



Independent Pricing and Regulatory Tribunal

Review of prices for the Water Administration Ministerial Corporation

For the NSW Office of Water - from 1 July 2016

Water — Issues Paper
June 2015



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The Tribunal members for this review are:

Dr Peter J Boxall AO, Chairman

Mr Ed Willett

Ms Catherine Jones

Inquiries regarding this document should be directed to a staff member:

John Madden (02) 9113 7780

Jean-Marc Kutschukian (02) 9290 8453

Alexandra Sidorenko (02) 9113 7769

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

Invitation for submissions

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

Submissions are due by 9 October 2015.

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

You can also send comments by fax to (02) 9290 2061, or by mail to:

Review of prices for the Water Administration Ministerial Corporation
Independent Pricing and Regulatory Tribunal
PO Box K35
Haymarket Post Shop NSW 1240

Late submissions may not be accepted at the discretion of the Tribunal. Our normal practice is to make submissions publicly available on our website <www.ipart.nsw.gov.au> as soon as possible after the closing date for submissions. If you wish to view copies of submissions but do not have access to the website, you can make alternative arrangements by telephoning one of the staff members listed on the previous page.

We may choose not to publish a submission—for example, if it contains confidential or commercially sensitive information. If your submission contains information that you do not wish to be publicly disclosed, please indicate this clearly at the time of making the submission. IPART will then make every effort to protect that information, but it could be disclosed under the *Government Information (Public Access) Act 2009* (NSW) or the *Independent Pricing and Regulatory Tribunal Act 1992* (NSW), or where otherwise required by law.

If you would like further information on making a submission, IPART's submission policy is available on our website.

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1 | Introduction

The Independent Pricing and Regulatory Tribunal of NSW (IPART – hereafter referred to as "we," "us," or "our") is conducting a review of the maximum prices that the Office of Water (which we refer to as 'the NSW Office of Water' or 'NOW') can charge for the monopoly water management services it delivers on behalf of the Water Administration Ministerial Corporation (WAMC).¹ These prices currently include:

- ▼ **Water management charges** – based on holding entitlements for water and extracting water from regulated rivers, unregulated rivers and groundwater sources.
- ▼ **Consent transaction charges** – for issuing Water Access Licences (WALs), works approvals and other consent transactions under the *Water Management Act 2000* (NSW) (WMA) and *Water Act 1912* (NSW).
- ▼ **Meter service and reading charges** – for maintaining and reading meters (for unregulated river and groundwater users only).

The current determination set prices for the period 1 July 2011 to 30 June 2014 (the 2011 Determination).² Before that, we set prices for NOW in 2006 (the 2006 Determination).³ The 2006 determination applied from 1 October 2006 to 30 June 2010.

In this review, we will set prices to apply from 1 July 2016 (the 2016 Determination). The commencement of this review was deferred by two years following separate requests from NOW.

¹ The Water Administration Ministerial Corporation (WAMC) is the statutory body under the *Water Management Act 2000* (NSW) responsible for water management in New South Wales. Its water planning and management activities are delivered by the NSW Office of Water (NOW).

² IPART, *Review of prices for the Water Administration Ministerial Corporation – Determination and Final Report*, February 2011.

³ IPART, *Bulk Water Prices for State Water Corporation and Water Administration Ministerial Corporation from 1 October 2006 to 30 June 2010 – Report and Determination*, September 2006.

NOW initially requested a one year deferral to allow the NSW Government's position on the Murray-Darling Basin Plan to be clarified and NOW to refocus on its data gathering.⁴ On 4 July 2014, we received a letter from NOW requesting a further 12-month extension of the current Determination.⁵ We decided to defer NOW's pricing review for a further 12 months noting:

- ▼ the significant operational reforms that NOW would be undertaking over the following 12 months as a result of the NSW Government's bulk water reforms.
- ▼ uncertainty over the implications of the NSW Government's recent signing of the Murray-Darling Basin Plan on NOW's activities.

The deferral means that prices prevailing at 30 June 2014 remain constant in nominal terms until we make a new determination (ie, 2013-14 prices apply for 2014-15 and 2015-16). We aim to set prices from 1 July 2016 to recover an appropriate level of revenue needed to support the provision of NOW's monopoly services in an efficient and effective manner.

1.1 What is the purpose of this Issues Paper?

This Issues Paper has been prepared to assist in identifying and understanding the key issues for this review and to encourage stakeholder comment.

To assist stakeholders in making submissions, the Issues Paper explains how the review is to be undertaken, provides background information, and outlines issues on which we particularly seek comments. We provide a consolidated list of these issues in section 1.5 below.

To assist NOW in its provision of information, this Issues Paper outlines our information requirements for the review (Appendix F). We have provided NOW with advance notice of these information requirements,⁶ and have also outlined expectations regarding the:

- ▼ timely provision of information
- ▼ completeness and accuracy of information provided
- ▼ adequacy of justifications provided for past and forecast expenditure
- ▼ clarity of connection between expenditure and water management activities and outcomes.

⁴ On 15 March 2013, NOW wrote to IPART to formally request that we delay the 2014 price review (that would have commenced on 1 July 2014) for 12 months. We agreed to defer the review as requested, and noted that the deferral means that prices prevailing at 30 June 2014 remain constant in nominal terms until IPART makes a new determination (under clause 2(d) of the current determination).

⁵ Letter from the Department of Primary Industries, 4 July 2014.

⁶ In November 2014, we provided NOW with a copy of our 'Guidelines for Water Agency Pricing Submissions', which are designed to assist a water agency to prepare a submission to a pricing review. See: IPART, *Guidelines for Water Agency Pricing Submissions*, November 2014. Available from http://www.ipart.nsw.gov.au/Home/Industries/Water/Water_Pricing/Guidelines_for_Water_Agency_Pricing_Submissions_-_November_2014, accessed on 5 June 2015.

Prior to providing their submissions to the Issues Paper by 9 October 2015, stakeholders will be able to review NOW's pricing proposal, which is due to us by 11 September 2015. NOW's pricing proposal will be made available on IPART's website soon after its receipt. A comprehensive and timely pricing proposal from NOW is required to allow us to effectively carry out this review and for stakeholders to effectively participate in the review.

All submissions made on time to the review will be considered in making our Draft and Final Determinations.

1.2 What is IPART's approach to the review?

This review will be conducted under section 11 of the *Independent Pricing and Regulatory Tribunal Act 1992* (the IPART Act). Specific matters we will examine include:

- ▼ NOW's roles and functions in relation to water management, including legislative requirements and objectives for water management
- ▼ the efficiency of NOW's proposed expenditure program, the outcomes that will be achieved by this level of expenditure (relative to NOW's legislative responsibilities), and the scope for further efficiency gains over the upcoming determination period
- ▼ the appropriate rate of return NOW should earn on its water management assets
- ▼ the appropriate sharing of NOW's costs between water users and the broader community
- ▼ forecast volumes of water extracted from regulated rivers, unregulated rivers and groundwater sources over the upcoming determination period
- ▼ forecast volumes of water entitlements for regulated rivers, unregulated rivers and groundwater sources over the upcoming determination period
- ▼ the structure of water management charges, including the ratio of fixed to usage charges, and the extent to which prices for water management activities should vary by valley and water source, and
- ▼ the implications of our pricing decisions, including the impact on NOW, extractive water users and the community.

In making this determination, we will consider information obtained through our public consultation process (as outlined below). We will also have regard to the requirements of section 15 of the IPART Act (see Appendix A), intergovernmental agreements and the pricing principles developed in previous reviews (see Appendix B).

In considering all these matters, we will need to balance the diverse needs and interests of stakeholders, as well as ensuring that NOW is adequately recompensed for the services it provides. Our approach to the review is presented in Box 1.1. The Issues Paper is structured around this approach.

Box 1.1 IPART’s approach to the review

The main steps in our review are:

1. decide on the length of the determination period
2. decide on water management charges, which involves:
 - a) identifying the specific water management services to be included in estimating the costs to be recovered through these charges
 - b) determining the full, efficient costs NOW is likely to incur in providing water management activities over the determination period
 - c) deciding on the appropriate share of these costs to be recovered from water users through water management charges
 - d) deciding on the price structure, then (where applicable):
 - allocating the user share of costs across water sources and valleys
 - determining the entitlement volumes and usage forecasts to set water management charges
3. decide on meter service and reading charges
4. decide on consent transaction charges
5. assess the impact of our pricing decisions on key stakeholders
6. decide whether we should establish a reporting framework or any other regulatory measures for NOW over the determination period.

1.3 What is IPART’s review process?

This price review formally commences with the release of this Issues Paper. In conducting this review, we will rely on our own research and analysis, drawing on consultant investigations as required, as well as information provided by NOW and other stakeholders through our public consultation process.

We encourage NOW and stakeholders to raise and discuss any issues that they believe are relevant to the review. Details on how to make submissions are provided at the front of the paper (on the Invitation for Submissions page). Submissions will be made available on our website (www.ipart.nsw.gov.au).

We plan to hold three public hearings to provide further opportunity for stakeholders to present their views – two regional hearings and one in Sydney. The regional hearings are proposed for Tamworth (Northern NSW) and Griffith (Southern NSW). These locations have been chosen following consultation with stakeholders.

The public hearings will be held in close succession to each other:

- ▼ Monday, 16 November 2015 – Tamworth
- ▼ Monday, 23 November 2015 – Sydney, and
- ▼ Monday, 30 November 2015 – Griffith.

We intend to webcast the Sydney public hearing for greater accessibility (ie, to allow stakeholders that are unable to travel to participate in the public hearing).

We will release a Draft Report and Draft Determination, and invite stakeholders to make further submissions on that report. Interested stakeholders can also comment on our consultant's reports published on our website, as part of their submission to our Draft Report.

We will consider all comments received, before making our Determination and publishing our Final Report. We may not, however, accept late submissions.

An indicative timetable for the review is provided below in Table 1.1.

Table 1.1 Indicative review timetable

Task	Timeframe
Release Issues Paper	22 June 2015
Submission from NOW due	11 September 2015
Public submissions due	9 October 2015
Public Hearing – Tamworth	16 November 2015
Public Hearing – Sydney	23 November 2015
Public Hearing – Griffith	30 November 2015
Release Draft Report and Draft Determination	8 March 2016
Receive submissions on Draft Report and Draft Determination	4 April 2016
Release Final Report and Determination	7 June 2016

Note: These dates are indicative and may be subject to change.

1.3.1 Relationship with the 2017 Water NSW (Rural) price review

Water NSW is the organisation responsible for managing raw water supply across NSW by bringing together the Sydney Catchment Authority (SCA) and State Water Corporation (State Water) (as at 1 January 2015).⁷

⁷ The *Water NSW Act 2014* (NSW) provides for State Water Corporation to become Water NSW and to abolish the Sydney Catchment Authority and transfer its functions to Water NSW; and to repeal and amend certain legislation consequentially.

We regulate the prices for Water NSW and currently conduct separate price determinations for the services previously provided by State Water and those services previously provided by the SCA. Where necessary, we will distinguish between the two price reviews in this Issues Paper as follows:

- ▼ Water NSW (Rural) as the former State Water
- ▼ Water NSW (Greater Sydney Area) as the former SCA.

We will be conducting a separate review of prices for Water NSW (Rural) commencing in June 2016. We currently regulate the prices for Water NSW's (Rural) coastal valleys (Hunter, North Coast and South Coast) and some customers of the Fish River Scheme near Lithgow. Water NSW's (Rural) activities relate mainly to the physical storage and delivery of bulk water in regulated rivers, whereas NOW's activities are primarily concerned with water management and protecting the water entitlement system across regulated rivers, unregulated rivers and groundwater.

The Australian Competition and Consumer Commission (ACCC) currently sets the maximum charges for Water NSW's (Rural) monopoly services in the Murray-Darling Basin valleys (all eight inland valleys and the Fish River Scheme). This follows the transfer of water resource management functions in the Murray-Darling Basin to the Murray-Darling Basin Authority (MDBA) under the *Water Act 2007* (Cth). In July 2014, the ACCC released its Final Decision on Water NSW's (Rural) prices for these valleys for the period 1 July 2014 to 30 June 2017.⁸

However, we are currently seeking accreditation to regulate Water NSW's (Rural) prices in the Murray Darling Basin valleys under the Commonwealth's Water Charge (Infrastructure) Rules. An application for accreditation has been lodged with the ACCC, for IPART to conduct the next Water NSW (Rural) price review in its entirety during 2016-17.

1.4 Structure of this Issues Paper

This Issues Paper is organised as follows:

- ▼ **Chapter 2** provides an overview of NOW's role in regard to water management.
- ▼ **Chapter 3** provides a summary of our approach to determining NOW's revenue requirement, including our review of historical and proposed future operating and capital expenditure, our calculation of an allowance for depreciation, consideration of a return on assets and use of output measures.

⁸ ACCC, *Final Decision on State Water Pricing Application: 2014-15 – 2016-17*, June 2014. <http://www.accc.gov.au/system/files/ACCC%20Final%20Decision%20on%20State%20Water%202014-17%20pricing%20application%20%282%20July%202014%29.pdf>, accessed on 5 June 2015.

- ▼ **Chapter 4** outlines our approach to allocating NOW's efficient costs between water users and the community.
- ▼ **Chapter 5** outlines our approach to setting NOW's water management charges, including determining appropriate prices and price structures, forecasting water sales and entitlement volumes, considering potential mechanisms to deal with risk, and considering the potential impacts on customers of water management price changes.
- ▼ **Chapter 6** outlines our approach to setting NOW's service fees and charges, including charges related to metering, and administrative fees and charges for consent transactions.

1.5 List of issues for stakeholder comment

The issues for stakeholder comment with corresponding page numbers are listed below. However, stakeholders are free to raise and discuss any other issues that they believe are relevant to the review. This includes providing comments on aspects of NOW's pricing submission.

1.5.1 List of issues for stakeholder comment

Monopoly service activities

- | | | |
|---|---|----|
| 1 | Are NOW's proposed monopoly service activities for the 2016 Determination period appropriate? | 22 |
|---|---|----|

Length of determination period

- | | | |
|---|---|----|
| 2 | What is the appropriate length of the determination period? | 23 |
|---|---|----|

NOW's operating expenditure (including Murray-Darling Basin Authority and Dumaresq-Barwon Border Rivers Commission contributions)

- | | | |
|---|---|----|
| 3 | Are NOW's proposed operating costs over the 2016 determination period efficient, taking into account drivers of this expenditure and water management outcomes achieved? | 28 |
| 4 | What scope is there for NOW to achieve efficiency gains over the 2016 determination period? | 28 |
| 5 | What contributions to the Murray-Darling Basin Authority and the Dumaresq-Barwon Border Rivers Commission should be recovered from water users through NOW's water management charges over the 2016 determination period? | 31 |

NOW's capital expenditure and return on and of capital

- | | | |
|---|---|----|
| 6 | Is NOW's capital expenditure over the 2011 determination period prudent and efficient, taking into account drivers of this expenditure and water management outcomes achieved? | 32 |
| 7 | Is NOW's forecast capital expenditure program over the 2016 determination period prudent and efficient, taking into account expenditure drivers, scope for efficiency gains and proposed water management outcomes? | 32 |
| 8 | What are your views on NOW's proposed depreciation allowance, including the assumptions (eg, asset values and asset lives) underpinning the calculation of this allowance? | 33 |
| 9 | What is a suitable rate of return on NOW's regulatory assets? | 34 |

NOW's performance and reporting requirements

- | | | |
|----|---|----|
| 10 | How has NOW performed over the 2011 determination period, including in relation to the 2011 schedule of monopoly service outputs in Appendix D? | 36 |
| 11 | Should reporting measures be included in the 2016 determination period? | 36 |

User shares and cost recovery

- | | | |
|----|---|----|
| 12 | Do the cost shares of the 2011 Determination remain appropriate (as outlined in Appendix D)? If not, what adjustments are required? | 39 |
| 13 | What are your views on NOW's proposed cost shares for the 2016 determination period? | 39 |

Setting NOW's water management charges

- | | | |
|----|---|----|
| 14 | Is the current geographic split of water management charges appropriate? Or should we consolidate valleys into wider regions for tariff setting purposes? | 44 |
| 15 | Is NOW's cost allocation model suitable for determining valley or regional based prices? | 44 |
| 16 | Should two-part tariffs be maintained for NOW, or should we move to one-part tariffs? | 46 |
| 17 | To what extent does water trading act as a risk management mechanism for water users, and therefore remove the need for a two-part tariff? | 46 |
| 18 | Do two-part tariffs promote greater metering and therefore enhanced water management outcomes? | 46 |

- 19 If two-part tariffs are maintained, what is the appropriate balance between NOW's fixed and usage charges (eg, is the current 70/30 fixed to variable ratio suitable)? 46

Forecasting entitlement volumes and usage

- 20 Are NOW's forecast water entitlement and usage (extraction) volumes reasonable? 47
- 21 What, if any, mechanisms should be introduced to address risk associated with variations between forecasts used in setting prices and actual levels of water usage? 49

The scope of NOW's water management charges (types of user)

- 22 What are your views on NOW's pricing proposals in relation to special category licences, including any new special category licences proposed for the 2016 determination period? 53

The price path and the impacts of pricing decisions

- 23 What is the appropriate level for the minimum bill, and what types of users, if any, should be exempt from paying the minimum bill? 54
- 24 How should the price path account for customer impacts (eg, in balancing NOW's transition to full cost-recovery)? 55

Setting NOW's metering charges

- 25 What are your views on NOW's meter-related activities and charges for users on unregulated river and groundwater sources, including: 61
- The appropriateness of meter types, meter charges and the metering target? 61
 - The appropriate water user share of costs for NOW's metering activities? 61
 - The affordability/impact on water users (own meter and government meter)? 61
- 26 Does the potential to trade water allocations provide an incentive for unregulated and groundwater users to install a meter? 62
- 27 Does the potential to switch from a one-part to a two-part tariff provide an incentive for unregulated and groundwater users to install a meter? 62

Setting NOW's consent transactions

- 28 Are NOW's proposed consent transaction charges for the 2016 determination period reasonable (ie, do they represent the efficient incremental costs of assessing and issuing the licences and approvals)? 64

2 Context for the review

This chapter provides background and context for the review. We provide an overview of water management in NSW, including the agencies that are responsible for water management and the types of activities that they carry out. We also outline key developments in water management in NSW since our 2011 Determination and their potential implications for this review.

In providing context for the review, we note that our remit is to determine prices only for NOW's activities deemed to be 'government monopoly services'. We seek stakeholder comments on NOW's water management activities that should be included in setting prices. We also seek stakeholder comments on the appropriate length of the determination period.

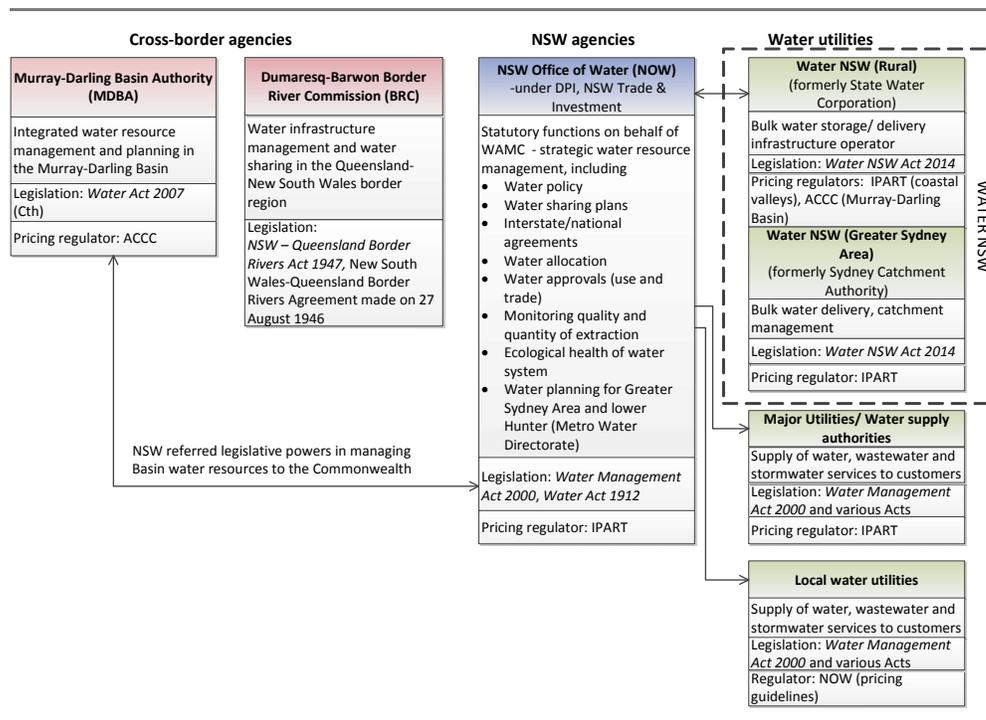
2.1 Water management in New South Wales

Managing water resources in NSW involves a range of legislation, initiatives and cooperative arrangements with the Commonwealth and other state government departments. The two key pieces of legislation for the management of water in NSW are the *Water Management Act 2000* (NSW) (WMA) and the *Water Act 1912* (NSW).

In the sections that follow, we outline NOW's role in managing NSW's surface water and groundwater resources. We also outline the two cross-border agencies that have water resource management functions in parts of NSW: the Murray-Darling Basin Authority (MDBA) in the Murray-Darling Basin, and the Dumaresq-Barwon Border Rivers Commission (BRC) in the NSW-Queensland border area.

A schematic representation of the water resource management arrangements in NSW is presented below in Figure 2.1.

Figure 2.1 Water management in New South Wales



Source: <http://www.water.nsw.gov.au/water-management> and IPART’s analysis.

2.1.1 The Water Administration Ministerial Corporation

Water rights in NSW are vested in the Crown, which include the rights to the control, use and flow of all fresh water in NSW.⁹ The Water Administration Ministerial Corporation (WAMC) is the statutory body representing the Crown, and is the legal entity responsible for water resource management in NSW. WAMC has no shareholders and its affairs are managed by the Minister administering the WMA.

WAMC’s functions under the WMA are to:¹⁰

1. construct, maintain and operate water management works
2. construct, maintain and operate gauging stations and other monitoring equipment
3. conduct research, collect information and develop technology in relation to water management
4. acquire rights to water, whether within or beyond NSW, and

⁹ s 392, WMA. Fresh water includes water in rivers, lakes and aquifers, all water conserved by any works, and all water occurring naturally on or below the surface of the ground.

¹⁰ s 372, WMA.

5. do anything for the purpose of enabling the objects of the WMA to be attained (outlined in Box 2.1).

Currently, WAMC exercises its functions through NOW. On behalf of WAMC, NOW undertakes integrated water resource management, including water resource planning, evaluation and monitoring, water allocations, and administration of water property and access rights through water access licences and works approvals.

Box 2.1 The Objects of the *Water Management Act 2000* (under section 3)

The objects of the WMA are to provide for the sustainable and integrated management of water sources of the State for the benefit of present and future generations, in particular:

- a) to apply the principles of ecologically sustainable development
 - b) to protect, enhance and restore water sources, their associated ecosystems, ecological processes and biological diversity and their water quality
 - c) to recognise and foster the significant social and economic benefits to the State that result from the sustainable and efficient use of water, including benefits to the environment, urban communities, agriculture, fisheries, industry, recreation, culture and heritage, and the Aboriginal people
 - d) to recognise the role of the community in resolving issues relating to the management of water sources
 - e) to provide for the orderly, efficient and equitable sharing of water from water sources
 - f) to integrate the management of water sources with the management of other aspects of the environment
 - g) to encourage the sharing of responsibility for the sustainable and efficient use of water between Government and water users, and
 - h) to encourage best practice in the management and use of water.
-

2.1.2 The NSW Office of Water

Although WAMC is the legal entity that is responsible for water management in NSW, NOW has been responsible for undertaking water management activities on behalf of WAMC and charging customers for its water management activities or services. Consequently, this Issues Paper primarily refers to NOW when discussing water management activities and charges.

NOW undertakes a range of activities, some of which are not related to water management and are outside the scope of this review (discussed in further detail below). Its primary role in regard to water management is to administer and implement water management legislation to ensure that water resources are managed in the most optimal way for the community as a whole and the environment. This involves protecting water users' property rights to access

water to which they are entitled. As outlined in Chapter 4, we allocate a portion of NOW's water management costs to water users based on the 'impactor pays' approach.¹¹

In general terms, NOW's water management responsibilities include:¹²

- ▼ determining the volume of water available for allocation each year to towns, water users and the environment, particularly during times of severe water shortage
- ▼ ensuring all users, including the environment, have access to sustainable water supplies
- ▼ developing statutory water sharing plans, which set the rules for sharing water between users, and between users and the environment
- ▼ negotiating interstate and national water agreements, particularly in view of the significant institutional changes occurring in the Murray-Darling Basin
- ▼ approving the extraction and use of water, and the policies and procedures for the permanent trade of water entitlements and the annual trade of available water
- ▼ co-ordinating the development of town and non-urban water policy, and
- ▼ monitoring the quantity, quality, and health of aquatic ecosystems and water extractions.

Legislation governing NOW's water management activities

The WMA establishes a statutory framework for managing water in NSW, based on the concept of ecologically sustainable development – ie, development today that will not threaten the ability of future generations to meet their needs.¹³

The main tools the WMA provides for managing the State's water resources are Water Sharing Plans (WSPs). These are developed by NOW and used to set out the rules for the sharing of water in a particular water source between water users and the environment, and rules for the trading of water in a particular water source. WSPs aim to balance the environmental health of river and groundwater systems with the security of access for water users.¹⁴

The separation of land and water through Water Access Licences (WALs) has opened up trade opportunities for water entitlements and allocations.

¹¹ The remaining costs are allocated to the NSW Government, on behalf of the community.

¹² NOW, *About us*, <http://www.water.nsw.gov.au/About-us/About-us1/default.aspx>, accessed on 4 May 2015.

¹³ NOW, *Law and policy*, <http://www.water.nsw.gov.au/Water-management/Law-and-Policy/default.aspx>, accessed on 4 May 2015.

¹⁴ NOW, *Law and policy*, <http://www.water.nsw.gov.au/Water-management/Law-and-Policy/default.aspx>, accessed on 4 May 2015.

When a WSP commences, the licensing and approval provisions of the WMA replace those of the *Water Act 1912* (NSW).¹⁵ Under the WMA, WALs are generally perpetual or open-ended, unlike the licences they replace, and they are separated from land. This creates trade opportunities for water entitlements and allocations. NOW is responsible for approving the policies and procedures for the permanent trade of water entitlements and the annual trade of available water.¹⁶

There has been a gradual transition from the regulatory framework of the *Water Act 1912* (NSW) to that of the WMA, through the development of WSPs. Under the National Water Initiative (NWI), signed on 25 June 2004, the NSW Government committed to complete WSPs within specified timeframes.¹⁷

According to NOW, over 95% of water extraction in NSW is covered by WSPs.¹⁸ As at June 2015, 66 WSPs have been in operation State-wide. Nine plans were consulted on, and four plans were being developed to commence in 2015.¹⁹

In the 2011 Determination, we set out annual reporting measures for NOW. Under these reporting measures, we expected that NOW would have completed all remaining water sharing plans, revised all the existing water sharing plans for Murray-Darling Basin river resources by 2014, and reviewed and remade 31 existing water sharing plans before 2014 (prior to their 10-year expiry date).²⁰ NOW should outline in its pricing submission what stage this process is at and when it is expected to be completed.

¹⁵ In water sources where WSPs have commenced, the WMA takes over from the *Water Act 1912* (NSW) and Water Act licences are converted to WALs and water management approvals, which are managed under the WMA. WALs are listed on the Water Access Licence Register administered by Land and Property Information, a division of the Office of Finance and Services.

See http://www.lpi.nsw.gov.au/land_titles/public_registers/water_access_licence_register, accessed on 7 May 2014.

¹⁶ NOW, *About us*, <http://www.water.nsw.gov.au/About-Us/default.aspx>, accessed on 4 May 2015.

¹⁷ NOW, *The Basin Plan for the Murray-Darling*, <http://www.water.nsw.gov.au/water-management/law-and-policy/national-reforms/murray-darling-basin-plan>, accessed on 4 May 2015. Since the WMA was passed in 2000, some amendments have been necessary to give effect to the NWI, including creation of perpetual or open-ended water licences.

¹⁸ NOW, *Capability and Priority Programs 2013-2015*, December 2013, p 18, <http://www.water.nsw.gov.au/About-us/Publications/default.aspx>, accessed on 4 May 2015.

¹⁹ NOW, *Water sharing plans commenced*, <http://www.water.nsw.gov.au/water-management/water-sharing/plans-commenced>, accessed on 1 June 2015; NOW, *Water sharing plans on exhibition*, <http://www.water.nsw.gov.au/water-management/water-sharing/plans-on-exhibition>, accessed on 1 June 2015; NOW, *Water sharing plans under development*, <http://www.water.nsw.gov.au/water-management/water-sharing/plans-under-development>, accessed on 1 June 2015.

²⁰ IPART, *Review of Prices for the Water Administration Ministerial Corporation - Final Report, February 2011*, p 217.

NOW's 'partner' agencies

NOW works with other agencies and the community to ensure a reliable, sustainable supply of water for households, irrigators, farmers, industry and the environment.

Water NSW²¹ maintains, manages and operates major infrastructure to store and deliver bulk water to licensed water users on the State's regulated rivers, along with associated environmental flows. It manages and operates 20 dams and more than 280 weirs and regulators to deliver bulk water for town water supplies, industry, irrigation, stock and domestic use, and environmental flows. Its core water delivery business provides services to about 6,000 customers in 14 regulated river systems, along some 7,000km of rivers.²²

NOW's water management charges for regulated river, unregulated river and groundwater customers are billed by Water NSW. NOW pays Water NSW for this billing service based on a service level agreement.²³

Water supplies to households are the responsibility of local water utilities across most of NSW and State-Owned Corporations in the major metropolitan centres, such as Sydney Water Corporation. For non-metropolitan areas, NOW provides managerial, technical and financial support under the Country Towns Water Supply and Sewerage Program. These functions are not part of this review. This review determines the prices of NOW's government monopoly services, which relate to water management activities (discussed further in section 2.2 below).

Since our last review, the NSW Government has consolidated NOW to include the Metropolitan Water Directorate, aligning the water policy and planning, regulation and monitoring and evaluation roles for all water in NSW.²⁴ NOW works alongside the newly formed Water NSW to ensure clear delineation and responsibility for water planning and regulation (ie, Office of Water) and operations (ie, Water NSW).²⁵

²¹ Water NSW is taken for all purposes (including the rules of private international law) to be a continuation of, and the same legal entity as, State Water Corporation (section 4 of the *Water NSW Act 2014* (NSW)).

²² State Water Corporation, *Annual Report 2012-13*, p 3.

²³ State Water, *Conferred Functions Statement*, 1 October 2013, p 6.

²⁴ We note that IPART only regulates NOW's monopoly services see section 2.2.

²⁵ Department of Primary Industries, Media Release 27 May 2014.

The Metropolitan Water Directorate leads a whole-of-government approach to water planning for greater Sydney and the lower Hunter. It also provides advice on NSW urban water policy and reforms and implements a social research and engagement program.²⁶ In particular, the Metropolitan Water Directorate is responsible for the following activities:²⁷

- ▼ for the greater Sydney region, coordination of the whole-of-government policy framework to secure a sustainable water supply through the Metropolitan Water Plan
- ▼ for the lower Hunter region, leading development of a Lower Hunter Water Plan to secure a sustainable water supply
- ▼ management of the Water for Life education program, a co-ordinated whole-of-government approach to water education.

As part of this review, we will consider whether and how any of the costs of the Metropolitan Water Directorate's water planning activities should be recovered from NOW's water management charges. Our approach to establishing efficient costs to determine NOW's revenue requirement, for the purpose of setting water management charges, is discussed in Chapter 3.

2.1.3 Murray-Darling Basin Authority and Dumaresq-Barwon Border Rivers Commission

The MDBA and the BRC are cross-jurisdictional bodies that have responsibility for co-ordinating and managing water management activities from a 'whole of system' perspective, where a river system is in more than one state.

The Murray-Darling Basin Authority

The MDBA was established under the *Water Act 2007* (Cth) as an independent, expertise based statutory agency to undertake activities that support the sustainable and integrated management of the water resources of the Murray-Darling Basin (Basin water resources).²⁸ Its principal functions are to:

- ▼ administer Basin water resources in accordance with the Basin Plan
- ▼ measure, monitor and record the quality and quantity of Basin water resources
- ▼ research and investigate Basin water resources, and
- ▼ develop measures for the equitable, efficient and sustainable use of Basin water resources, and implement those measures.²⁹

²⁶ Metropolitan Water Directorate, About the Metropolitan Water Directorate, <http://www.metrowater.nsw.gov.au/>, accessed on 4 May 2015.

²⁷ NOW, *Water Management*, <http://www.water.nsw.gov.au/Water-management/Water-Management>, accessed on 4 May 2015.

²⁸ MDBA, *About MDBA*, <http://www.mdba.gov.au/about-mdba>, accessed on 4 May 2015.

²⁹ *Water Act 2007* (Cth), ss34, 172(1); see also s18E.

The MDBA's responsibility for managing Basin water resources in NSW arises from NSW's referral of legislative powers to the Commonwealth with respect to the management of Basin water resources under the Murray-Darling Basin Agreement (MDB Agreement).³⁰

The MDBA is funded through contributions from Commonwealth and State governments. These contributions are regulated by the MDB Agreement and are related to each State's level of water use.³¹ Broadly, under the MDB Agreement, the NSW Government is to contribute to the operation, maintenance, investigation and construction of works and systems, and administrative and other expenses of the MDBA.³²

The total budget for the MDBA's joint programs has been around \$100 million (nominal) per year. The NSW Government's contribution to the MDBA was \$35.1 million in 2011-12 (about 30% of the total).³³ This contribution was reduced to \$16.2 million (about 16% of the total) in 2012-13 and \$13.7 million (about 16% of the total) in 2013-14.³⁴ At this stage, we are not aware of the future amount of NSW Government contributions to the MDBA over the upcoming determination period.

NSW's share of MDBA costs is recovered from water users through charges levied by Water NSW (Rural) and NOW. The ACCC determines the level of MDBA costs to be recovered from water users through Water NSW's (Rural) charges. We determine the appropriate level of MDBA costs that will be recovered from water users through NOW's charges. The recovery of MDBA costs is discussed further in Chapter 3.

The existence of the MDBA does not preclude NOW from performing its functions in relation to Basin water resources; it can do so provided it does not exercise its powers inconsistently with the Basin Plan or MDB Agreement (see Box 2.2 for an overview of the Basin Plan).³⁵

³⁰ *Water (Commonwealth Powers) Act 2008* (NSW), s4(1); *Water Act 2007* (Cth), s18B. The Murray-Darling Basin Agreement is in Schedule 1 of the *Water Act 2007* (Cth).

³¹ *Water Act 2007* (Cth), ss210-212.

³² Murray-Darling Basin Agreement, clauses 71-73, 75.

³³ Murray-Darling Basin Authority, *Annual Report 2012-13*, p 152.

³⁴ Murray-Darling Basin Authority, *Annual Report 2013-14*, p 155.

³⁵ *Water Act 2007* (Cth), s35; MDB Agreement, clause 144. See also the Australian Constitution, s109; *Water Act 2007* (Cth), s250B.

Box 2.2 Overview of the Basin Plan

The Basin Plan was signed into law by the Commonwealth Parliament in November 2012. It regulates the amount of water that can be used for consumptive purposes in the Basin, through sustainable diversion limits (SDLs), set for each catchment and aquifer in the Basin, as well as an overall limit for the Basin as a whole.

The SDLs are like a new 'cap' on water use and are set initially at 2,750 GL less than current diversions in the rivers. This target is to be achieved by 2019, with the water being recovered by the Commonwealth to provide additional water for the environment.

Basin states already have plans in place to manage many of the water resources of the Murray–Darling Basin. The MDBA will aim to work with states to ensure that by 2019, water resource plans are in place right across the Basin, and that they are consistent with the Basin Plan (ie, incorporate SDLs).

The Basin states may present water resource plans for accreditation. The accreditation process ensures that the national interest, as expressed through the Basin Plan, is taken into account when decisions are made on the level of water use and provision of water for the environment in each water resource plan area.

The Basin Plan is supported by Commonwealth investment in modernising irrigation infrastructure and voluntary water purchasing through the environmental water recovery strategy.

Source: NOW, *The Basin Plan for the Murray-Darling*, <http://www.water.nsw.gov.au/water-management/law-and-policy/national-reforms/murray-darling-basin-plan>, accessed on 5 May 2015.

As part of the Basin Plan implementation, the Commonwealth prepared an *Intergovernmental Agreement and a National Partnership Agreement*, which outlines jurisdictions' commitments and responsibilities. These were signed by the Prime Minister and the NSW Premier on 27 February 2014.³⁶ As a result, NSW will receive \$80 million (\$2013/14) in funding until June 2020 to implement the requirements of the Basin Plan and to develop feasibility assessments of potential sustainable diversion limit (SDL) offset projects.³⁷

According to NOW, NSW will implement the Basin Plan consistent with the level of funding provided by the Commonwealth to do so, which ensures that there will be no additional cost to NSW water users of implementing the Basin Plan.³⁸

³⁶ Premier of NSW, *Media Release - Historic Murray Darling Basin Agreement signed*, 27 February 2014.

³⁷ NOW, *The Basin Plan for the Murray-Darling*, <http://www.water.nsw.gov.au/water-management/law-and-policy/national-reforms/murray-darling-basin-plan>, accessed on 5 May 2015.

³⁸ NOW, *The Basin Plan for the Murray-Darling*, <http://www.water.nsw.gov.au/water-management/law-and-policy/national-reforms/murray-darling-basin-plan>, accessed on 5 May 2015.

It will remain NOW's responsibility to develop WSPs under NSW legislation. WSPs made after the Basin Plan took effect in November 2012 will need to be accredited by the Commonwealth Minister in line with Basin Plan requirements. Most of the water resource plans required to implement the Basin Plan requirements, including the SDLs, will not be prepared by NSW until 2019. NOW will also develop business cases for several potential SDL offset projects that could reduce the amount of water that will need to be recovered.³⁹

2.1.4 The Dumaresq-Barwon Border Rivers Commission

The BRC was created as the result of an intergovernmental agreement between NSW and Queensland to control and coordinate the water available from the rivers around the border of the two states.⁴⁰

The BRC's main statutory functions are to:⁴¹

- ▼ determine the anticipated quantity of water available from the system and notify the states of the amount of water they may divert and use
- ▼ control the construction, operation and maintenance of works under its remit
- ▼ report and make recommendations to the governments of NSW and Queensland regarding water sharing matters, and
- ▼ maintain surface and ground water monitoring systems.

In addition to its statutory functions, the BRC manages a coordinated program to monitor water quality in the Border Rivers and the intersecting streams.

The BRC is funded equally by the NSW and Queensland Governments.⁴² In 2011-12, the BRC's total expenditure was approximately \$4.0 million (\$2011-12) and it received \$2.2 million (\$2011-12) from the states.⁴³

As for the BRC's interaction with State agencies, the intergovernmental agreement provides that NOW must comply with BRC's directions in relation to the construction of water-related works and restrictions on water diversion.⁴⁴ NSW's share of BRC costs is recovered from users through charges levied by NOW and Water NSW (Rural). The recovery of BRC costs is discussed further in Chapter 3.

³⁹ NOW, *The Basin Plan for the Murray-Darling*, <http://www.water.nsw.gov.au/water-management/law-and-policy/national-reforms/murray-darling-basin-plan>, accessed on 5 May 2015.

⁴⁰ *NSW-Queensland Border Rivers Agreement 1946*. The agreement was ratified in NSW by the *New South Wales-Queensland Border Rivers Act 1947* (NSW) and in Queensland by the *New South Wales-Queensland Border Rivers Act 1946* (Qld).

⁴¹ BRC, *About Borders Rivers Commission*, <http://www.brc.gov.au/about/index.html>, accessed on 5 May 2015.

⁴² Dumaresq-Barwon Border Rivers Commission, *Annual Report 2011-12*, 2012, p vi.

⁴³ Dumaresq-Barwon Border Rivers Commission, *Annual Report 2011-12*, 2012, p 15.

⁴⁴ The New South Wales - Queensland Border Rivers Agreement, schedule 1, clauses 23 and 38.

2.2 Deciding on NOW's government monopoly services

NOW's water management charges are levied on users that hold entitlements for water from regulated rivers, unregulated rivers and groundwater sources, including town councils, industrial users, environmental water holders and irrigators.

These charges should reflect the efficient costs of the water management activities NOW undertakes to ensure that NSW's water resources are managed to give all entitlement holders (or 'users') and the environment access to an appropriate share of sustainable water supplies over the long term.

However, not all of NOW's water management activities can be considered in setting its water management charges: only those that are 'government monopoly services'. Under clause 3 of the *Independent Pricing and Regulatory Tribunal (Water Services) Order 2004*, services that involve the following are government monopoly services for the purposes of the IPART Act:

- ▼ the making available of water, or
- ▼ the making available of WAMC's water supply facilities, or
- ▼ the supplying of water, whether by means of WAMC's supply facilities or otherwise.

Accordingly, the first step in our approach to setting water management charges is to establish NOW's activities that fall under this definition.

In interpreting this clause for past determinations, we adopted a broad interpretation of the phrase 'the making available of water' to include activities necessary to ensure water resources are managed on a sustainable basis to support long-term use. For example, we included activities related to the assessment, allocation, planning, monitoring and reporting of water resources, as far as these activities are undertaken to ensure supply to water entitlement holders (or 'users') over the long-term.

We also had regard to the objectives of the NWI, and the guidance this agreement provides on setting prices for water management services. For example, we have complied with the NWI's direction to exclude (when setting prices) any costs related to Ministerial and Parliamentary services and to the development and refinement of overarching policy frameworks.

NOW's monopoly service activities and the expected outputs of these activities over the 2011 determination period were summarised into a clear statement of deliverables, called the Monopoly Services Outputs Schedule (presented in Appendix D).⁴⁵ This Schedule will provide a 'baseline' from which we will assess NOW's performance over the 2011 determination period.

⁴⁵ IPART, *Review of Prices for the Water Administration Ministerial Corporation - Final Report*, February 2011, Appendix L.

For the 2011 Determination, we included all the activities NOW included in its pricing proposal, except for those related to metropolitan water planning. NOW also provided advice that, when preparing its pricing submission, it excluded all externally funded activities from the cost base, as well as those related to:⁴⁶

- ▼ management of the Snowy River’s environmental flows
- ▼ corporate licensing
- ▼ Ministerial and Executive services
- ▼ Office of the Director General
- ▼ legislative matters
- ▼ Catchment Management Authorities
- ▼ Murray-Darling Basin Authority liaison
- ▼ intergovernmental activities
- ▼ Country Towns Water Supply and Sewerage Program, and
- ▼ Cap and Pipe the Bores Program part of the groundwater drilling unit, which is operated on a commercial basis.

NOW has advised us that it is proposing to modify activities for the 2016 Determination, to reflect changes to its operating environment and functions.⁴⁷ Where NOW is proposing to change, add or remove monopoly service activities, it needs to provide a rationale and justification for these changes. Where applicable, it should also link the new activities to current activities, to allow us to assess the changes.

We seek stakeholder comment on:

- 1 Are NOW’s proposed monopoly service activities for the 2016 Determination period appropriate?

2.3 Length of determination period

An early step in our price setting process is to determine the length of the determination period. In the 2011 Determination, we decided to use a three-year price path. However, this was influenced by our decision to align the end of the NOW determination period with the end of the State Water (now Water NSW) (Rural)) determination period.⁴⁸

⁴⁶ IPART, *Review of Prices for the Water Administration Ministerial Corporation - Final Report*, February 2011, p 37.

⁴⁷ Correspondence with NOW, 10 February 2014.

⁴⁸ IPART, *Review of Prices for the Water Administration Ministerial Corporation - Final Report*, February 2011, p 24.

We will consider a number of factors when deciding on the length of the determination period for this review, including:

- ▼ The confidence we have in forecast data. If, for example, NOW's expenditure profile can only be reliably predicted for two years, a short determination period may be more appropriate.
- ▼ The potential future alignment of NOW's and Water NSW's determinations. Where it is possible, there may be benefit in parallel reviews of prices for NOW and Water NSW, given the number of common issues and stakeholders. The regulation of Water NSW's prices is currently split between the ACCC (Murray-Darling Basin Valleys) and IPART (coastal valleys and Greater Sydney Area):
 - IPART is due to commence a review of Water NSW's Sydney Catchment Authority ('Greater Sydney Area') prices in June 2015, for new prices to apply from 1 July 2016, and
 - there are separate, but parallel, ACCC and IPART reviews of Water NSW's (Rural) prices scheduled to commence in June 2016, for new prices to apply from 1 July 2017.⁴⁹
- ▼ The relative benefits and costs of longer versus shorter determination periods. An appropriate balance needs to be struck between providing certainty to the regulated business and limiting delays in customers benefitting from efficiency gains (which can occur under a longer determination period).

Our preliminary view is that a four year determination period may provide a more stable and predictable regulatory environment for NOW and water users, and lower regulatory costs.

A four year determination period, from 1 July 2016 to 30 June 2020, could potentially align NOW's next price review with future price reviews for Water NSW from 1 July 2020 onwards. This would depend, however, on future decisions on the determination period(s) of Water NSW.

We are interested in obtaining NOW's views and those of other stakeholders in deciding on an appropriate length for the upcoming determination period.

We seek stakeholder comments on:

- 2 What is the appropriate length of the determination period?

⁴⁹ Water NSW's prices in the Murray Darling Basin Valley are regulated under the Commonwealth's Water Charge (Infrastructure) Rules (WCIR). Under the WCIR, the regulatory period for a Part 6 operator (such as Water NSW) is three years for the initial determination period; or four years for subsequent determination periods; or, if the operator also supplies urban water services, a period that aligns with their urban water price determination (subject to approval by the regulator).

3 Establishing efficient costs to determine revenue requirement

An important step in the price-setting process is to determine NOW's revenue requirement for providing its monopoly services. We propose to use the 'building block' approach to calculate NOW's revenue requirement for its monopoly water management activities, consistent with the last review.

This chapter outlines the information we seek to establish NOW's building block costs, including NOW's operating and capital expenditure to date, projections of future expenditure and the drivers of this expenditure.

We also consider what the proposed expenditure will imply for NOW's overall water management performance.

3.1 Determining revenue requirement

The notional revenue requirement represents our view of NOW's full, efficient costs of providing the monopoly services for each year of the determination period.

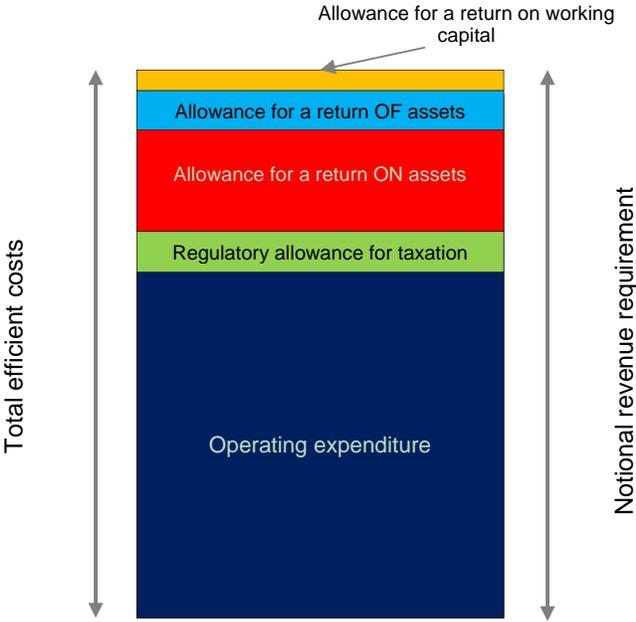
We propose to use the building block method to calculate NOW's notional revenue requirement. To apply this method, for each year of the period we will determine:

- ▼ An **allowance for operating expenditure** that represents our estimate of NOW's forecast efficient operating, maintenance and administration costs.
- ▼ An **allowance for a return on the assets** NOW uses to provide the monopoly services. This amount represents our assessment of the opportunity cost of the funds invested in NOW, and ensures that it can continue to make efficient investments in capital in the future.
- ▼ An **allowance for a return of assets (regulatory depreciation)**. This allowance recognises that through the provision of services to customers, a business' capital infrastructure will wear out over time and, therefore, revenue is required to recover the cost of maintaining the regulatory asset base.

- ▼ An **allowance for meeting tax obligations**. In the 2011 Determination, we used a real pre-tax Weighted Average Cost of Capital (WACC) in calculating the return on the Regulatory Asset Base (RAB). For this review, we will use a real post-tax WACC and calculate NOW's allowance for tax as a separate cost block.⁵⁰ We consider this method more accurately estimates the tax liability for a comparable commercial business.
- ▼ An **allowance for a return on working capital**. This allowance represents the holding cost of net current assets.⁵¹ This allowance typically represents a very small proportion of each agency's total notional revenue requirement.

The sum of these amounts represents our view of NOW's total efficient costs over the determination period, or its notional revenue requirement (see Figure 3.1 below).

Figure 3.1 IPART's proposed building block approach



⁵⁰ IPART, *The incorporation of company tax in pricing determinations – Final Decision*, December 2011, p 13.
⁵¹ Net current assets = current assets – current liabilities.

3.1.1 Application of the building block approach to NOW

The revenue requirement does not explicitly include capital expenditure. Rather, capital expenditure to maintain or augment the asset base is funded from the return on capital, injections of equity, and borrowings (or other financing approaches). Both return on capital and return of capital are usually calculated with reference to the RAB. Ultimately, only capital expenditure we deem to be **prudent, efficient and funded by the business** is included in the RAB.

In the 2011 Determination, we set the opening value of NOW's RAB at zero due to concerns about NOW's capital planning and asset management systems. For the 2016 Determination, we will reconsider the appropriate value of the RAB.

Similarly, only operating expenditure assessed by us to be **efficient** will be included in our assessment of NOW's revenue requirement. Our explanation of what we mean by prudent and efficient expenditure is outlined in Box 3.1 below.

Box 3.1 Applying efficiency and prudence tests to NOW

An *efficiency* test to operating and capital expenditure examines whether NOW's actual and proposed expenditure represents the best way of meeting the community's need for the relevant services.

A *prudence* test to capital expenditure assesses whether, in the circumstances that existed at the time, the decision to invest in the asset is one that NOW, acting prudently, would be expected to make. The prudence test must assess both:

- ▼ the prudence of how the decision was made to invest; and
- ▼ the prudence of how the investment was executed (ie, the construction or delivery and operation of the asset), having regard to information available at the time.

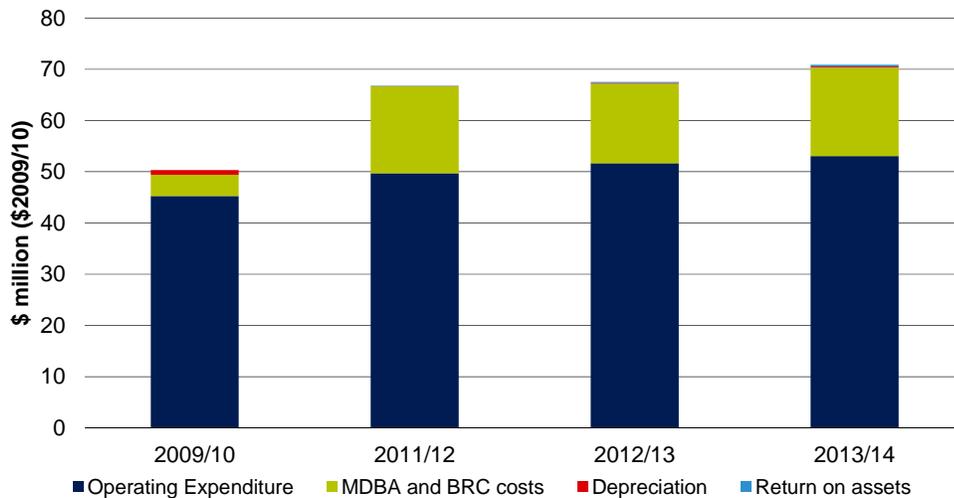
Source: IPART, *Regulatory tests of past and forecast expenditure – Final Report*, December 2010, p 3.

Our decisions on elements of NOW's notional revenue requirement over the 2011 determination period are presented in Figure 3.2 below. Most of NOW's notional revenue requirement comprised operating expenditure (75%), followed by contributions to the MDBA and BRC (24%). NOW's depreciation allowance and return on assets each accounted for less than 0.5% of notional revenue requirement. This was the outcome of setting the opening value of the RAB to zero.

Only the user share of NOW's notional revenue requirement was allowed to be recouped through user charges.

The components of the building block as they relate to NOW's monopoly water management activities are discussed in detail in the sections that follow.

Figure 3.2 NOW's notional revenue requirement for the 2011 determination period (\$millions, \$2009/10)



Note: 2009/10 was the last year of the 2006 Determination.

Source: IPART, *Review of Prices for the Water Administration Ministerial Corporation - Final Report*, February 2011, pp 10 and 45.

3.2 Historical and forecast operating expenditure

In setting prices, we will need to determine the efficient operating costs that NOW will incur in carrying out its water management functions. These costs are expected to primarily relate to labour, but may also include costs of materials, energy, leasing of buildings and equipment, and contracting of services.

In determining NOW's efficient operating costs, we will consider what the appropriate allowance is for the NSW Government's share of water management costs incurred by the MDBA and BRC (we discuss this in further detail below).

We are also interested in the potential for efficiency gains over the next five-year period, noting that operating costs form the majority of NOW's revenue requirement. In the 2011 Determination, we applied an annual efficiency target of 0.5% to NOW's efficient cost base.⁵²

The efficiency of many of NOW's operating cost items could be established through benchmarking against comparable water management agencies or appropriate cost indexes from the Australian Bureau of Statistics (ABS). Efficiency gains could also potentially be obtained by streamlining NOW's activities and providing services in better ways.

⁵² IPART, *Review of Prices for the Water Administration Ministerial Corporation - Final Report*, February 2011, p 64.

In the 2011 Determination, NOW's proposed operating costs were 31% higher than our allowance.⁵³ The major reductions that we made to NOW's proposed operating expenditure included a:⁵⁴

- ▼ 20% reduction to the additional Full-Time Equivalent staff (FTEs) forecast over the 2011 determination period
- ▼ 25% reduction to corporate overheads and the indirect costs applied to all additional resources, and
- ▼ 83% reduction in costs for implementing the *Water Act 2007* (Cth) and accelerating the national water reform agenda (called Scenario 2 costs).

Stakeholders expressed concern about the transparency and efficiency of NOW's costs over the 2011 determination period. In addition, we identified that NOW continued to have deficiencies regarding insufficient linking of expenditure to obligations.⁵⁵

For this review, we have asked NOW to provide information on its historical and forecast operating expenditures, including:

- ▼ actual operating expenditure during the 2011 determination period and proposed operating expenditure from 1 July 2016
- ▼ the drivers behind actual and forecast operating expenditure
- ▼ the water management outcomes arising or expected to arise from this expenditure
- ▼ the potential for future efficiency gains, and
- ▼ details of how it ring-fences its water management costs and allocates shared or common costs between its water management activities and its other activities.

This information should be included in NOW's pricing proposal (due 11 September 2015) and will therefore be available to other stakeholders to comment on when preparing their own submissions.

We seek stakeholder comments on:

- 3 Are NOW's proposed operating costs over the 2016 determination period efficient, taking into account drivers of this expenditure and water management outcomes achieved?
- 4 What scope is there for NOW to achieve efficiency gains over the 2016 determination period?

⁵³ The 31% includes NOW's 'Scenario 2' operating costs. See IPART, *Review of Prices for the Water Administration Ministerial Corporation - Final Report*, February 2011, p 60.

⁵⁴ IPART, *Review of Prices for the Water Administration Ministerial Corporation - Final Report*, February 2011, p 52-3 and 60, IPART analysis.

⁵⁵ IPART, *Review of Prices for the Water Administration Ministerial Corporation - Final Report*, February 2011, p 216.

3.2.1 Contributions to the Murray-Darling Basin Authority and Dumaresq-Barwon Border Rivers Commission

As outlined in Chapter 2, the NSW Government is obligated to contribute to the costs of two cross-jurisdictional water management bodies – the MDBA and the BRC. The NSW Government’s total annual contributions to the MDBA and BRC are split between NOW and Water NSW (Rural) in line with the ratio of water management activities (NOW) to river operation activities (Water NSW (Rural)).

In the 2011 review, we accepted NOW’s share of the NSW Government’s funding commitment to the MDBA and BRC. However, we decided not to include an increase in the user share of MDBA costs in prices, due to an absence of information that indicated that such user contributions were efficient and consistent with the ‘impactor pays’ principle.

We capped the user share of NOW’s MDBA contribution at the 2009/10 level (equivalent to \$1.69 million in \$2009-10) for each year of the 2011 determination period.⁵⁶ NOW’s forecast contributions to the MDBA were on average \$16.2 million per year (\$2009-10), of which \$6 million per year was proposed to be recovered from users through water management charges.⁵⁷ We considered that the NSW Government should fund the difference between our approved user share and NOW’s total contribution to the MDBA – ie, a shortfall of about \$13 million (\$2009-10) over the three years of the determination period.

We allowed the full proposed user share of costs of BRC water management activities to be recovered through NOW’s water management charges for the 2011 determination period (about \$0.8 million in total in \$2009-10).

In relation to MDBA and BRC costs for this review, we propose only including the NSW Government’s contributions to these costs in NOW’s prices where:

- ▼ NOW is required by the NSW Government to pay the MDBA and/or BRC contributions, and the Minister gives a direction to IPART under section 16A of the IPART Act (with the Premier’s approval) to include the contributions in NOW’s prices, or
- ▼ NOW makes a case that these contributions:
 - are for the provision of monopoly services provided on behalf of NOW (rather than provided independently by MDBA and/or BRC, as per functions conferred directly on them), and
 - they represent the efficient costs of providing these monopoly services.

⁵⁶ Plus we allowed an additional \$1.4 million (\$2009/10) per year in ‘Scenario 2’ expenses. Scenario 2 costs were NOW’s estimates of the additional costs that it would incur to implement the *Water Act 2007* (Cth) (Commonwealth Water Act) and to accelerate the national water reform agenda.

⁵⁷ The \$6 million was based on NOW’s Scenario 1 costs. An additional \$8.8 million per year was proposed to be recovered from users under Scenario 2 costs, if the Commonwealth Government did not provide funding. See: IPART, *Review of Prices for the Water Administration Ministerial Corporation - Final Report*, February 2011, pp 77, 81, 86.

We note that, in its recent Final Decision, the ACCC passed through into (the then) State Water's prices MDBA and BRC costs (see Box 3.2). This decision follows the NSW Government informing the ACCC in February 2014 that (the then) State Water would be required to recover these costs from users.

In regards to the pass through of MDBA costs, we ask NOW to relate any Commonwealth funding received by the NSW Government to implement the requirements of the Basin Plan back to any cost proposed for water users.⁵⁸ In particular, we consider that any costs recovered from users for MDBA contributions should be net of funding provided by the Commonwealth.

We seek stakeholder feedback on the appropriate treatment of MDBA and BRC costs for the 2016 Determination.

Box 3.2 ACCC's decision regarding the pass through of MDBA and BRC contributions into State Water's (now Water NSW's (Rural)) charges

In its submission to the ACCC, State Water's proposed charges for the 'inland' valleys did not include the pass through of costs associated with the MDBA and BRC. This was different to State Water's previous submissions, when regulated by IPART.

State Water's pricing submission to the ACCC stated that the pass through of the NSW Government's contribution to MDBA and BRC costs was not considered to be a bulk water charge under the *Water Act 2007* (Cth). Consequently, State Water excluded these contributions from its proposed revenue requirements for the period 2014/15 to 2016/17.

The NSW Government informed the ACCC in February 2014 that it would require State Water's share of NSW's contribution to MDBA and BRC costs to be recovered through State Water's charges over the regulatory period.

State Water subsequently advised the ACCC that the NSW Treasurer had directed it under the *Public Finance and Audit Act 1983* (NSW) to recover specified costs each year in the Murray, Murrumbidgee and Border valleys in the 2014-17 regulatory period. As a result, recovering these costs is a regulatory obligation for State Water. The NSW Treasurer's 28 May 2014 direction determined the amounts to be recovered based on NOW's advice.

The ACCC's control mechanism for State Water refers to the costs in the NSW Treasurer's direction and will vary charges in line with that direction. Therefore, if the NSW Government were to review the amount of MDBA and BRC costs to be recovered from State Water's customers in the 2014-2017 regulatory period, the ACCC could vary State Water's charges in the event that the costs to be recovered changed.

Source: ACCC, *Final Decision on State Water Pricing Application: 2014-15 – 2016-17*, March 2014, pp 8-10.

⁵⁸ NOW, *The Basin Plan for the Murray-Darling*, <http://www.water.nsw.gov.au/water-management/law-and-policy/national-reforms/murray-darling-basin-plan>, accessed on 5 May 2015.

We seek stakeholder comment on:

- 5 What contributions to the Murray-Darling Basin Authority and the Dumaresq-Barwon Border Rivers Commission should be recovered from water users through NOW's water management charges over the 2016 determination period?

3.3 Historical and forecast capital expenditure

For this determination, we will review the prudence of NOW's actual capital expenditure over the 2011 determination period, including 2014-15, and the efficiency of its proposed capital expenditure for 2015-16 to 2020-21. This assessment will determine how much of NOW's actual and proposed capital expenditure will be used to calculate allowances for depreciation (or return of assets) and a return on assets.

We will engage a consultant to assist in our review of NOW's expenditure. We will be looking for evidence that NOW has well-developed and sound asset management practices and plans in place (where applicable), that capital programs are based on a robust evaluation/justification process, and that capital expenditure programs are delivered efficiently.

For the 2011 Determination period, we allowed efficient capital expenditure of \$5.9 million (\$2009-10), which related primarily to the replacement and refurbishment of NOW's hydrometric station assets.⁵⁹ NOW currently owns hydrometric assets, such as bores, metering instruments and equipment, telemetry equipment and corporate water databases.

NOW's pricing submission to this review should outline in detail its capital expenditure for the 2011 determination period (as well as 2014-15 and a forecast for 2015-16), and proposed capital expenditure for the 2016 period. It should also clearly explain the drivers of this expenditure, together with actual and expected water management outcomes to be achieved by this capital expenditure.

Asset disposals

NOW should also clearly identify any assets that it forecasts it will dispose of (eg, through sale or transfer) during the period 2015-16 to 2020-21, including the estimated value of these assets, the basis for determining these values, and the year of forecast disposal.

We seek stakeholder comments on NOW's capital program (as will be outlined in its submission to IPART).

⁵⁹ IPART, *Review of Prices for the Water Administration Ministerial Corporation – Final Report*, February 2011, pp 67-68, and IPART analysis.

We seek stakeholder comments on:

- 6 Is NOW's capital expenditure over the 2011 determination period prudent and efficient, taking into account drivers of this expenditure and water management outcomes achieved?
- 7 Is NOW's forecast capital expenditure program over the 2016 determination period prudent and efficient, taking into account expenditure drivers, scope for efficiency gains and proposed water management outcomes?

3.4 Establishing the value of the Regulatory Asset Base

To determine allowances for a return on assets and a return of assets (regulatory depreciation), we must establish the value of NOW's RAB in each year of the upcoming determination period. This will involve:

- ▼ establishing the opening value of the RAB, as at 1 July 2016, by reviewing actual capital expenditure incurred over the 2011 determination period and forecast expenditure for 2015-16
- ▼ rolling forward the RAB to the end of the 2016 determination period based on forecast prudent and efficient capital expenditure.

In the 2011 Determination, we set the opening value of NOW's RAB to zero (at 1 July 2011), due to concerns about NOW's capital planning and asset management framework. We then calculated the annual value of the RAB over the 2011 determination period by adding NOW's forecast capital expenditure that we deemed prudent and efficient (and allowed regulatory depreciation). We determined a closing value of the RAB at 30 June 2014 of about \$5.3 million (\$2009-10).

In order to establish the value of NOW's RAB for the 2016 price review, we have requested that NOW provide us with a list of its regulatory assets (noting that NOW's regulatory assets and forward capital expenditure should account for any asset disposals and changes to its operating functions resulting from reforms to bulk water in NSW (such as the establishment of Water NSW). If NOW has improved its capital planning and asset management systems sufficiently, we may reconsider the appropriate opening value of the RAB.

3.5 Return of capital – regulatory depreciation

Regulatory depreciation (or 'return of capital') is dependent on the value assigned to the agency's assets (ie, the value of the RAB), the expected or assumed life of those assets and the depreciation method used.

For this determination, we are proposing to continue to use the straight-line depreciation method to calculate NOW's return of capital. This means that the total value of an asset is recovered evenly over its assumed life.

We will consider the full and remaining lives for assets in the RAB and appropriate asset lives for forecast capital expenditure deemed prudent and efficient. In the 2011 Determination, we decided that the appropriate average asset life for NOW's RAB was 20 years, rather than 10 years as proposed by NOW.⁶⁰ As a result, our allowance for regulatory depreciation was substantially lower than NOW's proposal.

We seek stakeholder comment on:

- 8 What are your views on NOW's proposed depreciation allowance, including the assumptions (eg, asset values and asset lives) underpinning the calculation of this allowance?

3.6 Return on capital

We calculate the allowance for a return on capital by multiplying the rate of return by the value of the RAB in each year of the determination period. As for previous reviews, we used the Weighted Average Cost of Capital (WACC) approach to calculate the rate of return.

In our 2011 Determination, we used a pre-tax WACC to determine an appropriate rate of return on NOW's RAB. Following a consultative review of our WACC methodology, this time we will adopt a real post-tax WACC estimate.⁶¹

⁶⁰ IPART, *Review of Prices for the Water Administration Ministerial Corporation - Final Report*, February 2011, p 75.

⁶¹ IPART, *The incorporation of company tax in pricing determinations - Final Decision*, December 2011.

We also note that since the 2011 Determination, we have changed our methodology for calculating the WACC.⁶² The real post-tax WACC is determined by taking the midpoint of two WACC estimates,⁶³ which are derived from current market data and long term averages. We construct an uncertainty index to assess, however, if current economic conditions warrant a move above or below the midpoint of these two WACC estimates. Our decision rule is that we consider a move if the uncertainty index is more than one standard deviation away from the long term average of zero.⁶⁴

We have also adopted a new approach to estimating the:

- ▼ Debt margin – by using credit spreads for Australian non-financial corporations, published by the Reserve Bank of Australia (RBA). We consider that using data readily available through the RBA’s website increases the transparency of our WACC determination process. The RBA data set also provides an average tenor close to our target of 10 years, which makes it a better proxy for the 10-year debt margin.⁶⁵
- ▼ Inflation adjustment for our real post-tax WACC – by using a 10-year geometric average of the one-year RBA inflation forecast⁶⁶ and the middle of the RBA’s target band of inflation (ie, 2.5%) for the remaining nine years.⁶⁷

We publish bi-annual updates of the WACC on our website to allow stakeholders to better replicate and predict our WACC decisions.⁶⁸ In conjunction with the update, we also release a WACC spreadsheet, which includes a working copy of our full WACC model.

We seek stakeholder comment on:

- 9 What is a suitable rate of return on NOW’s regulatory assets?

3.7 Incorporation of company tax in pricing

Since the 2011 Determination, we have decided to calculate a more accurate and commercially based tax allowance as a discrete building block, and to use a post-tax WACC.⁶⁹

⁶² IPART, *Review of WACC Methodology – Final Report*, December 2013.

⁶³ The two WACC estimates are the midpoints of two separate WACC ranges based on long-term averages and current market data.

⁶⁴ IPART, *Review of WACC Methodology – Final Report*, December 2013, p 4.

⁶⁵ IPART, *WACC – IPART’s New Approach to Estimating the Cost of Debt – Fact Sheet*, April 2014. Tenor (or time-to-maturity) is the length of time until the maturity date of a bond.

⁶⁶ RBA’s forecast of underlying inflation is obtained from its quarterly Statement on Monetary Policy.

⁶⁷ IPART, *New Approach to forecasting the WACC inflation adjustment – Fact Sheet*, March 2015, pp 1-2.

⁶⁸ IPART, *Market Update*, http://www.ipart.nsw.gov.au/Home/Industries/Research/Market_Update, accessed on 5 June 2015.

⁶⁹ IPART, *The incorporation of company tax in pricing determinations – Final Decision*, December 2011.

We will calculate tax allowances in each year by applying a 30% statutory corporate tax rate adjusted for gamma⁷⁰ to the business' (nominal) taxable income. For this purpose, taxable income is the notional revenue requirement (excluding tax allowance) less operating cost allowances, tax depreciation, and interest expenses. NOW will need to forecast tax depreciation for the 2016 determination period. Interest expenses are based on the parameters used for the WACC.⁷¹

3.8 Contributions from the Commonwealth Government and other sources

Over time, there have been occasions where governments (local, NSW and Commonwealth) or other parties have contributed assets to water agencies or provided grants to water agencies to assist in funding assets. In general, we take the view that the value of such contributions should be excluded from the agency's asset or cost base for the purposes of determining its revenue requirement and prices. The asset base used for calculating prices should only include investments that are funded by the agency.

Therefore, NOW should clearly identify the value and timing of any such contributions from governments and/or other sources.

3.9 Output measures and reporting requirements

We are mindful of the link between expenditure, water management activities and prices. That is, if prices are set to allow NOW to recover the efficient costs of undertaking a certain level of water management activity or attaining certain water management outcomes, then it is important that these activities occur or that the outcomes are achieved.

In our 2011 Determination, we established a reporting framework to ensure that both IPART and stakeholders have adequate information about NOW's expenditures and activities over the determination period, and to enhance review of NOW's proposals for this price review.⁷² The details of the 2011 reporting framework are outlined in Appendix E.

As part of the framework, NOW is required to report annually on key outputs. Over the 2011 determination period, it has provided us with a voluntary report for 2010-11, and annual reports for 2011-12, 2012-13 and 2013-14.

⁷⁰ Under a post-tax framework, the value of franking credits (gamma) enters the regulatory decision only through the estimate of the tax liability.

⁷¹ The nominal cost of debt is the sum of the nominal risk free rate and nominal debt margin.

⁷² IPART, *Review of Prices for the Water Administration Ministerial Corporation - Final Report*, February 2011, p 217.

We have also asked that NOW's submission address the end of determination reporting measures in Appendix E. We will consider NOW's response, in assessing its efficient costs and determining its prices for the upcoming determination period.

We will also consider whether reporting measures should be included in the 2016 determination period. In doing so, we will assess how NOW links its performance and delivery of monopoly service activities over this period to its proposed prices in its pricing submission. We will also take into account information provided to us by expert consultant investigations, where required, and stakeholder comments on NOW's pricing proposal and our Issues Paper.

We seek comment from stakeholders on:

- 10 How has NOW performed over the 2011 determination period, including in relation to the 2011 schedule of monopoly service outputs in Appendix D?
- 11 Should reporting measures be included in the 2016 determination period?

4 Allocating efficient costs between water users and the community

Once we decide on the full, efficient costs NOW is likely to incur in providing water management activities over the determination period, the next step in our approach for setting water management charges is to decide on the appropriate share of these costs to be recovered from water users (ie, water entitlement holders). This is to ensure that, as far as possible, the costs of managing the bulk water system are shared fairly between water users and the NSW Government (on behalf of the broader community).

This chapter provides an overview of the principles and approaches used for allocating costs in the previous determination and our proposed approach for this determination.

4.1 Approach used in the 2011 Determination

In the 2011 Determination, we allocated NOW's costs between users and the Government (on behalf of the broader community) using the 'impactor pays' principle. Under this principle, costs are allocated according to which of these two parties created the cost, or the need to incur the cost. We then set prices to recover only the user share of costs.

NOW uses a system of cost or activity codes to record its expenditure. It assigns costs to these codes and then determines a user proportion for each code, ranging from 0% to 100%, based on the 'impactor pays' principle. The user share of costs for each code are then summed to produce the user share of NOW's total costs.

The user shares set in the 2011 Determination were developed and refined over several price determinations.⁷³ In general:

- ▼ activities identified as *directly* servicing the property rights (water entitlements) and transactions of water users, and the regulation of the exercising of those rights, have their costs recovered 100% from water users

⁷³ For the 2001 bulk water review, we engaged ACIL Consulting to recommend a framework for allocating costs between water users and the Government. For the 2006 review, we engaged the Centre for International Economics to recommend appropriate cost sharing ratios, building on the cost sharing principles established in the 2001 determination. For the 2011 review, we assessed appropriate cost sharing ratios for each cost code based on the work of the previous price review and NOW's proposal. See: IPART, *Review of Prices for the Water Administration Ministerial Corporation - Final Report*, February 2011, p 78.

- ▼ activities directly servicing environmental improvement have their costs fully recovered from Government (0% from water users)
- ▼ activities largely directed at policy formulation or review, or servicing the needs of Government or other agencies, should also have a water user share of zero
- ▼ activities predominantly concerned with water quality and river health, flood plain and environmental water planning should recover no more than 30% of their costs from water users, and
- ▼ activities dealing with monitoring and evaluation, or planning of water extraction and use, should assign no less than 50%, and generally 70% to 100%, of their costs to water users.

For the 2011 determination period, NOW proposed allocating about \$186 million (\$2009-10) (or 70%) of its total proposed costs to water users.⁷⁴ With the exception of the proposed water user share of MDBA contributions, we found that NOW's proposed water user shares for all of its cost codes were acceptable.⁷⁵ We allocated approximately \$122 million (\$2009-10) (or 59%) of NOW's full, efficient costs to water users over this period (see Table 4.1). Water user shares, by activity code, and the contribution that each activity code makes to total costs for the 2011 Determination period are presented in Appendix D.

Table 4.1 Water user share of NOW's costs under IPART's decision for the 2011 determination period (\$2009-10)

Building block	2009-10	2011-12	2012-13	2013-14	Total (2011-12 to 2013-14)	User share as % of total costs
Operating Expenditure (Scenario 1)	30,257	35,965	37,291	38,135	111,390	75%
Operating Expenditure (Scenario 2) ^a	0	1,363	1,356	1,350	4,069	75%
MDBA	1,693	1,690	1,690	1,690	5,070	10%
BRC	299	277	261	263	800	68%
Depreciation	830	34	103	172	310	70%
Return on assets	0	49	142	235	425	70%
Total water user share	33,079	39,378	40,843	41,843	122,064	59%
Total water user share (%)	66%	59%	60%	59%	59%	

^a Scenario 2 relate to costs for implementing the *Water Act 2007* (Cth) and accelerating the national water reform agenda.

Note: Totals may not add due to rounding.

Source: IPART, *Review of Prices for the Water Administration Ministerial Corporation - Final Report*, February 2011, p 86.

⁷⁴ IPART, *Review of Prices for the Water Administration Ministerial Corporation - Final Report*, February 2011, p 86.

⁷⁵ IPART, *Review of Prices for the Water Administration Ministerial Corporation - Final Report*, February 2011, p 82.

4.2 Proposed approach for this review

For this review, we continue to favour the ‘impactor pays’ approach, as it ensures that water users face all of the costs of their activities, including any environmental costs that are a consequence of those activities. This is also consistent with principles of efficient pricing and intergovernmental agreements on cost recovery.

Similarly, we intend to use the existing cost allocation ratios for each of NOW’s cost codes or activities as the starting point for this review, as these have been developed and refined over previous price determinations. However, we will review these cost shares and seek stakeholder comments on whether the cost sharing approach and ratios used in the 2011 Determination remain appropriate (see Appendix D).

NOW has advised us that it is proposing to modify its activity codes for the 2016 Determination, to reflect changes to its operating environment and functions. If NOW proposes changes to existing activity codes, or introduces new codes, these codes should be described in such a way as to enable efficient mapping back to historical cost codes and expenditures. Ideally, NOW should:

- ▼ use the new activity codes in forward projections only
- ▼ report data over the 2011 determination period using the existing codes, and
- ▼ provide a mapping of old codes into the new, and provide the necessary explanations.

We seek stakeholder comments on:

- 12 Do the cost shares of the 2011 Determination remain appropriate (as outlined in Appendix D)? If not, what adjustments are required?
- 13 What are your views on NOW’s proposed cost shares for the 2016 determination period?

5 | Setting water management charges

Once we determine the user share of NOW's efficient costs, we decide how water management charges should be structured to recover these costs, taking into account the principles of efficient pricing and the distribution of risk between NOW and water users.

In this chapter, we seek stakeholder comment on a number of decisions we will need to make to set NOW's water management charges, including:

- ▼ **The geographic split of prices.** We will consider whether to maintain the current valley-based prices for regulated and unregulated rivers, and the allocation of the user share of costs across water sources and valleys. We will also consider transition to an 'inland/coastal' geographic split for groundwater prices.
- ▼ **The structure of charges.** We will consider whether, and in what circumstances, water management charges should be fixed (\$ per ML of water entitlement or unit share) or variable (\$ per ML of water extracted), or a combination of fixed and variable. To do this, we will also need to forecast water entitlements, licences and volumes of water extracted from regulated rivers, unregulated rivers and groundwater sources. We will consider an appropriate ratio of fixed to variable charges, taking into account NOW's cost structure as well as the distribution of risk between NOW and water users.
- ▼ **The scope of charges.** We distinguish between domestic and stock rights holders and domestic and stock licence holders, and consider what charges should apply for special categories of water entitlement, such as floodplain harvesting, high flow and supplementary water.
- ▼ **The level of the minimum bill.** We will consider what the appropriate level for the minimum bill should be.
- ▼ **The appropriate price path.** We will consider how prices should change over the price path, including whether or how price changes should be limited. Generally, our approach is to translate the notional revenue requirement into a target revenue (ie, revenue to be recovered via prices), having regard to the matters listed in section 15 of the IPART Act.

In Chapter 6, we outline our approach to setting NOW's service fees and charges, including charges related to metering, and administrative fees and charges for consent transactions.

5.1 The geographic split of prices by water source

Currently, NOW's water management charges vary by water source and by valley. In particular, in the 2011 Determination, we decided to:

- ▼ maintain valley-based water management charges for regulated (11 valleys) and unregulated rivers (12 valleys), and
- ▼ transition from 12 valley-based prices to a regional 'inland'/'coastal' division for groundwater prices.

The current valley-based structure for water management charges was introduced in the 2001 Determination and has applied since (we provide a history of pricing in Appendix C).⁷⁶

We consolidated groundwater prices into an 'inland'/'coastal' division in the 2011 Determination, on the basis that groundwater aquifers overlap surface water valleys and it is not practicable to price by valley or, at that stage, water sharing plan area.⁷⁷ However, to manage price shocks, we decided to gradually transition from valley-based groundwater prices to the 'inland'/'coastal division', which means that there is still some variation in groundwater prices between valleys.

For this review, we will consider the scope to further rationalise NOW's schedule of water management charges, taking into account the principle of cost reflective pricing and the potential impacts on water users and NOW. To inform decisions on the most appropriate price structure by water source, we will require information from NOW on:

- ▼ the extent to which NOW's water management costs vary by valley or region
- ▼ the way in which NOW records or attributes its water management costs to specific valleys or regions, and
- ▼ the nature of any variations in NOW's costs between valleys or regions (for example, whether costs vary in the short-term but not over the medium- or long-term).

Consolidating water management charges within geographic areas with similar cost structures would result in simpler price structures, which could be easier to apply and administer. Also, to the extent that there is uncertainty about NOW's cost allocation method, valley-based pricing may result in some arbitrary price differences between valleys.

⁷⁶ IPART, *Department of Land and Water Conservation, Bulk Water Prices from 1 October 2001, Determination No 3, December 2001.*

⁷⁷ IPART, *Review of Prices for the Water Administration Ministerial Corporation - Final Report, February 2011, p 90.*

For unregulated rivers, we note that there might be greater scope for regional consolidation, given that there are only eight unique prices in 12 valleys.⁷⁸ Geographic consolidation of prices may also be particularly relevant in areas where water trade is feasible across valleys.

However, if genuine cost differences exist between valleys for a particular water source, consolidating prices would lead to cross-subsidisation between valleys.

Some of the arguments for and against the geographic consolidation of prices are presented in Table 5.1 below. We discuss the basis for allocating costs across water sources and valleys in detail below.

Table 5.1 Arguments for and against the geographic consolidation of water management prices

Factor	Valley-based pricing	Aggregated pricing (regional or state-wide pricing)
Transparency of cost allocation	✓	x (costs could be masked by spreading them over the wider customer base)
Administrative simplicity	x	✓
Cost-reflectiveness	✓ (subject to accuracy of cost allocation model)	✓ (but only at a total cost level)
Consistent prices in adjacent or connected valleys	x	✓
Elimination of cross-subsidies	✓	x
Consistent with National Water Initiative pricing principles	✓ (if set to cost recover)	✓ (if set to cost recover)

⁷⁸ IPART, *Review of Prices for the Water Administration Ministerial Corporation from 1 July 2011 – Determination*, February 2011, pp 9-10. Unregulated river prices were set at the same level for the Border, Gwydir, Namoi and Peel valleys; and for the Lachlan and Macquarie valleys.

5.1.1 Allocation of user shares across water sources and valleys

NOW does not record actual costs on a valley basis. In the 2011 Determination, we allocated the user share of costs to each valley (by water source) by using the best available cost drivers, which included:⁷⁹

- ▼ entitlement volumes
- ▼ number of licences
- ▼ number of gauging stations
- ▼ number of groundwater bores, and
- ▼ water sharing plans in place, in development, and the complexity of implementation of these plans.

In particular, allocating user shares across water sources and valleys by cost drivers involved the following three steps:⁸⁰

- ▼ Expenditure was recorded under the different cost codes based upon the nature of the activity (eg, 'surface water quantity monitoring').
- ▼ Each cost code was assigned a 'cost driver' that represents the key determinant of this expenditure across valleys and water types. For example, the number of water gauging stations was the cost driver for the 'surface water quantity monitoring' cost code. Each cost driver has 'cost allocation shares' for each valley and water type (recorded as percentages).
- ▼ The user share of costs for each cost code was then apportioned to water sources and valleys by using the relevant cost driver's cost allocation shares.

Therefore, under this methodology, if a valley has 10% of NOW's water gauging stations, it would be assigned 10% of the user share of costs of 'surface water monitoring'.

We note that this cost allocation methodology, along with entitlement volumes (as outlined in section 5.2.1), is the major driver of price variations between valleys and water sources. For example, under our 2011 Determination, the price per ML of entitlement for **groundwater** users on a one-part (unmetered) tariff in the Murray valley is almost twice the corresponding price in the Murrumbidgee valley.⁸¹ At the same time, charges for **unregulated river** users on a one-part (unmetered) tariff in the Murray valley are almost 20% lower than the corresponding price in the Murrumbidgee valley.⁸²

⁷⁹ IPART, *Review of Prices for the Water Administration Ministerial Corporation - Final Report*, February 2011, pp 28 and 329.

⁸⁰ IPART, *Review of Prices for the Water Administration Ministerial Corporation - Final Report*, February 2011, p 112.

⁸¹ IPART, *Review of Prices for the Water Administration Ministerial Corporation - Determination*, February 2011, p 14.

⁸² IPART, *Review of Prices for the Water Administration Ministerial Corporation - Determination*, February 2011, p 10.

While there may be scope to refine this cost allocation methodology, we consider that it is well documented, repeatable and transparent. Unless there is a strong justification otherwise, we propose to continue to use this method as the basis for allocating costs across water sources and valleys for this price review, if we continue to set valley or regional based prices.

We seek stakeholder comments on:

- 14 Is the current geographic split of water management charges appropriate? Or should we consolidate valleys into wider regions for tariff setting purposes?
- 15 Is NOW's cost allocation model suitable for determining valley or regional based prices?

5.2 Fixed charges and variable usage charges

In the 2011 Determination, we set a fixed charge (\$ per ML of entitlement or unit share) or a fixed (\$ per ML of entitlement or unit share) **and** usage charge (\$ per ML of water extracted) by water source and valley, depending on whether extraction is metered or not:

- ▼ **Where water extraction is metered** – two-part tariffs apply, comprised of a fixed charge (\$ per ML of water entitlement or unit share) and a usage charge (\$ per ML of water extracted), for regulated rivers, unregulated rivers and groundwater. We note that all users on regulated rivers are metered and are therefore subject to a two-part tariff.
- ▼ **Where water extraction is unmetered** – one-part tariffs apply, comprised of a fixed charge (\$ per ML of entitlement or unit share), for unregulated rivers and groundwater.

The two-part tariffs were set on a 70:30 split between the fixed and usage charges (this means approximately 70% of NOW's forecast revenue is received from its fixed charges, and 30% from its usage charges), except for North Coast regulated rivers where this ratio was kept at a 92:8 split.⁸³

NOW has argued over successive price determinations for a 100% fixed (\$ per entitlement or unit share) charge regime. Arguments put forward by NOW for fixed charges in the 2011 Determination included:⁸⁴

- ▼ Its costs are generally not directly and positively related to the volume of water extracted. For instance, costs can actually increase when water is scarce (and therefore extraction is low), due to the need to implement drought management strategies and conduct additional monitoring.

⁸³ IPART, *Review of Prices for the Water Administration Ministerial Corporation – Final Report*, February 2011, p 92. We made the decision to not apply a 70:30 split for North Coast regulated rivers to protect these users from potentially high water bills, given that usage forecasts for North Coast regulated rivers were very low over the 2011 Determination period

⁸⁴ IPART, *Review of Prices for the Water Administration Ministerial Corporation – Final Report*, February 2011, p 93.

- ▼ The two-part tariff was used in the past to send a price signal to reduce consumption. This is no longer necessary, since 90% of commercial water extraction is covered by water sharing plans and therefore open to trading of water – which is more effective in improving efficiency in water consumption than the prices charged by NOW.
- ▼ Fixed charges prevent any actual or perceived conflict of interest arising through a link between revenue and the amount of water made available to users.

We considered NOW's arguments had merit. We acknowledge that NOW's water management costs do not vary with the volume of water extracted, but are more closely related to entitlement volumes. We also recognise the role of the water trading market in encouraging the efficient use of water. A one-part, fixed charge tariff regime also has the added attraction of being simpler to administer.

However, in the 2011 Determination, we considered that the main benefit of a two-part tariff is to share water availability risk between NOW and water users.⁸⁵ In particular, we considered a 70:30 ratio provided NOW with a reasonable degree of revenue certainty, while also providing entitlement holders with some scope to reduce their bills through lower levels of extraction (for example, in times of drought).⁸⁶

In the absence of two-part tariffs, there may also be fewer incentives for users to install meters, unless required to do so to be able to trade (and planning to trade) or required to be metered through a licence condition, water sharing plan or by regulations. In addition, a two-part tariff may provide NOW with incentives to achieve additional operating efficiencies to manage volume-related revenue volatility.

For this review, we will again consider the appropriateness of fixed and usage charges, in view of the:

- ▼ structure of NOW's water management costs and how these costs vary with water usage or availability
- ▼ ability of parties to manage water availability risk (eg, through water trading)
- ▼ robustness of water usage (extraction) forecasts used to set usage prices (discussed in the following section)
- ▼ administrative simplicity or efficiency of the tariff regime
- ▼ expected roll out of meters for unregulated river and groundwater users, and the recognition of the costs associated with installing, maintaining and reading a meter (metering charges are discussed in Chapter 6).

⁸⁵ IPART, *Review of Prices for the Water Administration Ministerial Corporation – Final Report*, February 2011, p 96.

⁸⁶ IPART, *Review of Prices for the Water Administration Ministerial Corporation – Final Report*, February 2011, p 97.

We summarise the arguments for and against fixed tariff structures in Table 5.2 below.

Table 5.2 Arguments for and against the one-part versus two-part tariff structure of water management charges

Factor	one-part tariff (fixed charge)	two-part tariff (fixed and variable)
Protects NOW from revenue volatility due to water availability	✓	x
Reflective of NOW's cost structure	✓	x
User costs avoided if water is not available – risk-sharing mechanism	x	✓
Provides incentives for NOW to achieve additional operating efficiency to manage revenue volatility	x	✓
Administrative simplicity	✓	x

We seek stakeholder comments on:

- 16 Should two-part tariffs be maintained for NOW, or should we move to one-part tariffs?
- 17 To what extent does water trading act as a risk management mechanism for water users, and therefore remove the need for a two-part tariff?
- 18 Do two-part tariffs promote greater metering and therefore enhanced water management outcomes?
- 19 If two-part tariffs are maintained, what is the appropriate balance between NOW's fixed and usage charges (eg, is the current 70/30 fixed to variable ratio suitable)?

5.2.1 Entitlement volumes and usage forecasts

To set fixed and usage charges for each water source and valley at the levels required to recover the costs allocated to that water source and valley, we need to make assumptions about the water entitlement volumes and forecast water extraction (or 'usage') in each valley. These assumptions have a major impact on prices. That is, for a given level of valley costs, the larger the entitlement volume or usage volume for that valley, the lower the valley entitlement or usage charge. Conversely, the lower the entitlement or usage volume, the higher is the per unit charge.

However, we also note that the entitlement volume is a significant driver of costs between valleys under the methodology used to allocate the user share costs across valleys (as noted above). This means that, the higher the entitlement volume for a valley, the higher the level of costs allocated to it (all other things being equal).

In the 2011 Determination, due to the lack of water usage (or extraction) data in unregulated rivers and groundwater sources, we set usage charges under the assumption that these users extract 100% of their entitlement (except for Hunter Water Corporation and the Sydney Catchment Authority, where forecasts based on historical usage were available).⁸⁷ The effect of this assumption shifts revenue risk onto NOW, given that the two-part tariff would under-recover revenue to the extent actual usage volumes are less than entitlement volumes.

However, we considered that the potential under-recovery of revenue from usage charges in unregulated and groundwater sources would not create excessive revenue risk to NOW, given the prevailing low level of metering (and hence, the relatively low volumes of water subject to two-part tariffs in these water sources). It would also provide NOW with an incentive to improve metering data for this determination period, so that robust forecasts of metered water usage can be developed.⁸⁸

For this review, we will need to make decisions on:

- ▼ the appropriate water entitlement volume to use in setting fixed charges for each water source and valley
- ▼ the appropriate entitlement volume to use in setting fixed charges for the major water utilities (Water NSW, Greater Sydney Area, as the former Sydney Catchment Authority and Hunter Water Corporation), and
- ▼ the appropriate water usage forecast to use in setting usage charges for each water source and valley and the major water utilities.

We seek stakeholder comments on:

- 20 Are NOW's forecast water entitlement and usage (extraction) volumes reasonable?

5.2.2 Potential mechanisms to address revenue (or volumetric) risk

In addition to entitlement volumes and usage forecasts, we will also consider mechanisms to address or mitigate revenue risk associated with potential variations between forecast and actual water usage over the upcoming determination period. For example, if actual water use (extraction) is less than forecast when setting prices, NOW will receive less revenue than anticipated and under-recover relative to its costs of water management (and vice-versa).

⁸⁷ IPART, *Review of Prices for the Water Administration Ministerial Corporation - Final Report*, February 2011, p 118.

⁸⁸ IPART, *Review of Prices for the Water Administration Ministerial Corporation - Final Report*, February 2011, p 133.

We note that such risk is only prevalent under a two-part tariff regime, and where the price structure does not match NOW's cost structure. In looking at whether there is a need to introduce a mechanism to address revenue risk, we will consider factors such as the:

- ▼ robustness of entitlement volumes and usage forecasts used to set prices
- ▼ proportion of NOW's revenue recovered from fixed and usage charges, and how this relates to the ratio of NOW's fixed costs to its variable (or avoidable) costs
- ▼ prevalence of metering amongst users in unregulated river and groundwater sources, and
- ▼ distribution of risk between NOW and water users, and potential implications for these parties.

There are several mechanisms that could be used to address NOW's revenue risk, if deemed appropriate.

For regulated water utilities, we have referred to potential consumption adjustment mechanisms to address the impact of material variations between the net level of actual and forecast demand used in setting prices (eg, Sydney Water, Hunter Water, Gosford Council and Wyong Council reviews).⁸⁹ In particular, we have typically:⁹⁰

- ▼ defined material variation as more than 10% of net revenue or forecast demand (+ or -) over the whole determination period
- ▼ indicated that only the impact of variation outside of this 10% variation level would be adjusted for, and
- ▼ indicated that we would decide whether and, if so, how to best make the revenue adjustment at the following price review, if a material variation eventuates.

In the 2010 Determination for State Water (ie, Water NSW (Rural)), we provided a revenue volatility allowance to allow State Water to recover the holding costs for bearing revenue volatility risk on behalf of customers. Under this approach, the revenue volatility allowance was included as an additional operating expenditure cost block of State Water's revenue requirement.⁹¹

⁸⁹ IPART, *Review of prices for Sydney Water Corporation's water, sewerage, stormwater drainage and other services - Final Report*, June 2012, p 38; IPART, *Review of prices for Hunter Water Corporation's water, sewerage, stormwater drainage and other services - Final Report*, June 2013, p 90; IPART, *Review of prices for Gosford City Council and Wyong Shire Council Prices for water, sewerage and stormwater drainage services - Final Report*, May 2013, p 45.

⁹⁰ For example, see IPART, *Review of prices for Hunter Water Corporation's water, sewerage, stormwater drainage and other services - Final Report*, June 2013, p 90.

⁹¹ IPART, *Review of bulk water charges for State Water Corporation from 1 July 2010 to 30 June 2014 - Final Report*, June 2010, pp 50-60.

The ACCC's June 2014 determination for State Water's (Water NSW (Rural)) prices in the Murray Darling Basin Valley included a mechanism to address revenue volatility by establishing an 'unders' and 'overs' account. The unders and overs account allows State Water to adjust its charges annually to recover a portion of the revenue not recovered because water usage is lower than forecast, or to return a portion of revenue to customers if water usage is higher than forecast.⁹²

In comparison to Water NSW (Rural), NOW recovers a greater proportion of revenue from fixed than usage charges through its two-part tariff (70:30 fixed to variable split compared to Water NSW's (Rural) 40:60 split for South Coast and Basin valleys; and 60:40 for the North Coast and Hunter valleys).⁹³ This effectively provides NOW with greater revenue certainty than Water NSW (Rural).

We seek stakeholder comments on:

- 21 What, if any, mechanisms should be introduced to address risk associated with variations between forecasts used in setting prices and actual levels of water usage?

5.3 The scope of charges (types of users)

Under our determination, NOW's water management charges apply to all licensed water users (ie, users who hold water entitlements through water access licences and who take water using water supply works approvals).

In the sections that follow, we distinguish between domestic and stock **rights** holders and domestic and stock **licence** holders, and consider whether we should set new charges or maintain charges for special categories of entitlement, such as floodplain harvesting, high flow and supplementary water.

5.3.1 Charges for basic landholders rights (domestic and stock)

The pricing status of domestic and stock **rights** is different to domestic and stock **licences** issued by NOW, as our current determination applies to all **licensed** water users only (see Box 5.1).

⁹² ACCC, *Final decision on State Water Pricing Application 2014/15-2016/17*, June 2014, p11.

⁹³ IPART, *Review of prices for State Water's coastal valleys and some Fish River customers – Issues Paper*, June 2014, p 42.

In the 2011 Determination, we considered that, under the ‘impactor pays’ principle, there may be an argument for domestic and stock **rights** holders to also contribute to NOW’s water management costs, but decided to consider this issue at the next determination of NOW’s prices.⁹⁴

However, it is our view that it would be contrary to the concept of a statutory entitlement if requirements were imposed on domestic and stock rights holders that restricted the exercise of those rights (conferred under the WMA), such as water management charges. That is, the imposition of a fee or charge would effectively render the exercise of the right to take and use water for domestic and stock purposes subject to the payment of that fee or charge, and would therefore restrict the exercise of the rights conferred under the WMA. We also note that the administrative costs of identifying and billing these customers would be potentially prohibitive (ie, unlike domestic and stock licence holders, there is no registration of domestic and stock rights holders).

For these reasons, we consider that charging domestic and stock rights holders is outside the scope of this review.

This is to be contrasted with the holders of access licences, whose entitlement to take water depends on the Minister granting them an access in the first place.⁹⁵ Therefore, when setting NOW’s water management charges, we include domestic and stock **licence** holders. NOW has noted in the 2011 Determination that due to a long standing administrative arrangement, it does not currently bill water management charges applicable to unregulated river and groundwater domestic and stock licensees. This revenue is lost to NOW and not recovered from other licence holders.

⁹⁴ IPART, *Review of Prices for the Water Administration Ministerial Corporation - Final Report*, February 2011, p 108.

⁹⁵ ss 56(1) and 63(1), WMA.

Box 5.1 What are domestic and stock rights?

Under the WMA (section 52), an owner or occupier of a landholding is entitled to take water from a river, estuary or lake which **fronts** their land or from an aquifer which is **underlying** their land for domestic consumption and stock watering, without the need for an access licence. This is a domestic and stock right.

While owners and occupiers of landholdings do not need a water access licence to take water under a domestic and stock right, they still need to obtain a water supply work approval to construct a dam or a water bore.

Water taken under a domestic and stock right may be used for normal household purposes around the house and garden and/or for drinking water for stock. It cannot be used for irrigating fodder crops for stock, washing down in a dairy or machinery shed, intensive livestock operations (such as feedlots, piggeries or battery chickens), aquaculture or for commercial purposes (including caravan parks or large-scale bed and breakfast accommodation) other than for the personal use of the proprietors.

A licence is required for water taken for commercial activities such as irrigation, mining, aquaculture, feedlots, piggeries, poultry farms, golf/sporting areas and snow making.

If an owner or occupier wishes to take water for domestic or stock use and their landholding **does not front** a river or lake and **does not overlie** an aquifer, then they require a licence to do so. Domestic and stock licence holders are subject to NOW's water management charges.

Source: NOW, *Domestic and stock rights*, <http://www.water.nsw.gov.au/water-licensing/basic-water-rights/domestic-and-stock>, accessed on 5 May 2015.

5.3.2 Charges for special category licences

In the 2011 Determination, we set the following prices for special category licences:⁹⁶

- ▼ **Supplementary Water licences** (regulated rivers)⁹⁷ – pay the usage charge under the relevant two-part tariff. This decision was consistent with the 2006 Determination and the 2010 State Water Determination.

⁹⁶ IPART, *Review of Prices for the Water Administration Ministerial Corporation – Determination and Final Report*, February 2011, pp 105-6.

⁹⁷ Supplementary water (as it relates to surface water) is surplus flow that cannot be conserved. When storm events result in flows that cannot be regulated in storage structures such as dams or weirs for future use, and the water is not needed to meet current demands or commitments, then it is considered surplus to requirements. Supplementary Water access licence holders can only pump water against these licences during announced periods. See NOW, *Water availability*, <http://www.water.nsw.gov.au/Water-management/Water-availability/Water-availability>, accessed on 5 May 2015.

- ▼ **Floodplain Harvesting licences** (regulated and unregulated rivers)⁹⁸ – pay the usage charge under the relevant two-part tariff.
- ▼ **High Flow licences** (unregulated rivers)⁹⁹ – pay the minimum bill. NOW advised that of the existing 22 High Flow licences in unregulated rivers, only one had been given a volume entitlement and none were metered. Therefore, for reasons of practicality, we considered that these licences should be subject to the minimum bill.
- ▼ **Supplementary Groundwater licences** – pay an entitlement charge that is applied to the allocated share of the water resource for that year as set out under the relevant Available Water Determination.¹⁰⁰

For this review, we will reconsider the appropriateness of (and need for) each of these pricing arrangements in light of key developments since the 2011 Determination. We will also consider charges for any new special category licences being proposed for the 2016 determination period.

For example, we set charges in the 2011 Determination for Floodplain Harvesting licences in anticipation of NOW's policy to license these water extractions and make them subject to metering and volumetric limits. NOW has since released its policy on managing floodplain water extractions (in May 2013),¹⁰¹ and the NSW Parliament has passed the *Water Management Amendment Act 2014* (NSW). We will reconsider the appropriateness of our charge for such extractions in light of this new framework.

⁹⁸ Floodplain harvesting is the capture and use of water flowing across a floodplain that is not covered by another extraction category, such as an access licence, or harvestable right. The NSW Government has finalised the *NSW Floodplain Harvesting Policy*. Changes introduced under the *Water Management Amendment Act 2014* facilitate the issuing of floodplain harvesting access licences, consistent with the Floodplain Harvesting Policy. See NOW, *Floodplain Harvesting*, <http://www.water.nsw.gov.au/water-management/law-and-policy/key-policies/floodplain-harvesting> and NOW, *Law and Policy*, <http://www.water.nsw.gov.au/water-management/law-and-policy>, accessed on 5 May 2015.

⁹⁹ High flow water access licences permit extraction only when stream flow is greater than a specified level, and are issued according to the relevant water sharing plan. See NOW, *High flow and flood management*, <http://www.water.nsw.gov.au/water-management/water-availability/flood-management>, accessed on 5 May 2015.

¹⁰⁰ Supplementary licences for groundwater were issued by NOW in relation to groundwater in the Gwydir, Macquarie, Lachlan, Murrumbidgee, Murray, and Namoi Valleys, as an administrative vehicle for structural adjustment. They facilitate a transition from the licensee's historical levels of extraction to sustainable levels by 2017. NOW does this by issuing a licence for a specific entitlement value (the historical level) and then adjusting these values downwards annually via the gazettal of available water determinations (AWDs).

¹⁰¹ NOW, *NSW Floodplain Harvesting Policy*, May 2013. NOW aims to reform the management of water on floodplains through the development of floodplain management plans and licensing of floodplain extractions. However, it comments that there is currently very limited information available on the location, size and impact of floodplain structures, including floodplain storages, and aims to collect the required data to implement the planned reforms.

We seek stakeholder comment on:

- 22 What are your views on NOW's pricing proposals in relation to special category licences, including any new special category licences proposed for the 2016 determination period?

5.4 Minimum bill

Users extracting water from regulated rivers, unregulated rivers or groundwater sources are currently subject to a minimum annual bill of \$105 (\$2014-15) per year – ie, their charge is the greater of \$105 or the schedule of fixed and/or usage charges listed in the 2011 Determination.¹⁰²

The minimum bill is set to recover NOW's ongoing administration costs (eg, maintaining the licensing database and monitoring licence conditions) associated with zero or small entitlement WALs. Such zero or small entitlement licences are often created to facilitate trading.¹⁰³

In the 2011 Determination, we increased the minimum bill from its previous level by 60% in real terms to ensure that smaller users faced more cost-reflective water bills.¹⁰⁴ We kept the level of the minimum bill constant in real terms over the determination period.

When setting water management charges, we assume that all licences with an entitlement of zero or greater are subject to the minimum bill (ie, forecast revenue from minimum bill customers is removed from NOW's building block costs before water management charges are set to ensure that this revenue is not recovered twice). We estimated in the 2011 Determination that approximately 51% of licences would be subject to the minimum bill by 2013-14 for water management (excluding meter service charges).¹⁰⁵ If less than 51% of licences are subject to the minimum bill by the end of the 2011 Determination, then NOW will under recover revenue from minimum bills, all else being constant.

In addition, any exemptions applied to minimum bill customers by NOW during the 2011 Determination period will result in a revenue shortfall. We identified in the 2011 Determination that potentially up to 5,515 users with listed entitlements of zero were not, at the time, being charged the minimum bill (this represents about 25.6% of our estimate of total users subject to the minimum bill).¹⁰⁶ NOW also noted in the 2011 Determination that it does not bill unregulated river and

¹⁰² <http://www.water.nsw.gov.au/water-management/fees-and-charges>

¹⁰³ IPART, *Review of Prices for the Water Administration Ministerial Corporation - Final Report*, February 2011, p 102.

¹⁰⁴ IPART, *Review of Prices for the Water Administration Ministerial Corporation - Final Report*, February 2011, p 103.

¹⁰⁵ IPART, *Review of Prices for the Water Administration Ministerial Corporation - Final Report*, February 2011, p 198.

¹⁰⁶ IPART, *Review of Prices for the Water Administration Ministerial Corporation - Final Report*, February 2011, pp 198 and 222.

groundwater domestic and stock licence holders, which would most likely be subject to the minimum bill.¹⁰⁷

We seek stakeholder comment on:

- 23 What is the appropriate level for the minimum bill, and what types of users, if any, should be exempt from paying the minimum bill?

5.5 The price path and the impacts of pricing decisions

As part of this review, we will consider the potential implications of our pricing decisions on NOW, water entitlement holders and the environment. Generally, our approach is to translate the water users' share of the notional revenue requirement (which reflects our assessment of water users' share of NOW's efficient building block costs) into a 'target' revenue (ie, revenue to be recovered via prices), having regard to the matters listed in section 15 of the IPART Act.

In assessing the potential impact of water management charges on users, we will consider forecast sample water bills, and estimates of water bills as a proportion of farm costs. We will also consider the ability of water users to mitigate the impact of higher water management charges through trading water entitlements.

In the 2011 Determination, we set prices to ensure that the annual increase in the forecast bill for most water sources and valleys did not exceed 20% (based on forecast usage levels).¹⁰⁸ The 20% annual cap was not applied to the minimum bill.

As a result of our decision to mitigate price impacts on users, NOW's 'target' (or expected) revenue from users over the 2011 determination period was below full cost recovery (ie, water user share of costs). The degree of cost recovery varied by water source and by valley over the 2011 Determination, with 90% cost recovery expected to be achieved in regulated rivers, 93% in unregulated rivers and 86% in groundwater. Overall, we expected water management charges to allow NOW to achieve about 94% of full cost recovery by 2013-14 (from 88% in 2009-10).¹⁰⁹ To enable NOW to carry out its water management activities effectively, we considered it appropriate for the NSW Government to fund NOW's remaining efficient costs.¹¹⁰

¹⁰⁷ IPART, *Review of Prices for the Water Administration Ministerial Corporation - Final Report*, February 2011, p 222.

¹⁰⁸ Prices for groundwater users who were not in 'Groundwater Management Areas', and so were subject to a fixed charge only, were set without reference to a cap on forecast bills in the first year of the determination period only. IPART, *Review of Prices for the Water Administration Ministerial Corporation from 1 July 2011 - Final Report*, February 2011, p 99.

¹⁰⁹ IPART, *Review of Prices for the Water Administration Ministerial Corporation - Final Report*, February 2011, p 287.

¹¹⁰ IPART, *Review of Prices for the Water Administration Ministerial Corporation - Final Report*, February 2011, p 15.

For this review, we will try to achieve an appropriate balance between allowing NOW to transition towards full cost recovery, and mitigating the impact of prices on water users - for regulated river, unregulated river and groundwater customers. We will also take into account the potential effect of combined Water NSW (Rural) and NOW bills on regulated river users.

In addition, we will consider the implications of metering charges, which we discuss in Chapter 6. We do not generally consider the customer impact of changes to transaction fees, as these are one-off, upfront charges, which only impact on users on an 'as needs' (or per transaction) basis (also discussed in Chapter 6).

We seek stakeholder comment on:

- 24 How should the price path account for customer impacts (eg, in balancing NOW's transition to full cost-recovery)?

6 | Setting metering and consent transaction charges

This chapter discusses our approach to setting NOW's metering charges and administrative (consent transaction) fees and charges.

6.1 Metering charges

In the 2011 Determination, we introduced a number of meter related charges, in addition to periodic water management charges. These charges were intended to recover the efficient costs that NOW incurs in:

- ▼ servicing government-installed meters
- ▼ resolving disputes over meter accuracy (government installed meters)
- ▼ validating relocated government-installed meters, and
- ▼ reading user-owned meters and meter equivalents.

The metering charges are payable only by unregulated river and groundwater users, as meter-related charges for regulated river users are paid through Water NSW (Rural) (ie, these charges are currently determined by the ACCC for 'inland' valleys and by IPART for 'coastal' valleys).

Our decisions on metering charges for the 2011 Determination are presented in Table 6.1 below.

Table 6.1 Metering charges for unregulated river and groundwater users (\$2009-10)

Description	Charge
<i>Meter service charge (government-installed meters)</i>	
mechanical meter – with data logger	\$213 (per meter pa)
electromagnetic meter – with data logger	\$279 (per meter pa)
electromagnetic meter – with data logger and mobile data modem	\$364 (per meter pa)
electromagnetic meter – with data logger and satellite data modem	\$679 (per meter pa)
channel meter with mobile phone or satellite telemetry coverage	\$679 (per meter pa)
other meter	\$213 (per meter pa)
<i>Separate charges (government installed meters)</i>	
Refundable deposit for Dispute Resolution ^a	\$1,500 (per meter, per dispute)
Validation of a relocated meter	
mechanical meter	\$105 (per meter)
other meter	\$105 (per meter)
electromagnetic meter	\$195 (per meter)
channel meter with mobile phone or satellite telemetry coverage	\$195 (per meter)
<i>Separate Charges (user installed meters or 'approved meter equivalents')</i>	
Manual meter reading fee	\$192 (per meter pa)

^a In response to a lodgement of a dispute claim, the user will pay the charge. If the assessment shows meter reading is within agreed standards, the deposit will be forfeited and the reading will stand. If the meter is not within agreed standards, the deposit will be refunded, and previous readings will be adjusted.

Source: IPART, *Review of Prices for the Water Administration Ministerial Corporation - Final Report*, February 2011, p 144.

A key factor for introducing meter-related charges in the 2011 Determination was NOW's planned roll out of around 11,000 Commonwealth Government funded meters across the unregulated rivers and groundwater sources of the Hawkesbury-Nepean River and Murray-Darling Basin.¹¹¹ While the Commonwealth is funding the capital costs of new meters (ie, purchase and installation costs), NOW is responsible for the ongoing operation and maintenance costs.

¹¹¹ IPART, *Review of Prices for the Water Administration Ministerial Corporation - Final Report*, February 2011, p 142.

We decided that ongoing metering costs should be recovered via separate charges rather than including the costs within the general operating expenditure base, whereby they would be recovered from all users via water management charges. We considered that separate meter service charges have the following benefits:¹¹²

- ▼ there is no risk that NOW will under or over recover its meter service costs, due to variations between the actual and forecast number of meter installations – as costs are only recovered from meters that are actually installed
- ▼ metering costs are recovered transparently, from the user that is subject to metering
- ▼ they are consistent with the ‘impactor pays’ principle, and
- ▼ they are consistent with the Water NSW (Rural) charging regime.

For this review, we propose to maintain separate metering charges, to the extent that improved water metering is expected to play an important role in improving water resource management. However, in setting these charges we will:

- ▼ review and establish the efficient costs of providing these metering services, including the appropriate user share, and
- ▼ decide on the users that should be subject to metering charges, in view of the affordability and efficiency of NOW’s metering program.

6.1.1 Assessing the efficient costs of NOW’s metering services

To determine metering charges, we will establish the efficient (forecast) costs of reading and servicing existing meters and also consider what the appropriate user share is of these costs.

In assessing the efficient costs of NOW’s metering services, we will have regard to the national standards for water meters developed under *The National Framework for Non-Urban Water Metering* (National Framework) (see Box 6.1).¹¹³

We will also consider the need for new metering charges over the 2016 determination period, such as a meter installation charge, to recover the costs of satisfying metering requirements specified in the National Framework.¹¹⁴ In particular, the National Framework specifies that all non-urban meters comply with the national metering standards by 1 July 2020.

¹¹² IPART, *Review of Prices for the Water Administration Ministerial Corporation - Final Report*, February 2011, p 157.

¹¹³ New meters must be installed and operated in accordance with ATS 4747 of Standards Australia. See: Australian Government, *National framework for non-urban metering*, December 2009.

¹¹⁴ NOW, *Metering in NSW*, <http://www.water.nsw.gov.au/Water-licensing/Metering/Metering-in-NSW>, accessed on 5 May 2015.

NOW indicated at the last review that our meter charges currently exclude costs related to the removal of a meter, replacement of meters, installation of new meters, and component failure (where the meter is outside the 3-year warranty period). It would assess these potential costs based on its experience with the roll-out of meters over the 2011 determination period.¹¹⁵

Box 6.1 The National Framework for Non-urban Water Metering

The National Framework for Non-Urban Water Metering (National Framework) sets out the foundations for water metering on a nationally consistent basis. It aims to deliver the objectives agreed by state, territory and Commonwealth governments under the NWI for national metering standards and a nationally consistent framework for water metering and measurement.

Specifically, the National Framework outlines:

- ▼ the implementation of the national standards for meter construction, installation and maintenance
- ▼ the use of certified installers, maintainers and validators
- ▼ compliance, auditing and reporting requirements.

The National Framework also provides for transitional arrangements, allowing for phased replacement of non-complying meters over a 10 year period. In particular:

- ▼ that all non-urban meters shall comply with the national metering standards by 1 July 2020, unless otherwise exempted by the relevant jurisdictional government department or agency
- ▼ any meter installed after 30 June 2010 must comply with the national metering standards
- ▼ any meter installed prior to 1 July 2010 shall be replaced with a compliant meter by 1 July 2020. Replacement shall be undertaken at the earliest opportunity, such as when major maintenance is required on the non-compliant meter.

The National Framework came into effect on 1 July 2010.

Source: Australian Government, *The National Framework for Non-urban water metering*, <http://www.environment.gov.au/topics/water/rural-water/sustainable-rural-water-use-and-infrastructure/non-urban-water-metering-0>, accessed on 5 May 2015; NOW, *NSW Metering Implementation Plan under the National Framework for Non-Urban Water Metering*, September 2013, p 1.

¹¹⁵ IPART, *Review of Prices for the Water Administration Ministerial Corporation - Final Report*, February 2011, p 147.

Choice of meter type for a location

In the 2011 Determination, we requested that NOW develop and publish clear criteria that will be applied when deciding on what meter types to install for various locations, to improve the transparency of NOW's decision-making and ultimately help manage potential disputes. We noted that the decision-making framework should have due regard to the least cost for water users.¹¹⁶

The framework is important as it will allow us to assess whether NOW has suitable checks on its future operating costs and metering charges. NOW released its *NSW Metering Implementation Plan* in September 2013,¹¹⁷ and noted that metering equipment will be selected based on fitness for purpose and cost effectiveness. Metering options include mechanical meters, electro-magnetic meters and ultrasonic meters.

We note that it is likely that different technologies will suit different situations, depending on specific site requirements, the size and nature of water supply works, and water quality. However, the choice of meter type for non-urban use should be in accordance with meter selection and specification standards under the National Framework.¹¹⁸

6.1.2 Assessing which users should be subject to metering charges (NOW's metering program)

A key feature of NOW's proposed metering program in the 2011 Determination was its internal goal of metering 95% of licensed extraction.¹¹⁹ NOW has since restated the 95% metering target in its metering implementation plan, released in September 2013.¹²⁰ There has not been a specific date set to achieve the target.

¹¹⁶ IPART, *Review of Prices for the Water Administration Ministerial Corporation - Final Report*, February 2011, p 160.

¹¹⁷ NOW, *NSW Metering Implementation Plan under the National Framework for Non-Urban Water Metering*, September 2013.

¹¹⁸ New meters must be installed and operated in accordance with the Australian Technical Specification (eg, ATS 4747) of Standards Australia. See Australian Government, *National framework for non-urban metering*, December 2009.

¹¹⁹ This target would include NOW's planned roll out of around 11,000 Commonwealth Government funded meters. IPART, *Review of Prices for the Water Administration Ministerial Corporation - Final Report*, February 2011, p 145.

¹²⁰ NOW, *NSW Metering Implementation Plan under the National Framework for Non-Urban Water Metering*, September 2013, p 6.

As the cost implications for users are significant, we requested that NOW undertake cost-benefit analysis of its metering target and to make changes to the design of its metering program as warranted. We estimated in the 2011 Determination that the implementation of NOW's proposed metering program would mean that users with entitlement as low as 10 ML for the Hawkesbury-Nepean River and 23 ML for unregulated and groundwater users of the Murray-Darling Basin would be subject to these charges. As a result, some users paying the minimum bill for water management charges could pay up to seven times that amount in a meter service charge per annum.¹²¹

In its metering plan, NOW has indicated that metering will apply to the extent needed for resource management, operations, water trading and protection of water rights, based on consideration of risk and cost effectiveness. In particular, it has identified the following users as potentially not requiring metering:¹²²

- ▼ Metering of small volumes, up to thresholds that will vary from area to area, may not be required.
- ▼ Metering of particular cases where it is physically impractical to install a meter will not be required. In these cases, which are expected to be few in number, best available alternative arrangements for measuring or estimating water extraction will be used.
- ▼ Metering of basic landholder water rights water extraction will not apply, except in specific, rare cases where meters may be required for compliance with statutory reasonable use guidelines or directions aimed at addressing localised or case specific problems with equitable sharing of water.

For this review, we will assess which users should be subject to NOW's metering charges. We wrote to NOW in November 2012 noting that its submission to our review should address the affordability aspects of its metering program in relation to the benefits of the expansion of metering.¹²³ If there is no clear justification for NOW's metering target, then we propose that small users (threshold to be determined by IPART), and in particular small users subject to the minimum bill, be exempt from metering charges.

We seek stakeholder comment on:

- 25 What are your views on NOW's meter-related activities and charges for users on unregulated river and groundwater sources, including:
 - The appropriateness of meter types, meter charges and the metering target?
 - The appropriate water user share of costs for NOW's metering activities?
 - The affordability/impact on water users (own meter and government meter)?

¹²¹ IPART, *Review of Prices for the Water Administration Ministerial Corporation - Final Report*, February 2011, p 157.

¹²² NOW, *NSW Metering Implementation Plan under the National Framework for Non-Urban Water Metering*, September 2013, p 6.

¹²³ Correspondence with NOW, 28 November 2012.

- 26 Does the potential to trade water allocations provide an incentive for unregulated and groundwater users to install a meter?
- 27 Does the potential to switch from a one-part to a two-part tariff provide an incentive for unregulated and groundwater users to install a meter?

6.2 Consent transaction charges

Consent transaction charges are intended to recover NOW's efficient costs of assessing and issuing water access licences (granting rights to a share of available water) and works approvals (granting approval for the construction of water management works, such as bores, dams, etc). Currently, NOW is responsible for processing four types of consent transactions: new water access licences, water access licence dealings, new or amended approvals, and approval extensions, each of which has several sub-types (see Table 6.2).¹²⁴

Table 6.2 Types of consent transactions

Type of transaction	Description of transaction
<i>New water access licences</i>	
Zero shares	Entitles holder to specified shares in available water, including conditions on access to this water
Specific purpose	
New water access licence types granted by the Minister	
<i>Water access licence dealings</i>	
Permanent	Includes trading of water and any changes to water access licence register
Temporary	
<i>New or amended approvals</i>	
Works	Water use approval entitles use of water for particular purpose and location
Use	
Basic Rights	Water supply works approval authorises works such as a pump, dam or bore for various purposes
<i>Approval extensions</i>	
Before expiry	Extension of approval beyond the currency of the approval (10 years)
After expiry	

Source: IPART, *Review of Prices for the Water Administration Ministerial Corporation - Final Report*, February 2011, p 171.

¹²⁴ These administrative services are defined under Chapter 3 of the WMA.

Consent transactions are priced on a ‘fee-for-service’ basis. They recover the efficient *incremental* costs that NOW incurs in processing an application, consistent with the ‘impactor pays’ principle. Consent transaction charges are based on forecasts of the labour hours needed to complete a transaction and the cost of that labour. In setting these charges for the 2011 Determination, we assessed whether:

- ▼ the times proposed by NOW to complete the transactions were reasonable and efficient, by examining the tasks associated with completing consent transactions, and
- ▼ the forecast costs of the labour used in completing consent transactions was consistent with the demands and level of complexity of the different types of transactions that NOW undertakes.

Fixed overhead costs, such as office rental, were recovered from all users through water management charges, as these costs are incurred regardless of the number of transactions processed.

The WMA and the *Environmental Planning and Assessment Act 1979* (NSW) are the most important drivers of NOW’s assessment processes and consequently the costs of processing consent transactions.¹²⁵ In general, a consent transaction will only be granted when the Minister is satisfied that there are adequate arrangements in place to ensure that ‘minimal harm’ will be done. This includes minimal harm to any water source or its dependent ecosystems as a consequence of water being taken from the water source (or proposed use of water on the land) under the licence (or works/use approval).

For the 2011 Determination period, NOW’s average annual revenue requirement from consent transaction charges was forecast to be \$5.2 million (\$2009-10). In aggregate, our determined consent transaction charges were 9% lower than NOW’s proposal, due to downward adjustments to the hours to complete some tasks and the assumed wage rate applied to all labour hours in estimating the charges.¹²⁶

For this review, we propose to continue setting consent transaction charges on an incremental cost basis. NOW will need to:

- ▼ propose charges for each consent transaction
- ▼ provide a clear link between the proposed charges and the efficient costs incurred in providing the service.

¹²⁵ IPART, *Review of Prices for the Water Administration Ministerial Corporation - Final Report*, February 2011, p 175.

¹²⁶ IPART, *Review of Prices for the Water Administration Ministerial Corporation - Final Report*, February 2011, pp 189-191.

We seek stakeholder comment on:

- 28 Are NOW's proposed consent transaction charges for the 2016 determination period reasonable (ie, do they represent the efficient incremental costs of assessing and issuing the licences and approvals)?



Appendices

A Matters to be considered under section 15 of the IPART Act

In making determinations, IPART is required under section 15 of the IPART Act to have regard to the following matters (in addition to any other matters IPART considers relevant):

- a) the cost of providing the services concerned
- b) the protection of consumers from abuses of monopoly power in terms of prices, pricing policies and standard of services
- c) the appropriate rate of return on public sector assets, including appropriate payment of dividends to the Government for the benefit of the people of New South Wales
- d) the effect on general price inflation over the medium term
- e) the need for greater efficiency in the supply of services so as to reduce costs for the benefit of consumers and taxpayers
- f) the need to maintain ecologically sustainable development (within the meaning of section 6 of the *Protection of the Environment Administration Act 1991*) by appropriate pricing policies that take account of all the feasible options available to protect the environment
- g) the impact on pricing policies of borrowing, capital and dividend requirements of the government agency concerned and, in particular, the impact of any need to renew or increase relevant assets
- h) the impact on pricing policies of any arrangements that the government agency concerned has entered into for the exercise of its functions by some other person or body
- i) the need to promote competition in the supply of the services concerned
- j) considerations of demand management (including levels of demand) and least cost planning
- k) the social impact of the determinations and recommendations
- l) standards of quality, reliability and safety of the services concerned (whether those standards are specified by legislation, agreement or otherwise).

B Intergovernmental agreements and the pricing principles developed in previous reviews

B.1 The National Water Initiative

In 2004, the Council of Australian Governments (COAG) issued its National Water Initiative (NWI), which built on the principles established in the 1994 COAG Water Reform Framework. A key theme in both these documents is that water prices should be set to achieve full cost recovery for water planning and management activities.

The NWI set out principles of best practice in water pricing and institutional arrangements. Signing parties agreed to implement water pricing and institutional arrangements which:¹²⁷

- ▼ promote economically efficient and sustainable use of water resources; water infrastructure assets; and government resources devoted to the management of water
- ▼ ensure sufficient revenue streams to allow efficient delivery of the required services
- ▼ facilitate the efficient functioning of water markets, including inter-jurisdictional water markets, and in both rural and urban settings
- ▼ give effect to the principles of user-pays and achieve pricing transparency in respect of water storage and delivery in irrigation systems and cost recovery for water planning and management
- ▼ avoid perverse or unintended pricing outcomes, and
- ▼ provide appropriate mechanisms for the release of unallocated water.

In the 2011 Determination, we set prices to increase the level of cost recovery over the determination period. As shown in Table B.1 below, the forecast level of cost recovery from users under the 2011 Determination increased from 88% in 2009-10 to 94% in 2013-14.

¹²⁷ NWI, *Intergovernmental agreement on a National Water Initiative between the Commonwealth of Australia and the Governments of New South Wales, Victoria, Queensland, South Australia, the Australian Capital Territory and the Northern Territory*, 25 June 2004, p 13.

Table B.1 NOW Forecast Cost Recovery for the 2011 Determination (\$'000, \$2009-10)

	2009-10	2011-12	2012-13	2013-14	% change 2009/10 to 2013/14
IPART's notional user share of costs	33,079	39,378	40,843	41,843	26%
IPART's target user share of costs (via prices)	29,099	33,944	36,925	39,189	35%
Forecast level of cost recovery under IPART's Determination	88%	86%	90%	94%	6%

Source: IPART, *Review of Prices for the Water Administration Ministerial Corporation - Final Report*, February 2011, p 15 and IPART analysis.

B.2 Cost recovery principles for activities in the Murray-Darling Basin

Schedule 2 of the *Water Act 2007* (Cth) lists the following principles to apply to cost recovery for water planning and management activities in the Murray-Darling Basin:

1. All costs associated with water planning and management must be identified, including the costs of underpinning water markets (such as the provision of registers, accounting and measurement frameworks, and performance monitoring and benchmarking).
2. The proportion of costs that can be attributed to water access entitlement holders is to be identified consistently with the principles set out subclauses (3) and (4).
3. Water planning and management charges are to be linked as closely as possible to the costs of activities or products.
4. Water planning and management charges are to exclude activities undertaken for the government (such as policy development and ministerial or parliamentary services).
5. States and territories are to report publicly on cost recovery for water planning and management annually. The reports are to include:
 - a) The total cost of water planning and management.
 - b) The proportion of the total cost of water planning and management attributed to water access entitlement holders, and the basis on which this proportion is determined.¹²⁸

¹²⁸ Schedule 2, *Water Act 2007* (Cth).

B.3 IPART's principles for bulk water pricing

Prior to the NWI pricing principles, we established a framework and underlying principles for our price regulation of bulk water services in 1996.¹²⁹ At this time, we undertook a major review of prices for bulk water services, and developed the following principles to encourage the efficient allocation and use of bulk water services:

- ▼ water charges should be based on the efficient economic costs of providing water services
- ▼ the administrator of water resources should receive sufficient funds to achieve financial stability and deliver an appropriate level of water services, and
- ▼ pricing policy should promote the ecologically sustainable use of water and of the resources used to store, manage and deliver that water¹³⁰

Since the 1996 review, we have made a number of price determinations and have further developed and refined our regulatory approach.

¹²⁹ IPART, *Bulk Water Prices – An Interim Report*, October 1996.

¹³⁰ Adapted from IPART, *Bulk Water Prices – An Interim Report*, October 1996, p 2.

C Water Administration Ministerial Corporation – summary of institutional arrangements and pricing determinations

Table C.1 Chronology of institutional arrangements and pricing determinations for WAMC

Year	Event
1986	<p>Legal <i>Water Administration Act 1986</i> establishes the Water Administration Ministerial Corporation (WAMC)</p> <p>Administrative Department of Water Resources is established and is given the WAMC's functions</p>
1995	<p>Legal WAMC's government monopoly services are declared under section 4 of the IPART Act 1992 (Government Gazette No 122 of 4 October 1995, p 7115), as:</p> <ul style="list-style-type: none"> any services provided by the WAMC, to the extent that the services involve: <ul style="list-style-type: none"> a) the making available of water; b) the making available of the Corporation's water supply facilities; or c) the supplying of water, whether by means of the Corporation's water supply facilities or otherwise. <p>Administrative Department of Land and Water Conservation (DLWC) acts on behalf of WAMC</p>
1996/97	<p>Pricing IPART price determination for WAMC</p> <p>Administrative DLWC acts on behalf of WAMC</p>
1997/98	<p>Pricing IPART price determination for WAMC</p> <p>Administrative DLWC acts on behalf of WAMC</p>
1998/99 - 1999/00	<p>Pricing IPART price determination for WAMC</p> <p>Administrative DLWC acts on behalf of WAMC</p>
2000/01	<p>Pricing IPART price determination for WAMC</p> <p>Administrative DLWC acts on behalf of WAMC</p>

C Water Administration Ministerial Corporation –
summary of institutional arrangements and pricing
determinations

Year	Event
2000	<p>Legal <i>Water Management Act 2000</i> (WMA) is enacted. <i>Water Administration Act 1986</i> is repealed. WAMC's statutory role and functions are determined by WMA</p> <p>Administrative DLWC acts on behalf of WAMC</p>
2001/02 – 2003/04	<p>Pricing IPART price determination for WAMC</p> <p>Administrative DLWC acts on behalf of WAMC</p>
2004	<p>Legal <i>State Water Corporation Act 2004</i> establishes the State Water Corporation, with WAMC's functions related to regulated rivers being transferred to State Water WAMC's government monopoly services are declared under section 11 of IPART Act 1992 (Government Gazette No 144 of 10.9.2004, p 7519 <i>Independent Pricing and Regulatory Tribunal (Water Services) Order 2004</i> cl 3 provides the definition of government monopoly services (no change from the 1995 definition)</p> <p>Administrative DLWC is restructured. Department of Infrastructure Planning and Natural Resources (DIPNR) is established and is given WAMC's water resource management functions. Catchment Management Authorities are established DIPNR acts on behalf of WAMC</p>
2005/06	<p>Pricing IPART price determinations for State Water Corporation and WAMC</p> <p>Administrative DIPNR acts on behalf of WAMC</p>
2006/07 – 2009/10	<p>Pricing IPART price determinations for State Water Corporation and WAMC</p> <p>Administrative Department of Natural Resources (DNR) acts on behalf of WAMC</p>
2007	<p>Administrative DNR is abolished. WAMC's water management functions are transferred to a newly formed Department of Water and Energy (DWE). Some activities are transferred to Department of Environment and Climate Change (DECC) DWE acts on behalf of WAMC</p>
2009	<p>Administrative DWE is abolished. WAMC's water management functions are transferred to the NSW Office of Water (NOW) within the Department of Environment, Climate Change and Water (DECCW) Office of Hawkesbury-Nepean (OHN) is created in April 2009 to act as a single point of information, advice and Government coordination of management strategies for the Hawkesbury-Nepean River system. Some NOW staff is transferred to OHN NOW acts on behalf of WAMC</p>

Year	Event
2011	<p>Administrative</p> <p>Department of Trade and Investment, Regional Infrastructure and Services (NSW Trade & Investment) is formed. NOW is transferred to the Department of Primary Industries within Trade & Investment</p> <p>NOW acts on behalf of WAMC</p>
2011/12-2013/14	<p>Pricing</p> <p>IPART price determination for WAMC</p> <p>Administrative</p> <p>OHN is closed, and its water management functions transferred back to NOW</p> <p>NOW acts on behalf of WAMC</p>
2014	<p>Legal</p> <p>The <i>Water NSW Act 2014</i> (NSW) provides for State Water Corporation to become Water NSW and to abolish the Sydney Catchment Authority and transfer its functions to Water NSW; and to repeal and amend certain legislation consequentially. Water NSW came into effect on 1 January 2015.</p> <p>The <i>Water Management Amendment Act 2014</i> was passed by the NSW Parliament in late 2014. This Act changes some sections of the <i>Water Management Act 2000</i> and adds some new sections.</p> <p>The changes relate to a range of aspects of water management including planning, licensing and compliance.</p> <p>Many of the provisions in the Act commenced on 1 January 2015. Other provisions will be implemented later because further steps are required to implement them.</p>

D Schedule of Monopoly Service Order outputs and user share of costs (Appendix L, 2011 Final Report)

Table D.1 Schedule of Monopoly Service Order outputs (2011 Determination)

Cost code	User share	% of user share revenue	Title	Detailed description and service output
C01			Surface water information provision	
C01-01	70%	9.6%	Surface water quantity monitoring	NOW is expanding its hydrometric network by 128 stations and will visit each of its 513 stations 6 times a year (up from the current level of 3.5). This activity includes surface water quantity monitoring, data collection (including environmental flows), data processing, data quality control, data archiving, data analysis and knowledge transfer.
C01-02	50%	1.2%	Surface water quantity data management and reporting	NOW will increase the percentage of its telemetered sites that have on-line information to 95% (up from the current level of 93%). This service relates to surface water quantity information that is compiled, stored, managed and reported to stakeholders and the general public.
C01-03	50%	1.6%	Surface water quality monitoring	NOW will sample 114 sites monthly and report results via the State Plan and the State of the Environment Report. Surface water quality monitoring covers system design, data collection/ monitoring, data archiving, data analysis, information provision and knowledge transfer. Covers water quality sampling and assessment of ambient condition and trend for salinity, temperature, turbidity, nutrients and pH.
C01-04	50%	0.7%	Surface water ecology, biology and algal monitoring	NOW will monitor 73 sites weekly to monthly for blue-green algal taxa cell count and biovolume (up from the current level of 69). This covers primarily activities that are not WSP-related. This activity relates to surface water, including estuarine ecosystem monitoring on ecological/biological attributes of rivers, flood plains and wetlands - system design, data collection, data archiving, data analysis, information provision and knowledge transfer.
C01-05	50%	0.3%	Surface water quality and biological database management	NOW will move at least 80% of its data on surface water quality and biological monitoring programs into a new central database. This activity includes State-wide coordination and administration, intra and interstate liaison, data archive management, data archive reporting, systems development/maintenance/ upgrades, data quality reporting and quality accreditation responsibilities for surface water quality and biology monitoring.

Cost code	User share	% of user share revenue	Title	Detailed description and service output
C01-06	70%	1.0%	Surface water monitoring assets management	NOW will upgrade 5% of its proposed 480 NOW funded sites per year. This activity involves the maintenance and operation of structures, vehicles and equipment installed at gauging stations and other fixed monitoring sites (sensors, loggers, batteries, solar panels, etc), associated safety equipment, laptops and field/mobile sensors.
C02			Groundwater information provision	
C02-01	100%	10.4%	Groundwater quantity monitoring	NOW will ensure that 80% of its proposed 3500 sites generate SWL data. This activity includes systems design, data collection, data archiving, data analysis, information provision and knowledge transfer. NOW collects quantity data from groundwater monitoring bores in order to enable effective groundwater resource management.
C02-02	100%	0.3%	Groundwater quality monitoring	NOW will ensure sampling of 10% of bores for water quality from 350 office funded sites. This activity incorporates groundwater quality monitoring systems design, data collection, data archiving, data analysis and information provision and knowledge transfer. Includes salinity and temperature by data loggers and spot sampling from bores.
C02-03	100%	0.1%	Groundwater database management	NOW will conduct monitoring and data management on 100% of 3800 sites. This activity includes corporate database administration, systems maintenance/upgrades and quality control/ assurance.
C02-04	100%	0.6%	Groundwater monitoring assets management	NOW currently does not upgrade any sites each year. NOW will upgrade 3% of its sites each year. NOW currently has 1% of new sites undergoing maintenance and 1% of sites on telemetry. NOW will achieve 10% for both of these measures for the end of the 2011 Determination period. This activity includes the maintenance and operation of structures, vehicles and equipment installed at bore monitoring sites (sensors, loggers, batteries, solar panels etc), laptops and field/mobile sensors. Testing and calibration of hardware and software, sensor and instrument calibration and operation of technical workshops.

Cost code	User share	% of user share revenue	Title	Detailed description and service output
C03			Surface and Groundwater Metering	
C03-01	100%	0.0%	Metering Operations – User Owned	NOW will meter 5000 users. NOW says this is equivalent to 26% of users. NOW undertakes operation and maintenance of existing licence-holder-owned meters, meter reading and compliance.
C04			Surface water and groundwater analysis	
C04-01	50%	0.8%	Water quality analysis	NOW will complete 3500 algal tests in the 2011 Determination period. This activity includes laboratory analytical services for water quality programs, and outsourcing of analysis as required.
C05			Water modelling and impact assessment	
C05-01	50%	3.5%	Water sharing/water management modelling	NOW will introduce surface water models capable of being used in the 2014 round of WSP reviews and consistent with the Basin Plan. NOW aims to develop climate and runoff predictions to specific valleys. This activity includes surface water modelling for water sharing including: <ul style="list-style-type: none"> ▼ WSP development and implementation ▼ Murray-Darling Basin Plan ▼ climate variability and climate change ▼ catchment change ▼ implementation of cap management strategy ▼ sustainable development projects ▼ threats to shared MDB resources ▼ environmental flow response modelling ▼ surface water – groundwater interaction.

Cost code	User share	% of user share revenue	Title	Detailed description and service output
C05-02	30%	0.1%	Resource assessments	<p>NOW will develop new surface water models to test the range of scenarios that might be investigated and are capable of providing the information required on demand for water resource assessments.</p> <p>This activity includes modelling for water resource assessment of projects/ schemes:</p> <ul style="list-style-type: none"> ▼ Programs of works performance in meeting salinity targets. ▼ Impacts of water trade on salinity and reliability. ▼ MDBC salinity register compliance. ▼ River, storage management for SWC. ▼ Water recovery options/ projects – TLM, NWI, Water for Rivers (Snowy) and other clients.
C05-03	100%	0.9%	Water balances/accounting	<p>NOW will develop surface water models that are capable of being used in the 2014 round of WSP reviews. Models will be capable of providing information required on demand for water resource assessments.</p> <p>This activity involves development and administration of surface water balances and accounting systems for State, Murray-Darling Basin and National Strategies including:</p> <ul style="list-style-type: none"> ▼ NWI requirements ▼ hydrologic model maintenance ▼ MDBMC cap auditing including model accreditation ▼ WSP auditing ▼ Cross-border water trade - assessment of trading rules ▼ development of water modelling software and application to valley models ▼ eWater CRC (model development).

Cost code	User share	% of user share revenue	Title	Detailed description and service output
C05-04	100%	1.0%	Groundwater modelling	<p>NOW will develop groundwater models capable of being used in the 2016 round of WSP reviews. It will construct groundwater models for all groundwater WSPs.</p> <p>This activity involves groundwater modelling associated with development and administration of groundwater water balances and accounting for:</p> <ul style="list-style-type: none"> ▼ development of groundwater models ▼ water accounting – groundwater interaction assessment of groundwater trading impacts and protocols ▼ groundwater modelling for structural adjustment process ▼ groundwater modelling for review of current WSPs ▼ groundwater models for development of new WSPs ▼ MDB Basin Plans.
C06			Water Sharing Plan implementation	
C06-01	100%	4.7%	Systems operation and water availability management	<p>NOW will review all implementation plans annually. NOW will continue to publish AWDs for all water sources by 1 July.</p> <p>NOW's systems operation for water planning includes:</p> <ul style="list-style-type: none"> ▼ preparation and maintenance of implementation manuals specifying procedures to be undertaken to deliver provisions of WSPs, including reporting and auditing requirements ▼ review and amendment of implementation programs for each WSP, detailing deliverables and associated timetable ▼ oversight of system operation by SWC and ensuring compliance with requirements specified in WSP rules ▼ operational monitoring, announcements, etc on unregulated rivers and groundwater. <p>Water availability management for water planning includes:</p> <ul style="list-style-type: none"> ▼ Assessment of compliance with long-term extraction limit and development of growth in use response strategies ▼ Available water determinations ▼ Supplementary water announcements ▼ Groundwater recharge review model development ▼ GDE studies, investigations and identification required during plan life.

Cost code	User share	% of user share revenue	Title	Detailed description and service output
C06-02	100%	3.5%	Trading and Accounts Management	<p>NOW will achieve a reduction in the number of account holder's letters of complaint regarding water account transactions from a current 100 per annum to 50 per annum, or 2% down to 1%.</p> <p>This activity covers trading (dealings) rules to ensure integrity of trading, including:</p> <ul style="list-style-type: none"> ▼ administration of constraints within the water source ▼ administration of changes to water source ▼ determination of conversion factors ▼ implementation of controlled allocation processes. <p>Management of water accounts to comply with plan rules, including:</p> <ul style="list-style-type: none"> ▼ oversight of water allocation account management ▼ management of extraction conditions and audit of extractions ▼ general groundwater advice ▼ application of spill and carryover rules to water accounts.
C06-03	50%	5.4%	Plan performance monitoring and reporting	<p>Nine regulated water sources will have a monitoring plan.</p> <p>100% of regulated WSPs will have an ecological monitoring program in place.</p> <p>NOW will have 100% of high priority WSP areas with ecological performance monitoring implemented and reported.</p> <p>100% of high priority unregulated river WSPs will have low flow field verification implemented and reported.</p> <p>Plan monitoring and reporting includes:</p> <ul style="list-style-type: none"> ▼ monitoring of planned environmental water outcomes ▼ reporting on WSP performance indicators for annual reviews, for 5-year review by State Interagency Panel and 10-year review by NRC ▼ ecological evaluation of plan performance including monitoring activities (eg, IMEF recurrent) ▼ field verification of CtP ▼ program evaluation of WSPs and WMA 2000 ▼ compiling information reports to support NRC reviews of WSPs ▼ socio-economic assessment of impacts of WSPs ▼ monitoring of structural adjustment impacts ▼ activities associated with any amendments in WSPs.

Cost code	User share	% of user share revenue	Title	Detailed description and service output
C06-04	50%	0.4%	Blue-green algae management	<p>NOW will update all regional risk management plans.</p> <p>This activity comprises mitigating effects of water stored in major storages (ie, reduced flushing flows), involving coordination of regional algal responses. Functions provided by regional algal coordinating committees (RACCs) and technical support to them, including:</p> <ul style="list-style-type: none"> ▼ weekly, fortnightly or monthly algal alerts for freshwater events (blue-green algae) ▼ alerts for marine and estuarine events as required ▼ development of contingency plans ▼ maintenance of an algal information line and website ▼ training and awareness of management authorities (including councils) ▼ coordination of media response to algal events ▼ coordination of scientific advice for each event.
C07			Water Management planning	
C07-01	70%	5.3%	Water sharing plan development	<p>NOW will gazette 83 WSPs by 2014.</p> <p>NOW will complete the water sharing planning process and its implementation by:</p> <ul style="list-style-type: none"> ▼ completing the remaining 18 inland WSPs by 2013 ▼ completing the 20 remaining coastal valley WSPs by 2013 ▼ revising all existing WSPs for Murray-Darling Basin River resources by 2014 to enable 'accreditation' of existing plans with the Basin Plan ▼ reviewing and remaking a total of 31 existing WSPs before 2014, prior to their 10 year expiry date. <p>NOW's WSP development activities include:</p> <ul style="list-style-type: none"> ▼ inter-agency and stakeholder negotiations relating to development of water sharing provisions ▼ policies specifically related to development of water sharing provisions ▼ estuary licensing rules ▼ preparation of statutory documentation ▼ preparation of initial implementation programs for each WSP, detailing deliverables and associated timetable post-commencement ▼ scientific and socio-economic studies required to support WSP development ▼ spatial data layer compilations and cartography.

Cost code	User share	% of user share revenue	Title	Detailed description and service output
C07-02	75%	11.5%	Operational Planning	<p>NOW's Operational planning will publish:</p> <ul style="list-style-type: none"> ▼ floodplain harvesting planning and rules for issuing licences ▼ delivery capacity rights (extraction component of licence to share channel capacity) ▼ water use planning ▼ return flow crediting for extractive users ▼ develop rules and processes for controlled allocation of unassigned water to licensed users ▼ reasonable use guidelines and proliferation of basic landholder rights to ensure water is shared equitably with licensed users ▼ aquifer interference rules and guidelines to inform and manage licensed extractive industries ▼ planning rules for surface and groundwater interception and extraction ▼ planning rules for stormwater harvesting ▼ planning rules for groundwater trading in embargoed water sources.
C07-04	50%	2.0%	Cross-border and national commitments	<p>NOW will ensure that 100% of valleys comply with the MDB cap. These activities are to support operation of the water management framework, including:</p> <ul style="list-style-type: none"> ▼ development and implementation of operational programs to meet NWI commitments ▼ participation in relevant interstate committees progressing NWI commitments, including National Water Accounting Development Committee, NWI Metering Expert Group, National Water Knowledge and Research Strategy group, national water quality management group, national river health negotiations and national assessment ▼ development and implementation of NSW commitment to Living Murray Initiative ▼ development and implementation of programs for National Groundwater Committee support to Natural Resource Management Ministerial Council ▼ NSW contribution to MDB sustainable rivers audit ▼ MDBMC cap monitoring and reporting ▼ participation in COAG water reform process ▼ participation in interstate water trade negotiations

Cost code	User share	% of user share revenue	Title	Detailed description and service output
C07-05	30%	0.5%	Water Industry Regulation	<ul style="list-style-type: none"> ▼ development of interstate water sharing arrangements through MDB and Border Rivers Agreement, Snowy and ACT arrangements ▼ local water utilities – developing strategies to improve water supply and wastewater services in remote communities, as required by NWI. <p>NOW will achieve legislation that is capable of meeting the requirements of the COAG reform agenda. It will achieve a target of 100% of water entitlement being covered by the Water Management Act.</p> <p>This activity comprises legal and regulatory support for water management planning, including litigation and legislative advice:</p> <ul style="list-style-type: none"> ▼ advice on compliance actions, litigation against licence holders and other water users ▼ facilitating appeals by licence holders and other water users ▼ advice on legal aspects and implication of draft and final WSPs ▼ advice on the Office’s documentation used for water management regulation (eg, licence application forms) ▼ advice to Government on regulatory and legislative proposals ▼ review and drafting of water availability orders to support operational decisions (for C06) ▼ review and drafting of water regulations & orders.
C08			River management works (non-capital)	
C08-01	50%	1.2%	River management works	<p>NOW will manage 30,000 metres of river bank for erosion control. In terms of highly impacted riverbank protected it aims to stabilise/protect 100% of high priority areas. This activity involves management and works plans for repair and stabilisation of river and channel banks and beds to maintain their integrity and flow capacity, and other watercourse works.</p>

Cost code	User share	% of user share revenue	Title	Detailed description and service output
C09			Water consent administration	
C09-01	100%	7.5%	Licence administration	<p>NOW will administer 100% of licensing transactions through a single database. These are comprised of:</p> <ul style="list-style-type: none"> ▼ Licensing Administration System (LAS) administration, including maintenance of surface water and groundwater consents integrity consistent with the Office's statutory responsibilities in regulating water extraction. Excludes processing of transactions on consents ▼ administration of access licence, approvals, trading and environmental water registers ▼ systems development and maintenance of procedures and guidelines for access licence dealings, approvals transactions, monitoring of systems performance and information dissemination ▼ LAS systems maintenance/upgrade.
C09-02	100%	3.2%	Licence conversion and entitlement specification	<p>90% of access licences will be recorded on the public registers within 5 months of the implementation of the WSP.</p> <p>Licence conversion includes:</p> <ul style="list-style-type: none"> ▼ cleansing of licences for conversion to WMA ▼ volumetric conversions ▼ transcribing water sharing provisions into licence conditions. <p>Entitlements specification includes:</p> <ul style="list-style-type: none"> ▼ ongoing program of establishing entitlements allocations for town water licences and determination of new entitlements when requested by councils ▼ S66 reviews.

Cost code	User share	% of user share revenue	Title	Detailed description and service output
C09-03	100%	12.2%	Compliance	<p>70% of licences currently audited are in compliance with licence requirements. NOW will progress towards 100% of licences audited being in compliance with licence requirements. It will increase its auditing level from 0.5% of total licences audited to 1% and will action 100% of breach reports up from the current level of 50%.</p> <p>NOW's compliance activities include:</p> <ul style="list-style-type: none"> ▼ administration of monitoring activities and surveillance to check compliance with consent conditions, including audits, fieldwork, inspections and compliance checking ▼ enforcement, including prosecution for non-compliance with consent conditions for all licence holders ▼ litigation against licence holders and other water users for non-compliance ▼ dissemination of information on rights, responsibilities and consequences for non-compliance with consent conditions.
C09-04	100%	4.7%	Consent transaction overhead	This activity includes overhead costs associated with water consent transactions.
C10			Water consent transaction	
C10-01	100%	0.0%	Water Act 1912 consents transactions	<p>NOW will process 90% of other consents for permanent transfer of access licences within 28 working days. It will process 60% of other consents within 3 months.</p> <p>This activity applies to dealings, assessments, change of conditions and new applications for water licences and approvals undertaken on a fee for service basis, including licensing of irrigation and other industry activities, controlled activities and aquifer interference activities.</p>
C11			Business administration	
C11-01	100%	4.7%	Metering and billing water usage	<p>NOW will collect 95% of revenue within 3 months of the billing period.</p> <p>This activity includes water management reporting required by stakeholders, including IPART, ACCC and NWI. Billing administration, revenue collection, maintenance of metering and billing SLAs for unregulated rivers and groundwater. Maintenance of pricing database, and responding to queries, correspondence, briefings.</p>

Cost code	User share	% of user share revenue	Title	Detailed description and service output
C11-02	70%	1.1%	Business development	<p>NOW will achieve 100% participation in State Water's valley Customer Service Committees.</p> <p>This activity includes planning to support implementation of water management business function, including strategic, organisational, financial, human resource and corporate governance requirements.</p> <p>Preparation of complete and QA checked pricing submissions for IPART, submitted by the due date.</p>

E Annual and end of determination reporting framework established in the 2011 Final Report

In the 2011 Determination, we decided to:¹³¹

- ▼ Establish an annual reporting framework whereby NOW provides us with a report that is suitable for public release and includes the information specified in Table E.1 below by the last working day of October of each year of the 2011 Determination period.
- ▼ Establish an end of determination period reporting framework whereby NOW provides us with a report suitable for public release of its delivery of the Schedule of Monopoly Service order Outputs to 2014 (Appendix L of the 2011 Final Report) together with its submission to the 2016 price review, specified in Table E.2 below.
- ▼ Provide NOW with an Annual Information Return (Excel spreadsheet) that has been developed by us, for NOW to complete and return to us by the last working day of October of each year of the 2011 Determination period.

In addition, we considered that NOW should:¹³²

- ▼ undertake options analysis for its activities, including testing contestability of the services provided
- ▼ deliver the forecast water resource activities that justified our allowance of costs and provide progress reports consistent with the reporting framework
- ▼ implement strategies to address our recommendations to the Minister for Water raised in correspondence in October 2010
- ▼ consider and publish a policy on levying water management charges on stock and domestic and other basic rights holders
- ▼ undertake cost-benefit analysis of its goal of metering 95% of licensed extraction and subsequently share that cost benefit analysis with users and us
- ▼ develop and publish a specific criteria to determine how it will make decisions about which type of meter is installed and its location that has due regard to the future level of efficient operating costs of this program.

¹³¹ IPART, *Review of Prices for the Water Administration Ministerial Corporation - Final Report*, February 2011, p 217.

¹³² IPART, *Review of Prices for the Water Administration Ministerial Corporation - Final Report*, February 2011, pp 218-19.

Table E.1 Annual reporting measures

Measure
1. Financial reports, which include the following information by valley or in the case of groundwater by the inland/coastal divisions: ^a <ul style="list-style-type: none">▼ revenue collected from water charges▼ operating expenses separately identified by activity codes▼ current year allowed expenditure and actual expenditures▼ explanation of the variation between allowed operating/capital expenditures and actual expenditure▼ FTE staff reports on the resources allocated to each activity code.
2. Reports of actual revenue received from the Commonwealth in relation to Scenario 2 expenditure
3. Reports of progress against delivery of key Monopoly Service Outputs including: <ul style="list-style-type: none">▼ Expanding the hydrometric network by 128 stations to a total of 513 by 2014/15, and increasing the frequency of visits to these stations to 6 visits a year to improve the monitoring information available to NOW and users.▼ Completing the Water Sharing planning process and its implementation by:<ul style="list-style-type: none">– completing the remaining 18 inland Water sharing plans by 2013– completing the 20 remaining coastal valley Water sharing plans by 2013– revising all existing Water sharing plans for Murray-Darling Basin River resources by 2014 to enable ‘accreditation’ of existing plans with the Basin Plan– reviewing and remaking a total of 31 existing Water Sharing Plans before 2014, prior to their 10-year expiry date– implementing the rules under more than 80 Water sharing plans across NSW.▼ Publishing and implementing outstanding operational plans and policies, including:<ul style="list-style-type: none">– the Floodplain Harvesting Policy and rules for issuing floodplain harvesting licences– the Reasonable Use Guidelines for Basic Landholder Rights Holders to address unconstrained extraction by stock and domestic rights holders– the Policy for Return Flow Credits for extractive uses– rules and processes for controlled allocation of unassigned water to licensed users– aquifer interference rules and guidelines to inform and manage licensed extractive industries– planning rules for surface and groundwater interception and extraction– rules for stormwater harvesting– rules for groundwater trading in embargoed water sources.▼ Ensuring that 90% of transactions for the permanent transfer of access licences are processed within 28 days.▼ Ensuring that 60% of all other transactions and approvals are processed within 3 months.▼ Ensuring that 100% of licence breaches reported are actioned.
4. Reports of cost driver units or volumes by valley – including the volume of cost driver units by cost code, water source (regulated river, unregulated river and groundwater) and valley – eg, for C01-01 this would include the number of <i>Office-funded gauging sites</i> for each regulated river and unregulated river valley.

^a In allocating costs to valleys, NOW is expected to apply the cost allocation methodology adopted in the 2011 Determination.

Table E.2 End of determination period reporting measures

Measure
1. Report of progress against delivery of the Monopoly Service Offering listed in Appendix L
2. Report of actions undertaken by NOW to improve its: <ul style="list-style-type: none">▼ consultation with users about performance, expenditures and revenue▼ billing systems and administration▼ financial systems, including the ring-fencing of expenditures related to the monopoly services▼ asset management and capital planning frameworks▼ timely, accurate and complete annual reports, as sought by IPART.

F Information that IPART is seeking from NOW

In this appendix, we outline the information to be provided by NOW in its submission to IPART. We have provided NOW with advance notice of these information requirements, notably through:

- ▼ IPART's *Guidelines for Water Agency Pricing Submissions* (the Guidelines) should be used as the basis for developing its price submission.
- ▼ An information request detailing requirements for the pricing submission,¹³³ and the Excel template with the Annual Information Return to accompany NOW's pricing submission.

The information provided in NOW's submission should include the current determination period 1 July 2011 to 30 June 2014, the interim years 2014-15 and 2015-16 when prices are unchanged in nominal terms, and the subsequent 5 years from 2016-17 to 2020-21.

We encourage stakeholders to comment on NOW's pricing proposal, which is due by 11 September 2015 (prior to other stakeholders' submissions), and any of the issues listed below.

Monopoly service activities

- 1 NOW's proposed monopoly service activities for the 2016 Determination. Where NOW is proposing to change, add or remove activities, it needs to provide a rationale and justification for these changes, as well as linking the current services to new services, to allow us to assess the changes.

Length of determination period

- 2 NOW's proposed length of determination period, and rationale for the preferred length.

¹³³ IPART sent NOW a Submission Information Pack in November 2014.

Operating expenditure over the current and upcoming determination periods

- 3 NOW's water management operating expenditure over the 2011 determination period (as well as 2014-15 and 2015-16), including levels of expenditure, the drivers of this expenditure, activities carried out and outcomes achieved. Information on actual MDBA and BRC expenditures recovered from NOW over the 2011 determination period should also be included.
- 4 Identification and explanation of variations between NOW's actual operating expenditure over the 2011 determination period and expenditure allowed by us when we set prices in the 2011 determination.
- 5 NOW's forecast water management operating expenditure from 2015-16 to 2020-21, and a clear explanation of the methodology and major assumptions used to develop these forecasts, including:
 - drivers of and justifications for this expenditure, activities to be carried out and outcomes to be achieved
 - a clear explanation of how NOW's forecast expenditure relates to water management service or activity levels, and the drivers or justifications for these service/activity levels
 - what indications there are (if any) of stakeholder willingness to pay for service/activity levels
 - the extent to which NOW has carried out options analysis for proposed water management activity expenditures (including, for example, testing contestability of tasks and services provided and conducting cost benefit or business case analysis)
 - identification and explanation of the trend in NOW's forecast operating expenditure from 2015/16 to 2020/21 and the relationship between this trend and NOW's obligations and standards, having regard to expected productivity improvements, historical expenditures, trends in input prices, relevant benchmarks and other relevant factors
 - a detailed description of NOW's current and forecast efficiency programs and the potential for efficiency gains and how these have been factored into forecast expenditures
 - forecast MDBA and BRC expenditures to be recovered from NOW and water users from 2015/16 to 2020/21 and the basis for this forecast.
 - NOW's approach to allocating indirect (ie, common or shared) costs, and the rationale for this allocation, including:
 - the allocation of indirect costs between NOW's regulated water management activities and its other activities/functions – including steps taken to 'ring fence' non-regulated costs
 - the allocation of indirect water management costs across valleys, water sources and water users, where applicable.

Capital expenditure over the current and upcoming determination periods

- 6 NOW's actual and forecast water management capital expenditure over the 2011 determination period (as well as 2014-15 and 2015-16), including drivers of this expenditure, water management activities carried out and outcomes achieved.
- 7 Identification of variations between NOW's actual capital expenditure over the 2011 determination period and the expenditure allowed by us when we set prices in the 2011 determination, including a clear and detailed explanation of these variations (positive or negative).
- 8 NOW's forecast water management capital expenditure program from 2015-16 to 2020-21, including identification and explanation of:
 - drivers of and justifications for this expenditure, water management activities to be carried out and outcomes to be achieved
 - how NOW's forecast expenditure relates to water management service or activity levels, and the drivers or justifications for these service/activity levels
 - indications (if any) of stakeholder willingness to pay for discretionary items of capital expenditure
 - the relationship between trends in forecast capital expenditure over 2015-16 to 2020-21 and NOW's obligations and service standards, having regard to historical expenditures, relevant benchmarks and any other relevant factors
 - the robustness of business cases or cost benefit analyses for this expenditure (including the extent of options analysis), the practicality of the projects being delivered within the proposed timeframe, and the basis for cost estimates.
- 9 NOW's approach to allocating or apportioning any shared or common capital cost items and the rationale for this allocation, including:
 - the allocation of costs between NOW's regulated water management activities and its other activities/functions - including steps taken to 'ring-fence' non-regulated costs
 - the allocation of NOW's water management capital costs across valleys, water sources and water users, where applicable.

Determining the opening RAB

- 10 Its proposed opening value of RAB in 2016-17 and the basis for this valuation (eg, capital expenditure to be included by asset/expenditure item and year of expenditure). We require a full list of regulatory assets assigned by activity code and user share.

Determining the return of capital

- 11 NOW's proposed depreciation allowance for its existing and new assets, including the means of calculating this allowance, the justification for this methodology, the assumptions underpinning the calculations (eg, asset values and average asset lives) and the justification or rationale for these assumptions.

Determining the rate of return (WACC)

- 12 The proposed rate of return on NOW's regulatory assets from 2016-17 to 2020-21.

Contributions from the Commonwealth Government and other sources

- 13 The value, timing and description of any contributions (including contributed assets) to NOW from governments and/or other sources.
- 14 Any implications of these contributions for future expenditure/operations (eg, efficiency savings, changes to maintenance requirements, etc), and how these effects have been factored into cost forecasts.

Output measures

- 15 NOW's delivery of services outlined in the schedule of monopoly service outputs in the 2011 Determination.
- 16 NOW's performance against the annual reporting measures and end of determination measures that we outlined in the 2011 Final Report.
- 17 Performance and reporting of outcomes against the other outstanding areas we identified in the 2011 Final Report.

User shares and cost recovery

- 18 The rationale/basis for any changes that NOW proposes to the activity codes or cost shares included in the 2011 determination.
- 19 User cost shares for new activities proposed by NOW and the rationale and justification for these cost shares.
- 20 Where NOW proposes changes to existing activity codes, or introduces new codes, these codes should be described in such a way as to enable efficient mapping back to historical cost codes and expenditures.
- 21 Identification and explanation of variations between NOW's target revenue and actual revenue over the 2011 determination period, and the implications of these variations for NOW's water management activities/performance.

Water management charges

- 22 NOW's proposed charges or prices for 2016-17 to 2020-21, and the reasoning or justification for each proposed price, including:
- the relationship between the price and NOW's costs of service provision
 - the relationship between the proposed price structure and the price structure of the 2011 determination, including the rationale/basis for any proposed variation and an analysis of any transitional issues
 - the relationship between the proposed price level and the price level of the 2011 determination, including the rationale/basis for the proposed variation and an analysis of any transitional issues
 - analysis of any 'willingness to pay' information available to NOW
 - NOW's methodology for the calculation of the price, including major assumptions.

Forecast entitlements, volumes, licences

- 23 Volumes of water extracted from regulated rivers, unregulated rivers and groundwater sources (usage data) over the 2011 determination period; comparison of forecast usage volumes for regulated rivers used in 2011 determination with actual data; and the reasons for any significant variations.
- 24 Forecasts of water volumes extracted from regulated rivers, unregulated rivers and groundwater sources over 2015-16 to 2020-21; and the methodology, assumptions and data sources used in developing these forecasts.
- 25 The impact on its water management activities/services over:
- the 2011 determination period as a result of lower than expected revenue (due to lower than expected water availability/usage)
 - the upcoming determination period if revenue is again lower than forecast.
- 26 The number of entitlements, unit shares and licences over the 2011 determination period, including the number of customers paying the minimum bill.
- 27 The number of entitlements, unit shares and licences from 2015/16 to 2020/21, including the number of customers expected to be paying the minimum bill, and the methodology or data underpinning these forecasts.
- 28 The amount of additional allocations that could be made available to users by NOW (eg, supplementary, floodplain harvesting etc).
- 29 The number of licences converted (from entitlement volumes under the WA to unit shares under the WMA) over the 2011 determination period and forecast conversion numbers from 2015-16 to 2020-21.

- 30 The number of unregulated river licensees that are (or will be) charged a two-part tariff, including the number of licensees that moved to a two-part tariff over the 2011 determination period, and the number of licensees that are forecast to move to a two-part tariff from 2015-16 to 2020-21.

Supplementary and other licences

- 31 Proposals in relation to supplementary water and high flow licences; licensing of floodplain harvesting water extractions; development of policies on return flow credits and stormwater harvesting.

Customers on minimum bill

- 32 Number of customers on minimum bill by water source, and fee exemptions if any.

Metering charges

- 33 Historical and forecast activities, expenditure and revenue related to the metering roll-out program including that funded by the Commonwealth.
- 34 Efficient costs of metering, cost-benefit analysis of stated metering targets.
- 35 Impact from improved metering on:
- water resource planning and management
 - trade in water allocations.
- 36 Framework for deciding on appropriate meter types for various locations.

Consent transactions

- 37 The number and types of consent transactions and other administration fees and charges for services under Chapter 3 of the WMA over the 2011 determination period.
- 38 The forecast number and types of consent transactions and other administration fees and charges for services under Chapter 3 of the WMA over 2015-16 to 2020-21, and the basis for this forecast.
- 39 NOW's proposed consent transaction charges for the 2016 Determination, and the justification for its proposed charges.
- 40 Any new consent transaction charges that are proposed for the 2016 Determination and the justification of the charges.

G Glossary and acronyms

2011 Determination	IPART's Determination No. 4, 2010 entitled " <i>IPART, Review of Prices for the Water Administration Ministerial Corporation from 1 July 2011 – Determination and Final Report, February 2011</i> " for the period 1 July 2011 to 30 June 2014.
2016 Determination	Refers to the upcoming price period – ie, prices from 1 July 2016.
ABS	Australian Bureau of Statistics
ACCC	Australian Competition and Consumer Commission
AWD	Available Water Determination
The Basin	Murray-Darling Basin
Basin water resources	Water resources in the Murray-Darling Basin
BRC	Dumaresq-Barwon Border Rivers Commission
COAG	Council of Australian Governments
Entitlement	ML of entitlement under the <i>Water Act 1912</i> (NSW) or unit shares under the <i>Water Management Act 2000</i> (NSW).
Extractions	The taking of water from regulated rivers, unregulated rivers or groundwater sources for the purposes of irrigation, town water supply, use as an input for power stations, supplying stock and domestic users or any other use.
FTEs	Full-Time Equivalent staff
GL	Gigalitre

Government share	The share of NOW's revenue requirement that is recovered from treasury, determined according to the 'impactor pays' principle.
IPART	The Independent Pricing and Regulatory Tribunal of NSW
IPART Act	<i>Independent Pricing and Regulatory Tribunal Act 1992 (NSW)</i>
kL	kilolitre
MDBA	Murray-Darling Basin Authority
MDB Agreement	Murray-Darling Basin Agreement
ML	Megalitre
Notional revenue requirement	Revenue that would be recovered from users if prices were set to fully recover efficient costs.
NOW	NSW Office of Water (in the Department of Primary Industries)
NWI	National Water Initiative
OHN	Office of Hawkesbury-Nepean
RAB	Regulatory asset base
RBA	Reserve Bank of Australia
SCA	Sydney Catchment Authority (Now Water NSW)
State Water	State Water Corporation (Now Water NSW)
SDL	Sustainable Diversion Limits
Target revenue	The revenue that IPART expects an agency to recover through prices.
Usage	Water extracted by entitlement holders.
User share	The share of NOW's revenue requirement that is recovered from users through prices, determined on an 'impactor pays' basis.
WACC	Weighted average cost of capital

WAL	Water Access Licence
WAMC	Water Administration Ministerial Corporation
Water NSW	Water NSW is the organisation responsible for managing raw water supply across NSW by bringing together the Sydney Catchment Authority (SCA) and State Water Corporation (State Water) (at 1 January 2015).
Water NSW (Greater Sydney)	Water NSW (Greater Sydney) is used to refer to the former SCA - separate price determination for the services previously provided by SCA.
Water NSW (Rural)	Water NSW (Rural) is used to refer to the former State Water - separate price determination for the services previously provided by State Water.
Water source	This refers to whether water is extracted from regulated rivers, unregulated rivers or groundwater.
Water type	This refers to regulated rivers, unregulated rivers or groundwater.
WMA	<i>Water Management Act 2000</i> (NSW)
WSP	Water Sharing Plan