

1 July 2019

## WHAT

We have completed a review of pricing arrangements for recycled water, sewer mining<sup>1</sup> and stormwater harvesting services for Sydney Water, Hunter Water, the Central Coast Council and Essential Energy (Essential Water in Broken Hill).

We have released a Final Report setting out our updated pricing arrangements, replacing our 2006 and 2011 Guidelines.<sup>2</sup>

We also made a determination for recycled water developer charges, which replaces the *Recycled Water Developer Charges, Determination No 8, 2006*.



## WHY

The urban water market in NSW has evolved since the last review of our recycled water pricing arrangements in 2006. Our price regulation needs to support efficient and effective water services that draw from dams, the desalination plant and recycled water plants as appropriate.

We have refined our regulatory approach to support efficient investment in recycled water and related services, including where it provides broader benefits to customers, while also protecting customers from any monopoly power of the public water utilities.

Our review also responds to recommendations from Infrastructure NSW's review of regulatory barriers to cost-effective water recycling, released in January 2019.

<sup>1</sup> Sewer mining applies to Essential Energy only.

<sup>2</sup> IPART, *Pricing arrangements for recycled water and sewer mining – Sydney Water Corporation, Hunter Water Corporation, Gosford*



## WHO

In addition to the public water utilities, this review is relevant for a wide range of stakeholders, including:

- ▼ Customers of recycled water, sewer mining and stormwater harvesting services
- ▼ Developers, who may be affected by recycled water developer charges
- ▼ Privately owned water utilities, who may wish to compete with public water utilities to provide water, wastewater and/or recycled water services, and
- ▼ The wider community and the public water utilities' broader customer base, who may benefit indirectly from recycled water schemes.



## HOW

We have followed IPART's established process in conducting this review. We released an Issues Paper in September 2018 for public consultation and held a Public Hearing in December 2018. We then released a Draft Report and Draft Determination in April 2019 for further public consultation.

In making our decisions, we have considered all stakeholder submissions. We have also taken into account a broad range of issues consistent with the matters we must consider under the *Independent Pricing and Regulatory Tribunal Act 1992*.

*City Council and Wyong Shire Council - Final Report, September 2006. And, IPART, Assessment Process for Recycled Water Scheme Avoided Costs, January 2011.*

## 1 What are the outcomes of our review?

We have refined our regulatory approach to support efficient investment in recycled water and related services, including where it provides broader benefits to customers and the wider community. Our pricing arrangements recognise the potential role for recycled water into the future and the multiple objectives it can meet within an integrated urban water system.

We have also maintained sufficient protections for customers from any monopoly power of the public water utilities.

### We support efficient investment in recycled water

Under our pricing arrangements, **we treat recycled water on an equivalent basis to ‘traditional’ servicing options**, where it is an efficient way of delivering a regulated service. Where recycled water is the least-cost approach to supplying water, wastewater and/or stormwater services, it will be funded through customer and developer charges (where they apply) for water, wastewater and/or stormwater services, as well as through recycled water sales.

We have also improved our approach to accommodate recycled water where it is not the least-cost solution, but provides other benefits. Notably, **we now recognise the potential for recycled water to generate wider economic benefits** through our decision to expand the funding framework to include the value of external benefits, such as increasing liveability and improving environmental outcomes. To qualify for funding from the broader customer base, external benefits must be additional to any outcomes already mandated by Government, specific to the recycled water scheme(s) in question, and supported by evidence of the broader customer base’s willingness-to-pay for them.

Our pricing arrangements also **continue to consider recycled water schemes in the context of the system-wide outcomes they achieve**. Recycled water schemes can avoid or defer the need for augmentation of a public water utility’s potable water, wastewater and/or stormwater infrastructure. Our funding framework allows a public water utility to seek contributions to a recycled water scheme’s costs from potable water, wastewater and/or stormwater periodic prices and developer charges (where they apply), to reflect the value of avoided costs from the recycled water scheme. We ensure potable water, wastewater and stormwater customers are made no worse off by limiting contributions to the recycled water scheme up to the amount that these charges would recover to fund an otherwise least-cost traditional servicing solution (ie, the contributions from the broader customer base to the recycled water scheme are limited to the value of avoided costs from the recycled water scheme).

We have also recognised that **parties other than the public water utilities**, such as sewer mining and stormwater harvesting customers, **can also relieve pressure on a public water utility’s infrastructure needs**. Accordingly, our funding framework incentivises the public water utility to seek out these opportunities by retaining and sharing the avoided and deferred costs with these customers up to the benefits they generate.

We prefer that avoided and deferred costs funded by the broader customer base be calculated based on estimates of the Long Run Marginal Cost (LRMC) of supplying potable water, wastewater and stormwater services. Given the increasing role of LRMC across our various

pricing frameworks, we consider it appropriate that a common methodology is established and that IPART, as the independent economic regulator, takes a leading role in the development and application of these LRMC estimates. However, we acknowledge that there may be scenarios where sufficiently robust LRMC estimates are not available – in this case we are open to the ‘with vs without’ approach to calculating avoided and deferred costs.

## **We take a more responsive approach to price regulation**

---

We have adopted a **proportionate approach to regulating prices** that distinguishes between types of customers on the basis of their effective choice.

If customers cannot choose their supplier, or there are practical barriers to opting out of a service, we would protect these recycled water customers by monitoring prices and stepping in to set prices on their behalf where we have deemed there is cause to do so (called ‘mandatory’ services under our framework).

For customers voluntarily receiving recycled water, as well as those receiving sewer mining and stormwater harvesting services, we encourage unregulated pricing agreements and would step in when warranted to set prices under scheme-specific reviews, if requested to do so by customers or the public water utility.

We have also introduced voluntary pricing agreements so public water utilities and developers can opt-out of the determination for recycled water developer charges. This gives the public water utilities and developers the flexibility to set prices more suitable to the circumstances of the individual recycled water service and is consistent with the approach for water, wastewater and stormwater developer charges.

## **We have designed our framework to evolve over time**

---

We have designed our pricing arrangements to be flexible and administratively simple to implement. Detailed guidance required to apply our framework will be reflected in our *Guidelines for Water Agency Pricing Submissions*, the key reference document for matters such as the evidence required to demonstrate external benefits, avoided costs, willingness to pay, and prudent and efficient expenditure.<sup>3</sup>

We intend for our guidance to evolve over time as IPART and the public water utilities gain more experience in the implementation of the framework.

## **2 How does the funding framework apply?**

---

We have established three separate funding frameworks for the monopoly services we price regulate that are subject to this review:

1. Recycled water services supplied from ‘least-cost’ schemes
2. Recycled water services supplied from ‘higher-cost cost’ schemes
3. Stormwater harvesting and sewer mining services.

---

<sup>3</sup> We will update guidelines in October 2019 to reflect outcomes of this review and publish it on our website.

We explain these funding frameworks in detail below. Our Final Report also provides a worked example of the funding framework for higher-cost schemes in Appendix E.

## **Least-cost recycled water schemes**

---

We define a least-cost recycled water scheme as a scheme that forms part of a least-cost solution to supply water, wastewater and/or stormwater services.

Our funding framework for least-cost recycled water schemes enables public water utilities to fund these schemes in an equivalent way to traditional servicing solutions, through ordinary customer and developer charges for potable water, wastewater and/or stormwater services.

Importantly, we will account for water demand that is displaced by recycled water. This means that customer charges for recycled water set in accordance with our pricing principles will also contribute to the scheme costs.

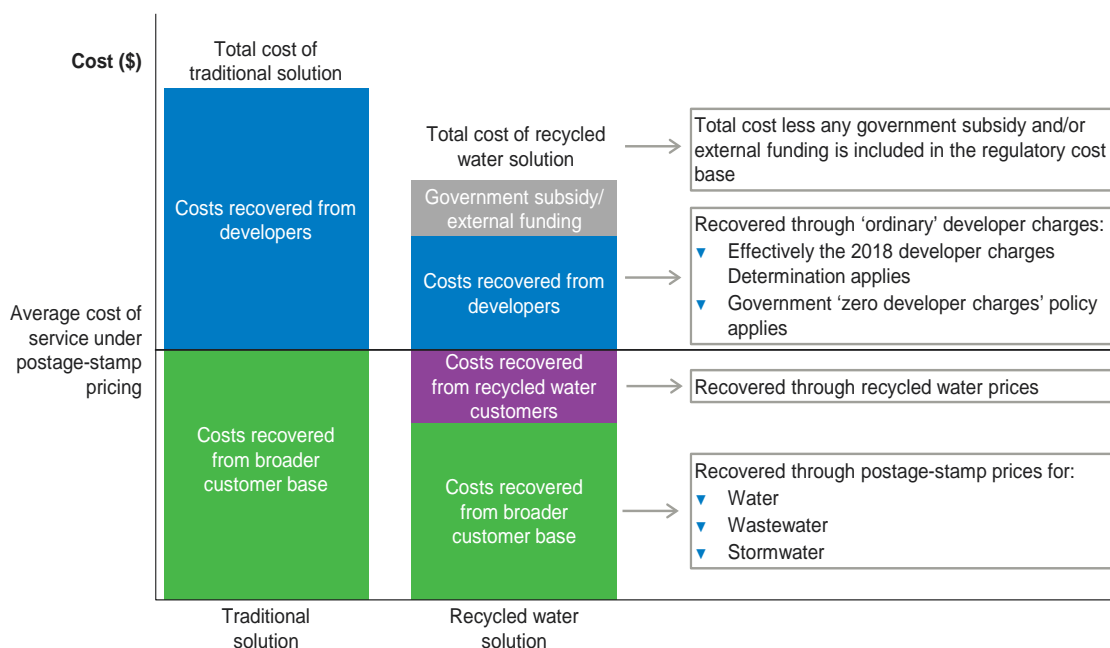
Our funding framework for least-cost schemes is summarised in Figure 2.1, and involves the following steps:

1. The public water utility must first consider all utility-wide costs that would be impacted by the recycled water scheme and ensure it complies with our definition of a ‘least-cost’ recycled water scheme. This assessment must account for any expected water demand that would be met by recycled water.
2. Then, any external funding received (including any direct Government subsidy and third-party contributions) is netted off from the total cost of the recycled water scheme.
3. The remaining costs of the recycled water scheme are included in the regulatory cost base, to be recovered through customer and developer charges (where they apply)<sup>4</sup> for water, wastewater and/or stormwater services, as well as customer charges for recycled water sales. The public water utility retains the revenue earned from recycled water sales in full, as compensation for displaced potable water sales.

---

<sup>4</sup> This approach ensures developers make the same contribution to fund water, wastewater and/or stormwater services to new developments, whether they are provided by a recycled water scheme or traditional network servicing solution. Under current Government policy, developer charges are set to zero in Sydney Water’s and Hunter Water’s areas of operation. As such, least-cost schemes would be funded by the broader customer base in the same way as traditional servicing solutions, as well through recycled water sales.

**Figure 2.1 Funding framework for least-cost recycled water schemes**



## Higher-cost recycled water schemes

For recycled water schemes that are not least-cost (ie, higher-cost), the various beneficiaries pay up to the benefits they receive from the recycled water scheme. Funding sources can include the public water utility's broader customer base, developers, recycled water customers, and external supporters, such as Government.

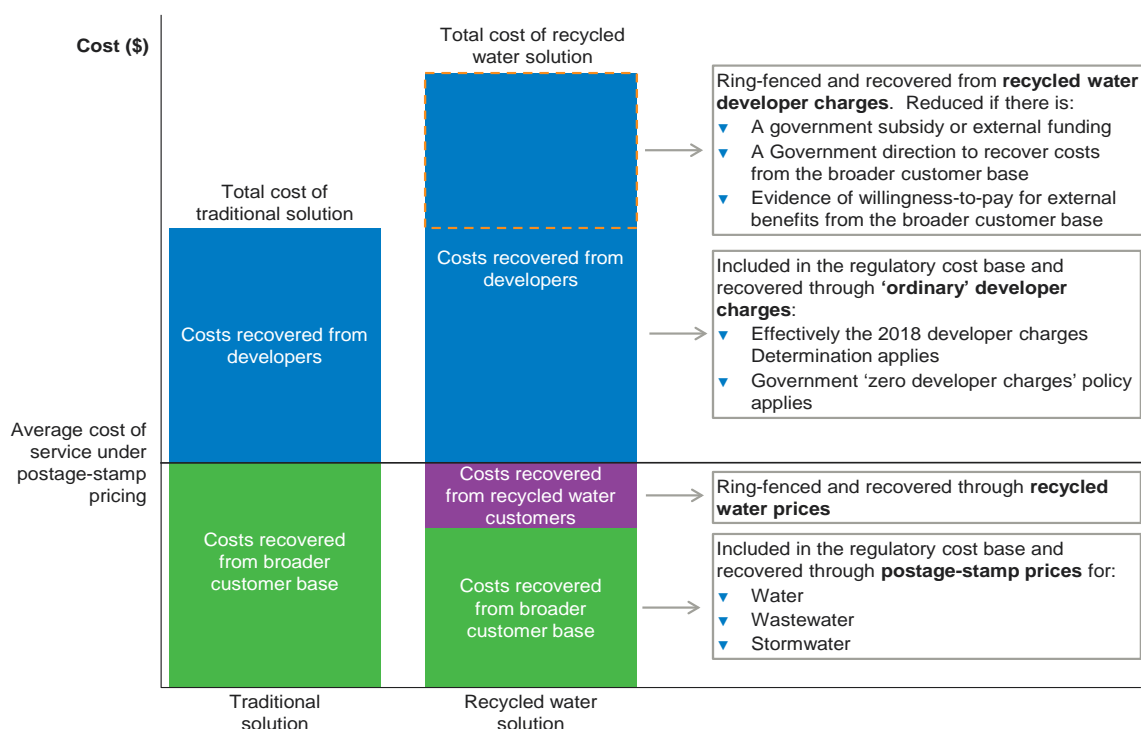
Our funding framework for higher-cost schemes is summarised in Figure 2.2, and involves the following steps:

1. The public water utility identifies the total scheme costs, including direct capital and operating costs, and a share of joint costs allocated to the scheme.
2. The public water utility then identifies those cost offsets that are to be added to the regulatory cost base and funded through customer and developer charges (where they apply)<sup>5</sup> for water, wastewater and/or stormwater services. These cost offsets are:
  - a) Avoided and deferred costs (net of forgone revenue)
  - b) External benefits
  - c) Any costs that the Government has directed be recovered from the broader customer base.
3. Finally, the remaining costs of the scheme are ring-fenced from the regulatory cost base, and are to be recovered in the following order:

<sup>5</sup> This approach ensures developers make the same contribution to fund water, wastewater and/or stormwater services to new developments, whether they are provided by a recycled water scheme or traditional network servicing solution. While the NSW Government's policy on zero developer charges applies, these 'ordinary' developer charges would be set to zero also for higher-cost recycled water schemes in Sydney Water's and Hunter Water's areas of operation.

- i) External funding sources, including any direct Government subsidies and third-party contributions
- ii) Recycled water periodic charges
- iii) Recycled water developer charges.

**Figure 2.2 Funding framework for higher-cost recycled water schemes**



## Sewer mining and stormwater harvesting services

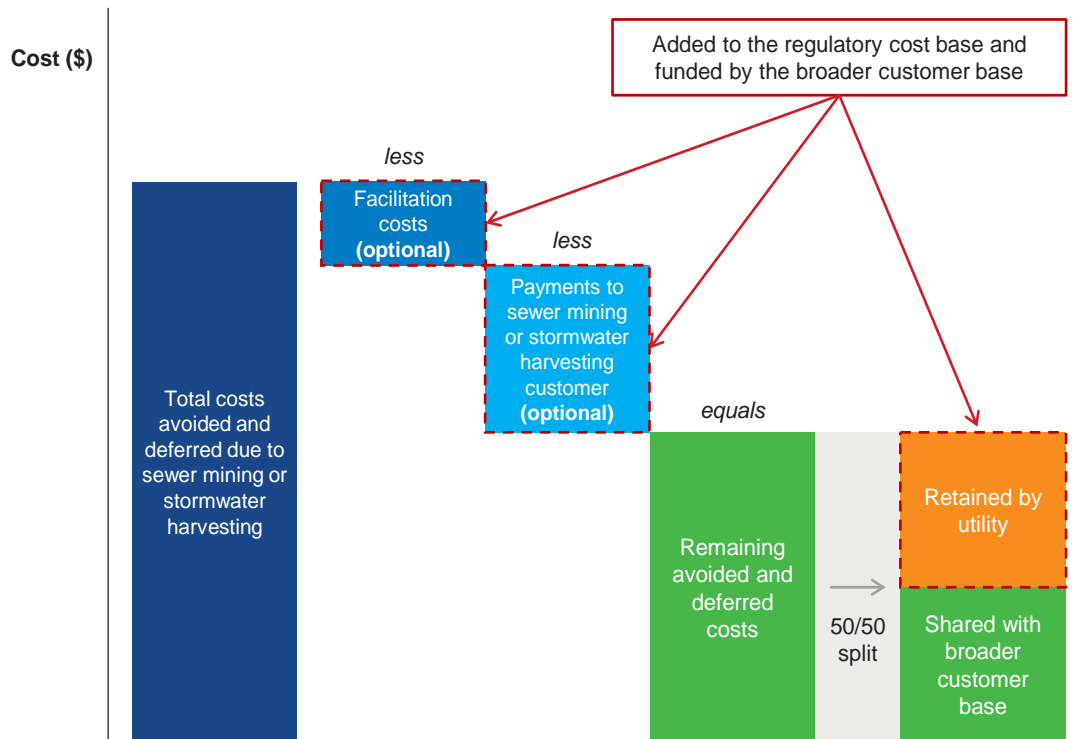
Where the provision of sewer mining and stormwater harvesting services alleviate capacity constraints in the existing network and save future augmentation costs, our funding framework allows these cost savings to be retained and shared between the public water utility and sewer mining or stormwater harvesting customers.

Our funding framework for sewer mining and stormwater harvesting services is summarised in Figure 2.3, and involves the following steps:

1. The public water utility identifies avoided or deferred costs arising from a sewer mining or stormwater harvesting arrangement.
2. The public water utility may enter into an unregulated, commercial agreement to share the avoided or deferred costs with sewer miners or stormwater harvesters (ie, make payments to the sewer mining or stormwater harvesting customer in Figure 2.3).
3. The public water utility shares 50% of any avoided or deferred costs that remain (ie, unallocated to the sewer mining or stormwater harvesting customers) with its broader customer base.

- IPART assesses claims for avoided and deferred costs before the share that is to be retained by the public water utility are added regulatory cost base, to be funded through customer charges for water, wastewater and/or stormwater services.

**Figure 2.3 Illustration of how avoided and deferred costs can be shared with sewer mining and stormwater harvesting customers**



**Note:** Facilitation costs are the costs associated with connecting the scheme to the public water utility's systems