



Independent Pricing and Regulatory Tribunal  
New South Wales

# Review of Rural Water Cost Shares

**WaterNSW**  
**Water Administration Ministerial Corporation**

Issues Paper  
Water

April 2018

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## Invitation for submissions

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

### **Submissions are due by 5 June 2018**

We would prefer to receive them electronically via our online submission form <[www.ipart.nsw.gov.au/Home/Consumer\\_Information/Lodge\\_a\\_submission](http://www.ipart.nsw.gov.au/Home/Consumer_Information/Lodge_a_submission)>.

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**Review of Rural Water Cost Shares**

Independent Pricing and Regulatory Tribunal

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# 1 Introduction

The NSW Independent Pricing and Regulatory Tribunal (“IPART” or “we”) is reviewing how we share costs between rural water customers<sup>1</sup> and the NSW Government (on behalf of the broader community) when setting maximum prices for WaterNSW’s rural bulk water services and the Water Administration Ministerial Corporation’s (WAMC’s) monopoly water services.

WaterNSW operates dams and weirs to deliver bulk water to irrigators and other entitlement holders on regulated rivers across NSW (rural bulk water services). WaterNSW’s rural bulk water services are inside the scope of this review. WaterNSW also manages and protects Sydney’s drinking water catchments and catchment infrastructure, and supplies bulk water to Sydney Water. WaterNSW’s services in Greater Sydney are outside the scope of this review. When we refer to WaterNSW’s services throughout this Issues Paper, we are referring to WaterNSW’s rural bulk water services.

WAMC provides water management services to holders of entitlements to take water from regulated rivers<sup>2</sup>, unregulated rivers and groundwater sources across NSW. WaterNSW, the Department of Industry (DoI), and the Natural Resources Access Regulator (NRAR) currently deliver these services on behalf of WAMC. WAMC’s water management services are inside the scope of this review.

Additional information about WaterNSW’s rural bulk water services and WAMC’s water management services is provided in Appendix A.

IPART determines the maximum prices WaterNSW can charge for the delivery of rural bulk water services to customers in 13 regulated river valleys<sup>3</sup> across NSW<sup>4</sup>; and the maximum prices WAMC can charge for the delivery of water management services to customers on regulated rivers, unregulated rivers and groundwater sources across NSW.<sup>5</sup> This review relates to how forward operating and capital expenditures are to be shared between customers (via regulated water prices) and the Government. It will not affect past allocation of costs and so will not apply to the existing WaterNSW<sup>6</sup> and WAMC<sup>7</sup> price determinations.

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<sup>1</sup> That is, water entitlement holders that are subject to WaterNSW’s and/or the Water Administration Ministerial Corporation’s regulated prices (as determined by IPART).

<sup>2</sup> The difference between unregulated and regulated rivers is that regulated rivers are controlled by a major storage or dam to supply water.

<sup>3</sup> Including the Fish River Water Supply Scheme (FRWS).

<sup>4</sup> We regulate WaterNSW’s prices in the Murray Darling Basin under the *Water Charge (Infrastructure) Rules 2010* (WCIR), made under section 92 of the Commonwealth *Water Act 2007* (under accreditation from the ACCC). We regulate WaterNSW’s prices in coastal valleys under the *Independent Pricing and Regulatory Tribunal Act 1992* (IPART Act).

<sup>5</sup> Under the IPART Act, we are only empowered to determine prices for ‘government monopoly services’. Clause 3 of the Water Services Order 2004 defines the bulk water ‘government monopoly services’ as those that involve: the making available of water, the making available of WAMC’s water supply facilities, or the supplying of water, whether by means of WAMC’s facilities or otherwise. WAMC is the statutory body under the *Water Management Act 2000* (NSW) responsible for water management in New South Wales.

<sup>6</sup> IPART, *WaterNSW: Review of prices for rural bulk water services from 1 July 2017 to 30 June 2021*, June 2017, p 101.

## 1.1 Why are we conducting this review?

The current cost share methodologies for WAMC and WaterNSW have not been comprehensively reviewed since 2001.<sup>8</sup> We made a commitment to review rural cost shares in our 2017 Final Report on WaterNSW's rural bulk water prices<sup>9</sup>, and in our 2012 review of rural water charging systems.<sup>10</sup>

In the 2016-2017 WaterNSW price review, we identified a potential new cost sharing framework with our consultant, Frontier Economics. The framework identified the different services being delivered (eg, bulk water storage, water delivery, flood mitigation, etc) and the users and impactors (ie, those creating the need to incur costs) of those services. However, we did not apply this new cost sharing framework in the 2017 WaterNSW price determination. This was because of the complexity of the issues involved,<sup>11</sup> the limited timeframe for consultation and uncertainty about the value of applying this framework. As a result, we maintained the current cost share ratios for WaterNSW during the 2017 determination period and decided to undertake this review prior to the next WAMC price review in 2019-20 and the WaterNSW price review in 2020-21. Similarly, in its review of the Murray Darling Basin Authority's (MDBA) expenditure our consultant, Aither, recommended the cost sharing arrangements need to provide a greater degree of transparency.<sup>12</sup>

This Issues Paper outlines:

- ▼ our cost sharing principles
- ▼ our current **activity-based** cost sharing framework, and
- ▼ our proposal to consider moving to a **service-based** cost sharing framework.

## 1.2 What are the aims of this review?

This review has the following aims:

1. To clearly outline and, if necessary, refine our cost sharing principles and objectives, which are currently based on the impactor pays principle.
2. To review the current activity-based cost shares and, if necessary, amend the list of activities and cost shares.
3. To further investigate and, if feasible and if there is merit, develop an alternative service-based cost sharing framework, taking into account the costs and benefits of such a framework.

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<sup>7</sup> IPART, *Review of prices for the Water Administration Ministerial Corporation from 1 July 2016— Final Report*, June 2016.

<sup>8</sup> IPART, *Bulk water prices for 1998/99 & 1999/00*, July 1998.

<sup>9</sup> IPART, *WaterNSW - Review of prices for rural bulk water services from 1 July 2017 to 30 June 2021 – Final Report*, June 2017, p 97.

<sup>10</sup> IPART, *Review of Rural Water Charging Systems – Final Report*, August 2012, p 8.

<sup>11</sup> For example, implementing the proposed 'service-based' approach to cost sharing requires detailed information on services, assets, costs as well as potential changes to information and billing collection systems and policy and regulatory changes.

<sup>12</sup> Aither, *A review of MDBA expenditure and cost sharing in New South Wales*, February 2017, p VI.

The review is not intended to address issues related to evaluating the appropriate level of any NSW Government Community Service Obligation (CSO) to manage customer impacts and customer affordability. While this can be an element of IPART's approach to setting maximum prices for rural bulk water monopoly services, this is outside the scope of this review.

### **1.3 What are the objectives of our cost sharing framework?**

In conducting this review of our cost sharing framework, our objectives are that our cost sharing framework should be transparent, cost-reflective and practical.

#### **Transparent**

We aim to ensure that the cost sharing framework is transparent, in regard to both the cost of providing specific services and the share of costs between customers and the NSW Government. This includes the quantum and basis on which the Government is providing funding to WaterNSW and WAMC.

#### **Cost-reflective**

We aim to ensure that the cost sharing framework reflects the efficient costs of the services. This promotes efficient bulk water use and investment decisions by bulk water suppliers and customers.

#### **Practical**

We aim to ensure that the cost sharing framework can be applied practically. A practical framework should be easy to understand and, at application, not impose overly onerous administrative burden on either IPART or the regulated business.

Additionally, it should reflect the operations of the business, so that it can be applied consistently over time, and be flexible enough to efficiently and effectively respond to changes in the business or water sector.

### **1.4 How will we conduct the review?**

In conducting this review, we propose to conduct public and targeted stakeholder consultation as well as research and analysis. This Issues Paper is the first step in our review process. It sets out the key issues for the review, and seeks comments from stakeholders.

We will continue to consult with stakeholders throughout the review and propose to:

- ▼ release a Draft Report that explains our draft decisions and invites stakeholder submissions on our proposed approach
- ▼ hold workshops where stakeholders can provide further evidence and feedback on any aspects of the proposed framework, and
- ▼ consider all stakeholder feedback on the Draft Report and undertake further analysis before making our final decisions.

As part of the review process, we will ask a consultant to review how the costs of rural water services are shared between customers and the NSW Government. The consultant will:

- ▼ review and identify potential improvements to our activity-based cost sharing framework, and
- ▼ seek to design and allocate cost shares using the alternative service-based cost sharing framework.

The findings of the consultant’s review will be published on IPART’s website and inform our Draft Report.

We invite interested parties to make written submissions in response to this paper by **5 June 2018**.

Information on how to make a submission can be found on page iii at the front of this paper.

**Table 1.1 Timetable for the review of our approach to rural cost shares**

<b>Milestone</b>	<b>Timeframe</b>
Release Issues Paper	24 April 2018
Submissions due on the Issues Paper	5 June 2018
Release Draft Report	16 October 2018
Stakeholder workshops	October and November 2018
Submissions due on the Draft Report	27 November 2018
Release Final Report	Early February 2019

## **1.5 When will changes in the cost share framework take effect?**

We intend to refer to the outcomes of this review when making decisions on cost shares at the next WAMC and WaterNSW price reviews in 2019-20 and 2020-21, respectively. Consistent with our preferred ‘propose-respond’ model,<sup>13</sup> we will invite WaterNSW and WAMC to provide pricing submissions to these reviews. These submissions should provide stakeholders with a clear understanding of each agency’s pricing proposal—including the approach to cost sharing—as well as providing us with sufficient information to analyse and review these proposals.

This Issues Paper is structured as follows:

- ▼ Chapter 2 outlines our cost sharing principles.
- ▼ Chapter 3 outlines the current activity-based cost sharing framework.
- ▼ Chapter 4 details the proposed service-based cost sharing framework.
- ▼ Chapter 5 outlines some of the key information we will require to undertake this review.

The following chapters include questions that we seek stakeholder feedback on. For convenience, these questions are also listed below. Stakeholders are also welcome to comment or provide input on any other issues they consider relevant to our review.

<sup>13</sup> IPART, *Guidelines for Water Agency Pricing Submissions—Guidelines*, December 2015, p 2.



## 1.6 List of issues for stakeholder comment

### Our cost sharing principles

- 1 Do you agree that WaterNSW and WAMC's costs should be allocated between water customers and the Government (on behalf of the broader community) using the impactor pays principle – ie, those that create the need for the cost to be incurred should pay the cost? 11
- 2 Do you agree that the NSW Government's share of WaterNSW and WAMC's regulated costs should be limited to where: 14
  - there are genuine legacy costs (ie, costs that are unavoidable regardless of the ongoing provision of services to current and future customers), and/or 14
  - it is not practical or cost-effective to recover costs from other users (ie, impactors other than water customers subject to regulated prices)? 14

### Our current cost sharing framework

- 3 Do you agree with the current cost share ratios (listed in Appendix C)? Should the list of activities and/or cost share ratios be amended? If so, how and why? 15
- 4 Do you agree with the issues identified with the current cost sharing framework? 17
- 5 Are there any other issues with the current cost sharing framework that should be considered in this review? 17
- 6 Do you agree with our proposed approach to reviewing the current cost sharing framework? 18

### Service-based cost sharing framework

- 7 What are the potential challenges and barriers to moving to a service-based approach? 25
- 8 Are the benefits of moving to a service-based approach likely to exceed the costs? 25
- 9 Would there be merit in transitioning to the service-based approach over time? 25
- 10 Are there alternative cost sharing frameworks that could better achieve our objectives or could achieve them at a lower cost? If so, how would they operate? 25

### Key information requirements

- 11 Is there any other information we should consider in our review and assessment of the current activity-based cost sharing framework? 26
- 12 Is there any other information we should consider in our review and assessment of the proposed service-based cost sharing framework? 27

## 2 Our cost sharing principles

Our view is that charges for monopoly services should reflect the full efficient costs of providing these services. This principle of ‘full cost recovery’ is consistent with the service provider recovering their efficient costs and provides price signals that encourage the efficient use of, and investment in, these services.

That said, there is often a case to share the capital and operating costs of assets used to deliver monopoly bulk water services between water customers and other segments of the community (or the Government on behalf of the broader community). This may be the case where such assets provide other services, in addition to monopoly bulk water services – for example, flood management or recreation services to the broader community.

To determine the price of rural bulk water services, we determine the share of WaterNSW’s or WAMC’s efficient costs that should be paid for by water customers, and the share that should be paid for by Government on behalf of other users and the broader community.

If WaterNSW and WAMC can earn unregulated revenue from their regulated assets (eg, revenue from recreational users of WaterNSW’s dams), we may also deduct a share of this revenue from their regulated cost bases. This would mean those parties contributing the unregulated revenue (eg, recreational users) would effectively pay a share of the regulated costs which, all other things being equal, would reduce regulated prices to water customers. Our practice has been to deduct a share of unregulated income (50 per cent) from the regulated cost base, to provide the water business with a financial incentive to pursue unregulated revenue (as it keeps a share of this revenue), while ensuring that a share of the benefits of this revenue flows on to customers through lower regulated prices.<sup>14</sup>

This chapter outlines why and, in general terms, how we apply the impactor pays principle to establish the share of efficient costs that should be paid by water customers. We explain:

- ▼ why we favour an impactor pays approach, and
- ▼ how we can use this approach to determine the shares of WaterNSW and WAMC’s costs to be recovered from water customers (via regulated water prices) versus the Government, on behalf of the broader community.

### 2.1 We share costs based on the impactor pays principle

Prices for water services should reflect the full efficient costs of providing these services to customers. This promotes the efficient use and allocation of resources, to the benefit of society. Setting prices above or below cost-reflective levels can encourage poor investment

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<sup>14</sup> For example, in the 2008 Sydney Water price review, we deducted 50 per cent of the rental income Sydney Water receives from renting its regulated assets (such as reservoirs, to telecommunication carriers) from the regulated cost base, and we have maintained this approach at each subsequent price review. (IPART, *Review of prices for Sydney Water Corporation from 1 July 2016 to 30 June 2020 – Final Report*, June 2016, p 77).

decisions by the provider of the service. It can also promote sub-optimal consumption decisions, as customers do not face the true costs of the service.

We consider that using the impactor pays principle to determine water customers' share of WaterNSW's and WAMC's costs is consistent with cost-reflective pricing.

### 2.1.1 The impactor pays principle

Under the impactor pays principle, costs are allocated **to those who create the need to incur the cost**. Water customers face the costs of the services they receive, including costs WaterNSW and WAMC incur to comply with environmental and other regulatory requirements in delivering those services. For example, if a dam is required solely to deliver bulk water to entitlement holders, and that dam triggers a regulatory requirement for WaterNSW to construct and operate fish ladders, then (under the impactor pays principle), water customers should pay for the prudent and efficient cost of WaterNSW complying with this environmental requirement.

Allocating costs in this way can promote economically efficient outcomes over time, because the impactor would only choose to consume the service if the benefit they receive exceeds the costs that arise from providing the service. That said, if a service has high fixed costs and these fixed costs need to be allocated across a relatively large customer base, an individual customer has limited ability to influence the overall cost of providing the service and the arguments in favour of efficient price signals are not as compelling at least in the short-run. However, in the long-run, all costs are variable and there is a strong case to support the use of efficient price signals.

### 2.1.2 The beneficiary pays principle

In contrast, the sharing of costs could be based on the **beneficiary pays principle**. Under this principle, the costs of a service or activity would be allocated **to those who benefit from the service or activity**. Water customers would pay for the direct costs of water supply, but would only pay environmental mitigation or remediation costs associated with water supply to the extent they benefit from these activities. This would likely mean that environmental remediation or mitigation work, such as that associated with the fish passage example outlined above, would be paid for by the general community (through the Government) - even though it may be required to deliver water to customers.

### 2.1.3 We prefer the impactor pays principle to set bulk water prices

Box 2.1 provides an example of how the two principles differ in their application, and supports our view that the impactor pays principle is more appropriate than the beneficiary pays principle for allocating the costs of rural bulk water services. We prefer the impactor pays principle as:

- ▼ It is more efficient for costs to be allocated to those who create the need to incur these costs. Doing so ensures that the benefits customers receive from the service exceed the costs of providing the service.

- 
- ▼ We consider it is more equitable for costs, such as the costs of complying with environmental regulatory requirements, to be allocated to those who create the need to incur the cost.
  - ▼ In many cases, it is more transparent to allocate costs to impactors – who are typically water users – than beneficiaries. For example, it may be difficult to attribute the benefit of protecting species diversity in a river system to a specific segment of society.

In section 2.2, we discuss how we apply the impactor pays principle if a service or activity serves multiple purposes, to ensure that the share of costs paid by water customers through prices is efficient.

### Box 2.1 The impactor pays and beneficiary pays principles

This box presents an illustrative example of the application of the impactor pays and beneficiary pays principles.

#### Applying the impactor pays and beneficiary pays principles

In this example, a local council is a High Security entitlement holder on a regulated river and a dam is built to supply water to the local council who in turn supplies water to the businesses and households in the local council area. The dam creates two costs:

1. The costs of building and maintaining the dam to supply water.
2. The costs of environmental management activities, which are prescribed in regulation to limit the dam's impact on the environment (ie, to address negative externalities resulting from building the dam).

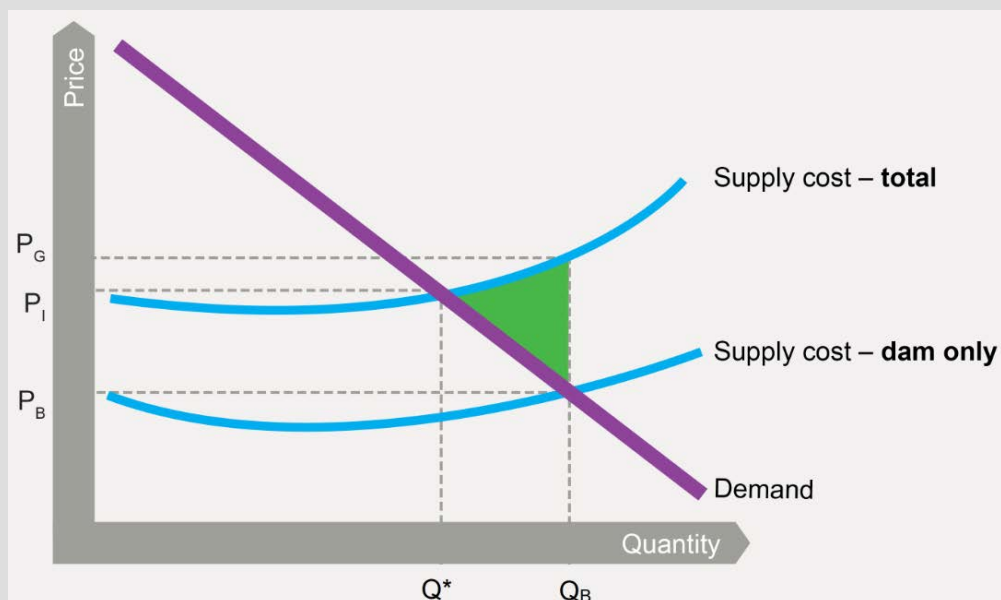
In this example:

- ▼ Under the impactor pays principle, the local council would pay for both costs.
- ▼ Under the beneficiary pays principle, the local council would pay for the cost of building and maintaining the dam, while the Government would fund the cost of environmental activities.

#### Why we prefer the impactor pays principle

This is shown in Figure 2.1. The demand from the local council for water services is shown by the downward sloping demand curve (purple line). The cost of building, maintaining and operating the dam is shown by the 'supply cost – dam only' curve. The total cost of building, maintaining and operating the dam and managing the environmental costs resulting from the dam is shown by the 'supply cost – total' curve.

Figure 2.1 The supply of water services under impactor and beneficiary pays



The efficient level of water services supplied to the local council is given by the level  $Q^*$ , where the demand for an additional unit of water services is equal to the cost of supply. This is the quantity of water services supplied under the impactor pays principle, where users would pay for both costs (at price  $P_1$ ).

Under the beneficiary pays principle, users would consume a higher quantity of water services ( $Q_B$  in this example) because the price of water services would be lower ( $P_B$ ). The Government would pay the difference between the total cost of supplying water services ( $P_G$ ) and the price users pay ( $P_B$ ). This would be inefficient for society, because the demand for an additional unit of water services is lower than the cost of supply, and the welfare loss for society is shown by the green shaded triangle.

This example highlights a key advantage of the impactor pays principle over the beneficiary pays principle. While the costs of protecting the environment have a benefit to the broader community, these costs only need to be incurred due to the demand of the local council area for water from the dam. If we do not charge the party that caused the need for the cost to be incurred, we would promote the inefficient use of and investment in the service, for example, by leading to excessive consumption of water services above the economically efficient level.

One argument provided in support of applying the beneficiary pays principle is that it provides a better incentive to the Government to ensure the costs of environmental management activities do not exceed their benefits. That is, in deciding the level of environmental regulation, the Government will have a stronger incentive to weigh up the costs and benefits of these activities if it is funding these costs. However, this outcome is still inefficient for society to the extent customers do not face the full costs of supplying water services to them.

#### **Applying the impactor pays principle when there are multiple impactors**

In the event that the dam is designed and built to deliver services/outcomes that go above and beyond supplying water services to the local council (and managing the environmental impact of providing these water services), there can be a case to share costs between multiple impactors. For example, if the dam is designed and built to deliver flood mitigation, improved environmental outcomes (above those prevailing before the dam was built), and new recreational opportunities in addition to its core water services:

- ▼ The local council is an impactor and should pay the share of efficient costs incurred as a result of providing the water service to the council, and
- ▼ The broader community (ie, Government) is an impactor and should pay the share of efficient costs incurred as a result of providing flood mitigation services, improved environmental outcomes, and new recreational opportunities.

#### **2.1.4 Our approach is consistent with IPART's funding hierarchy**

Our preference for the impactor pays principle is consistent with our approach across a range of services, where we have generally adopted or promoted the following funding hierarchy:

1. Preferably, the party that created the need to incur the cost (the impactor) should pay in the first instance.
2. If that is not possible, the party that benefits (the beneficiary) should pay. Further, it is preferable for direct beneficiaries to pay, but if that is not possible then indirect beneficiaries should pay. In some cases, the impactor and the beneficiary are the same.

3. In cases where it is not feasible to charge either impactors or beneficiaries (for example, because of social welfare policy, public goods, externalities, or an administrative or legislative impracticality of charging), the government (taxpayers) should pay.

For example, we recommended the adoption of this funding hierarchy in our review of the funding framework for Local Land Services in NSW.<sup>15</sup>

#### IPART seeks comments on the following

- 1 Do you agree that WaterNSW and WAMC's costs should be allocated between water customers and the Government (on behalf of the broader community) using the impactor pays principle – ie, those that create the need for the cost to be incurred should pay the cost?

## 2.2 Considerations in applying the impactor pays principle to share costs

Under the impactor pays principle, the party that creates the need to incur the cost should pay the cost. Therefore, if water customers create the need to incur a share of the cost of an activity or asset (ranging from 0% to 100%), then they should pay this cost.

Water customers should only pay for the share of forward-looking costs that are required to service their water use. In other words, they should not pay if:

- ▼ There are unavoidable legacy costs. That is, costs resulting from previous decisions which are unrelated to the efficient forward-looking cost of providing services to customers.
- ▼ Costs are created by other impactors. If it is not possible to directly charge these other impactors, or these costs are incurred to deliver benefits to the broader community, these costs should be funded by Government.

Below we discuss how we consider costs should be shared in these two cases.

### 2.2.1 Unavoidable legacy costs

There is an argument for the Government to contribute to the costs of activities that would continue to be required even if there was no demand for the regulated service. These activities may be required regardless of any current or future users requiring the regulated service (eg, costs of remediating past environmental damage). Costs associated with these activities are called legacy costs and should not form part of the forward-looking, efficient cost of providing the service to water customers. This is because the inclusion of these costs in determining customer charges does not provide accurate price signals to current and future customers, nor is there any economic efficiency rationale for the cost inclusion (ie, it is not related to the benefit or cost of providing the service to the customer).

Legacy costs are discussed further in Chapter 4.

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<sup>15</sup> For further information, see IPART, *Review of funding framework for Local Land Services NSW – Draft Report*, 2013.

## 2.2.2 Costs created by other users

There may be a number of other users that contribute to WaterNSW's and WAMC's costs. For example, these may include recreational users and those with basic landholder rights. Water customers should not pay for the costs that are due to other users.

Some of WaterNSW's activities may also provide a broader benefit to society. For example, as well as delivering bulk water to customers, WaterNSW's water storage and supply assets can in some cases provide flood mitigation and recreational benefits to surrounding communities. To the extent that costs are incurred to provide broader social benefits, recovering all the costs from water users may result in over-charging (relative to the efficient cost of providing the service) and under-provision (relative to the efficient level of demand and supply) of water storage and supply services. That is, water customers should not be required to pay any additional or incremental costs of delivering benefits to other users (eg, recreational users). A Government contribution may therefore be necessary to ensure the efficient provision of water storage and delivery services.

In Box 2.3, we provide more detail on how we can apply the impactor pays principle where there are users (or impactors) other than billed water customers.



### Box 2.3 How do we apply the impactor pays principle where there are other uses?

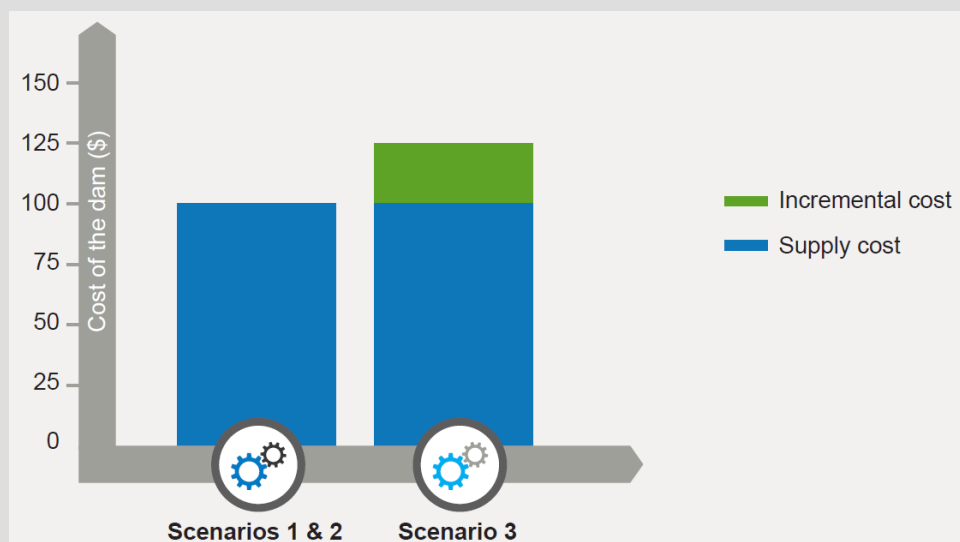
Consider the example in Box 2.1 where a dam has been built to serve a local council area.

Assume that the costs of building, maintaining and operating a dam to supply a local council, including complying with environmental regulatory requirements, are \$100. Under the impactor pays principle, the local council would pay \$100 for water supplied from the dam.

However, in this example, the dam can also be used for recreation activities, such as fishing, boating, and camping. In Figure 2.1 we consider three scenarios:

1. The dam is only used to supply water to the local council area (ie, there are no recreational uses). The costs of the dam are \$100, and this is shown on the left column.
2. The dam is also used for recreational activities, but these additional activities generate no additional costs (this scenario is also shown on the left column).
3. The dam is also used for additional recreational activities involving an additional cost of \$25 (for example, because an additional car park, boat ramp and buildings are needed for recreational users). This is shown by the incremental cost in the right column.

Figure 2.1 Considering costs under the impactor pays principle



In the first scenario, we would recover the full cost of supplying water (\$100) from the local council. We consider this approach is efficient because the local council has caused the need for the dam to be built, as well as the need to conduct environmental management, and in this example, there are no other uses for the dam.

In the second scenario, we would also recover the full cost of supplying water (\$100) from the local council, even though the dam is used for recreational purposes. We also think this is efficient because the recreational users of the dam do not impact the overall cost of building, maintaining and operating the dam.

In the third scenario, the council would pay \$100 to reflect the cost of their activities, while the government would pay \$25, to reflect the cost incurred as a result of recreational use of the dam.

There are two ways to achieve this result:

- ▼ If we are able to disaggregate recreational costs from other costs of building, maintaining and operating the dam, these would be excluded from our estimates of the costs of providing their regulated monopoly water services. The local council's share of costs would be 100% of the cost attributable to providing monopoly water services. That is, we would exclude the \$25 attributable to recreational use and the local council would pay 100% of the \$100 attributable to providing monopoly water services.
- ▼ If we are not able to disaggregate and exclude recreational costs, we would apply our cost sharing framework to estimate the share of costs that should be paid by the two impactors. In this case, we would apply an 80:20 cost share to the total cost of \$125 with the local council paying \$100 (80% of \$125).

Although other impactors may impose costs on the businesses for providing services, it may not always be efficient or cost effective to:

- ▼ identify these impactors
- ▼ identify the proportion of forward-looking costs that current and future impactors may contribute to the costs of providing the services, and/or
- ▼ levy a charge on these other impactors. Examples where this might occur include commercial billing barriers and where levying the charge is inconsistent with current regulation or policy objectives.

If we are not able to disaggregate the businesses costs by impactor and exclude those costs attributable to impactors other than water customers, we may need to form a judgement about how much of the businesses' overall costs (by activity or service) are attributable to other impactors and assign this share of costs to the Government.

We note that cost drivers for businesses change over time. The share of the forward-looking costs paid by water customers and the Government should change as the share of costs attributable to each impactor changes.

#### IPART seeks comments on the following

- 2 Do you agree that the NSW Government's share of WaterNSW and WAMC's regulated costs should be limited to where:
  - there are genuine legacy costs (ie, costs that are unavoidable regardless of the ongoing provision of services to current and future customers), and/or
  - it is not practical or cost-effective to recover costs from other users (ie, impactors other than water customers subject to regulated prices)?

## 3 Our current cost sharing framework

The cost sharing framework sets out how we apply cost sharing principles in practice. This chapter outlines our current cost sharing framework, identifies a number of issues with the current framework, and sets out how we intend to review the framework and identify opportunities for improvement.

### 3.1 The current cost sharing framework allocates cost shares by activity

IPART's current cost sharing framework allocates efficient costs (by activity) between customers and the NSW Government (on behalf of the broader community) using the impactor pays principle (ie, where practical, the party that creates the need to incur the cost should pay the cost).

The current cost sharing framework involves:

- ▼ Grouping forecast efficient operating and capital costs into a comprehensive set of operating and capital expenditure activities:
  - WaterNSW's expenditure is currently grouped into 17 operating and 18 capital expenditure activities.
  - WAMC's expenditure is currently grouped into 34 operating and 34 capital expenditure activities.
- ▼ Setting cost share ratios for each activity based on the application of our cost sharing principles. These cost shares range from 100% customer and 0% Government for some activities, to 0% customer and 100% Government for other activities.
- ▼ During the price review, these cost share ratios are applied to forecast expenditure by activity for each year of the next determination period. Cost share ratios apply uniformly across all valleys in our pricing determinations. These cost shares are then aggregated to arrive at total customer and Government shares of efficient operating and capital expenditure.
- ▼ The customer cost shares are used to set regulated prices for the monopoly services. The Government cost shares are effectively used to inform the level of subsidy provided to the businesses.

This framework was established in 2001, and was designed to send signals to customers about the costs of providing services to them. A summary of the development of IPART's current cost sharing framework is provided at Appendix B.

WaterNSW's and WAMC's current cost shares by activity are listed in Appendix C.

[IPART seeks comments on the following](#)

- 3 Do you agree with the current cost share ratios (listed in Appendix C)? Should the list of activities and/or cost share ratios be amended? If so, how and why?

## 3.2 There are opportunities to improve the cost sharing framework

As part of our 2016-17 WaterNSW price review, we engaged Frontier Economics to review our current cost sharing framework and its application to WaterNSW.<sup>16</sup> Frontier Economics supported IPART's cost allocation principles.<sup>17</sup> However, its investigation found that there are elements of how IPART has applied these principles that may limit the effectiveness of the framework and its ability to meet IPART's objectives. This could result in regulated prices that do not accurately reflect the costs of providing services to current and future users of these services.

The following examples illustrate the types of issues that Frontier Economics identified with the current cost sharing framework:<sup>18</sup>

- ▼ **Shared or common costs** – 100 percent of these costs are currently allocated to water customers, even though there may be other users or impactors.
- ▼ **Dam safety compliance costs**
  - The current allocation of 0 per cent of dam safety compliance costs (pre-1997) to water customers is likely to be overstating the true legacy costs and understating the forward-looking nature of these costs. That is, expenditure relating to dam safety compliance (pre-1997) may be required to continue to provide services to current and future water customers.
  - The current allocation of 50 per cent of dam safety compliance costs (post-1997) is likely to understate the contribution water customers make towards the need for WaterNSW to incur these costs. However, the need to incur this expenditure may not be driven entirely by water customers. For example, some of the associated expenditure may be incurred for flood mitigation services to the broader community.
- ▼ **Work, Health and Safety (WH&S) system compliance costs** – while 50 per cent of the costs are currently allocated to water customers (and 50 per cent to the Government, on behalf of the broader community), water users (both customers and unbilled users) rather than the broader community may be the primary drivers of the need to undertake these activities. Given the Government regularly imposes regulatory or legislative obligations (on behalf of the community) that impact the costs of service provision, these can represent a legitimate cost of business that in most competitive markets is recovered from users of services. Therefore, it could be argued these costs are driven by the need to continue to provide bulk water services.
- ▼ **Environmental Planning & Protection** – while 50 per cent of the costs are currently allocated to customers (and the other 50 per cent to the Government, on behalf of the broader community), water users (both customers and unbilled users), rather than the broader community, may drive the need to undertake the majority of these activities. While water users may not consider that they receive the benefit of these environmental services, it could be argued that they create the need for the majority of these costs to be incurred. That is, if the need to provide an environmental service results from the delivery of a service to a water user, it could be argued that the water user is the impactor of that environmental service and should pay for that cost.

<sup>16</sup> Frontier Economics, *Review of WaterNSW Cost Shares*, December 2016.

<sup>17</sup> Frontier Economics, *Review of WaterNSW Cost Shares*, Chapter 5, December 2016.

<sup>18</sup> Frontier Economics, *Review of WaterNSW Cost Shares*, December 2016, pp 53-55.

Frontier Economics noted that IPART's approach to cost sharing has raised concerns with stakeholders as to whether:

- ▼ The appropriate impactors causing the costs to be incurred have been consistently identified over time, particularly as the nature of bulk water services have changed.
- ▼ The prices levied on customers are 'fair and equitable' and consistent with the costs they create in bulk water use.

Frontier Economics noted that a divergence in stakeholder views could be the result of:<sup>19</sup>

- ▼ Different interpretations of the rationale for cost sharing and the appropriate principles to guide its practical application.<sup>20</sup>
- ▼ Changes to the services provided by the water businesses and their operating environments (reflecting evolving government obligations and community expectations, as well as organisational structure), and changes in the types of users of these services and the nature of their use.
- ▼ Changes to the mix of expenditure in providing these services which results in changes in the proportion of costs borne by customers (ie, billed customers such as extractive users) who pay monopoly service charges.

IPART seeks comments on the following

- 4 Do you agree with the issues identified with the current cost sharing framework?
- 5 Are there any other issues with the current cost sharing framework that should be considered in this review?

### 3.3 We are reviewing our cost sharing framework

Given the issues identified above, the length of time since we reviewed our cost shares, and that we are not currently undertaking price reviews for WaterNSW's rural bulk water services and WAMC's water management services, we consider it is now timely to review the cost sharing framework.

We will consider how we can improve the cost sharing framework to better support the application of our cost sharing principles and better meet our cost sharing objectives (ie, transparent, cost-reflective and practical). We propose to:

- ▼ review the current list of activities (cost codes) and amend these as necessary
- ▼ review and where necessary update the current cost share ratios for the activities, and
- ▼ consider potential alternative cost sharing frameworks, such as the service-based approach outlined in the next chapter.

We seek stakeholder feedback on areas where the cost sharing framework may be improved to be more transparent, cost-reflective and practical.

<sup>19</sup> Frontier Economics, *Review of WaterNSW Cost Shares*, December 2016, pp 7-8.

<sup>20</sup> See Toonumbar Water Users Group submission to IPART Issues Paper, October 2016; Lachlan Valley Water submission to IPART Issues Paper, October 2016; The Macquarie River Food and Fibre submission to IPART Issues Paper, October 2016.

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IPART seeks comments on the following

- 6 Do you agree with our proposed approach to reviewing the current cost sharing framework?

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## 4 Service-based cost sharing framework

While we are committed to reviewing our current cost sharing framework, we will also consider whether there is merit in moving to an alternative framework (ie, whether the benefits of moving to an alternative framework are likely to exceed the costs).

In this chapter we discuss whether applying our cost sharing principles within an alternative **service-based** framework could better meet our cost sharing objectives and facilitate more direct application of our cost sharing principle (ie, those that create the need for costs to be incurred should pay for those costs). The service-based approach outlined in this chapter was developed and suggested by Frontier Economics in its 2016 review of cost shares as part of our 2017 WaterNSW price review.<sup>21</sup>

This chapter outlines the proposed service-based approach to sharing WaterNSW's and WAMC's costs, including the rationale, potential steps involved, and consideration of the costs that might be associated with moving to this approach.

### 4.1 Why should we consider moving to a service-based approach?

Compared to an activity-based approach, a service-based approach involves defining and applying cost share ratios to *services* rather than *activities*. This key difference, which will require a change in how costs are allocated (ie, to services rather than activities), has the potential to facilitate a more transparent and cost-reflective sharing of costs between water customers and the Government.

A service-based approach is likely to be more amenable to the application of the impactor pays approach because the process of identifying and defining services will help identify the impactor/s of those services. While a service-based approach would improve our ability to identify impactors and attribute costs of services to impactors, we note that it would also introduce additional complexity in terms of how costs are allocated to services.

Examples of potential services that could be delivered by a dam are shown in Figure 4.1.

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<sup>21</sup> Frontier Economics, *Review of WaterNSW Cost Shares*, December 2016.

**Figure 4.1** Example of services that could be provided by a dam



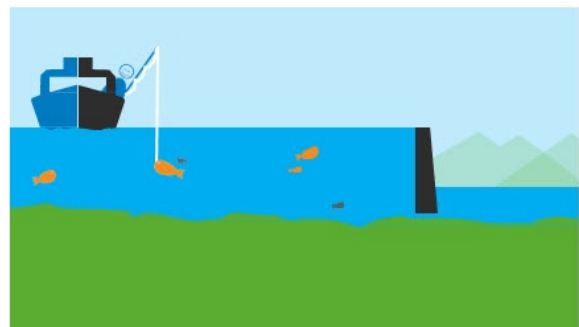
Provides irrigators with more reliable access to water.



Reduces flood risk, benefitting the community downstream.



Provides environmental flows to the surrounding ecosystem.



Provides recreational opportunities, benefitting the community.

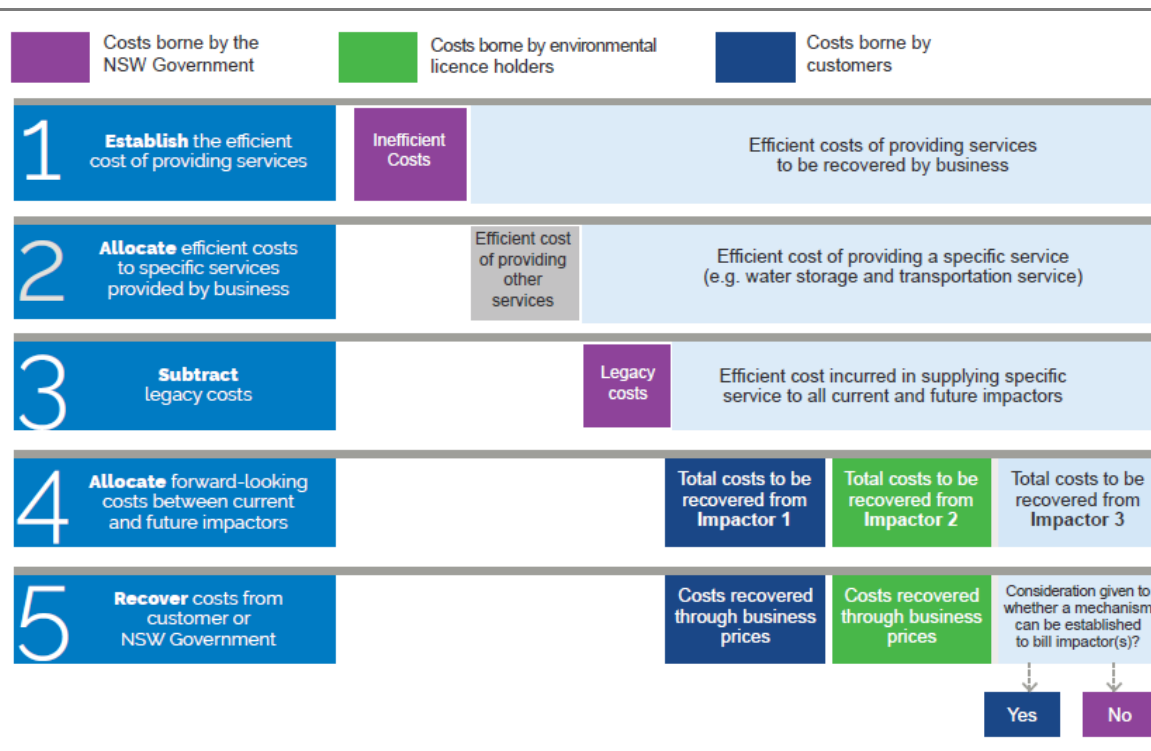
Source: IPART.

## 4.2 What might a service-based cost sharing framework look like?

The proposed service-based cost sharing framework involves five key steps, as illustrated in Figure 4.2 below. Importantly, if we moved to a service-based approach, our initial position is that the framework would only apply to forward looking costs, and would not reallocate historical costs. This is consistent with our current activity-based approach, which applies to forward looking operating and capital expenditure.



**Figure 4.2 Proposed service-based cost sharing framework**



**Note:** When we refer to ‘business’ we are referring to service providers, that being WaterNSW and WAMC.

**Source:** Adapted from Frontier Economics, *Review of WaterNSW cost shares*, December 2016, p 36.

### Step 1: Establish the efficient costs of providing WaterNSW/WAMC services

We already undertake Step 1 as part of our price review process. We use a building block approach, which calculates a revenue requirement based on the prudent and efficient cost of providing regulated services. As part of this process, we engage specialist consultants to provide advice on the efficient operating and capital costs required over the regulatory period.<sup>22</sup>

### Step 2: Allocate efficient costs to specific services provided by WaterNSW/WAMC

Once services have been identified and clearly defined, costs attributable to the service may relate in full to a single service (a direct cost of the service) or need to be apportioned between a number of services (a shared or common cost over a number of services). It is important that all of the business’ services are identified through this process to ensure that all of its efficient costs can be allocated to these services.

Once services are identified and defined, the cost allocation process will involve:

- ▼ Allocating any direct costs of providing the specific service to that service.

<sup>22</sup> IPART, *WaterNSW Review of prices for rural bulk water services from 1 July 2017 to 30 June 2021*, Chapter 4, February 2018.

- ▼ Allocating any shared costs between multiple services using a causal allocator where possible, consistent with the ACCC's pricing principles<sup>23</sup> for cost allocation. This is likely to vary depending on the nature of the shared costs and ensures the same cost is not allocated more than once.

The aggregate cost allocated to a service should be between the stand-alone cost (upper bound) and avoidable cost (lower bound) of providing the service. The *stand-alone* cost is the cost of providing the service assuming no other services, infrastructure and activities are in place and reflects the cost of all infrastructure and activities required to provide the service on a stand-alone basis (ie, does not take into account shared costs). The *avoidable cost* takes into account the other services, infrastructure and activities that are in place and reflects how much of the businesses total it costs could avoid if it no longer provided the service in question (ie, does take into account shared costs).

We have taken a preliminary view on the services provided by WaterNSW to illustrate how a service-based framework could be applied. This is shown in Table 4.1.

Broadly speaking, the services currently provided by WAMC are surface and groundwater management services. In considering the implementation of this alternative service-based framework, we will seek to further delineate and clearly define WAMC's services.

**Table 4.1 Preliminary view of WaterNSW's services for cost sharing purposes**

WaterNSW's services	Detail on each service
<b>Core or routine services</b>	
Water storage services	These include the storage of water held by entitlement holders (including environmental water managers).
Water transportation services	These include the delivery of water to licensed water users (including consumptive entitlement holders, environmental water managers, and other parties such as stock and domestic users).
Environmental services	These include releases of environmental flows in accordance with statutory obligations and operation and maintenance of environmental gauging stations.
Metering and retail customer services	These include administration services, customer support, customer billing and compliance and maintaining and reading water meters for extractive customers and non-extractive customers.
Information services	These include providing information on surface and groundwater quantity and quality.
<b>Miscellaneous services or non-routine services</b>	
Non-routine services	These include costs associated with providing non-routine services, such as Fish River connections/disconnections.
Trade processing	This includes the cost of processing trading in entitlements.
Flood management and mitigation services	These include costs associated with managing the potential impacts of flooding.

<sup>23</sup> ACCC, *Pricing principles for price approvals and determinations under the Water Charge (Infrastructure) Rules 2010*, Chapter 3, February 2018.

**WaterNSW's services**

**Detail on each service**

Recreational services

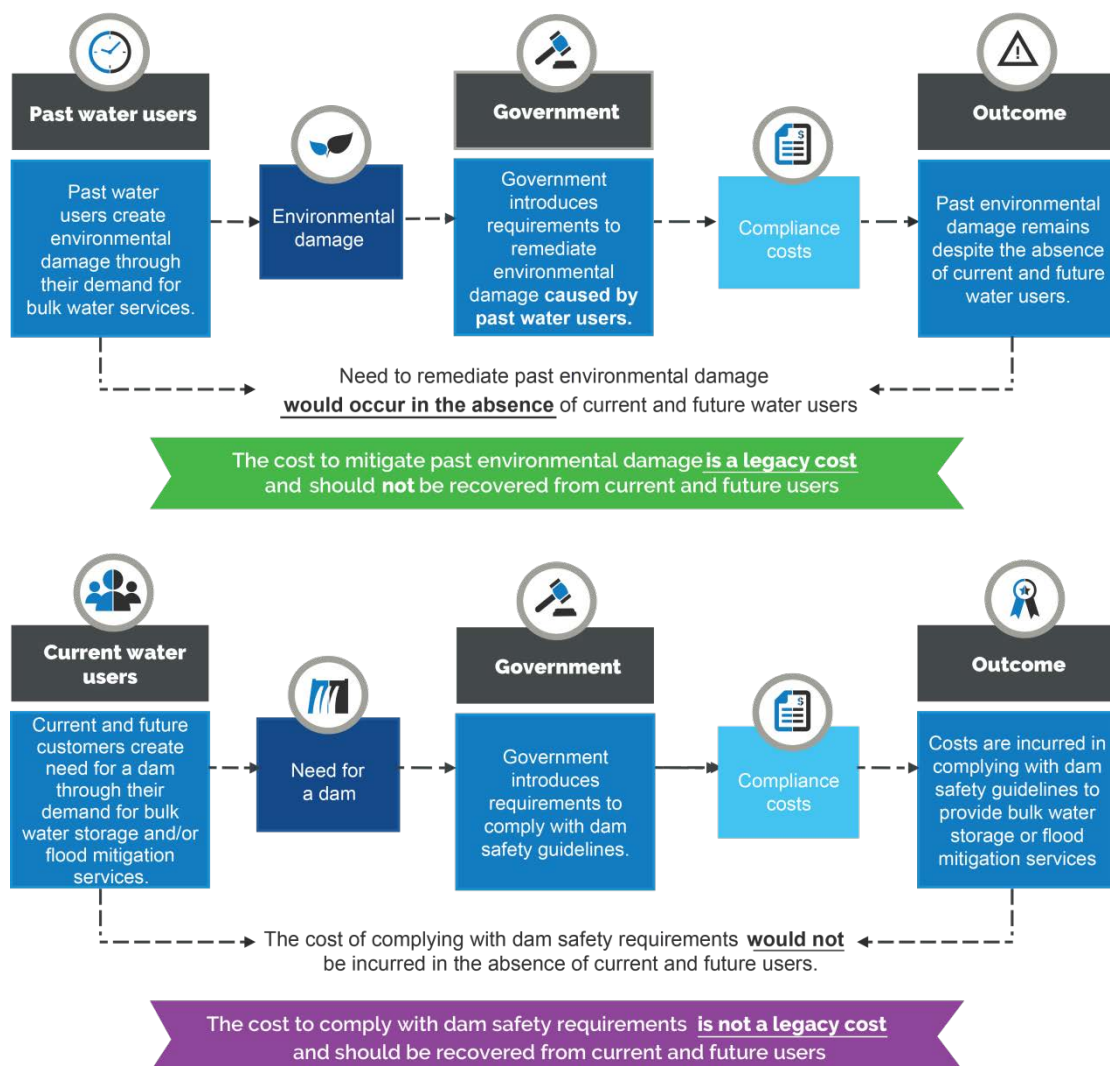
This includes costs associated with providing recreational opportunities on waterways for water sports and recreational fishing.

Source: Frontier Economics, *Review of WaterNSW Cost Shares*, December 2016, pp41-42; IPART analysis.

**Step 3: Subtract legacy costs to determine the efficient cost of providing services to current and future impactors**

Legacy costs or unavoidable costs should be recovered from Government, not from customers. These costs are caused by past users and are therefore not attributable to current and future users of the regulated service (eg, the costs associated with remediating past environmental damage). An illustrative example of the steps to determining legacy costs is shown in Figure 4.3 below.

**Figure 4.3 Illustrative example for defining legacy costs**



Data source: IPART analysis.

#### **Step 4: Allocate efficient forward-looking costs of each service to impactors**

Allocating efficient forward-looking costs involves identifying and allocating the costs of each service to the impactor or impactors that create the need to incur the cost (excluding any legacy costs) of providing the service. This requires:

- ▼ Identifying the current and future impactors that create the need for the specific services provided by the business.
- ▼ Developing a method to allocate the cost of each service that is consistent with the impactor pays principle. This will involve identifying the most appropriate metric or metrics for allocating costs that need to be shared between impactors.<sup>24</sup>
- ▼ Allocating the cost of each service (excluding any legacy cost) to the identified impactors.

#### **Step 5: Recover costs from impactors and the NSW Government**

Once costs are allocated between impactors, the final step is to recover costs. Where the impactor is the customer, costs can be recovered through regulated charges. Where the impactor is not the customer, costs can either be recovered directly from other impactors or, if this is not possible, practical or efficient, passed onto the NSW Government.<sup>25</sup> This could be due to difficulties in:

- ▼ Identifying the specific impactor. For example, the service could provide a general benefit to the whole, or a portion, of society.
- ▼ Estimating the proportion of costs that should be attributed to current and future impactors.
- ▼ Levying charges on the identified impactor (due to commercial billing barriers, regulatory barriers, or inconsistency with policy objectives).

### **4.3 What are the costs of moving to a service-based approach?**

We recognise that while moving to a service-based approach would result in a more straightforward cost sharing framework, it would require WaterNSW and WAMC to reallocate their costs from activities to services. This may be a challenging exercise due to the existence of costs that are shared across services.

WaterNSW's and WAMC's systems and processes have been set up to capture and assess costs based on activities. Data available in this format and at this level of granularity may not currently be captured or reported by WaterNSW's and WAMC's finance systems. Costs defined as shared or common costs would require more detailed data so that they can be appropriately proportioned between different services. This would likely incur short-term

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<sup>24</sup> ACCC, *Pricing principles for price approvals and determination under the Water Charge (Infrastructure) Rules 2010, 2011*, p 50.

<sup>25</sup> This should be reviewed over time, as it may become efficient and cost effective to charge the impactor or impactors as the nature of services change, the method of service delivery changes, legislation changes and/or innovation occurs.

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administrative and system-related costs to the businesses if their current data collection and collation processes need to be updated to accommodate this.

We will examine whether the benefits of moving to a service-based cost sharing framework outweigh the costs.

IPART seeks comment on the following

- 7 What are the potential challenges and barriers to moving to a service-based approach?
- 8 Are the benefits of moving to a service-based approach likely to exceed the costs?
- 9 Would there be merit in transitioning to the service-based approach over time?

#### **4.4 Consideration of other frameworks**

There may be an alternative cost sharing framework, other than the current activity-based and proposed service-based frameworks, which is more appropriate for allocating rural bulk water costs between customers and the NSW Government.

IPART seeks comment on the following

- 10 Are there alternative cost sharing frameworks that could better achieve our objectives or could achieve them at a lower cost? If so, how would they operate?

## 5 Key information requirements

The outcomes of this review depend on the quality, completeness, and timeliness of information provided by stakeholders during the course of the review. To collect the information we need as part of this review, we:

- ▼ will seek to work with WaterNSW and WAMC to access information on their costs, activities, and services
- ▼ will engage a consultant to design and allocate cost shares using the alternative service-based cost sharing framework, and
- ▼ also invite feedback and information from WaterNSW and WAMC customers and other interested stakeholders on the current activity-based cost sharing framework and the proposed service-based cost sharing framework.

We will consider all information provided to us during this review.

This chapter outlines, at a high level, the information we require to clarify and improve the current cost sharing framework and to develop and assess alternative framework/s, including the proposed service-based framework outlined in Chapter 4. We are seeking feedback on the scope of this information requirement.

### 5.1 Information required to review the current framework

To inform our review of the current framework, we will seek information on the following:

- ▼ **Current activities** – clarifying the current activities will improve transparency and help inform our review of the current cost share ratios.
- ▼ **Current cost share ratios** – uncovering information to better understand what and who is causing the need to undertake current activities will improve transparency and may produce more cost-reflective cost share ratios. A greater understanding of the activities will also see us better placed to assess the relative contributions by different groups towards the need to undertake the activities. This also has the potential to lead to more cost-reflective cost share ratios.
- ▼ **Whether to revise activities** – reviewing cost and activity information may allow us to find a better way to define activities. If the set of activities is revised, we will need to establish new cost share ratios for any newly defined activity.

IPART seeks comment on the following

- 11 Is there any other information we should consider in our review and assessment of the current activity-based cost sharing framework?

## 5.2 Information required to consider the service-based framework

This section outlines some of the information that will be required to assess the merits of, and develop, a service-based cost sharing framework.

We need to understand how a service-based cost sharing framework could be implemented and to review the costs and benefits of this approach. In order to do this, we will seek information on the following:

- ▼ **Developing an implementable service-based framework**
  - Defining services – definitions and descriptions of all services provided by WaterNSW and WAMC.
  - Allocating costs to services – information required to allocate costs to each of these services.
  - Identifying the impactors – information required to understand what and who is causing the need to provide the service and incur the associated costs.
- ▼ **Assessing the merits of moving to a service-based framework**
  - Assessing the benefits of this approach – this will involve assessing to what extent a service-based approach will deliver a more transparent, cost-reflective, and practical approach relative to the current activity-based approach.
  - Assessing implementation costs, other barriers, and transition paths – this will involve understanding the costs involved in transitioning to a service-based approach, whether there are any other potential barriers (eg, legislative, policy, and regulatory barriers), and what would be involved (including how much time) in transitioning WaterNSW and WAMC to a service-based approach.

IPART seeks comment on the following

- 12 Is there any other information we should consider in our review and assessment of the proposed service-based cost sharing framework?

## A Rural bulk water and water management services

We determine prices for monopoly rural bulk water services for WaterNSW and monopoly water management services for WAMC. WaterNSW's prices are currently set under a 4-year determination period, from 1 July 2017 to 30 June 2021 (2017 Determination). WAMC's prices are also currently set under a 4-year determination period, but from 1 July 2016 to 30 June 2020 (the 2016 Determination).

IPART aims to set prices that allow both WaterNSW and WAMC to recover customers' share of the efficient costs of providing monopoly services. Prices that reflect customers' share of the efficient cost provide price signals to customers that encourage the efficient use of these services.

For both WaterNSW's 2017 Determination and WAMC's 2016 Determination, we started by making a decision on the scope of rural bulk water monopoly services provided by the respective businesses, which were then subject to our pricing functions. We then set prices based on: a) our understanding of the efficient costs of the activities involved in providing these services and b) our cost share ratios which specify what percentage of each activity is to be recovered from customers through regulated prices. This section summarises WaterNSW's and WAMC's monopoly services, which are subject to our price determinations.

### A.1 WaterNSW's services and customers

WaterNSW was formed on 1 January 2015 under the *Water NSW Act 2014* (NSW) (the Act). The Act provided for the former State Water Corporation to become WaterNSW. It also abolished the former Sydney Catchment Authority (SCA) and transferred its functions to WaterNSW.

WaterNSW supplies raw water to, and develops and delivers raw water infrastructure solutions for, rural NSW and the Greater Sydney area.<sup>26</sup> Cost-shares discussed in this Issues Paper refer to services provided by WaterNSW to its rural customers (ie, the former State Water Corporation component of WaterNSW).

In rural NSW, WaterNSW maintains, manages and operates major infrastructure to deliver bulk water to licensed water users on the State's regulated rivers. There are about 6,300 customers in 14 regulated river systems. WaterNSW owns and operates 20 dams and more than 280 weirs and regulators to deliver water for town water supplies, industry, irrigation, stock and domestic use, riparian use and environmental flows. It provides services to various customers including irrigation corporations, country town water supply authorities, farms, mines and electricity generators.<sup>27</sup>

<sup>26</sup> WaterNSW, *WaterNSW Annual Report 2015-16*, 2016, pp 6-7.

<sup>27</sup> WaterNSW, pricing proposal to IPART, June 2016 pp 10-12.



The scope of WaterNSW's services has evolved over time, as has the type of users of these services and the nature of their use. The roles and responsibilities of WaterNSW are prescribed by the Act. Under section 6 of the Act, WaterNSW is required to meet the following primary objectives:<sup>28</sup>

- ▼ capture, store and release water in an efficient, effective, safe and financially responsible manner
- ▼ supply water in compliance with appropriate standards of quality
- ▼ ensure that declared catchment areas and water management works in such areas are managed and protected so as to promote water quality, the protection of public health and public safety, and the protection of the environment
- ▼ provide for the planning, design, modelling and construction of water storages and other water management works, and
- ▼ maintain and operate the works of WaterNSW efficiently and economically and in accordance with sound commercial principles.

Other objectives of WaterNSW include: to be a successful business; exhibit a sense of social responsibility towards the community and regional development; and conduct its operations in compliance with the principles of ecologically sustainable development.<sup>29</sup>

WaterNSW provides services in the Murray-Darling Basin (MDB) and Coastal valleys. WaterNSW is also responsible for the Fish River Water Supply Scheme (FRWS), which sources water from Oberon Dam and supplies bulk water to four major customers (EnergyAustralia, Lithgow City Council, Oberon Council and WaterNSW Greater Sydney) and approximately 280 smaller customers.<sup>30</sup>

WaterNSW also recovers a portion of the NSW Government's contributions to the Murray Darling Basin Authority (MDBA) and the Border Rivers Commission (BRC) through its water prices. The MDBA and the BRC have responsibility for coordinating and managing water resource management and water storage and delivery-related activities where they involve more than one state, with the costs of managing and maintaining assets under these arrangements jointly paid for by the signatory states.

WaterNSW's rural bulk water charges for its monopoly services comprise:

- ▼ **Water charges**, for the storage and delivery of water on regulated rivers, which:
  - are set on a valley basis
  - are generally comprised of two-part tariffs: \$ per ML of water entitlement and \$ per ML of water taken, and
  - for some valleys (ie, Border, Murray and Murrumbidgee), include the addition of MDBA and BRC costs.
- ▼ **Miscellaneous charges**, to recover the cost of non-routine services. They include meter service charges, which WaterNSW may levy on users of WaterNSW-owned meters on regulated rivers, to recover the costs of maintenance and administration related to WaterNSW-owned meters.

<sup>28</sup> *Water NSW Act 2014*, section 6.

<sup>29</sup> *Water NSW Act 2014*, section 6.

<sup>30</sup> WaterNSW pricing proposal to IPART, June 2016, p 11.

## A.2 WAMC services and customers

WAMC is the legal entity that is responsible for water management in NSW. Water management services involve protecting water users' property rights through management of the water entitlement and licensing system. WAMC's key activities include:<sup>31</sup>

- ▼ developing Water Sharing Plans
- ▼ determining volumes of water available for allocation
- ▼ management of registers and trading
- ▼ monitoring water quantity, quality and environmental health, and
- ▼ collecting data on water take.

There are three categories of WAMC's prices that we set in the 2016 Determination:<sup>32</sup>

- ▼ **Water management prices** – annual prices which recover the costs of water planning and management and apply to all categories of water access licences. These prices include entitlement (\$ per ML of entitlement) and water take (\$ per ML of water take) prices, and a minimum annual charge.
- ▼ **Consent transaction charges** – which recover the costs of one-off services such as amending water access licences, performing water allocation assignments and issuing works approvals.
- ▼ **Meter service and reading charges** – annual charges for maintaining and reading water meters.

WAMC's water management services are currently delivered on behalf of WAMC by the Department of Industry (Water), WaterNSW, and the Natural Resource Access Regulator (NRAR).

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<sup>31</sup> IPART, *Review of prices for the Water Administration Ministerial Corporation from 1 July 2016*, June 2016, p 35.

<sup>32</sup> IPART, *Review of prices for the Water Administration Ministerial Corporation from 1 July 2016*, June 2016.

## B History of IPART's approach to cost shares

The costs of providing bulk water have been shared between the NSW Government and users since IPART has regulated these charges.

For each review and determination of WaterNSW's and WAMC's prices, we have subjected the prevailing cost shares, by activity, to stakeholder consultation. We have considered all stakeholder comments and responses in determining cost shares and setting prices.

Key milestones in IPART's regulation of bulk water charges, and determination of cost shares, include the following:

- ▼ In 1998, IPART's determination of bulk water charges used a beneficiary pays and impactor pays approach as the basis for sharing costs between water users and the NSW Government.<sup>33</sup>
- ▼ In 2001, IPART's determination of bulk water charges moved towards a greater reliance on the impactor pays approach – except for those costs attributable to pre 1 July 1997 ('line in the sand') activities and occupational health and safety and dam safety upgrade costs, which were deemed to be legacy costs, to be funded by the NSW Government.<sup>34</sup>
- ▼ In 2006, IPART's determination of bulk water charges maintained a focus on the impactor pays approach (largely maintaining the 2001 cost shares) - except for those costs associated with "products/activities incurred to meet community expectations", such as occupational health and safety costs and water quality monitoring, which were allocated to the NSW Government.<sup>35</sup>
- ▼ In 2012, the NSW Government asked IPART to identify options for determining the NSW Government's share of bulk water costs. IPART recommended the continuation of the existing approach to determining government cost shares, using the cost allocation ratios that it had applied in the 2010 Determination, until 1 July 2017.<sup>36</sup>
- ▼ In its 2017 review of Water NSW's charges, IPART decided to maintain the current cost share ratios, consistent with its earlier decisions. However, IPART decided that it would conduct an extensive, standalone review of the cost share framework prior to the next Determination.<sup>37</sup>

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<sup>33</sup> IPART, *Bulk water prices for 1998/99 & 1999/00*, July 1998, p 11.

<sup>34</sup> IPART, *Department of Land and Water Conservation, Bulk Water Prices from October 2001*, Chapter 5, December 2001.

<sup>35</sup> IPART, *Bulk Water Prices for State Water Corporation and Water Administration Ministerial Corporation*, Chapter 5, September 2006.

<sup>36</sup> IPART, *Review of Rural Water Charging Systems – Final Report*, August 2012, p 8.

<sup>37</sup> IPART, *WaterNSW Review of prices for rural bulk water services from 1 July 2017 to 30 June 2021*, Chapter 9, June 2017.

## C WaterNSW's and WAMC's current activity-based cost shares

**Table C.1 Cost shares adopted by IPART for the 2017 Determination for WaterNSW**

	Activity	Customer share of costs (%)
Operating expenditure	Customer support, Customer Billing, Metering & Compliance, Water delivery and Other Operations, Corrective Maintenance, Routing Maintenance, Asset Management Planning, Insurance	100
	Hydrometric monitoring	90
	Flood Operations, Water Quality Monitoring, Dam Safety Compliance, Environmental Planning & Protection	50
	Dam Safety Compliance Capital Projects pre-1997	0
Capital expenditure	Asset Management Planning, Routine Maintenance, Structural and Other Enhancement, Corporate Systems, Office Accommodation Capital Projects, Information Management Projects, Water Delivery and Other Operations	100
	Renewal & Replacement	90
	Dam Safety Compliance, Environmental Planning and Protection, Flood Operations	50
	Dam Safety Compliance pre-1997 Construction	0

**Source:** WaterNSW pricing proposal to IPART, June 2016, pp 68-70. IPART, WaterNSW: *Review of prices for rural bulk water services from 1 July 2017 to 30 June 2021*, June 2017, p 98.

**Table C.2 Cost shares adopted by IPART for the 2016 Determination for WAMC**

Activity group	Code	Description	Customer share (%)
Surface water monitoring	W01-01	Surface water quantity monitoring	70
	W01-02	Surface water data management and reporting	50
	W01-03	Surface water quality monitoring	50
	W01-04	Surface water algal monitoring	50
	W01-05	Surface water ecological condition monitoring	50
Groundwater monitoring	W02-01	Groundwater quantity monitoring	100
	W02-02	Groundwater quality monitoring	100
	W02-03	Groundwater data management and reporting	100
Water take monitoring	W03-01	Water take data collection	100
	W03-02	Water take data management and reporting	100
Water modelling and impact assessment	W04-01	Surface water modelling	50
	W04-02	Groundwater modelling	100
	W04-03	Water resource accounting	100
Water management implementation	W05-01	Systems operation and water availability management	100
	W05-02	Blue-green algae management	50
	W05-03	Environmental water management	0
	W05-04	Water plan performance assessment and evaluation	50
Water management planning	W06-01	Water plan development (coastal)	70
	W06-02	Water plan development (inland)	70
	W06-03	Floodplain management plan development	0
	W06-04	Drainage management plan development	0
	W06-05	Regional planning and management strategies	70
	W06-06	Development of water planning and regulatory framework	75
	W06-07	Cross border and national commitments	50
Water management works	W07-01	Water management works	50
Water regulation management	W08-01	Regulation systems management	100
	W08-02	Consents management and licence conversion	100
	W08-03	Compliance management	100
	W08-99	Water consents overheads	100
Water consents transactions	W09-01	Water consents transactions	100
Business and customer services	W10-01	Customer management	100
	W10-02	Business governance and support	70
	W10-03	Billing management	100

**Source:** Synergies, *DPI Water Expenditure Review Final Report*, January 2016, p 41; DPI Water submission to IPART Issues Paper, September 2015, Appendix E.

## Glossary

2010 Determination	<i>Review of bulk water charges for State Water Corporation from 1 July 2010 to 30 June 2014, June 2010 (Determination No. 2, 2010)</i>
2016 Determination	<i>Water Administration Ministerial Corporation Maximum prices for water management services from 1 July 2016, June 2016 (Determination No. 2, 2016)</i>
2016 determination period	The period from 1 July 2016 to 30 June 2020, as set in the 2016 Determination (WAMC)
2017 Determination	<i>WaterNSW prices for rural bulk water services from 1 July 2017, June 2017</i>
2017 determination period	The period commencing 1 July 2017 to 30 June 2021, as set in the 2017 Determination (WaterNSW)
ACCC	Australian Consumer and Competition Commission
ACCC's Pricing Principles	<i>Pricing principles for price approvals and determinations under the Water Charge (Infrastructure) Rules 2010, July 2011</i>
Beneficiary pays	Where the costs of a service or activity are allocated to those who benefit from the service or activity
BRC	Border Rivers Commission
CSO	Community Service Obligation
Customer share of costs	The share of the revenue requirement that is recovered from the customer, determined according to the 'impactor pays' principle. We have decided to refer to what has previously been known as the 'user share of costs' as the 'customer share of costs', given that there are users of rural bulk water services (eg, the community at large), that do not contribute to the recovery of WaterNSW's NRR
DoI - Water	Department of Industry and Water (formerly the Department of Primary Industries Water)
Entitlement	ML of entitlement under the <i>Water Act 1912</i> (NSW) or unit shares under the <i>Water Management Act 2000</i> (NSW)

FRWS	Fish River Water Supply Scheme
Government share of costs	The share of the revenue requirement that is recovered from the NSW Government, determined according to the 'impactor pays' principle.
Greater Sydney area	Water catchments that service WaterNSW storages including the Blue Mountains, Shoalhaven, Warragamba, Upper Nepean and Woronora catchments
Impactor pays	Where the costs of a service or activity are allocated to those who create the need to incur the costs
IPART	Independent Pricing and Regulatory Tribunal of NSW
IPART Act	<i>Independent Pricing and Regulatory Tribunal Act 1992</i> (NSW)
Legacy cost	Costs of activities or services that would still be required even if there was no demand for the regulated service
MDB	Murray Darling Basin
MDBA	Murray Darling Basin Authority
ML	Megalitre
NRAR	Natural Resources Access Regulator
NRR	Notional revenue requirement. Revenue requirement set by IPART that represents the efficient costs of providing WaterNSW's regulated monopoly services and/or WAMC's water management services
NSW	New South Wales
SCA	Sydney Catchment Authority (now part of WaterNSW)
State Water	Former State Water Corporation (now part of WaterNSW)
WAMC	Water Administration Ministerial Corporation
Water Act	<i>Water Act 2007</i> (Cth)
WaterNSW	WaterNSW 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)