

Sydney Water's response to IPART's review of recycled water prices for public utilities – draft report and draft determination, April 2019

Introduction

Recycled water is integral to innovative water servicing and will become increasingly important in the context of population growth and climate change. We welcome IPART's review of pricing for water recycling services and strongly support the goal of placing recycled water on a level playing field with other servicing options.

In undertaking this review, IPART has sought to address the concerns of stakeholders that the regulatory framework may be inhibiting the uptake of water recycling opportunities. We support the overall direction taken by IPART, including many small but important changes that should improve certainty and cost recovery. This includes IPART's draft decisions to:

- remove the requirement for ring-fencing for least cost servicing solutions, such that all costs can be recovered from the wider customer base
- remove the post-adjustment mechanism for avoided and deferred costs claims, noting that claims will still be assessed for prudence and efficiency at the time they are claimed
- provide flexibility in the estimation of equivalent tenement assumptions
- allow utilities to set price levels and structures to better balance demand and supply, including the relaxation of artificial assumptions and caps. The flexibility to offer a lower price to encourage demand could, for example, be particularly useful in locations with a high volume of water to be managed
- allow voluntary agreements with developers and other co-funding arrangements
- recognise that water recycling covers both wastewater and stormwater recycling
- provide more flexibility for the updating of recycled water DSP's
- align developer charges methodologies across all products
- further harmonise CPI adjustment procedures across determinations.

In the remainder of this submission, we provide comments on certain aspects of the Draft Report and Draft Determination that we consider could be further improved or clarified.

Greater clarity needed on application of the cost recovery frameworks

IPART have recognised that if the inclusion of recycled water in a scheme is not the least cost servicing option, a detailed framework is required to ensure that costs are shared appropriately. In Appendix E of the Draft Report, IPART has provided an illustrative example to demonstrate how the framework should be applied. While this example is useful, numerical workings would be beneficial to illustrate the key concepts.

For example, while the Draft Report outlines the concept of adjusting avoided costs by making a deduction for foregone revenue, the need for this adjustment as a means of protecting customers from higher bills is presented as self-evident. That is, the Draft Report

currently presents a conclusion without the supporting analysis. The transparency of IPART's method could be improved by using worked examples to demonstrate these important concepts. Worked examples are particularly useful where IPART has, rightly, chosen to apply a more principle-based approach, rather than a prescriptive methodology that attempts to cover every situation. Where the utility must use its judgement to apply IPART's principles, worked examples help provide clear guidance on how the principles should be followed. We would be happy to work with IPART to develop such examples.

In relation to least cost recycled water schemes, referred to as Schedule 1 Services in the Draft Determination, we understand IPART intends that all the costs of a least cost servicing solution would be converted into "ordinary" customer prices and developer charges (that is, water, wastewater and/or stormwater prices and developer charges). Further, IPART will make this assessment as part of a utility's retail price determination and, where relevant, by applying the pricing principles from the 2018 developer charges determination. However, to allow utilities to properly assess the financial implications of different servicing options ahead of these reviews, further guidance on certain issues would be beneficial including:

- How should the costs from recycled water infrastructure be split across products (ie, what costs or proportion of costs should be allocated to water, wastewater and/or stormwater)?
- How will surplus revenue from recycled water schemes, which is to be shared 50:50 with the wider customer base, be applied to adjust customer prices and/or developer charges?
- How will the value of external benefits be recovered? For example, would benefits be allocated across different products, and on what basis would the allocation occur?

If IPART is unable to provide specific advice on the above issues, worked examples demonstrating how utilities should apply IPART's principles would still be helpful.

In some cases, we expect recycled water costs could be allocated across products using a split based on the relative proportions of water, wastewater and/or stormwater capital costs.¹ In other cases, it may be more appropriate to allocate a higher proportion to one product, based on a split proportional to the costs that customers would have faced if recycled water was not included.

In line with our earlier comments on non-least cost solutions, we consider that utilities and other stakeholders would benefit from examples that demonstrate how the funding framework would work for least cost servicing solutions. For example, we consider there is a risk that misinterpretation of the Draft Determination might result in charges that are higher than those that would apply under a non-least cost servicing case (we provide more detail on this issue below).

Sharing of surplus revenue must not result in increased prices

We support IPART's draft decision to allow utilities to retain a portion of the revenue recovered from recycled water customers of least-cost schemes that are already funded by

¹ For example, if the non-recycled water costs in a scheme are \$100 and split one-third between each product, and recycled water costs were \$33, then \$11 in recycled water costs would be allocated to each product.

the broader customer base (draft decision 15). Like IPART's draft decision on the sharing of sewer mining avoided costs (draft decision 5), this will encourage innovation by providing an incentive for utilities to look for least cost recycled water opportunities.

However, the treatment of this revenue is potentially subject to misinterpretation. For example, depending on how the surplus revenue from recycled water is used to offset customer prices and/or developer charges, it appears possible that developer charges for one or more products may be higher under a least cost solution with recycled water than would apply under a higher cost alternative without recycled water. This occurs, for example, because developer charges are calculated as the residual after revenue from postage stamp prices has been considered. When recycled water is sold to customers in a Development Servicing Plan (DSP) area, it replaces potable sales. As such, the future expected revenue from regulated services (water, wastewater and stormwater) could be lower than the case where recycled water is not provided. This reduction in usage revenue would then increase the amount to be recovered by developer charges.

We consider this issue could be addressed by IPART making clear that the developer charge calculation for Schedule 1 Services includes revenue from recycled water sales, where those sales are a direct substitute for the potable sales that would have been expected under a traditional servicing approach.²

The role of recycled water in balancing water supply and demand

As part of our 2015-2020 Operating Licence, Sydney Water developed an Economic Level of Water Conservation (ELWC) methodology capable of assessing different types of water savings options, including recycled water. Under the draft 2019-2023 Operating Licence, Sydney Water will be required to implement any projects that are assessed as economic using the ELWC methodology. We note that IPART has also recently approved an ELWC methodology for Hunter Water. Despite these regulatory changes, IPART has not addressed the potential interactions between a utility's ELWC methodologies and the recycled water cost recovery framework.

The funding of water conservation projects assessed using the ELWC method has yet to be tested in a retail price review. However, it has been our working assumption that projects which have been assessed as economic using ELWC would be considered prudent investments, with efficient costs passed through to customers. In the case of recycled water, under our current ELWC method, this would occur where the scheme levelized cost is no higher than the LRMC of water. In an alternate economic method, such as the Department of Planning and Industry's (DPI) MetroNet model, the economic assessment could be applied across a whole portfolio of demand and supply measures, and this may recommend the selection of one or more recycled water projects.

It is unclear if or how the cost recovery framework set out in the Draft Determination would be applied to projects assessed using an approved ELWC method. In some cases, for example, a recycled water project may not be least financial cost, but still assessed as economic under ELWC and/or a long-term water supply strategy. Best practice demand-

² These future periodic revenues would be included in the Reduction Amount term *R_i*.

supply balance planning will assess a range of options to identify the least-cost set of measures that balance demand and supply in the longer term. When such planning has considered the integrated nature of water servicing requirements, we consider it a robust method to identify the need for specific recycled water projects. It would be of concern if the financial viability of these projects was placed at risk by the cost recovery framework for recycled water. Sydney Water may also be exposed to potential compliance risks due to the (draft) new licence obligation to proceed with all 'economic' projects.

External benefits

We support IPART's draft decision to include consideration of external benefits in the value of cost offsets that can potentially be claimed from the wider customer base. This is consistent with IPART's approach to pricing in other sectors, such as public transport services.

Sydney Water agrees that a claim for external benefits should be supported by evidence of customer willingness-to-pay, with evidence gathered from those customers that are being asked to pay. We note this information is distinct from willingness-to-pay values that might be collected as part of a social cost-benefit analysis seeking to value the aggregate benefits of a project for the whole community. As IPART notes in response to stakeholder comments, the values in a cost-benefit analysis are collected for a different purpose and a more targeted approach is needed when deciding the prices that a specific group of customers is required to pay.

IPART's draft decision is that external benefits can only be claimed where the outcome to be achieved is:

- additional to outcomes already mandated by Parliament and/or Government
- specific to recycled water and the recycled water scheme in question.

While we generally agree with the sentiment, it may be challenging to find outcomes that are specific to recycled water only as opposed to water in general. We therefore welcome IPART's decision to not prescribe specific types of external benefits for the purposes of making a claim for cost offsets based on external benefits. We do note, however, that water recycling has an almost inherent ability to simultaneously address multiple outcomes in a way that other sources of water do not. For example, while a source of water such as desalination could help to provide water to assist in meeting urban cooling objectives, it provides no support for effluent management in growth areas. Water recycling can contribute to both outcomes.

Sewer mining avoided costs

We strongly support IPART's draft decision to allow utilities to share equally with the broader customer base the portion of the net avoided and deferred costs retained by the utility under a sewer mining agreement (draft decision 5). We agree with IPART that this provides an appropriate incentive to seek out opportunities for stormwater harvesting and sewer mining arrangements that could produce avoided costs.

We note that most sewer mining schemes in our area of operations are relatively small voluntary schemes. The decision on whether to continue operating these schemes rests with the sewer miner. Although sewer mining schemes can result in downstream operational savings, the lack of certainty about the on-going operation of each scheme makes it difficult to rely on the possibility of significant avoided or deferred capital expenditure from their existence. As such, we consider the appropriate treatment for sharing any net avoided costs from these schemes with the broader customer base would be via an adjustment to the relevant regulated charge each year (which, in most cases, would likely be the wastewater service charge). The size of the adjustment would depend on the volume of flow taken sewer miners over the previous year. We would be happy to work with IPART on how this might be formalised in the next review of our retail prices.

IPART's response to the Infrastructure NSW review into barriers to cost effective water recycling

In Appendix A of the Draft Report, IPART's responds to certain recommendations arising from Infrastructure NSW's review into barriers to cost-effective water recycling in NSW. Many of IPART's responses are reflected in their draft decisions, and we have provided comments on some of these draft decisions elsewhere in this submission. Some additional comments are provided below:

- Recommendation 7 (extend cost recovery to include external benefits)

The definition of 'cost-effective' in the INSW review appears to encompass not only least cost solutions (in the sense used by IPART in the Draft Report) but also schemes that provide an overall net social benefit even where the financial cost might be higher. While IPART has indicated support for INSW recommendation 7, it may still be possible for a scheme with net social benefits to not proceed after applying IPART's draft decisions, due to an inability to recover certain costs from beneficiaries.

- Recommendation 4 (Regulatory Investment Test)

We support IPART's draft decision to not introduce a Regulatory Investment Test. Sydney Water considers a range of different options when developing servicing strategies, and we apply various decision-making tools to assess and compare options to identify the mix of investments that best achieves the objectives. Sydney Water has also recently achieved certification of its Asset Management System, which provides a robust and standardised framework for asset-related decision-making.

- Recommendation 25 (Removal of wastewater discharge factors)

We note IPART's support for this recommendation. We do not have a definitive view at this stage, and look forward to working with IPART to consider the merits of the recommendation as part of our upcoming retail price review.

Drafting issue in the Draft Report

On page 66 (pricing principles) and page 112 (summary of changes) of the Draft Report, r is referred to as the utility's real **post**-tax WACC. We suggest this should be **pre**-tax WACC to be consistent with the Draft Determination.

Other comments on the Draft Determination

Other comments on the Draft Determination are provided in Table 1.

Table 1 Other comments on the Draft Determination

Schedule	Clause	Item	Comment
2	1(b)	Forecast period for cost offsets	The forecast period for the calculation of cost offsets is limited to 30 years. Sydney Water considers that the forecast period for the avoided costs component of costs offsets should be unlimited, consistent with the approach to capital costs and IPART's views on the LRMC. For example, IPART's Draft Report notes that LRMC estimates should "reflect a time horizon that would be expected to capture the lifecycle of the next major augmentation of the relevant system". Depending on the timing of past and future investments, this period may be longer than 30 years from the date a DSP is registered. To address this issue, a revised calculation method may be needed in Schedule 4, clause 7, for each type of cost offset.
2	1(B)	CO (definition of cost offsets)	The notation and descriptions for cost offsets in this clause are inconsistent. In the overall maximum price formula MP_{RW} , CO has no subscript 'i'. However, the subsequent definition of CO implies it should be calculated in the same way as operating revenue and operating costs, being the present value of values in each financial year 'i' over a period of 'n' financial years. As noted above, we consider avoided costs should not be limited to a 30-year forecast period. The absence of the subscript 'i' is consistent with this view, however the latter definition implies a time limit of 30 years should be applied. This should be clarified in the final determination.
2	1(b)	Explanatory note for 'n'	The explanatory note for 'n' refers to "revenues, costs and cost offsets". While these notes do not form part of the determination, they are intended to clarify the interpretation of the accompanying clause and therefore assist in application. The risk of misleading the reader must be minimised. As noted in Schedule 4, for example, capital costs are not limited to 30 years. A broad reference to 'costs' in the explanatory note in Schedule 2 may therefore be misleading, as capital costs are not limited to 30 years. Depending on the Tribunal's decision on the forecast period for avoided costs (see first item above), a revised explanatory note for 'n' could read as follows: <i>Note: n is the end of the forecast period for the assessment of expected operating revenues and operating costs.</i>
3	2(b)(4)	Notification requirements	The requirement to notify all developers that have applied for planning approval in the past 6 months is too broad. In 2018 we received more than 5,500 applications, with around 3,000 of those in greenfield areas. Individually informing developers of the notification of a draft DSP would be a large administrative burden. We consider the intended outcome is adequately achieved by clauses 2(b)(1)-(3), and clause 2(b)(4) should be removed. This issue was missed in our comments on IPART's 2018 developer charges determination.
4	5	Definition of operating costs	The definition is less inclusive than the description in the draft report, which specifically allows for the inclusion of costs such as potable water top-up and any taxes that are not already covered elsewhere. As commonly used, the term operating costs would rarely encompass indirect costs such as taxes. Our preference would be to provide a more comprehensive definition of operating costs that reduces the potential for the unintentional exclusion of certain items.
5	1	Definition of least cost	Sydney Water considers that the definition could be improved to clarify that 'least cost' means the present value of total scheme costs, ignoring any cost offsets such as avoided or deferred capital costs.