

REVIEW OF WATER MANAGEMENT PRICES FROM 1 JULY 2021



Issues Paper

September 2020

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The Independent Pricing and Regulatory Tribunal (IPART)

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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 16 October 2020.

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

You can also send comments by mail to:

Review of water management prices from 1 July 2021 Independent Pricing and Regulatory Tribunal PO Box K35 Haymarket Post Shop, Sydney NSW 1240

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

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1 Executive summary

The Independent Pricing and Regulatory Tribunal (IPART or 'we') is reviewing prices that water customers¹ pay for water planning, management and regulation services carried out on behalf of the Water Administration Ministerial Corporation (WAMC).

Good planning, management and regulation of water is critical to the success of irrigation businesses. It protects valuable water property rights, as well as providing the certainty and information businesses need to operate effectively.

Our last review set prices for WAMC's services for four years from 1 July 2016 to 30 June 2020 (the 2016 Determination). We deferred the commencement of this review by a year following a request from WAMC. This review will set prices for these services from 1 July 2021 (the 2021 determination period).

This Issues Paper:

- Summarises WAMC's proposed costs and prices for the 2021 determination period
- Identifies, analyses and seeks stakeholder feedback on key issues for this review, and
- Outlines the review process and timeline for the review.

All dollar figures in this Issues Paper are in \$2020-21 unless otherwise specified.

1.1 WAMC's pricing proposals are underpinned by reforms to improve water planning and water management

Since our last review, several independent inquiries have recommended improvements in water management, strategic water planning and water compliance and enforcement arrangements in NSW.² The NSW Government has accepted these recommendations and has taken reform actions to improve water management across the state.

As such, WAMC services are now delivered by three agencies rather than one.



¹ The term 'water customers' refers to consumptive users who are water access licence (WAL) holders that are subject to WAMC's regulated prices.

For example, Matthews Review, Independent investigation into NSW water management and compliance, Final Report, November 2017 (report can be accessed here); NSW Ombudsman, Investigation into water compliance and enforcement 2007-2017, November 2017 (report can be accessed here); Vertessy Review, Independent assessment of the 2018-19 fish deaths in the lower Darling, Final Report, March 2019 (report can be accessed here).

The Department of Planning, Industry and Environment (DPIE), the Natural Resources Access Regulator (NRAR) and Water NSW provide services on behalf of WAMC.

DPIE retains responsibility for setting water management policies and undertaking water planning in NSW. Water NSW is now responsible for undertaking WAMC's licensing functions, providing metering services and account management services to water management customers in NSW. NRAR was established in 2018 as the independent water regulator to improve compliance and enforcement arrangements and to restore community confidence in water compliance.

As shown below, we are also concurrently reviewing prices for Water NSW's rural bulk water services. Water NSW provides four different bulk water services, with prices for two services currently under review.



On 30 June 2020, we received two detailed pricing proposals – that is, one proposal from DPIE and NRAR and another proposal from Water NSW (referred to collectively as WAMC's pricing proposal). This proposal includes substantial increases in water management and planning costs, to address the recommendations of past inquiries and stakeholder concerns. To mitigate the impact on customers, WAMC proposes capping annual price increases at 5% per year (excluding the effects of inflation).³

WAMC and its agencies have also identified reform actions and programs that are yet to be included in their proposed future costs and prices. In particular, they are currently working on the impact of the non-urban metering reform program to their business. They have flagged that this could result in changes to metering services and potential investments in new systems and data platforms, which may impact costs and prices.⁴

1.2 Our approach to this review

In assessing WAMC's prices, we will review its pricing proposals and make a number of decisions. These steps are set out below:

- 1. We will start our review by deciding on the scope of WAMC's monopoly services and the length of the determination period.
- 2. We will establish the total efficient costs to provide these services over the determination period.

³ DPIE/NRAR, *WAMC pricing proposal to IPART*, June 2020, p 3, and Water NSW, *WAMC pricing proposal to IPART*, June 2020, p 16.

⁴ Water NSW, *WAMC pricing proposal to IPART*, June 2020, pp 134, 138.

- 3. We will allocate the total efficient costs between customers and the NSW Government (on behalf of the broader community) based on the 'impactor pays' principle.
- 4. We will allocate the customer share of total efficient costs to water sources. WAMC allocates these costs by water source using the cost drivers set out in its cost allocation manual. We will also assess the appropriateness of using these cost drivers.
- 5. We will set WAMC's water management prices for each water source to recover the customer share of efficient costs allocated to that water source. We will evaluate the impact of our pricing decisions as part of this process. As such, we may set prices below full cost recovery to mitigate price impacts on customers. If we do so, we will aim to set those charges on a price path to achieve full cost recovery over a period of time.
- 6. We will also determine consent transaction charges and miscellaneous charges, which are set separately to our determination of water management prices. We will set these fee-for-service charges on a cost-reflective basis.

In the following sections, we discuss WAMC's proposal for key elements of these steps and key issues that we have identified.

1.3 We seek feedback on key issues we identified for this review

This Issues Paper focuses on WAMC's proposed cost increases, who should pay for those costs and what we should consider when setting prices. We are seeking stakeholder feedback on these issues, as well as any other issues related to the price review stakeholders wish to raise.

We will assess WAMC's proposed cost increases

WAMC proposes significantly higher costs for the 2021 determination period. It is forecasting operating expenditure to increase by 46.4% and net capital expenditure⁵ to increase by 181.2% compared with the forecast levels of expenditure we used to set its prices for the 2016 determination period (1 July 2016 to 30 June 2020).

Compared with its actual costs over the 2016 determination period, WAMC's proposal represents a 20.8% increase in its operating expenditure and a 66.6% increase in its capital expenditure.

Several factors are influencing these cost increases:

- Adapting to changed circumstances: Some of the cost increases result from changes to WAMC's operating environment. For example, it is using more proactive water regulation to meet enhanced standards of compliance and enforcement, and there is more licence processing due to drought conditions.
- Addressing the provision of activities: In the past WAMC has failed to achieve adequate service levels, performance targets or delivery milestones for some activities (eg, regional water planning, water monitoring capital program), and it is attempting to rectify this situation.

⁵ Capital expenditure net of grants and capital contributions.

 Responding to customer priorities: From its consultation with stakeholders, DPIE and NRAR have found that WAMC customers expect a higher level of service – including more information, consultation and accountability - which necessitates higher expenditure.

We will account for these factors when determining WAMC's efficient level of costs, as well as when deciding who should pay for these costs – WAMC customers or the NSW Government.

We will review who should pay for WAMC's costs

WAMC is proposing to apply the findings of our 2019 cost share review⁶ to allocate costs between water customers and the NSW Government (on behalf of the other customers and the broader community) for most of its activities for the 2021 determination period.⁷

While we conducted a thorough review of WAMC's cost share ratios in 2019, this was intended as a starting point for determining the appropriate cost share ratios for the 2021 determination period.

We will ask our consultants to review WAMC's proposed cost share ratios and whether circumstances have changed to warrant changing these cost shares. We may consider changing these ratios if the impactor for an activity has changed – for example, due to higher service levels for water customers or increased government requirements to achieve broader policy objectives. We will also consider the views of all stakeholders.

We will set prices that balance cost-reflective pricing principles and customer affordability

As outlined above, we will assess the efficient level of costs to provide WAMC's monopoly services, and determine the share of these costs that, in principle, water users should pay through regulated prices.

Ideally, we would then set prices at levels that recover the user share of WAMC's efficient costs over a given time period.

However, WAMC's pricing proposal includes a quantum shift in water management activities and costs. We are mindful of the potentially adverse impacts on customers of sharp rises in prices. We may therefore aim to transition prices in most water sources towards full cost recovery levels over a period of time.

We are seeking stakeholders' views on how to transition charges to achieve full cost recovery over time, and how we might best balance cost-reflective prices and customer affordability.

⁶ IPART, Rural Water Cost Shares – Final Report, February 2019.

⁷ Water NSW, WAMC pricing proposal to IPART, June 2020, p 107; DPIE/NRAR, WAMC pricing proposal to IPART, June 2020, Detailed Paper D, p 2.

1.4 Our review approach and timetable

We invite all interested parties to make submissions in response to this Issues Paper by **16 October 2020** (details on how to make a submission are provided on page ii of this Issues Paper). Stakeholders are welcome to raise other issues or views in their response.

Stakeholders also have other opportunities to provide their views for this review. We will hold an online public hearing on 17 November 2020. We will consider all comments made in submissions and at the public hearing before making our draft decisions. We will then release a Draft Report and Draft Determination, and invite further comments from stakeholders. We will consider all these comments before making our Final Determination and publishing our Final Report in June 2021, for new prices to apply from 1 July 2021.



Figure 1.1 Indicative timeline for this review

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

1.5 Structure of this Issues Paper

The rest of this paper provides more information on the review, WAMC's pricing proposal and our preliminary positions on key issues:

- Chapter 2 discusses WAMC's proposed expenditure for the 2021 determination,
- Chapter 3 discusses who should pay for this expenditure, and
- Chapter 4 discusses WAMC's proposed prices and our key pricing considerations.

1.6 List of questions for this Issues Paper

This Issues Paper identifies what we consider to be the key issues for this review and seeks your feedback on the following questions. We are also open to your views on any other issues you consider relevant to this review.

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13	Over what determination period (ie, how many years) should we set prices?	24
14	If we set a shorter period for Water NSW rural bulk water prices, are there benefits in aligning WAMC's determination period with Water NSW rural bulk water? What are the costs and benefits of setting a one-year period for WAMC to potentially align with Water NSW rural bulk water? Alternatively, what are the costs and benefits of setting longer period (eg, five years) and aligning these two determinations at the next review?	ne Ja 24
15	What are your views on WAMC's proposed price structures?	26
16	Is there merit in setting separate charges to recover MDBA and BRC costs?	26
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18	Do you agree with Water NSW's proposal to introduce a demand volatility adjustment mechanism for WAMC to address its revenue risk? Should we effectively allocate mo risk to customers?	t re 30

2 What are WAMC's proposed costs?

The three agencies that perform WAMC functions (ie, DPIE, NRAR and Water NSW) are proposing significant cost increases for the 2021 determination period. This chapter discusses the key activities driving WAMC's proposed expenditure.

We are seeking stakeholders' views about these key activities, as well as their views on WAMC's other activities. We do not discuss all of WAMC's activities in detail in this Issues Paper, but we will examine them through the expenditure review process.

2.1 Summary of key activities driving WAMC's expenditure

This Issues Paper focuses on WAMC's proposed increases in its operating expenditure for its water management, water regulation, water licence processing and other business and customer services activities. These activities combined account for almost 80% of WAMC's forecast operating expenditure. Further, these costs are forecast to increase by over 70% on average compared with the 2016 allowance (ie, the operating expenditure allowance IPART used to set WAMC's prices in the 2016 determination period).

WAMC's main activities	W codes	Main agency	% total (of 2021 opex)	% change (compared to allowe 2016 opex)	d Cost drivers of opex	
Water management activities (planning, implementation & works	W05 W06 W07	DPIE	35.5%	1 59.1%	More extensive water management activities]
Water regulation (compliance & enforcement)	W08	NRAR	21.6%	118.2%	Increased compliance and enforcement activities	Opex discussed in this
Water licence processing	Wog	Water NSW & NRAR	10.6%	Not applicable	More licence processing	Issues Paper
Other business and customer services	W10	Water NSW & NRAR	9.8%	1 47.1%	Higher levels of service to customers	J
Water monitoring (ground water, surface water & water take monitoring)	W01 W02 W03	Water NSW	15.1%	\$ 23.0%	Falling opex costs compared to 2016 levels	
Water modelling	W04	DPIE	6.5%	1 12.7%	Producing more information to assist WAMC activities & provide to customers	

Note: The "% change" figure is not applicable for the water licence processing activity, since we did not set a 2016 allowance for these costs. Rather, we set a charge so the costs could be recovered on a fee-for-service basis. Also, we have excluded the preliminary metering costs that were included in the agencies' pricing proposals from the "% total" calculations. As discussed in Chapter 4, we anticipate receiving updated costs arising from non-urban metering reforms by December 2020.

This Issues Paper also considers WAMC's capital expenditure as it relates to water monitoring. While operating expenditure on this activity is decreasing, it accounts for around 60% of WAMC's forecast capital expenditure and is forecast to rise by nearly 145% above the 2016 allowance.

2.2 WAMC is proposing significant cost increases for the 2021 determination period

For this review, we need to decide the efficient level of costs WAMC will incur in providing services over the 2021 determination period, and in turn, the amount it can recover via prices to customers. This assessment is critical given the significant increases in expenditure WAMC is proposing compared with its 2016 allowances.⁸ We have engaged expenditure consultants (Cardno) to help examine WAMC's efficiency.

Several factors that influence WAMC's proposed operating and capital expenditure are common across its activities:

- Some cost increases reflect changed circumstances, for example, more proactive water regulation to meet enhanced standards of compliance and enforcement, and more licence processing due to drought conditions.
- Other cost increases address historical issues, such as failing to achieve adequate service levels, meet performance targets or delivery milestones for some activities (eg, regional water planning, the water monitoring capital program). WAMC is attempting to rectify this situation.
- Additionally, cost increases are linked to customer priorities. DPIE and NRAR indicated customers expect a higher level of service – ie, more information, consultation, and accountability from the agencies delivering WAMC's services – which necessitates higher expenditure.

We will account for these factors when determining the efficient level of cost, as well as when deciding who should pay for those costs – WAMC customers or the NSW Government.

2.2.1 WAMC's operating expenditure is forecast to increase by around 50% compared with its 2016 allowance

WAMC's actual operating expenditure throughout the 2016 determination period exceeded its 2016 allowance by 21.2%.⁹ It now proposes to further increase its operating expenditure for the 2021 determination period.¹⁰

⁸ The 2016 allowances cover the 4-year period 1 July 2016 to 30 June 2020 (ie, the 2016 determination period). In May 2019, we agreed to DPIE's request to defer the next WAMC price determination so that it would start on 1 July 2021. While WAMC incurred costs for the period 2020-21 (ie, 1 July 2020 to 30 June 2021), we have excluded them from this Issues Paper to allow for a simple comparison between the 2016 and 2021 determination periods.

⁹ IPART analysis based on DPIE/NRAR and Water NSW information returns.

¹⁰ The pricing submissions from DPIE/NRAR and Water NSW do not include the total costs for the NSW Government's non-urban metering reform program (discussed in Chapter 4). We anticipate receiving this information by the end of December 2020 (Water NSW, *WAMC pricing proposal to IPART*, June 2020, p 38).



Understanding why WAMC's expenditure over the 2016 determination period was higher than the allowances we used to set prices for that period will help inform our decision on WAMC's efficient level of expenditure for the 2021 determination period.

We will consider WAMC's ability to control costs and realise efficiencies. We will also examine how WAMC's priorities or circumstances have changed since the 2016 price review. For example, we recognise that in areas such as water regulation, allowances were based on information available at the time, but subsequent events meant WAMC spent more than was allocated.

For the 2021 determination period, we will consider whether any proposed expenditure constitutes 'double recovery' for past inefficiencies. As noted earlier, WAMC proposes expenditure for some activities that were funded in the 2016 determination period, and there were issues with its service provision. We will explore whether this outcome reflects inefficiencies in the 2016 determination period, or a reprioritisation of expenditure in response to changing circumstances and needs.

The following sections discuss the key factors driving WAMC's proposed increase in operating expenditure for the 2021 determination period (as well as its higher than forecast level of expenditure during the 2016 determination period).

Undertaking more water management activities would increase costs

During the 2016 determination period, DPIE (on behalf of WAMC) undertook an extensive range of water planning, implementation and works activities, partly funded by the Commonwealth Government. These activities included:

- Developing water sharing plans for NSW regional water sources, water resource plans for the Murray-Darling Basin Authority (MDBA) and floodplain and drainage management plans
- Introducing systems to implement these water management plans, as well as undertaking works to reduce the detrimental effects of water use (eg, erosion, salinity).

While DPIE's actual expenditure on these activities was \$65.8 million – 8.3% below its allowed expenditure – it also received \$82.6 million in Commonwealth Government funding (see Chapter 3 for details about this external funding).¹¹

¹¹ IPART analysis based on DPIE/NRAR and Water NSW information returns.

In terms of its performance during the 2016 determination period, DPIE met most of its water planning targets¹² and some water implementation targets.¹³ However, it only partially met the targets set for developing regional water plans, evaluating water plans and undertaking water works (see Box 2.1).

Box 2.1 WAMC's performance in water management

DPIE did not meet some of its water management targets during the 2016 determination period partly because its resources were reallocated to meet Murray-Darling Basin Plan activities. Further, the NSW Government required an expanded scope and increased complexity for some of its water planning activities.

Even when DPIE met its water management targets, stakeholders consistently reported it did not provide an adequate level of service for these activities. For example:

- Water plans did not have a clear set of enforcement rules
- Transparent information was not available to customers about water plan implementation, performance assessment or evaluations undertaken
- There was a lack of accountability for government decision making on water planning reforms, regional planning and management strategies.

Source: DPIE/NRAR, WAMC pricing proposal to IPART, June 2020, Detailed Paper E, pp 68-72, 80-88, 91-97 and 122-123.

In the 2021 determination period, DPIE proposes to expand its water management activities, including to address some of the activities where it did not meet the performance targets in the previous period. Further, it is including expenditure for some activities that were previously funded by the Commonwealth Government.

Developing regional plans is a key water planning activity

DPIE aims to ramp up regional water planning by establishing 12 regional water strategies under the NSW Government's Water Strategy Program.¹⁴ DPIE has indicated that developing strategies at the regional level will help better understand current and future water needs and water resource management risks.¹⁵

DPIE is forecasting costs of \$23.8 million for regional water planning, which is an increase of 189.6% (or \$15.6 million) compared with its 2016 allowance. DPIE considered the regional water strategies program was in its infancy when IPART set this allowance in 2016. It stated that, since then, the NSW Government has expanded the objectives of this program, requiring a more complex development process and therefore higher costs to deliver the strategies.¹⁶

¹² DPIE met the performance targets for developing water sharing plans, water resource plans, floodplain management plans and drainage management plans (IPART, Performance against WAMC output measures for 2016-2017, 2017-18, 2018-19 – complete reports, W06-01 to W06-04).

¹³ DPIE met the performance targets for issuing Available Water Determinations, producing annual compliance reports on work approval conditions. (DPIE/NRAR, WAMC pricing proposal to IPART, June 2020, Detailed Paper E, pp 48-49)

¹⁴ The Water Strategy Program sets the strategic direction for water resource management and the water sector in NSW over the next 20 to 40 years. The aim is to coordinate the work of water agencies, providing a framework for managing future droughts and tracking the performance of agencies to deliver the strategies (DPIE/NRAR, WAMC pricing proposal to IPART, June 2020, p 39, Detailed Paper E, pp 118-119).

¹⁵ DPIE/NRAR, WAMC pricing proposal to IPART, June 2020, Detailed Paper E, pp 125.

¹⁶ DPIE/NRAR, *WAMC pricing proposal to IPART*, June 2020, p 40.

DPIE indicated higher expenditure on this program aligns with stakeholder priorities, stating stakeholders support it taking a strategic approach to regional planning. Further, DPIE noted stakeholders want to be involved in developing regional water strategies, and the previous level of funding for regional water planning would only allow for limited stakeholder consultation.¹⁷

As noted above, DPIE did not meet milestones for the regional water strategies program during the 2016 determination period. It indicated funding through WAMC prices in the previous period was sufficient to complete only one strategy every two years, with minimal capacity for stakeholder engagement or whole-of-government co-ordination.¹⁸ During this review, we will consider what an efficient level of expenditure is for this planning activity, and the extent to which WAMC customers pay for it.

DPIE is also establishing floodplain and drainage management plans

DPIE is accelerating its floodplain and drainage management planning, which was mainly funded by the Commonwealth Government in the 2016 determination period.

- Floodplain management plans establish a framework for co-ordinating flood works and support the implementation of floodplain harvesting entitlements (ie, the mechanisms for managing water take from floodplains).¹⁹ DPIE noted that the previous approach to floodplain management was piecemeal, and the new floodplain management plans address these limitations.²⁰
- Drainage management plans address water quality problems associated with drainage systems. DPIE is preparing a framework that aims to cut red tape and improve water quality in estuaries. Stakeholders indicated to DPIE the current drainage approvals process should be simpler and less costly.²¹

DPIE is forecasting expenditure of \$9.5 million (compared with \$0.3 million in the 2016 allowance) on these plans. It received \$10.9 million in external funding for these activities in the 2016 determination period. DPIE proposes the customer share of its floodplain and drainage management planning costs should be zero, since these activities deal with legacy issues.²²

Water implementation activities are shifting focus to evaluating water management plans

A range of water sharing plans, water resource plans and regional water plans are in place or will be developed during the 2021 determination period. As such, DPIE proposes expenditure of \$14.6 million to evaluate and improve these plans, a 39.1% (or \$4.1 million) increase on the 2016 allowance.

¹⁷ DPIE/NRAR, *WAMC pricing proposal to IPART*, June 2020, Detailed Paper E, p 123.

¹⁸ DPIE/NRAR, WAMC pricing proposal to IPART, June 2020, Detailed Paper E, p 117.

¹⁹ DPIE/NRAR, WAMC pricing proposal to IPART, June 2020, pp 36-37. During the 2021 determination period, floodplain management plans are proposed for the Lachlan, Murrumbidgee and Murray catchments.

²⁰ DPIE/NRAR, *WAMC pricing proposal to IPART*, June 2020, Detailed Paper E, p 109.

²¹ DPIE/NRAR, *WAMC pricing proposal to IPART*, June 2020, Detailed Paper E, pp 112-113.

²² DPIE/NRAR, WAMC pricing proposal to IPART, June 2020, Detailed Paper E, pp 108, 115.

It will undertake activities to understand whether the plans meet their environmental, social and economic objectives.²³ This higher expenditure is required to invest in a formalised socioeconomic monitoring program, to produce more evaluation reports, and to complete risk assessments for some water management plans.²⁴

During the 2016 determination period, DPIE did not meet its performance targets in this area. It explained that redeployment of staff to deliver Murray-Darling Basin Plan activities meant it could not complete some evaluation functions as forecast. Evaluation reports were delayed and fewer were produced than planned.²⁵

Stakeholder feedback to DPIE has indicated customers want improved information about water management plans, including progress reports on their implementation. Further, customers expect a higher level of service relating to performance evaluation.²⁶ DPIE proposes a higher level of expenditure to respond to these customer priorities.

We consider WAMC customers should pay only for their share of the efficient cost of undertaking this activity. Our review aims to identify the underlying factors that delayed DPIE's evaluation reporting framework. If the delays are due to inefficiencies in WAMC operations, those costs should not be borne by its customers.

Water works activities are planned to address erosion and salinity

DPIE is planning to undertake water management works, for example to address erosion and salinity. These activities were predominantly funded by the Commonwealth Government in the 2016 determination period.

To maintain its level of activity in salinity management, DPIE is proposing a substantial increase in expenditure. It is planning to spend \$11.5 million, an increase of 189.9% (or \$7.5 million) on its 2016 allowance.²⁷ This appears to replace the \$7.4 million in funding WAMC received from the Commonwealth Government for water works in the 2016 determination period.

We seek your comments

- 1 How well has WAMC performed its water management functions?
- 2 Do you agree with WAMC's proposed areas of focus for water management (and their associated costs)?

Compliance and enforcement activities are also increasing, with costs forecast to rise

Some of the proposed cost increases are driven by NRAR's proactive approach to water regulation. NRAR was established in early 2018, in response to an independent inquiry that found existing water compliance and enforcement arrangements were ineffectual and required urgent improvement.²⁸

²³ DPIE/NRAR, *WAMC pricing proposal to IPART*, June 2020, Detailed Paper E, p 66.

²⁴ DPIE/NRAR, *WAMC pricing proposal to IPART*, June 2020, Detailed Paper E, p 66.

²⁵ DPIE/NRAR, WAMC pricing proposal to IPART, June 2020, Detailed Paper E, pp 66-67.

²⁶ DPIE/NRAR, *WAMC pricing proposal to IPART*, June 2020, Detailed Paper E, p 68.

²⁷ IPART analysis based on DPIE/NRAR and Water NSW information returns.

²⁸ Matthews Review, Independent investigation into NSW water management and compliance, Final Report, November 2017, p 7.

NRAR adopted a more active regulatory approach in the 2016 determination period

NRAR indicated it was tasked with rebuilding community trust in the management of water use and access, and stated it had therefore taken a more active role in compliance and enforcement. Water investigation rates have increased and prosecution rates are nearly triple those before NRAR's establishment. Its staffing levels have risen to facilitate this increase in compliance and enforcement activities.²⁹

According to NRAR, this more proactive regulatory approach largely explains why WAMC's expenditure in the 2016 determination period was higher than the allowances we used to set WAMC's prices for the period.³⁰ Its actual expenditure on water regulation management was \$48.1 million, exceeding its allowance by 51.4% (or \$16.3 million).³¹

Consultation conducted by DPIE and NRAR indicated stakeholders support this more robust compliance and enforcement regime. They wanted clear and transparent enforcement of the water management framework. Further, they considered it was important to adequately resource the compliance and enforcement regime, particularly relating to the number of compliance officers.³²

The shift in compliance activities also meant the output measures set for the 2016 determination period were no longer relevant (see Box 2.2).

Box 2.2 WAMC's performance in water regulation

During the 2016 determination period, DPIE's compliance and enforcement program focused on increasing voluntary compliance by conducting audits, on-site and remote monitoring and providing advice and education to customers. Establishing NRAR resulted in a change in WAMC's compliance and enforcement regime and its resource priorities. Therefore, its water regulation output measures for the 2016 determination period were considered to be no longer relevant.

For the 2021 determination period, NRAR proposes output measures that better reflect its compliance and enforcement activities and address stakeholder concerns. These measures include additional requirements to publish its compliance activity, and new performance indicators based on the timeliness of its response to alleged breaches and public reports.

Source: DPIE/NRAR, WAMC pricing proposal to IPART, June 2020, June 2020, Detailed Paper E, pp191-197, 204.

This approach is forecast to continue for the 2021 determination period

NRAR proposes expenditure of \$69.3 million for water regulation management in the 2021 determination period.³³ While this amount is 118.2% greater than the allowance we used to set prices for the 2016 determination period, that allowance did not factor in establishing NRAR and its more active regulatory approach.

²⁹ DPIE/NRAR, *WAMC pricing proposal to IPART*, June 2020, pp 6-7.

³⁰ DPIE/NRAR, WAMC pricing proposal to IPART, June 2020, pp 21-22

³¹ IPART analysis based on DPIE/NRAR and Water NSW information returns.

³² DPIE/NRAR, *WAMC pricing proposal to IPART*, June 2020, p 19.

³³ IPART analysis based on DPIE/NRAR and Water NSW information returns.

Another way of understanding the cost increases is by analysing average annual expenditure. On this basis, NRAR's proposed water regulation costs (\$17.3 million per year) are slightly lower than its actual costs for the two full years since it was established (\$18.8 million per year). That is, forecast compliance and enforcement costs are 8.0% below current expenditure.

NRAR seeks to realise efficiencies in its operations for the 2021 determination period by managing an increased workload with its current resources. It plans to achieve this by using new technologies like satellite imagery and improving its staff capabilities.³⁴

We recognise that deficiencies in the previous regulatory approach clearly needed to be addressed, and the regulatory reforms need adequate funding. However, these changes have significantly driven up compliance and enforcement costs. Therefore, we seek stakeholders' views about the appropriate balance between water regulation activities and the efficient costs of supporting those activities.

We seek your comments

- 3 How well has NRAR performed its water regulation functions?
- 4 Will NRAR's proposed activities and costs facilitate effective and efficient water regulation?

More licence processing may result in cost increases

Water NSW and NRAR have shared responsibility for licence processing services. These are undertaken on a fee-for-service basis, and include assessments, changes to conditions and new applications for water licences and approvals. NRAR assesses more complex transactions for large entities and Water NSW assesses all other transactions.

The increase in compliance and enforcement activities has had a flow on effect for licence processing transactions. Water NSW stated NRAR's changed approach to compliance – as well as the complexity of the water management framework – increased the number of customers submitting work approvals and licence applications. Further, the prolonged effects of drought increased licence processing, particularly for water bores.³⁵

As outlined in Box 2.3, some of the performance targets for licence processing were not achieved during the 2016 determination period.

³⁴ DPIE/NRAR, *WAMC pricing proposal to IPART*, June 2020, p 47.

³⁵ Water NSW, *WAMC pricing proposal to IPART*, June 2020, pp 46, 48, 59.

Box 2.3 WAMC's performance in licence processing

While Water NSW processed all licensing transactions against set timeframes, NRAR did not meet its performance indicators. NRAR noted this was due to the additional complexity of the water management framework for large customers.

For the 2021 determination period, NRAR proposes to remove the target to process all licensing applications and to update its output measures based on the time taken to determine applications. It also proposes to increase the processing timeframe and reduce the percentage of applications required to be assessed within the updated timeframe. Water NSW did not propose changes to any specific output measures or performance indicators.

Source: DPIE/NRAR, WAMC pricing proposal to IPART, June 2020, Detailed Paper E, pp 227-231. Water NSW, WAMC pricing proposal to IPART, June 2020, p 204.

Licence processing is forecast to cost \$34.2 million.³⁶ This is 6.1% more than actual expenditure during the 2016 determination period.

We will examine whether the proposed cost increases are mainly attributable to Water NSW and NRAR processing more licences, or if they are partly due to them providing more responsive services (but at a higher cost). For example, Water NSW stated its current staffing levels were insufficient to meet the rise in new licence applications and address the existing backlog of applications.³⁷ Therefore, we will look at the extent to which factors such as increased staffing rates are driving this cost, and whether this expenditure is efficient.

We seek your comments

5 How well have Water NSW and NRAR performed their licence processing functions?

Providing higher levels of services to customers may lead to higher costs

As mentioned earlier, a common factor driving the proposed cost increases is that customers want a higher level of service from WAMC, which necessitates a higher level of expenditure. This justification was raised by DPIE in relation to a wide range of activities, including some of those outlined above (eg, evaluating water management plans and undertaking water management works)³⁸ as well as other WAMC functions (eg, water modelling, water monitoring, environmental water plans).³⁹

This justification is also relevant to WAMC's business and customer liaison activities. Water NSW (as well as NRAR) provide a range of services on WAMC's behalf in this area, including producing communication and education materials, responding to calls to information lines and participating in customer forums.⁴⁰

³⁶ IPART analysis based on DPIE/NRAR and Water NSW information returns.

³⁷ Water NSW, WAMC pricing proposal to IPART, June 2020, p 47.

³⁸ DPIE/NRAR, *WAMC pricing proposal to IPART*, June 2020, Detailed Paper E, pp 68, 173.

³⁹ DPIE/NRAR, *WAMC pricing proposal to IPART*, June 2020, Detailed Paper E, pp 16, 26, 58.

⁴⁰ DPIE/NRAR, *WAMC pricing proposal to IPART*, June 2020, p 49; DPIE/NRAR, *WAMC pricing proposal to IPART*, June 2020, Detailed Paper E, p 238.

According to DPIE and NRAR, customers indicated they want better business and customer liaison activities, and this is a reason for the steep increase in these costs.⁴¹ Expenditure of \$31.4 million is proposed for the 2021 determination period, which is 47.1% above the 2016 allowance (but only a 4.4% increase compared with actual expenditure).⁴²

We seek your comments

- 6 Do you agree WAMC should focus on providing better services (eg, more information and consultation) to customers, supported by higher levels of expenditure?
- 7 Do you consider DPIE, NRAR and Water NSW consulted adequately with stakeholders on their pricing proposals?

2.2.2 Changes are proposed to the allocation of MDBA and BRC costs

WAMC contributes on behalf of the NSW Government to two inter-jurisdictional water management organisations – the MDBA and the Dumaresq-Barwon Border Rivers Commission (BRC). We plan to review the efficiency of these costs, and the method for allocating them between the WAMC and Water NSW rural bulk water price determinations.

DPIE proposes to increase MDBA costs by 34.2% overall compared with the 2016 allowance. The impact on WAMC and Water NSW rural bulk water costs is different due to a change in cost allocation. DPIE plans to assign MDBA's river management activity costs to WAMC and MDBA's other costs to Water NSW rural bulk water.⁴³ As a result, the proposed MDBA contribution of \$152.8 million would be split as:

- \$22.8 million to WAMC (41.4% below its 2016 allowance)
- \$130.0 million to Water NSW rural bulk water (73.5% above its 2016 allowance).

In relation to the BRC contributions, DPIE proposes expenditure of \$10.9 million (a 95.6% increase on the 2016 allowance, albeit off a relatively small base). Currently, the NSW Government recovers from customers around 35% of BRC contributions from the WAMC price determination and 65% from the Water NSW rural bulk water price determination. The split is based on historical natural resource management and river operations costs.⁴⁴

For the 2021 determination period, DPIE proposes to revise this split (28% to WAMC and 72% to Water NSW rural bulk water), reflecting the BRC's forward work plan. This change would make WAMC's BRC contribution around \$3.0 million, almost double its 2016 allowance.⁴⁵

Historically, we have raised concerns about the efficiency of the MDBA and BRC contributions.⁴⁶ We are considering what incentives DPIE has (or should have) to adequately scrutinise the efficiency of these costs, before seeking to pass them onto WAMC customers.

⁴¹ DPIE/NRAR, *WAMC pricing proposal to IPART*, June 2020, Detailed Paper E, p 238.

⁴² IPART analysis based on DPIE/NRAR and Water NSW information returns.

⁴³ DPIE/NRAR, *WAMC pricing proposal to IPART*, June 2020, Detailed Paper F, pp 7-9.

⁴⁴ DPIE/NRAR, WAMC pricing proposal to IPART, June 2020, Detailed Paper F, p 10.

⁴⁵ DPIE/NRAR, *WAMC pricing proposal to IPART*, June 2020, Detailed Paper F, p 10.

⁴⁶ We applied a 5% efficiency adjustment to the proposed MDBA contributions for the 2016 determination period (IPART, *Review of prices for the Water Administration Ministerial Corporation, Final Report*, June 2016, p 51).

We seek your comments

8 How important is it to improve the incentives for DPIE to actively engage in negotiating MDBA and BRC contributions to ensure only efficient costs are passed onto WAMC customers?

2.2.3 WAMC's capital expenditure is forecast to increase by over 180% compared to its 2016 allowance

WAMC's actual capital expenditure over the 2016 determination period exceeded its 2016 allowance by 68.7%. It proposes even higher levels of capital expenditure in the 2021 determination period. However, this increase is from a small base – to date, WAMC has had relatively low levels of capital expenditure.



Water NSW is managing the capital program on WAMC's behalf. During the 2016 determination period, it received funding for its water monitoring program. Due to factors discussed below, it was unable to rollout this program as forecast and instead applied the funding to its shared capital costs. It now proposes to again seek funding for its water monitoring program.

The following sections discuss its key cost drivers in more detail.

Water NSW seeks additional funding for its water monitoring program

During the 2016 determination period, Water NSW underspent on its water monitoring program. It was allowed expenditure of \$12.3 million, but only spent \$4.7 million.⁴⁷

This underspend does not appear to be due to Water NSW realising efficiencies, but rather it undertaking a lower level of activity. Water NSW stated it was not in a position to manage the program as scheduled. For example, it did not receive the necessary documentation – such as business cases – from DPIE to be able to form a detailed understanding of the water monitoring program.⁴⁸

⁴⁷ Water NSW, *WAMC pricing proposal to IPART*, June 2020, p 66.

⁴⁸ Water NSW, WAMC pricing proposal to IPART, June 2020, p 66.

Water NSW now seeks \$26.1 million in capital expenditure for its water monitoring program.⁴⁹ This proposal raises issues about the extent to which Water NSW seeks funding for a program that was already allowed for (and hence paid for by customers through prices) in the 2016 determination period.

Water NSW allocated some of its shared capital costs to WAMC

According to Water NSW, it was not a 'steady state' business at the time of the 2016 determination. The 2016 allowance did not contemplate or sufficiently fund the shared capital costs (eg, ICT systems, offices) required for Water NSW to take on WAMC functions in 2016.⁵⁰ As such, its actual shared capital costs were more than 10 times greater than the allowance.⁵¹

In the 2021 determination period, while Water NSW proposes to maintain a lower level of shared capital costs than its actual expenditure in the previous period, it still represents a substantial increase on its 2016 allowance. As part of this review, we will examine the efficiency of the shared capital costs it has allocated (and proposes to allocate) to WAMC.

We seek your comments

- 9 Was it efficient for Water NSW to apply capital expenditure from its water monitoring program to cover its shared capital costs?
- 10 Is WAMC's water monitoring program efficient?
- 11 Given the increase in WAMC's capital costs, is the arrangement of Water NSW providing WAMC's capital program efficient?

⁴⁹ Water NSW, *WAMC pricing proposal to IPART*, June 2020, p 66.

⁵⁰ Water NSW, WAMC pricing proposal to IPART, June 2020, pp 63-64.

⁵¹ Water NSW, *WAMC pricing proposal to IPART*, June 2020, p 66.

3 Who should pay for WAMC's costs?

After we establish the efficient costs that WAMC should incur to deliver its services, we determine who should pay for these costs before setting WAMC's prices.

3.1 Where we landed on allocating WAMC's costs during the 2016 determination period

In 2019, we reviewed (cost share review) how future operating and capital expenditure is shared between rural water customers (via WAMC's prices) and the NSW Government (on behalf of other customers and the broader community).⁵²

Based on this cost share review, we decided to maintain our decisions in the 2016 Determination to allocate the efficient costs of rural water management services between water customers and the NSW Government using the 'impactor pays principle'. That is, those that create the need to incur the costs should pay the costs. We allocated costs to customers using an activity-based cost sharing framework. That is, we applied a customer and government cost share ratio for each of WAMC's 33 activities.

The purpose of the cost share review was to inform the starting point for determining the customer and government cost share ratios for the 2021 price review. During the cost share review, we did not consider the changes to the roles and responsibilities for delivering WAMC's services. For instance, our cost share review did not review NRAR's functions and did not investigate the extent that NRAR's compliance and enforcement activities are different to WAMC's activities and costs allowed for in the 2016 Determination.

We also identified potential areas for investigation to improve the existing cost sharing framework. This includes considering whether we should vary the allocation of costs based on valley-specific factors, whether to consolidate some activities to improve transparency and remove duplication, and whether there are different impactors for WAMC's proposed costs for the 2021 determination period compared to the cost shares we identified during the cost share review.

Table 3.1 presents the rationale and the application of the impactor pays principle from the cost share review. We determined these cost share ratios based on WAMC's activities from the 2016 Determination. We estimated the impact of the revised cost share ratios would increase the customer share from 72% to 84%.⁵³

⁵² IPART, *Rural Water Cost Shares – Final Report*, February 2019.

⁵³ These indicative impacts were calculated in aggregate across all water sources. The 72% customer share is based on WAMC's efficient costs over the 2016 determination period. The 84% customer share is the indicative impact based on WAMC's allocation of costs over the four year period 2017-18 to 2020-21.

Impactor	Activities	How we have identified the impactor?
Water customers are the sole impactor (100% customer share)	 Surface water quantity monitoring Water take data collection, data management and reporting Groundwater activities (ie, quality and quantity monitoring, data management, modelling) Water resource accounting Systems operation and water availability management Regulation systems management Consents management and licence conversion and water consents transactions Compliance and enforcement management Customer and billing management 	In a world without high consumptive water use, these activities would not be required. For example, activities associated with groundwater are undertaken because of water customers. If there were no need to manage water extraction and consumption of water resources, these activities would not be required.
Water customers are major impactors	 Surface water quality monitoring, (60%) Surface water modelling (80%) Environmental water management (80%) Water plan development (70%) Regional planning and management strategies (70%) Development of water planning and regulatory frameworks (80%) Water management works (80%) Business governance and support (80%) 	In a world without high consumptive water use, these activities would still be required for non-consumptive purposes. However, the primary driver of these activities are associated with water customers. For example, developing water management plans and regulatory frameworks to facilitate water access are primarily driven by water consumption. The government will still require some high level planning for broader policy objectives but it is a minor impactor.
Joint impactor (50% customer share)	 Surface water data management and reporting Surface water ecological condition monitoring Water plan performance assessment and evaluation Cross-border and national commitments to water sharing 	In a world without high consumptive water use, it is likely the government would undertake these activities for non- consumptive purposes to meet broader policy objectives. However, additional activity is required to mitigate the impact of water customers or protect water customer rights from over-consumption.
Water customers are minor impactors	 Surface water algal monitoring (40%) Blue-green algae management (40%) 	The risk of toxic algae blooms exists in waterways as a natural occurrence in all freshwater sources. However, high consumptive use affects water availability and water temperature. Therefore, the major impactor is the NSW Government on behalf of the broader community and water customers are minor impactors.
The NSW government is the sole impactor (0% customer share)	 Floodplain management plan development Drainage management plan development 	In a world without high consumptive water use, broad land management planning is likely to occur. There is no direct link between these activities and water consumption. The need to undertake this activity is driven solely by the NSW Government.

Table 3.1 Assessment of WAMC's activities in IPART's cost share review

Source: IPART, Rural Water Cost Shares - Final Report, February 2019, Appendix B.

3.2 WAMC proposes to allocate some costs differently for the 2021 determination period

WAMC proposes to apply the findings of our cost share review to allocate costs between water customers and the NSW Government for most of its activities for the 2021 determination period.⁵⁴ WAMC also proposes treating its cost share ratios for three activities differently:

- Water consents overhead WAMC proposes to remove this activity and reallocate these costs to water consents transactions.
- Business governance and support WAMC proposes to remove this activity and allocate these costs to overheads for all activities, applying an 80% customer share.
- Corporate capital expenditure Water NSW proposes to apply a 94% weighted average customer share for corporate costs.⁵⁵ There were no corporate capital costs in the 2016 Determination.

WAMC's proposed customer share of costs is 83% of its total proposed costs for the 2021 determination period.⁵⁶ This figure is 9% greater than the 72% customer share of costs in the 2016 Determination.

We will ask our expenditure consultants to review WAMC's proposed cost share ratios and determine whether circumstances have changed to warrant us to adjust these cost shares. For example, we may consider adjusting these ratios if the impactor for an activity has changed due to higher service levels for water customers or increased government requirements to achieve broader policy objectives.

We seek your comments

12 Do you agree with the cost share ratios set in the cost share review? If not, for which activities should we modify the cost share ratio? Please specify an updated cost share ratio and explain why it is appropriate.

⁵⁴ Water NSW, *WAMC pricing proposal to IPART*, June 2020, p 107; DPIE/NRAR, *WAMC pricing proposal to IPART*, June 2020, Detailed Paper D, pp 2-3.

⁵⁵ Water NSW, WAMC pricing proposal to IPART, June 2020, p 107.

⁵⁶ This customer share was calculated in aggregate across all water sources.

3.3 External funding for water management activities

During the 2016 determination period, WAMC received \$88.5 million of external funding from the Commonwealth Government. Some of this funding was for activities that are above and beyond WAMC's required water management services, and these costs are not allocated to WAMC's customers. But some of this external funding was used to supplement or accelerate WAMC's water management activities. These activities include:

- Water modelling building new models for floodplain management and enhancing groundwater models⁵⁷
- Water management implementation developing environmental water management programs, improving water sharing plan performance assessments and evaluations and developing floodplain management plans⁵⁸
- Water management planning supplementing water planning and regulatory framework activities and accelerating the development of expanded regional water strategies to satisfy government priorities.⁵⁹

DPIE noted that the while these programs were set up using external funding, some activities are now entering the implementation phase and will form part of WAMC's 'business as usual' activities and result in a higher level of service for water customers going forward.

For the 2021 determination period, WAMC proposes allocating the cost of these activities (including the activities that were previously externally funded) to customers using our cost share framework. That is, we take the efficient capital and operating costs allowed to be recovered, exclude legacy costs⁶⁰ and apply the 'impactors pay principle' to determine who should pay for each activity.

For some activities such as developing floodplain management plans, greater expenditure is unlikely to affect the prices that water customers pay because the NSW Government is the sole impactor. However, for activities where water customers are the sole or major impactors, increased costs for the higher level of service will increase the prices that water customers pay.

⁵⁷ DPIE/NRAR, *WAMC pricing proposal to IPART*, June 2020, Detailed Paper E, pp23-24.

⁵⁸ DPIE/NRAR, WAMC pricing proposal to IPART, June 2020, Detailed Paper E, pp 64-65, 77-78, 108.

⁵⁹ DPIE/NRAR, WAMC pricing proposal to IPART, June 2020, Detailed Paper E, pp 149-151, 161-162.

⁶⁰ Legacy costs are the costs resulting from past customers or previous uncommercial investment and management decisions, which are unrelated to the efficient forward-looking costs of providing services to customers.

4 What does this mean for prices?

In previous chapters, we discussed WAMC's proposed costs for the 2021 determination period and how it proposes to share those costs between customers and the government.

In this chapter, we discuss the length of the determination period and WAMC's proposed prices to recover the customer share of its costs. We seek stakeholder feedback on these proposed prices and their key elements. As noted previously, stakeholders can raise other pricing issues in response to this Issues Paper.

4.1 We will need to set the length of the determination period

WAMC proposes a four-year determination period, from 1 July 2021 to 30 June 30 June 2025.61 WAMC considered that:

.. the benefits of a four-year determination period in providing certainty and minimising both regulatory burden and administrative costs outweigh the costs and benefits of moving to a period shorter or longer than four years.

When we last set WAMC's prices in 2016, we set prices for four years, to 30 June 2020. However, we deferred this review by one year to align with our review of Water NSW's rural bulk water prices,⁶² which we are now reviewing concurrently.

For our review of Water NSW rural bulk water prices, Water NSW proposes we set its rural bulk water prices for one year, from 1 July 2021 to 30 June 2022.⁶³ As outlined in our Issues Paper for Water NSW rural bulk water review, our preliminary preference is for a standard four-year determination period.⁶⁴

In light of this, and recognising the potential benefit of aligning the WAMC and Water NSW rural bulk water determination periods, our preliminary preference is to also set a four-year determination period for WAMC.

We seek stakeholder views on the merits of aligning the price determinations for WAMC and Water NSW's rural bulk water price determinations.

⁶¹ DPIE/NRAR, *WAMC pricing proposal to IPART*, June 2020, p 17, and Water NSW, *WAMC pricing proposal to IPART*, June 2020, pp 34-35.

⁶² IPART, *Media release – Review of water management charges deferred*, 30 May 2019. This media release can be accessed here. In the media release, we indicated that the deferral meant that WAMC's 2019-20 prices under the current determination would remain constant in nominal terms (with no adjustment for inflation) beyond 2019-20, until IPART makes a new price determination.

⁶³ Water NSW, Pricing proposal - Regulated prices for NSW Rural Bulk Water Services 1 July 2021 to 30 June 2022, June 2020, p 37

⁶⁴ IPART, *Issues Paper Review of Water NSW's rural bulk water prices from 1 July 2021*, September 2020, p 18.

We seek your comments:

- 13 Over what determination period (ie, how many years) should we set prices?
- 14 If we set a shorter period for Water NSW rural bulk water prices, are there benefits in aligning WAMC's determination period with Water NSW rural bulk water? What are the costs and benefits of setting a one-year period for WAMC to potentially align with Water NSW rural bulk water? Alternatively, what are the costs and benefits of setting a longer period (eg, five years) and aligning these two determinations at the next review?

4.2 We will set prices for three categories

This review comprises three pricing categories: water management charges, consent transaction charges, and miscellaneous charges (which include meter service, water take assessment and ancillary charges). These are explained below.



4.3 WAMC proposes increases in water management prices

Water management prices are set to recover the customer share of water management costs in each water source. WAMC proposes to apportion the customer share of costs to the different water sources based on its cost allocation method.

We seek stakeholder views on WAMC's proposed prices, including the structure and levels of these prices, and WAMC's proposal for a demand volatility adjustment mechanism.

WAMC proposes retaining price structures from the 2016 Determination

WAMC proposes to largely maintain the price structures that were set in the 2016 Determination over the next four years. This proposal includes:⁶⁵

⁶⁵ Water NSW, *WAMC pricing proposal to IPART*, June 2020, pp 116-119.

- Maintaining the geographic split of prices, which means setting water management charges for 22 different water sources across three water types (ie, 11 regulated water, eight unregulated water and three groundwater sources).
- Continuing to set a 1-part tariff, comprised only of a fixed charge (\$ per ML of entitlement), or a 2-part tariff, comprised of a fixed charge (\$ per ML of entitlement) and a variable or usage charge (\$ per ML of water take) depending on whether the water take is metered:
 - If water take is metered, 2-part tariffs by water source would apply, with a 70:30 fixed-to-variable charge ratio⁶⁶, except for the North Coast regulated water source where this ratio would be kept at a 92:8 fixed-to-variable ratio.
 - If water take is not metered, 1-part tariffs by water source would apply.
- Retaining a minimum annual charge to recover its ongoing water management and administration costs for providing services to customers with zero or small entitlements.

In the 2016 Determination, we set two schedules of water management prices: one schedule that included the impact of floodplain harvesting and another that excluded this impact.⁶⁷ Floodplain harvesting is the capture and use of water flowing across a floodplain, which increases water take volumes. We set two schedules in the last review because the regulation for floodplain harvesting was being developed and there was uncertainty about when the new regulation would be implemented. For the 2021 determination period, WAMC proposes to have only one schedule of water management prices that includes the impact of floodplain harvesting.⁶⁸ This proposal assumes that the new regulation will be in place from 1 July 2021. We note that if the regulation is delayed, the risk would sit with WAMC because prices would factor in higher water take volumes due to floodplain harvesting.

Our preliminary view is to accept WAMC's proposal on price structures – that is, to accept its proposed:

- Geographic split of prices, by water source
- Fixed to variable charge ratio
- Single schedule of water management charges, which includes the impact of floodplain harvesting
- Continuing to have a minimum annual charge.

However, a potential change that we are considering is setting separate charges for MDBA and BRC activities. We consider this change would improve transparency compared with 'bundled' charges that recovers costs for WAMC, MDBA and BRC. This approach is also consistent with the Water NSW rural bulk water service price determination, which sets separate charges for MDBA and BRC services. We seek stakeholders' views about establishing separate charges for MDBA and BRC costs.

⁶⁶ This means 70% of the forecast revenue is recovered from fixed charges and 30% from variable charges.

⁶⁷ IPART, *Review of prices for the Water Administration Ministerial Corporation from 1 July 2016*, June 2016, pp 100-103.

⁶⁸ DPIE/NRAR, WAMC pricing proposal to IPART, June 2020, pp 62, 63-65, and Water NSW, WAMC pricing proposal to IPART, June 2020, pp 119-120.

We seek your comments

- 15 What are your views on WAMC's proposed price structures?
- 16 Is there merit in setting separate charges to recover MDBA and BRC costs?

WAMC proposes price increases and additional contributions from the NSW Government

In previous chapters, we discussed WAMC's proposal to increase its operating expenditure and capital expenditure by around 50% and 150%, respectively, compared with its 2016 allowances.⁶⁹ We also discussed how WAMC proposes to share these costs between customers and the NSW Government. WAMC also proposes to recover the customer share of its costs via a combination of increases in its charges and additional contributions from the NSW Government:

- WAMC proposes all water management prices to increase from 2020-21 price levels. Further, it proposes capping its price increases at 5% per year in real terms (ie, price increases at 5% per year plus inflation),⁷⁰ which means it will not recover customers' full share of its costs from prices over the next four years.⁷¹ Appendix A outlines WAMC's proposed water management prices.
- WAMC proposes the NSW Government provides \$97 million of community service obligation (CSO) payments or additional contributions to fund the shortfall.⁷²
- Therefore, the revenue generated from water management prices would represent 66% of customers' share of proposed costs and the additional contribution would represent 34% of customers' share of proposed costs (see Table 4.1).

		(+) +	/		
	2021-22	2022-23	2023-24	2024-25	Total
Customers' share of costs	70,929	72,456	72,105	72,766	288,256
Forecast revenue from customers or users (prices capped at 5% pa)	44,528	46,664	48,916	50,818	190,926
Revenue shortfall proposed to be funded by the NSW Government	26,402	25,792	23,189	21,948	97,330

Table 4.1 WAMC's estimated revenue shortfall (\$000s, \$2020-21)

Source: Water NSW, WAMC pricing proposal to IPART, June 2020, Table 49, p 106.

We will aim to set prices that balance cost-reflective pricing principles and customer affordability

In the 2016 Determination, we set prices for most water sources so that the forecast revenue from water management charges for a water source would cover the customer share of the

⁶⁹ Proposed operating and capital expenditure are discussed in Chapter 2.

⁷⁰ DPIE/NRAR, *WAMC pricing proposal to IPART*, June 2020, pp 62, and Water NSW, *WAMC pricing proposal to IPART*, June 2020, p 119.

⁷¹ Water NSW, WAMC pricing proposal to IPART, June 2020, Table 49, p 106.

⁷² Water NSW, WAMC pricing proposal to IPART, June 2020, Table 49, p 106.

efficient cost for that water source (ie, at full cost recovery levels).⁷³ For some water sources, we set charges below full cost recovery to mitigate price impacts on customers, however we set those charges on a price path to achieve full cost recovery over a period of time.⁷⁴ By the end of 2019-20, we estimated prices for 17 water sources would be at full cost recovery, prices for three water sources would be close to full cost recovery, and prices for two water sources would be still well below full cost recovery (see Figure 4.1).





Note: This analysis is based on costs and prices determined in the 2016 Determination. It also uses the forecast entitlement and water take volumes assumed in the 2016 review. Actual cost recovery may differ depending on actual costs and actual entitlement and water take volumes.

Source: WAMC Annual Information Return, June 2020

Figure 4.2 and Figure 4.3 show the proposed degree of cost recovery under WAMC's pricing proposal – which entails large cost increases and annual price increases of 5%. By 2024-25, we estimate prices for six water sources would be at or very close to full cost recovery, while prices for 16 water sources would be well below full cost recovery levels.

In our analysis, we used the costs and prices WAMC presented in its pricing proposal. While it noted prices for some water sources may increase at less than 5% per year because prices are near or at full cost recovery levels, it was not clear to which water sources it referred.⁷⁵ When setting prices for this review, we would aim to set prices that do not over-recover costs.

In principle, we aim to set prices at levels that recover customers' share of WAMC's efficient costs. However, WAMC's pricing proposal includes a quantum shift in water management activities and costs, and we are mindful of the potentially adverse impacts on customers of sharp rises in prices. We may therefore aim to transition prices in most water sources towards full cost recovery levels over a period of time (subject to our assessment of WAMC's efficient costs and customers' share of these costs).

 ⁷³ IPART, Review of prices for the Water Administration Ministerial Corporation from 1 July 2016, June 2016, p
 135.

⁷⁴ IPART, Review of prices for the Water Administration Ministerial Corporation from 1 July 2016, June 2016, pp 97-99.

⁷⁵ DPIE/NRAR, *WAMC pricing proposal to IPART*, June 2020, p 17.

A key issue for this review will be the rate of such a transition. In general, a faster transition would result in larger increases in prices to achieve full cost recovery within a shorter timeframe compared with WAMC's pricing proposal. Meanwhile, a slower transition would result in smaller increases in prices to achieve full cost recovery within a longer timeframe. There is a trade-off between achieving full cost recovery and the impact on prices and affordability. We will aim to set prices that balance cost recovery principles and affordability.

We seek your comments

17 How should we transition prices to achieve full cost recovery? Or, what is a reasonable price path that would enable transition to full cost recovery? How would this affect customer affordability?



Figure 4.2 Forecast cost recovery by water source in 2021-22 period

Note: This analysis is based on WAMC's proposed costs and price increases included in its proposal. In our analysis above, we used WAMC's proposed prices and did not limit the annual increases to avoid over-recovery (ie, we assumed prices would increase at 5% per year as per the pricing proposal).

Source: WAMC Annual Information Return; IPART analysis



Figure 4.3 Forecast cost recovery by water source in 2024-25 period

Note: This analysis is based on WAMC's proposed costs and price increases included in its proposal. In our analysis above, we used WAMC's proposed prices and did not limit the annual increases to avoid over-recovery (ie, we assumed prices would increase at 5% per year as per the pricing proposal).

Source: WAMC Annual Information Return; IPART analysis

WAMC proposes a demand volatility adjustment mechanism

For the 2021 determination period, Water NSW, on behalf of WAMC, proposes a demand volatility adjustment mechanism (DVAM) for WAMC. This mechanism aims to mitigate the possible over- or under-recovery of revenue that may occur due to material variations between the volumes of actual water take over a determination period and the forecast water take used to set prices (ie, revenue risk). Water NSW also suggests that a 'material variation' should be defined as a \pm 5% difference between forecast and actual water take volumes over the determination period,' to align with other IPART price determinations.⁷⁶

Under a DVAM, the extent of any under-recovery (or over-recovery) by WAMC outside the \pm 5% variation would be essentially paid by (or paid to) customers in the next determination period through adjustments to their prices.

Our preliminary view is to not establish a DVAM for WAMC. This is because a low proportion of WAMC's revenue is tied to water take, exposing it to relatively low risk from variations between forecast and actual volumes of water take. Accounting for the government share of costs and the minimum charge⁷⁷, we estimate WAMC's revenue from its water take charges represents around 15% of its total estimated revenue. This result implies that 85% of its revenue is effectively guaranteed and not subject to changes in water take.⁷⁸ Therefore, we

⁷⁶ Water NSW, *WAMC pricing proposal to IPART*, June 2020, pp 35-36.

WAMC has a minimum annual charge for around 25,000 small customers (66% of total licence holders). The current minimum annual charge, set under the 2016 Determination, is \$214 per licence holder. For the 2021 Determination, WAMC has proposed to increase this charge annually by 5%. As such, Water NSW proposes to transition the minimum annual charge towards full cost recovery over the next 18 years. Water NSW, WAMC pricing proposal to IPART, June 2020, pp 122-123.

⁷⁸ This assumes that customer numbers and their volume of entitlements remain unchanged.

do not consider that additional risk should be allocated to customers by providing a DVAM to WAMC.

We seek your comments

18 Do you agree with Water NSW's proposal to introduce a demand volatility adjustment mechanism for WAMC to address its revenue risk? Should we effectively allocate more risk to customers?

4.4 WAMC proposes cost-reflective water consent transaction charges

For the 2021 determination period, NRAR and Water NSW, on behalf of WAMC, propose to continue to set consent transaction charges on a cost-reflective basis.⁷⁹ They also propose separate schedules of consent transaction charges because they have different customers, and different works/activities.⁸⁰ For example, applications from large customers/government entities or those related to state significant projects are submitted to, and processed by, NRAR.

NRAR proposes to change the categories specified in its charging schedule for consent transaction services. NRAR stated its proposed charging schedule more accurately reflects its costs compared with its current charging schedule. While a direct comparison with the current charging schedule is not possible, NRAR proposes large increases in broad terms. For example, proposed charges for flood works approvals would increase by 173%, from a range of \$254-\$1,338 to \$1,174-\$2,311.81 Appendix A outlines the proposed charges.

Water NSW proposes large increases in all charges for consent transaction services to cover its proposed higher costs, except for one. It proposes reducing the charge for unregulated and groundwater water allocation assignments to \$50 per transaction. Water NSW proposes to align the charge for this type of transaction for all water sources. ⁸² In our concurrent review of Water NSW rural bulk water prices, Water NSW proposes to set the regulated water allocation assignment at around \$50 per transaction.⁸³

We agree with NRAR and Water NSW's proposal to continue to set consent transaction charges on a cost reflective basis. We will also consider the merit of having two separate schedules of charges to the extent this improves transparency and supports cost reflectivity. We will engage expenditure consultants to assess the efficient costs of these services.

In terms of Water NSW's proposed charges for water allocation assignments, we will investigate if there is a cost difference between providing water allocation assignments in regulated water, unregulated water and groundwater, given charges were set at different levels in past reviews. We will also consider the merit of aligning these water allocation assignment charges between two price reviews (WAMC and Water NSW rural bulk water).

⁷⁹ DPIE/NRAR, WAMC pricing proposal to IPART, June 2020, p 69, and Water NSW, WAMC pricing proposal to IPART, June 2020, p 126.

⁸⁰ DPIE/NRAR, *WAMC pricing proposal to IPART*, June 2020, pp 69-71, and Water NSW, *WAMC pricing proposal to IPART*, June 2020, pp 128 and 130.

⁸¹ DPIE/NRAR, WAMC pricing proposal to IPART Detailed Paper J – Other revenue, June 2020, p 8.

⁸² Water NSW, WAMC pricing proposal to IPART, June 2020, p 127.

⁸³ Water NSW, Pricing proposal - Regulated prices for NSW Rural Bulk Water Services 1 July 2021 to 30 June 2022, June 2020, Table 95 p 143.

4.5 WAMC proposes to continue to set miscellaneous charges separately

Miscellaneous charges are charges for meter services, water take assessment services, and verification and testing of meters.⁸⁴ In the 2016 Determination, we set these charges separately. That is, the costs of providing these services were excluded from the general operating expenditure base and were not recovered from all customers via water management charges.⁸⁵

For the 2021 determination period, Water NSW proposes to continue to set WAMC's miscellaneous charges separately.⁸⁶ In addition, Water NSW proposes WAMC's meter service charges remain at 2020-21 levels (ie, no change in charges over the 2021 determination period in real terms).⁸⁷ However, it proposes increasing other miscellaneous charges over the next four years.⁸⁸ Appendix A outlines WAMC's proposed charges.

We note that these proposed charges do not include the potential impact of non-urban metering reform. Water NSW indicated it plans to provide updated costs and impacts on its proposed WAMC's prices to IPART by December 2020.⁸⁹

⁸⁴ Water NSW uses the term miscellaneous charges in its proposal. Water NSW, *WAMC pricing proposal to IPART*, June 2020, p 132.

⁸⁵ IPART, *Review of prices for the Water Administration Ministerial Corporation from 1 July 2016*, June 2016, pp 137-144.

⁸⁶ Water NSW, WAMC pricing proposal to IPART, June 2020, pp 132-133.

⁸⁷ Water NSW, *WAMC pricing proposal to IPART*, June 2020, Tables 72 and 73 pp 134-135.

⁸⁸ Water NSW, WAMC pricing proposal to IPART, June 2020, Tables 74 and 78 pp 136 and 139.

⁸⁹ Water NSW, *WAMC pricing proposal to IPART*, June 2020, p 134, 136 and 138.

Appendix

A WAMC's proposed charges

This appendix sets out WAMC's proposed charges. It does not factor in any potential IPART adjustments to WAMC's efficient costs, price structures or transition to full cost recovery.

A.1 WAMS's proposed water management prices

Water source	Current 2020-21	2021-22	2022-23	2023-24	2024-25	Change current to 2021-22
Border	2.28	2.39	2.51	2.64	2.77	5%
Gwydir	1.62	1.70	1.79	1.88	1.97	5%
Namoi	2.73	2.87	3.01	3.16	3.32	5%
Peel	2.67	2.80	2.94	3.09	3.24	5%
Lachlan	1.43	1.50	1.58	1.66	1.74	5%
Macquarie	1.71	1.80	1.89	1.98	2.08	5%
Murray	1.54	1.62	1.70	1.79	1.88	5%
Murrumbidgee	1.41	1.48	1.55	1.63	1.71	5%
North Coast	3.97	4.17	4.38	4.60	4.83	5%
Hunter	3.12	3.28	3.44	3.61	3.79	5%
South Coast	3.34	3.51	3.69	3.87	4.06	5%

Table A.1 Regulated water – fixed component of 2-part tariff (\$2020-21, per ML)

 $\ensuremath{\mbox{Note:}}$ This accounts for the impact of floodplain harvesting.

Source: DPIE/NRAR, *WAMC pricing proposal to IPART*, June 2020, p 63; Water NSW, *WAMC pricing proposal to IPART*, June 2020, Table 60 p 120; and WAMC Annual Information Return.

Water source	Current 2020-21	2021-22	2022-23	2023-24	2024-25	Change current to 2021-22
Border	1.78	1.87	1.96	2.06	2.16	5%
Gwydir	1.40	1.47	1.54	1.62	1.70	5%
Namoi	1.84	1.93	2.03	2.13	2.24	5%
Peel	4.76	5.00	5.25	5.51	5.79	5%
Lachlan	1.92	2.02	2.12	2.23	2.34	5%
Macquarie	1.85	1.94	2.04	2.14	2.25	5%
Murray	1.10	1.16	1.22	1.28	1.34	5%
Murrumbidgee	0.94	0.99	1.04	1.09	1.14	5%
North Coast	6.12	6.43	6.75	7.09	7.44	5%
Hunter	2.14	2.25	2.36	2.48	2.60	5%
South Coast	5.32	5.59	5.87	6.16	6.47	5%

Table A.2 Regulated water - water take component of 2-part tariff (\$2020-21, per ML)

Note: This accounts for the impact of floodplain harvesting.

Source: DPIE/NRAR, *WAMC pricing proposal to IPART*, June 2020, p 63; Water NSW, *WAMC pricing proposal to IPART*, June 2020, Table 60 p 120; and WAMC Annual Information Return.

Water source	Current 2020-21	2021-22	2022-23	2023-24	2024-25	Change current to 2021-22
Border	2.31	2.43	2.55	2.68	2.81	5%
Gwydir	2.31	2.43	2.55	2.68	2.81	5%
Namoi	2.31	2.43	2.55	2.68	2.81	5%
Peel	2.31	2.43	2.55	2.68	2.81	5%
Lachlan	2.69	2.82	2.96	3.11	3.27	5%
Macquarie	2.69	2.82	2.96	3.11	3.27	5%
Far West	4.13	4.34	4.56	4.79	5.03	5%
Murray	2.64	2.77	2.91	3.06	3.21	5%
Murrumbidgee	3.27	3.43	3.60	3.78	3.97	5%
North Coast	4.59	4.82	5.06	5.31	5.58	5%
Hunter	1.30	1.37	1.44	1.51	1.59	5%
South Coast	1.75	1.84	1.93	2.03	2.13	5%

Table A.3 Unregulated water – fixed component of 2-part tariff (\$2020-21, per ML)

 $\ensuremath{\mbox{Note:}}$ This accounts for the impact of floodplain harvesting.

Source: DPIE/NRAR, *WAMC pricing proposal to IPART*, June 2020, p 64; Water NSW, *WAMC pricing proposal to IPART*, June 2020, Table 61 p 120; and WAMC Annual Information Return.

Water source	Current 2020-21	2021-22	2022-23	2023-24	2024-25	Change current to 2021-22
Border	2.47	2.59	2.72	2.86	3.00	5%
Gwydir	2.47	2.59	2.72	2.86	3.00	5%
Namoi	2.47	2.59	2.72	2.86	3.00	5%
Peel	2.47	2.59	2.72	2.86	3.00	5%
Lachlan	2.91	3.06	3.21	3.37	3.54	5%
Macquarie	2.91	3.06	3.21	3.37	3.54	5%
Far West	2.53	2.66	2.79	2.93	3.08	5%
Murray	4.21	4.42	4.64	4.87	5.11	5%
Murrumbidgee	5.81	6.10	6.41	6.73	7.07	5%
North Coast	4.93	5.18	5.44	5.71	6.00	5%
Hunter	2.13	2.24	2.35	2.47	2.59	5%
South Coast	1.49	1.56	1.64	1.72	1.81	5%

Table A.4 Unregulated water – water take component of 2-part tariff (\$2020-21, per ML)

Note: This accounts for the impact of floodplain harvesting.

Source: DPIE/NRAR, *WAMC pricing proposal to IPART*, June 2020, p 64; Water NSW, *WAMC pricing proposal to IPART*, June 2020, Table 61 p 120; and WAMC Annual Information Return.

Water source	Current 2020-21	2021-22	2022-23	2023-24	2024-25	Change current to 2021-22
Border	4.78	5.02	5.27	5.54	5.81	5%
Gwydir	4.78	5.02	5.27	5.54	5.81	5%
Namoi	4.78	5.02	5.27	5.54	5.81	5%
Peel	4.78	5.02	5.27	5.54	5.81	5%
Lachlan	5.60	5.88	6.17	6.48	6.81	5%
Macquarie	5.60	5.88	6.17	6.48	6.81	5%
Far West	6.66	7.00	7.35	7.72	8.11	5%
Murray	6.85	7.19	7.55	7.93	8.32	5%
Murrumbidgee	9.08	9.53	10.01	10.51	11.04	5%
North Coast	9.52	10.00	10.50	11.02	11.58	5%
Hunter	3.43	3.61	3.79	3.98	4.18	5%
South Coast	3.24	3.40	3.57	3.75	3.94	5%

Table A.5 Unregulated water – fixed charges for 1-part tariff (\$2020-21, per ML)

Note: This accounts for the impact of floodplain harvesting.

Source: W DPIE/NRAR, *WAMC pricing proposal to IPART*, June 2020, p 64; Water NSW, *WAMC pricing proposal to IPART*, June 2020, Table 61 p 120; and WAMC Annual Information Return.

Water source	Current 2020-21	2021-22	2022-23	2023-24	2024-25	Change current to 2021-22
Inland ^a	3.86	4.05	4.25	4.46	4.68	5%
Murrumbidgee	2.56	2.69	2.82	2.96	3.11	5%
Coastal	1.76	1.85	1.94	2.04	2.14	5%

Table A.6 Groundwater – fixed component of 2-part tariff (\$2020-21, per ML)

 ${\boldsymbol a}\,$ Excluding Murrumbidgee. Note Murrumbidgee area is part of the Inland water source.

Source: DPIE/NRAR, *WAMC pricing proposal to IPART*, June 2020, pp 64-65; Water NSW, *WAMC pricing proposal to IPART*, June 2020, Table 62 p 120; and WAMC Annual Information Return.

Table A.7 Groundwater – water take component of 2-part tariff (\$2020-21, per ML)

Water source	Current 2020-21	2021-22	2022-23	2023-24	2024-25	Change current to 2021-22
Inland ^a	3.13	3.29	3.45	3.62	3.80	5%
Murrumbidgee	2.08	2.18	2.29	2.40	2.52	5%
Coastal	3.29	3.45	3.62	3.80	3.99	5%

a Excluding Murrumbidgee. Note Murrumbidgee area is part of the Inland water source.

Source: DPIE/NRAR, *WAMC pricing proposal to IPART*, June 2020, pp 64-65; Water NSW, *WAMC pricing proposal to IPART*, June 2020, Table 62 p 120; and WAMC Annual Information Return.

Table A.8 Groundwater – fixed charges for 1-part tariff (\$2020-21, per ML)

Water source	Current 2020-21	2021-22	2022-23	2023-24	2024-25	Change current to 2021-22
Inland ^a	6.99	7.34	7.71	8.10	8.51	5%
Murrumbidgee	4.64	4.87	5.11	5.37	5.64	5%
Coastal	5.05	5.30	5.57	5.85	6.14	5%

a Excluding Murrumbidgee. Note Murrumbidgee area is part of the Inland water source.

Source: DPIE/NRAR, *WAMC pricing proposal to IPART*, June 2020, pp 64-65; Water NSW, *WAMC pricing proposal to IPART*, June 2020, Table 62 p 120; and WAMC Annual Information Return.

Table A.9 Minimum annual charge (\$2020-21, per ML)

Charge type	Current 2020-21	2021-22	2022-23	2023-24	2024-25	Change current to 2021-22
Minimum annual charge	213.74	224.43	235.65	247.43	259.80	5%

Source: Water NSW, WAMC pricing proposal to IPART, p 120; and WAMC Annual Information Return.

A.2 WAMC's proposed consent transaction charges

Table A.10 Water NSW's proposed consent transaction charges (\$2020-21, pertransaction)

	Current 2020-21	Current 2020-21		Change current to 2021-22	Change current to 2021-22
Consent transaction activity	Online lodgement	No online lodgement	2021-22 to 2024-25	Online lodgement	No online lodgement
Any new water access licen	ce				
Zero share	\$308.56	\$344.64	\$685.72	187%	157%
Controlled allocation	\$308.56	\$344.64	\$898.72	191%	161%
Other	\$308.56	\$344.64	\$861.72	179%	150%
Water access licence dealing	gs				
Dealings – regulated rivers	\$337.36	\$371.85	\$937.41	178%	152%
Dealings – unregulated rivers and groundwater	\$1,080.60	\$1,116.69	\$2,995.11	177%	168%
Dealings – unregulated rivers and groundwater with low risk	\$491.55	\$526.03	\$1,357.21	176%	158%
Dealings – administrative	\$217.86	\$253.94	\$599.50	175%	136%
Water allocation assignment	ts				
Unregulated rivers and groundwater	\$337.36	\$371.85	\$50.00	-85%	-87%
Approvals					
New or amended works and/or use approval	\$2,020.84	\$2,056.92	\$5,562.17	175%	170%
New or amended works and/or use approval – low risk	\$1,075.78	\$1,111.86	\$3,013.75	180%	171%
New basic rights bore approval	\$389.34	\$425.42	\$1,104.44	184%	160%
Amended approval – administrative	\$217.86	\$253.94	\$663.25	204%	161%
Extension of approval – lodged before expiry date	\$221.00	\$257.08	\$637.95	189%	148%
Extension of approval – lodged after expiry date	Na	\$428.47	\$1,179.05	Na	175%

Source: Water NSW, WAMC pricing proposal to IPART, June 2020, Table 67 p 128.

Category	Detail	2021-22 to 2024-25
Flood Work Approvals		
New or amend approval	Flood study required, with no advertising	\$1,497.94
	Flood study required, with advertising	\$2,311.23
	No flood study required, with no advertising	\$1,174.00
	No flood study required, with advertising	\$1,888.43
Extension of approval		\$961.31
Water Supply Works and	Water Use Approvals	
New	Surface, with pump and no advertising	\$3,064.47
	Surface, with pump and advertising	\$3,741.72
	Water, dam and no advertising	\$3,033.15
	Water, dam and advertising	\$3,804.14
	Groundwater and no advertising	\$2,490.80
	Groundwater and advertising	\$2,920.72
Amend	Specify as inactive	No charge
	Remove supply work	No charge
	Update holder contact details, change land description for water use or construct a replacement bore	\$219.93
	Add and change water supply works, add and change water use or changes to conditions	\$1,927.51
Extensions		\$514.23
Water licences		
Zero shares		\$1,598.88
Controlled allocation Licence	ces	\$2,044.31
Specific purpose	Subtract any amount of existing licence	\$1,597.06
	<=10ML, New	\$2,711.09
	<=10ML, Add to existing licence	\$3,455.22
	>10ML, New or add to existing licence	\$3,953.98

Table A.11 NRAR's proposed consent transaction charges (\$2020-21, per transaction)

Source: DPIE/NRAR, WAMC pricing proposal to IPART, June 2020, Table 48 pp 70-71.

A.3 WAMC's proposed miscellaneous charges

Meter size	Current 2020-21	2021-22 to 2024-25	Change current to 2021-22
Telemetered			
50-300	\$514.31	\$514.31	0%
350-700	\$534.41	\$534.41	0%
750-1,000	\$580.97	\$580.97	0%
Non-telemetered			
50-300	\$403.47	\$403.47	0%
350-700	\$419.24	\$419.24	0%
750-1,000	\$455.77	\$455.77	0%

Table A.12 Meter maintenance charges (\$2020-21)

Source: Water NSW, WAMC pricing proposal to IPART, June 2020, Tables 72 and 73 pp 135-136.

Table A.13 Water take assessment charges (\$2020-21)

Charge type	Current 2020-21	2021-22 to 2024-25	Change current to 2021-22
Water take charge	\$207.08	\$416	101%

Source: Water NSW, WAMC pricing proposal to IPART, June 2020, Table 74 p 136.

Table A.14 Other miscellaneous charges (\$2020-21)

Charge type	Current 2020-21	2021-22 to 2024-25	Change current to 2021-22
Refundable meter accuracy deposit	\$1,871.75	\$1,750.00	-7%
Verification and testing in situ ^a	\$256.49	\$4,626.39 + \$1,750 deposit	2,386%
Lab verification and testing ^a	\$1,871.75	\$6,922.88 + \$1,750 deposit	363%
Meter reset fee after suspension of maintenance for a year or more, at customer request ^b	\$256.49 + cost of parts	\$256.49 + cost of parts	0%

a This is Water NSW's proposed total charge if meter is found to be within accuracy standards.

 ${f b}$ WaterNSW is proposing a continuation of the meter reset fee over the next determination period. An equivalent fee has not been set under the Rural Valley 2017 Bulk Water Determination.

Source: Water NSW, WAMC pricing proposal to IPART, June 2020, Table 78 p 139.