lab with NATA accredited method not identified.
dialkyltins tributyltin oxide	raw water	annually if at all	H	None 0.001	Monitor for North Richmond only. Raw water monitoring is responsibility of SCA for other systems. NATA accredited or equivalent method not identified.

Drinking Water Quality –					
ADWG 2011 recommendation					
Characteristics	Location	Frequency	Health/aesthetic characteristic	Guideline value (mg/L unless otherwise noted)	Key Risk Area / Comments
plasticisers di(2-ethylhexyl) phthalate (DEHP) di(2-ethylhexyl) adipate (DEIqA)	supply to consumer/ distribution system	annually if at all	H	0.01 None	Used in all flexible PVC products and may leach from these over a long time. Could also occur from spills. PVC pipe accounts for less than 5 % of water mains and has only been used in limited amounts in the last 20 years. Usage is increasing. Monitor for di(2-ethylhexyl) phthalate (DEHP) only.
polycyclic aromatic hydrocarbons (PAHs) Benzo-(a)-pyrene	supply to consumer/ distribution system	annually if at all	H	0.00001	Contamination can occur through atmospheric deposition, or leaching from bituminous linings. Bituminous lining is not generally used in water mains but was used on steel reservoirs prior to 1990. Monitor for background data, for compliance purposes at customer's tap.
styrene (vinylbenzene)	raw water	annually if at all	H A	0.03 0.004	Possibly from industrial contamination. Can be used in manufacture of plastics, synthetic rubbers, resins and insulators. Monitor for North Richmond only. Raw water monitoring is responsibility of SCA for other systems.
tetrachloroethene	raw water	annually if at all	H	0.05	Dry cleaning solvent and metal de-greaser. Could occur in drinking water from spills. Routine monitoring not required. Raw water monitoring is responsibility of SCA for other systems, except for North Richmond.

Drinking Water Quality –

ADWG 2011 recommendation

Characteristics	Location	Frequency	Health/aesthetic characteristic	Guideline value (mg/L unless otherwise noted)	Key Risk Area / Comments
toluene	supply to consumer/ distribution system	annually if at all	H A	0.8 0.025	Occurs naturally in petrol and natural gas, forest fire emissions. Could occur in drinking water from atmospheric deposition, industrial contamination, leaching from protective coatings in storage tanks.
trichlorobenzenes (total)	raw water	annually if at all	H A	0.03 0.005	Industrial chemical used as a solvent, dielectric fluid and in polyester dyeing. Raw water monitoring is responsibility of SCA for other systems, except for North Richmond.
1,1,1-trichloroethane	raw water	annually if at all		None	Industrial chemical. Could occur from spills. Routine monitoring not required. Raw water monitoring is responsibility of SCA for other systems, except for North Richmond.
trichloroethylene (TCE)	raw water	annually if at all		None	Used as a solvent in dry cleaning, refrigerant and fumigant. Could occur from spills. Routine monitoring not required. Raw water monitoring is responsibility of SCA for other systems, except for North Richmond.
vinyl chloride	raw water	annually if at all	H	0.0003	Used in production of PVC resins for building and construction. Used in manufacture of early PVC pipes – no longer used. Sydney Water does not have any quantities of PVC pipes made with this compound. Could occur from spills. Raw water monitoring is responsibility of SCA for other systems, except for North Richmond.

Drinking Water Quality –

ADWG 2011 recommendation					
Characteristics	Location	Frequency	Health/aesthetic characteristic	Guideline value (mg/L unless otherwise noted)	Key Risk Area / Comments
xylene	supply to consumer/ distribution system	annually if at all	H A	0.6 0.02	Could occur in drinking water as a pollutant, or from solvent used for bonding plastic fittings. Used in aviation fuels and petroleum and other chemicals. Sydney Water uses rubber ring joints for plastic pipes, not bonding agents.
disinfection by-products					
Distribution system: As a minimum monitoring should be carried out for trihalomethanes. If concentrations exceed the guideline value, then other by-products should be analysed specifically. Monthly samples should be taken from each distribution system, with more samples if:					
▼ the chlorine disinfection dose is increased substantially					
▼ trihalomethane concentrations exceed the guideline value					
▼ the source of supply is changed.					
chlorinated furanones	supply to consumer/ distribution system			none	By-product of Chlorination. Not for routine compliance monitoring as there is no guideline value.
chloroacetic acids	supply to consumer/ distribution system				By-product of Chlorination.
chloroacetic acid			H	0.15	
dichloroacetic acid			H	0.10	
trichloroacetic acid			H	0.10	
chloroketones	supply to consumer/ distribution system				By-product of Chlorination. Not for routine compliance monitoring as there is no guideline value.
1,1-dichloropropanone				none	
1,3- dichloropropanone				none	
1,1,1-trichloropropanone				none	
1,1,3-trichloropropanone				none	

Drinking Water Quality –

ADWG 2011 recommendation		Frequency	Health/aesthetic characteristic	Guideline value (mg/L unless otherwise noted)	Key Risk Area / Comments
Characteristics	Location				
chlorophenols	supply to consumer/ distribution system				By-product of Chlorination of water containing phenols.
2-chlorophenol			H	0.3	
			A	0.0001	
2,4-dichlorophenol			H	0.2	
			A	0.0003	
2,4,6-trichlorophenol			H	0.02	
			A	0.002	
chloropicrin	supply to consumer/ distribution system			None	By-product of Chlorination. Not for routine compliance monitoring as there is no guideline value.
cyanogen chloride	supply to consumer/ distribution system		H	0.08	By-product of Chloramination.
formaldehyde	supply to consumer/ distribution system		H	0.5	By-product of Ozonation.
haloacetonitriles	supply to consumer/ distribution system				By-product of Chlorination. Not for routine compliance monitoring as there is no guideline value.
dichloroacetonitrile				None	
dichloroacetonitrile				None	
dichloroacetonitrile				None	
dichloroacetonitrile				None	
trichloroacetaldehyde (chloral Hydrate)	supply to consumer/ distribution system		H	0.02	By-product of Chlorination. Lab with NATA accredited method not identified.
trihalomethanes	distribution system & outlet of WFPs		H	0.25	By-product of Chlorination and Chloramination.
n-nitrosodimethylamine (NDMA)	distribution system & outlet of WFPs		H	0.0001	By-product of Chlorination and Chloramination.

Drinking Water Quality –
ADWG 2011 recommendation

Characteristics	Location	Frequency	Health/aesthetic characteristic	Guideline value (mg/L unless otherwise noted)	Key Risk Area / Comments
pesticides	raw water	one sample per month from storage reservoir inlet or intake to distribution should be analysed for those pesticides previously detected in the source water, or where their likely use would indicate that they might be detected sampling for some pesticides is required 5-yearly, 3-yearly, or annually, based on agreement with NSW Health.	H	various	The main risks for pesticides are agricultural and domestic use in catchment areas and spills. Raw water monitoring is responsibility of SCA for other systems, except for North Richmond.

Drinking Water Quality –

ADWG 2011 recommendation

Characteristics	Location	Frequency	Health/aesthetic characteristic	Guideline value (mg/L unless otherwise noted)	Key Risk Area / Comments
radiological characteristics					
gross alpha	raw water	radiological quality should be assessed when a new supply is brought into service, and then every two years for ground water supplies, and every 5 years for surface water supplies.	H	0.5 Bq/L	Primary risk is from natural sources in catchments. Raw water monitoring is responsibility of SCA for other systems, except for North Richmond. No specific guideline values are set for beta- or gamma-emitting radionuclides. Specific beta- or gamma-emitting radionuclides should be identified and determined only if gross beta radioactivity (after subtracting the contribution of potassium-40) exceeds 0.5 Bq/L (27.6 Bq of beta activity per gram of stable potassium). It should never be regarded as a guideline value, or even as an indicative water quality target.
gross beta			H	0.5 Bq/L	
micro-organisms - Protozoa					
Cryptosporidium	N/A	N/A		N/A	
Giardia	N/A	N/A		N/A	
micro-organisms – cyanobacteria and their toxins					
Microcystins	NA	NA	H	1.3 µg/L	There are also alert/notification levels based on cell count and biovolume of a specific group of potentially toxic cyanobacteria.
Cylindrospermopsin	NA	NA	Alert level	1 µg/L	
Nodularin	NA	NA	Alert level	1.3 µg/L	
Saxitoxins	NA	NA	Alert level	3 µg/L	

F Drinking Water health and aesthetic water characteristics and raw water operational monitoring characteristics

C | Cost benefit analysis report

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

Water Licensing — Final Report
May 2015

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Contents

1	Executive Summary	1
1.1	The review of Sydney Water's operating licence	1
1.2	The scope of the Cost Benefit Analysis	1
1.3	Overview of proposed changes	3
1.4	Cost benefit analysis findings	6
1.5	Structure of this paper	9
2	Water Quality	10
2.1	Current water quality provisions in the operating licence	10
2.2	Proposed changes to water quality provisions in the operating licence	11
2.3	Implementation of Drinking and Recycled Water Quality Management Systems (DWQMS and RWQMS)	11
2.4	Removing the requirement to produce a Drinking Water Quality Management Plan (DWQMP)	13
2.5	Additional notification requirements on Sydney Water	13
2.6	Additional public reporting requirement	14
3	Infrastructure	16
3.1	Current infrastructure provisions in the operating licence	16
3.2	Overview of proposed changes to the infrastructure provisions in the operating licence	17
3.3	Asset Management System	18
3.4	Response times for water main breaks and leaks	19
3.5	System performance criteria regarding firefighting	22
3.6	Priority Sewerage Program (PSP)	25
4	Water Conservation	30
4.1	Current water conservation obligations in the operating licence (the base case)	30
4.2	Proposed changes to water conservation obligations in the operating licence	32
5	Environment	43
5.1	What are the current environment obligations in the operating licence?	44
5.2	Proposed changes to environment provisions in the operating licence	44

6	Customer rights	47
6.1	Current customer requirements in the operating licence	48
6.2	Proposed changes to the customer requirements in the operating licence	48
6.3	Establishment of a Code of Conduct between Sydney Water and private water utilities in their area of operation	55
7	Other areas	57
7.1	Quality Management System (QMS)	57
7.2	Clarification of rights and obligations for stormwater	59

1 | Executive Summary

1.1 The review of Sydney Water's operating licence

The Independent Pricing and Regulatory Tribunal (IPART) has conducted 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. We propose the operating licence be renewed for the maximum period of five years,³ with the new operating licence to take effect 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 essential services. 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 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.⁵ 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 2014.⁶ We then released a draft CBA on 10 February 2015 as part of our draft licensing package and held a public hearing on our review of the operating licence on 30 March 2015. Sydney Water provided its submission to our draft operating licence in early April 2015. Much of the analysis in this document is informed by Sydney Water's response to our RFI and its submission to our draft operating licence.

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 the availability of 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.

⁵ The Cost-Benefit Analysis only considers substantive changes to the operating licence (including those changes likely to result in costs or benefits to Sydney Water or other stakeholders relative to the current operating licence). We also propose a range of minor wording changes to the operating licence (eg, to enhance clarity or consistency), which are expected to have negligible impacts and are therefore not addressed in this Cost Benefit Analysis.

⁶ Sydney Water, Response to IPART request for information, 24 November 2014.

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 in response to our Issues Paper
- ▼ 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, and considered Sydney Water's response
- ▼ released a draft CBA on 10 February 2015 as part of our draft licensing package
- ▼ held a public hearing on our review of the operating licence on 30 March 2015
- ▼ considered Sydney Water's and other stakeholders' responses to our draft licensing package, and
- ▼ further developed and revised our proposed changes to the operating licence.

The proposed changes to the operating licence are outlined below. Our default position is to maintain the existing operating licence conditions unless the CBA clearly demonstrates that a change would likely result in a net benefit to society.

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.
- ▼ Work with NSW Health and its Customer Council to determine water quality parameters to be reported and the frequency of reporting.

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.

Memorandum of Understanding (MoU) with FRNSW

- ▼ Require Sydney Water to use its best endeavours to develop and comply with an MoU with Fire and Rescue NSW (FRNSW).

The Priority Sewerage Program (PSP)

- ▼ Remove the current PSP obligations from the operating licence and replace these with a requirement for Sydney Water to co-operate with, and participate in, any Government initiated review of the PSP. Sydney Water would also be required to implement and comply with any outcomes and timeframes of a Government review, as directed by the Minister. We have listed the six remaining PSP areas (from the current operating licence) in the new operating licence.

3. Water Conservation (or 'Water Quantity')

Require Sydney Water to:

- ▼ formulate an approach to, and principles for, the development of a methodology (the Methodology) for determining the Economic Level of Water Conservation (ELWC) by the end of 2015
- ▼ develop a Methodology, which must be approved by IPART, by the end of 2016
- ▼ publish an annual Water Conservation Report, which outlines 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 the ELWC (once the Methodology is established), and provides information on key water conservation measures

- ▼ maintain the current water use and leakage targets until IPART has approved Sydney Water's Methodology for determining the ELWC
- ▼ 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.
- ▼ Remove wording in rebates that relates to 10% of the service charge, and base these rebates solely on the minimum amount adjusted by CPI.
- ▼ Change the wording of the dirty water rebate so that the rebate is only paid as the minimum rebate amount adjusted by 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:
 - These late fees would not apply to customers on hardship arrangements.
- ▼ Include two new performance indicators relating to non-residential customers in the reporting manual. These indicators are:
 - The number of non-residential customers affected by an unplanned water interruption of greater than 1-hour duration.
 - The average duration of unplanned interruptions experienced by non-residential customers.
- ▼ Expand the list of members on the Customer Council to require representation from:
 - small, medium and large business
 - non-residential customers
 - older people
 - people with disabilities, and
 - indigenous Australians.

- ▼ Require Sydney Water to use its best endeavours to co-operate with each licensed network operator and 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 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 the changes, both internal and external to Sydney Water's business.

Table 1.1 Costs and benefits of proposed changes to operating licence

Proposed change	Costs	Benefits	Assessment
Water Quality			
Implement and 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
Implement and 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
SW to work with NSW Health and its Customer Council to determine parameters to be publicly reported and frequency of reporting	▼ Negligible	<ul style="list-style-type: none"> ▼ Reduced regulatory cost ▼ Reduced cost to stakeholders in accessing/understanding information ▼ Assurance to stakeholders 	Net benefit

Proposed change	Costs	Benefits	Assessment
		<ul style="list-style-type: none"> ▼ Marginal reduction in risk of adverse water quality incidents (through enhanced transparency and stakeholder scrutiny) 	
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
Require SW to use best endeavours to develop and comply with 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
In place of current PSP provisions, require SW to co-operate with, and participate in, any Government initiated review of the PSP. SW would be required to implement and comply with outcomes and timeframes of a Government review.	▼ Uncertain	<p>Potential review would be expected to:</p> <ul style="list-style-type: none"> ▼ identify optimal approach (lowest net cost or greatest net benefit) to the PSP ▼ increase transparency and certainty for stakeholders relating to the status of the PSP and SW's role 	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
Staged implementation of a 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
Remove wording in rebates that relates to 10% of the service charge, and base these rebates solely on the minimum amount adjusted by CPI	▼ Negligible	<ul style="list-style-type: none"> ▼ Reduced (billing system) costs to Sydney Water of \$200,000 per rebate type 	Net benefit
Change the wording of the dirty water rebate so that the rebate is only paid as the minimum rebate amount adjusted by CPI	▼ Negligible	<ul style="list-style-type: none"> ▼ Reduced (billing system) costs to Sydney Water of \$200,000 	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
Additional performance indicators for non-residential customers	▼ Negligible	<ul style="list-style-type: none"> ▼ Increased transparency and accountability to non-residential customers 	Net benefit

Proposed change	Costs	Benefits	Assessment
Expand the list of members on the Customer Council	▼ Negligible	<ul style="list-style-type: none"> ▼ Reduced risk of service failure and improved performance ▼ Sydney Water makes decisions based on views representative of its customer base, leading to enhanced outcomes for customers 	Net benefit
Sydney Water must use its 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
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	<ul style="list-style-type: 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 our proposed changes relating to the **environment**
- ▼ Chapter 6 outlines our proposed changes related to **customer rights**
- ▼ Chapter 7 outlines our proposed 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 ADWG⁷ (unless NSW Health specifies otherwise)
- ▼ develop a 5-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.⁸

Recycled water

- ▼ manage recycled water quality in accordance with the AGWR and any other guidelines specified by NSW Health to the satisfaction of IPART⁹
- ▼ report on recycled water quality monitoring in the manner and form outlined in the reporting manual.¹⁰

⁷ National Health and Medical Research Council, *Australian Drinking Water Guidelines*, December 2013.

⁸ *Sydney Water Operating Licence 2010-2015*, cl 2.1.

⁹ 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.

¹⁰ *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 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 5-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.
- ▼ Require Sydney Water to work with NSW Health and its Customer Council to determine the water quality parameters to be publically reported and the frequency of reporting.

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 5-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 \$300,000.¹¹ 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.

¹¹ 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 initially 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 already 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. In its submission to the draft operating licence, Sydney Water stated that it was happy to accept these new requirements from 1 July 2015.¹²

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 change would 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 an annual compliance and performance report on its management of the quality of drinking water and recycled water:
 - under the current licence, Sydney Water was required to annually report against its 5-year Drinking Water Quality Management Plan
 - under the proposed new licence, Sydney Water would instead be required to annually report against the outputs of its DWQMS and its RWQMS.

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

¹² Sydney Water submission to IPART on the draft Operating Licence 2015-2020, April 2015, p 10.

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.

2.6 Additional public reporting requirement

Currently, under the reporting manual, Sydney Water is required to publically report quarterly on water quality. This report must include a summary of drinking water quality monitoring results for a wide range of health and aesthetic characteristics identified in the reporting manual.

Sydney Water is also required to produce a quarterly report under its Act (the Consumer Confidence Report). However, the requirement in the Act does not cover the information outlined in the current reporting manual (ie, our reporting requirements do not duplicate other regulatory requirements).

In the draft reporting manual, we had proposed that the frequency of reporting of water quality monitoring results be increased from quarterly to monthly, with the intention that the report be a summary of the results of the routine drinking water quality monitoring program. We had intended this clause to result in a short form report, to enhance transparency and accessibility to stakeholders.

However, in its submission to the draft licence package, Sydney Water requested that the reporting frequency remain as is, and argued that the requirement for monthly reporting would lead Sydney Water to engage additional resources of approximately 0.5 FTEs (with an estimated cost of around \$75,000 per year), and/or seek an amendment to the Sydney Water Act to remove the requirement for the quarterly Consumer Confidence Report.¹³

Ideally, public reporting should be targeted and easily accessible to stakeholders. Enhanced public reporting can:

- ▼ reduce regulatory cost
- ▼ reduce costs to stakeholders in spending time accessing, understanding and using the information
- ▼ provide assurance to stakeholders regarding the quality of water and services, and
- ▼ through enhanced stakeholder scrutiny, contribute to reducing the risk of adverse water quality incidents.

¹³ Sydney Water submission to IPART on the draft Operating Licence 2015-2020, April 2015, p 11.

For the final recommended operating licence and reporting manual, we have added a requirement for Sydney Water to work with NSW Health and its Customer Council to determine the water quality parameters to be reported and the frequency of public reporting. Until this is determined, we have maintained Sydney Water's quarterly reporting requirement.

Subject to its work with NSW Health and its Customer Council, we anticipate that Sydney Water could introduce a similar form of public reporting to that used by Hunter Water and published on a monthly basis. Hunter Water's monthly public reports are relatively short (generally less than three pages) and convey a limited amount of information in a form that is easily understood by stakeholders. The annual cost of reporting in this form would likely be significantly less than producing the current quarterly report on a monthly basis.

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 Framework¹⁴
- requirements for the content and outcomes of the Asset Management Framework.¹⁵

▼ System performance standards, performance indicators and response time requirements

- targets for 3 system performance standards (the water pressure, water continuity and sewage overflow standards)¹⁶ and response times requirements to priority leaks and breaks¹⁷
- 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.¹⁸

¹⁴ *Sydney Water Operating Licence 2010-2015*, cl 3.1.1.

¹⁵ *Sydney Water Operating Licence 2010-2015*, cl 3.1.2.

¹⁶ *Sydney Water Operating Licence 2010-2015*, cl 3.3.1, 3.3.2 and 3.3.3.

¹⁷ *Sydney Water Operating Licence 2010-2015*, cl 3.5.

¹⁸ *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 develop and comply with a Memorandum of Understanding (MoU) with Fire and Rescue NSW.

Priority Sewerage Program

- ▼ Remove the current obligations from the operating licence and replace these with a requirement for Sydney Water to co-operate with, and participate in, any Government initiated review of the Priority Sewerage Program. Sydney Water would also be required to implement and comply with any outcomes and timeframes of a Government review, as directed by the Minister. We have listed the six remaining PSP areas (from the current operating licence) in the new operating licence.

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**.¹⁹ 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.²⁰
- ▼ Priority 5 breaks/leaks 90% of jobs within 6 hours.²¹
- ▼ Priority 4 breaks/leaks 90% of jobs within 5 days.²²

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'.²³

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

¹⁹ *Sydney Water Operating Licence 2010-2015*, cl 3.5.

²⁰ 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.

²¹ 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.

²² 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.

²³ Sydney Water submission to the Review of the Operating Licence for Sydney Water, July 2014, p 50.

disruption to customers, such as in the middle of the night or during times of peak water demand.²⁴

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.²⁵

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 propose requiring Sydney Water to report annually 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.

²⁴ Sydney Water submission to the Review of the Operating Licence for Sydney Water, July 2014, p 50.

²⁵ 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 any unnecessary costs on customers or other members of the community.

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.²⁶ 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.²⁷

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 represents a cost of between \$62,050 (\$2011/12) and \$306,600 (\$2011/12) in forgone water per annum.²⁸ (Sydney Water also notes that in drought conditions it would apply tighter response practices.)²⁹

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.

²⁶ Sydney Water submission to the Review of the Operating Licence for Sydney Water, July 2014, p 51.

²⁷ Ibid, p 51.

²⁸ 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).

²⁹ 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.³⁰

These other benefits are difficult to quantify. However, we consider that overall the benefits would likely 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.³¹ 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.

³⁰ Sydney Water, Response to IPART request for information, 24 November 2014.

³¹ 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 and comply with an 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 rates are low in the section of the network under consideration
- ▼ establishment of a working group, comprised of representatives from each organisation.

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 develop and comply with 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 2021.³² 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 2001.³³

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.³⁴ Sydney Water is not required to do this if a WICA licensee provides wastewater services to the relevant area of the PSP.³⁵ (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.

³² 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.

³³ Gosford City Council and Sydney Water Corporation, *Brooklyn, Dangar Island, Mooney Mooney and Cheero Point Preferred Strategy for improved sewerage services*, December 2003.

³⁴ *Sydney Water Operating Licence 2010-2015*, cl 3.6(a) - (c).

³⁵ *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.³⁶

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.

³⁶ 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.”³⁷ The planned timelines for delivering these proposed schemes are as follows:³⁸

- ▼ 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.³⁹ Table 3.2 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 1989* is a more appropriate mechanism.⁴⁰

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.⁴¹

³⁷ Sydney Water submission to the Review of the Operating Licence for Sydney Water, July 2014, p 54.

³⁸ Ibid, p 54-55.

³⁹ Ibid, p 56.

⁴⁰ Ibid, p 57.

⁴¹ 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

In the draft operating licence, we removed 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 decided 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.

For the draft operating licence, we maintained all other clauses that related to the PSP for the proposed 2015 operating licence, including the requirement for Sydney Water to provide an annual report on its progress in implementing the PSP.

For the final version of our recommended operating licence, we have decided to remove the current PSP obligations from the operating licence and replace these with a requirement for Sydney Water to co-operate with, and participate in, any Government review of the PSP. Sydney Water would also be required to implement and comply with any outcomes and timeframes of a Government review, as directed by the Minister. We have listed the six remaining PSP areas (from the current operating licence) in the proposed new operating licence.

Imposing a requirement on Sydney Water to co-operate with, and participate in, any review of the PSP, should lead to increased transparency surrounding the status of the remaining PSP schemes once this review is undertaken. The review of PSP schemes should seek to determine whether the existing identified areas are still a Government priority. If these areas are still a priority, then the review should identify:

- ▼ alternative mechanisms for delivery of the schemes (WICA licensees could potentially deliver some areas of the program)
- ▼ dates for delivery of the remaining schemes
- ▼ the funding mechanism to be used (ie, who should fund the remaining schemes - residents in the PSP areas, the wider Sydney Water customer base, Government through a community service obligation or some combination of these).

We consider that requiring Sydney Water to co-operate with, and participate in, any review of the PSP will ensure that the objectives of any review are achieved in an efficient manner and with appropriate input from Sydney Water. Requiring Sydney Water to implement and comply with any outcomes and timeframes of a Government review, as directed by the Minister, will ensure that the findings of such a review are acted upon. This new obligation should result in increased transparency for stakeholders relating to the PSP program, and clarify Sydney Water's role regarding the PSP program.

This new obligation may impose costs on Sydney Water when a review of the PSP is undertaken, as Sydney Water will be required to allocate resources to assist with the review. Sydney Water may also be required to implement outcomes when the review is completed. However, there will also be some minor cost savings, as Sydney Water will no longer have to report on the progress of the remaining schemes.

As the precise details surrounding such a review of PSP schemes, and any findings of the review, are not known at the time of finalising the operating licence, the costs surrounding this obligation are uncertain. However, it is unlikely the costs of Sydney Water's participation in the review would be excessive. It is also unlikely the review would recommend a course of action that is excessively or unnecessarily costly (the aim of the review itself would be to identify the optimal course of action).

The benefits of the new obligation are:

- ▼ a potential review would identify the optimal approach to addressing concerns surrounding PSP areas
- ▼ increased transparency for stakeholders relating to the status of the PSP program
- ▼ clarification of Sydney Water's role in relation to the PSP program.

These benefits are potentially significant.

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:

- ▼ Customers 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 1995,⁴² 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

⁴² *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.⁴³
- ▼ **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 2011.⁴⁴
- ▼ **Water efficiency programs**
 - undertake and promote water efficiency programs and give due consideration to water efficiency and other water conservation measures as part of planning for future provisions of its services.⁴⁵
- ▼ **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).⁴⁶
- ▼ **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.⁴⁷

⁴³ *Sydney Water Operating Licence 2010-2015*, cl 7.1.

⁴⁴ *Sydney Water Operating Licence 2010-2015*, cl 7.2.

⁴⁵ *Sydney Water Operating Licence 2010-2015*, cl 7.3.

⁴⁶ *Sydney Water Operating Licence 2010-2015*, cl 7.4.

⁴⁷ *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 Metropolitan Water Directorate for the Metropolitan Water Plan

- ▼ 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 any Roles and Responsibilities Protocol that has been developed and agreed under the clause above.

Economic Level of Water Conservation (ELWC)

- ▼ Sydney Water must adopt the following staged approach to its development of a Methodology for determining the ELWC (the Methodology):
 - formulate its approach to and principles for the development of the Methodology by the end of 2015
 - develop and obtain IPART's approval with respect to the Methodology by the end of 2016.
- ▼ Sydney Water must comply with the water use and leakage targets in the current licence until it obtains IPART's approval with respect to the Methodology.

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:

- ▼ Outline Sydney Water's water conservation program 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
 - after the ELWC has been developed, how each of these elements relate to the ELWC 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.
- ▼ 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.⁴⁸ 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 2015.⁴⁹

Objective/rationale

We propose the new operating licence will 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.

⁴⁸ NSW Office of Water, *2010 Metropolitan Water Plan: Water for people and water for the environment*, August 2010.

⁴⁹ Informal discussions between IPART and Metropolitan Water Directorate.

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, 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 broadly 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.

We propose limiting the 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.

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.⁵⁰

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.⁵¹ We consider that other non-economic activities relating to the implementation of Government policy should be funded by the Government, on behalf of the broader community, as a Community Service Obligation.

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.⁵²

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

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

⁵² 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 protocol⁵³
- ▼ \$14,500 per annum from 2016-17 to 2019-20 – to monitor and report against the protocol.⁵⁴

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 5-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 are likely to exceed its costs.

⁵³ 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).

⁵⁴ 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 a methodology for determining the economic level of water conservation (ELWC) and an annual water conservation report

Objective/rationale

We also propose the operating licence requires Sydney Water to:

- ▼ formulate an approach to and principles for the development of a methodology (Methodology) for determining the ELWC by the end of 2015
- ▼ develop a Methodology, which is approved by IPART, by the end of 2016
- ▼ maintain the water use and leakage targets of the current operating licence until IPART has approved Sydney Water's Methodology (for determining the ELWC)
- ▼ 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 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 ELWC (once it has established the methodology for determining the ELWC) 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.⁵⁵ 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.

⁵⁵ 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 it 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 5-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 (once the methodology for determining the ELWC has been established and approved) 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. The water usage target of the current licence would be retained until Sydney Water's methodology for determining the ELWC has been established and approved, as part of our transitional approach to moving towards using an ELWC. Moving away from a fixed target and towards an ELWC should result in greater efficiency in water conservation measures.
- ▼ 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 once the ELWC has been established, 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 5-year term of the operating licence to develop and submit a water conservation methodology and annual water conservation report.⁵⁶

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 once the methodology for establishing the ELWC has been established. 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.

4.2.3 Removal of other water conservation provisions

Under our proposed licence, once the ELWC has been established, the operating licence provisions relating specifically to the water usage target, the water leakage target, water efficiency programs and water recycling programs would be removed.

However, as outlined above, many elements of these provisions are addressed through our proposed operating licence requirements relating to the ELWC 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

⁵⁶ 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 it about \$525,000 over five years.

met.⁵⁷ 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. As a transitional arrangement, until the ELWC methodology is established, we have maintained the current water use and leakage targets.

Our move towards the use of an ELWC recognises the following:

- ▼ The optimal level and mix of water conservation activities 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 states that it has been meeting the water usage target in the current operating licence (329 litres per person per day).^{58,59} However, there appears to be little basis for maintaining this specific target. The figure was based on a 35% saving from 1990-91 baseline levels.⁶⁰

We 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).

⁵⁷ 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.

⁵⁸ Sydney Water, *Submission to the Review of the Operating Licence for Sydney Water 2010-2015*, July 2014, p 7.

⁵⁹ *Sydney Water Operating Licence 2010-2015*, cl 7.1(a).

⁶⁰ *Sydney Water Operating Licence 1995-2000*, cl 5.14.

It states that the ELL from its water network is likely to be higher than the current target in the licence (105 ML/d), and that moving to an ELL is estimated to achieve savings of \$300,000 per year.⁶¹

According to Sydney Water, “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.”⁶²

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. The ELWC meets this criteria.

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.⁶³

We consider this is broadly consistent with our proposed operating licence provisions relating to the ELWC 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.⁶⁴ 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.⁶⁵

⁶¹ Sydney Water, Response to IPART request for information, 24 November 2014.

⁶² Ibid.

⁶³ *Sydney Water Operating Licence 2010-2015*, s 7.4.

⁶⁴ *Sydney Water Operating Licence 2010-2015*, cl 7.4(b).

⁶⁵ *Sydney Water Operating Licence 2010-2015*, cl 7.4(a).

The 2010 MWP gives a target to recycle 70 billion litres of water per year by 2015.⁶⁶ Sydney Water has agreed to implement increased recycling to homes in Rouse Hill, Hoxton Park and Ropes Crossing.⁶⁷ However, the Minister has not imposed a requirement for 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.⁶⁸

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

⁶⁶ NSW Office of Water, *2010 Metropolitan Water Plan: Water for people and water for the environment*, August 2010, p 5.

⁶⁷ NSW Office of Water, *2010 Metropolitan Water Plan: Water for people and water for the environment*, August 2010, p 60.

⁶⁸ *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)⁶⁹
- ▼ 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.⁷⁰

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.

⁶⁹ *Protection of the Environment Operations Act 1997*, s 48.

⁷⁰ *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.⁷¹

5.2 Proposed changes to environment provisions in the operating licence

We propose removing 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.

⁷¹ *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 EMP would simply remove the current duplication of requirements in the operating licence, but would not result in any cost savings for the organisation.⁷²

We propose replacing 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.⁷³

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

⁷² Sydney Water, Response to IPART request for information, 24 November 2014.

⁷³ Ibid.

- ▼ 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.⁷⁴

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 greater protection.⁷⁵ 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.

⁷⁴ Sydney Water, *Summary Annual Report*, 2013, p 2.

⁷⁵ *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 contract⁷⁶
- ▼ required practices and procedures relating to customer hardship, debt, water flow restrictions and disconnection for non-payment⁷⁷
- ▼ an obligation to appoint and consult with at least one Customer Council, with associated obligations regarding this group's charter⁷⁸
- ▼ a requirement to establish and maintain internal and external dispute resolution processes⁷⁹
- ▼ an obligation to extend complaint handling and complaint resolution procedures to consumers (property renters) in the same manner that customers (property owners) are treated.⁸⁰

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 current Customer Contract, Sydney Water currently pays the following rebates:

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

⁷⁶ *Sydney Water's Operating Licence 2010-2015*, cl 4.1.

⁷⁷ *Sydney Water Operating Licence 2010-2015*, cl 4.4 and Schedule 2, s 5 and 6.

⁷⁸ *Sydney Water Act 1994*, s 15 and *Sydney Water Operating Licence 2010-2015*, cl 4.5.

⁷⁹ *Sydney Water Operating Licence 2010-2015*, cl 5.1 and 5.2.

⁸⁰ *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 1-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. This increase is greater than the rate of inflation, but reflects Sydney Water’s proposal.
- ▼ Remove the wording in rebates that relates to 10% of the service charge, so that these rebates are based solely on the minimum rebate payment amount adjusted by CPI.
- ▼ For the ‘dirty water’ rebate, base the rebate solely on the minimum rebate amount.
- ▼ 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:

- ▼ Must advertise the measures available to address financial hardship in a Sydney based newspaper at least annually.
- ▼ 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 have proposed to include two new performance indicators relating to non-residential customers in the reporting manual. This was in response to stakeholder concerns. These indicators are:

- ▼ The number of non-residential customers affected by an unplanned water interruption of greater than 1-hour duration.
- ▼ The average duration of unplanned interruptions experienced by non-residential customers.

We have expanded the list of members on the Customer Council to require representation from small, medium and large business and non-residential customers.

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 majority of the minimum rebate payments by about 15%, to account for inflation. The minimum rebate for 'dirty water' is proposed to increase from \$20 to \$35, which is greater than inflation. Sydney Water supported these changes 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 five years.⁸¹

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

We also support Sydney Water's proposal to increase the rebate for 'dirty water' by more than inflation, in line with its proposal.

Remove wording in rebates that relates to 10% of the service charge, and base these rebates solely on the minimum amount adjusted by CPI

Currently, the rebates for planned interruptions, unplanned interruptions, low pressure events, and wastewater overflows are based on 10% of the applicable service charge or a minimum rebate amount. Sydney Water's submission to the Issues Paper requested that rebates be changed to be a set value equal to the current minimum (adjusted for CPI), rather than a minimum *or* 10% of the service charge. In the draft operating licence, we decided to retain the current requirements. This was based on the potential for a number of large residential

⁸¹ Sydney Water submission to the Review of the Operating Licence for Sydney Water, July 2014, p 80.

customers to receive significantly larger rebates than the minimum amount depending on the size of the connection.

In its submission to our draft operating licence package, Sydney Water provided additional information to support its request to remove the requirement to pay rebates based on 10% of the service fee.

The information provided by Sydney Water indicated there were only a very small number of customers, some of whom are large residential (flats) or businesses, receiving rebates greater than the minimum fee. Sydney Water stated that over 99.9% of all customers who received a rebate for a single event in 2014 received the flat rate payment, an amount which was usually far more than 10% of their service charge.⁸²

Sydney Water also indicated that the implementation of a flat rebate would allow significant savings in the development of its new billing system. It indicated that configuring its billing system to allow for the 10% rebate would cost around \$200,000 per individual rebate type.⁸³

Under our proposed licence, we have decided to remove the wording in rebates that relates to 10% of the service charge, and base these rebates on the minimum rebate amount adjusted by CPI. This is based on the information provided by Sydney Water indicating that there were only a very small number of customers receiving rebates greater than the minimum fee, and the significant cost savings in developing the new customer billing system that result from simplifying the rebates.

Change the wording of the 'dirty water' rebate so that the rebate is only paid as the minimum amount adjusted by CPI

Currently, the rebate for 'dirty water' is paid as the greater of \$20 or twice the value of the average maximum daily consumption of a customer's property. In the draft operating licence, we decided to retain the current requirement. However, based on the information provided by Sydney Water in its submission to our draft operating licence package as well as information provided to us by Sydney Water on the numbers of customers receiving the minimum payment,⁸⁴ we have decided to change our recommended wording of this rebate so that it would be paid as a minimum rebate amount adjusted by CPI.

Similar to our rationale for removing the wording related to 10% of the service charge in the rebates above, we consider that simplifying the rebate for dirty water and paying it as a minimum amount will have a minimal impact on customers while having significant benefits in terms of reduced costs of developing Sydney Water's billing system. Sydney Water provided information

⁸² Sydney Water submission to IPART on the draft operating licence 2015-20, April 2015, p 33.

⁸³ Sydney Water submission to IPART on the draft operating licence 2015-20, April 2015, p 33.

⁸⁴ Sydney Water, internal communication with IPART, 27 April 2015.

on rebates paid for dirty water in 2014 which indicated that 99.4% of residential customers and 94.5% of non-residential customers received the minimum rebate amount.⁸⁵ Sydney Water estimates that simplifying the rebate for dirty water and basing the rebate on a minimum amount adjusted by CPI would result in a saving of around \$200,000.⁸⁶ For these reasons, we have changed the rebate for dirty water so that it is based on a minimum rebate amount adjusted by CPI.

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 propose 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.⁸⁷

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 are likely to be outweighed by its benefits.

Requirement for Sydney Water to advertise financial hardship measures

We propose introducing 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.

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.⁸⁸

⁸⁵ Ibid.

⁸⁶ Sydney Water submission to IPART on the draft operating licence 2015-2020, April 2015.

⁸⁷ Ibid, p 80.

⁸⁸ Ibid, p 81.

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 have included a clause in the proposed 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.

Additional performance indicators for non-residential customers

We have included two new performance indicators relating to non-residential customers in the reporting manual. These are:

- ▼ The number of non-residential customers affected by an unplanned water interruption of greater than 1-hour duration.
- ▼ The average duration of unplanned interruptions experienced by non-residential customers.

These indicators are in response to concerns raised by the Australian Food and Grocery Council in its submissions to the Issues Paper and draft licensing package, and recognise that the cost of service interruption to non-residential customers can be significant. The purpose of these indicators is to recognise the number of non-residential customers experiencing unplanned water interruptions, and provide some measure of impact through tracking the hours of lost service for this class of customers.

During consultation with Sydney Water, it has indicated that these additional requirements are reasonable and that it would have the data to comply. Sydney Water provided estimates of the costs of introducing these two new indicators. Sydney Water estimated that there would be initial costs in 2015-16 to establish

these new indicators of around \$1,600. It commented that the estimated costs of reporting against the two additional indicators for each year of the licence term are expected to be negligible.⁸⁹

These additional performance indicators should increase transparency and accountability around Sydney Water's performance in servicing non-residential customers, and hence ultimately reduce the risk of service failure and/or enhance performance over time.

We consider the benefits of these indicators will exceed their costs.

Expansion of list of customers on the Customer Council

We have expanded the list of members on the Customer Council to require representation from:

- ▼ small, medium and large business
- ▼ non-residential customers
- ▼ older people
- ▼ people with disabilities, and
- ▼ indigenous Australians.

Currently, representation is required from business groups (however, this is not broken down into small, medium and large businesses), and residential consumers (our proposed expansion of the list of customers to include non-residential customers will ensure that this customer group is represented).

The costs of this change will largely be limited to the costs that additional representatives incur from being involved in the Customer Council.

Sydney Water has advised us that breaking down businesses into small, medium, and large, and the addition of non-residential customers will not impose any additional costs as these groups are already represented. (Our proposal will ensure this wide representation is maintained.)

However, Sydney Water has advised that the proposed addition of representation for older people, people with disabilities and indigenous Australians will require inviting up to three new members to join the Council. We estimate that the costs to these new members of this proposed change would be in the order of \$3,000 per year.⁹⁰

⁸⁹ IPART, email communication with Sydney Water, 13 May 2015.

⁹⁰ Sydney Water estimates that approximately 25 hours per year of time is required from each Customer Council member, with up to 3 new members required to join the Customer Council. We have estimated the hourly value of a Customer Council members' time using the *Guidelines for Estimating Savings Under the Red Tape Reduction Target* published by the Better Regulation Office (BRO) in February 2012. Based on BRO's estimates of the value of time, we assumed that the additional representatives would incur a cost of \$41.50 per hour.

This change will result in a wider array of representation on the Customer Council. This should ensure Sydney Water is more fully informed of the views of its customer base when making decisions, and hence ultimately benefit customers (in the form of enhanced service and/or lower costs).

We consider this change will result in a net benefit.

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 have included a clause in the operating licence that states:

Sydney Water must use its best endeavours to co-operate with each Licensed Network Operator and Licensed Retail Supplier within the Area of Operations that seeks to establish with Sydney Water a code of conduct of the kind referred to in clause 25 of the WIC Regulation.

Rationale for proposed change

We consider this change is appropriate as it would reduce risks and enhance co-operation between Sydney Water, licensed network operators and retail suppliers in Sydney Water's area of operation. This would 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 (Water Industry Competition Act) licensed network operators are already required to establish a Code of Conduct with Sydney Water as a condition of their licence.⁹¹ Sydney Water acknowledged that customers may see value in including an obligation that requires Sydney Water to co-operate with WICA licensees, even though Sydney Water states that it already does so as part of good business practice.

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.

⁹¹ Sydney Water, Response to IPART request for information, 24 November 2014.

- ▼ Clarify responsibility for interconnected infrastructure, which can reduce the risk of system or service failure for both organisations.

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, and that the benefits of this change are likely to outweigh the costs.

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 fully implemented and that all relevant activities are carried out in accordance with the system
- ▼ 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
- ▼ 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 benefits are 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 \$160,000.⁹²

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 our allowance for Sydney Water's annual average operating expenditure.⁹³ 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.

⁹² Sydney Water submission to the Review of the Operating Licence for Sydney Water, July 2014, p 95.

⁹³ IPART allowance for Sydney Water's annual average operating expenditure excluding bulk water costs over 2012-2016. This figure was approximately \$900 million (\$2011-12). IPART, *Review of prices for Sydney Water Corporation's water, sewerage, stormwater drainage and other services – Final Report*, June 2012, p 67.

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.

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.⁹⁴

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.

⁹⁴ Sydney Water submission to the Review of the Operating Licence for Sydney Water, July 2014, p 101.

Rationale for proposed change

This change would 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 receives from other sources, such as developer charges).

The benefits of this 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 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.

Glossary

2010 Plan	NSW Office of Water, 2010 <i>Metropolitan Water Plan: Water for people and water for the environment, August 2010</i>
ADWG	Australian Drinking Water Guidelines
AGWR	Australian Guidelines for Water Recycling
AMS	Asset Management System
AS	Australian Standard
AS/NZS ISO 9001:2008	AS/NZS ISO 9001:2008 Quality Management Systems - Requirements
AS/NZS ISO 10002:2014	Guidelines for complaint handling in organisations
AS/NZS ISO 14001: 2004	AS/NZS ISO 14001:2004 Environmental Management Systems - Requirements with guidance for use, 2004
BCA	Building Code of Australia
CBA	Cost benefit analysis
CPI	Consumer Price Index
CSO	Community Service Obligation
DWQMP	Drinking Water Quality Management Plan
DWQMS	Drinking Water Quality Management System
ELL	Economic Level of Leakage
ELWC	Economic Level of Water Conservation
EMS	Environmental Management System

EWON	Energy and Water Ombudsman of NSW
EPA	Environmental Protection Authority
EPL	Environmental Protection Licence
Fluoridation Code	NSW Code of Practice for Fluoridation of Public Water Supplies (2011)
FRNSW	Fire and Rescue NSW
IPART	Independent Pricing and Regulatory Tribunal
ISO 55001:2014	International Standard for Asset Management ISO 55001:2014
LGA	Local Government Area
MWD	Metropolitan Water Directorate
MWP	Metropolitan Water Plan
NOW	NSW Office of Water
NWI	National Water Initiative
Operating licence	Sydney Water's operating licence issued under Section 12 of <i>Sydney Water Act 1994</i>
PSP	Priority Sewerage Program
QMS	Quality Management System
RFI	Request for Information
RWQMS	Recycled Water Quality Management System
SCA	Sydney Catchment Authority
SPS	System Performance Standard
Sydney Water	Sydney Water Corporation
The Act	<i>Sydney Water Act 1994</i>
The Minister	The Minister for Natural Resources, Lands and Water - Sydney Water's portfolio Minister
WICA	<i>Water Industry Competition Act 2006</i>

WQMS

Water Quality Management System

