

# **Submission to the Independent Pricing and Regulatory Tribunal**

**Response to the 15 September 2020 IPART Issues Paper on  
the review of WAMC Water Management Prices  
from 1 July 2021**

This page is intentionally blank.

## Contents

<b>1. Introduction .....</b>	<b>4</b>
<b>2. Response to Specific Questions .....</b>	<b>6</b>
2.1 Performance to date and areas of focus for water management .....	6
2.1.1 Question 1 .....	6
2.1.2 Question 2 .....	6
2.2 Compliance and enforcement activities are also increasing, with costs forecast to rise .....	7
2.2.1 Question 3 .....	7
2.2.2 Question 4 .....	7
2.3 More licence processing may result in cost increases .....	7
2.3.1 Question 5 .....	7
2.4 Providing higher levels of service to customers may lead to higher costs .....	9
2.4.1 Question 6 .....	9
2.4.2 Question 7 .....	11
2.5 MDBA and BRC costs .....	12
2.5.1 Question 8 .....	12
2.6 Capital expenditure .....	12
2.6.1 Question 9 .....	12
2.6.2 Question 10 .....	14
2.6.3 Question 11 .....	16
2.7 Cost Shares and Length of Regulatory Period .....	17
2.7.1 Question 12 .....	17
2.7.2 Question 13 .....	18
2.7.3 Question 14 .....	18
2.8 Pricing Structures and the DVAM .....	19
2.8.1 Question 15 .....	19
2.8.2 Question 16 .....	19
2.8.3 Question 17 .....	20
2.8.4 Question 18 .....	20
2.9 Other matters .....	22
2.9.1 Groundwater assessment costs in consent transactions .....	22
2.9.2 Floodwater harvesting licensing arrangements .....	22
<b>3. Metering reform .....</b>	<b>22</b>
3.1 Background .....	23
3.2 Implementation and ongoing management activities .....	24
3.3 Metering process .....	25
3.3.1 Metering Compliance Process .....	25
3.3.2 Reporting and Recording Process .....	26
3.3.3 General Enquiries and Education Process .....	27
3.4 Key metering complexities .....	28

## 1. Introduction

WaterNSW is pleased to respond to IPART's Issues Paper on the Review of Water Management Prices from 1 July 2021 for the Water Administration Ministerial Corporation ("**WAMC**") published on 15 September 2020.

WAMC functions are provided by three organisations (which IPART refers to collectively as 'WAMC') – the NSW Department of Planning, Industry and Environment – Water ("**DPIE-W**"), the Natural Resources Access Regulator ("**NRAR**") and WaterNSW.

WaterNSW continues to support the pricing proposal we submitted to IPART on 30 June 2020 for WAMC prices from 1 July 2020 to 30 June 2024 (our "**Pricing Proposal**").

We consider the Issues Paper to be a well-balanced document that presents our position fairly in seeking stakeholders' views.

In this response to the Issues Paper, WaterNSW provides comments on areas that are either specific to WaterNSW and or for which WaterNSW provides conferred WAMC services. We do not comment on matters specific to DPIE-W or NRAR and suggest stakeholders refer to the separate submission from these agencies in response to the Issues Paper that will be made available on IPART's website.

Specifically, our response to the 18 questions asked by IPART address the following key themes raised in the Issues Paper:

1. **What are WAMC's proposed costs?**
2. **Who should pay for WAMC's costs?**
3. **What does this mean for prices?**

As detailed in the body of this submission, we wish to bring the following issues to stakeholders' attention:

- **Non-urban metering reform** - There is expected to be a greater focus on the implementation of the NSW Government's metering reform agenda over the next determination period. At the time of finalising our Pricing Proposal, the policy arrangements for finalising the Water Reform changes relating to non-urban metering had not been settled and hence WaterNSW's Pricing Proposal excluded the costs of these reforms. There are still some outstanding elements of the reform program and WaterNSW has only recently been advised of changes to its obligations regarding metering ownership. In this response, we outline the activities that we expect to undertake as part of the reforms and we will continue to address the likely costs over the next few weeks. We expect to be in a position to provide our estimate of the cost impacts of the metering reform program to IPART by the end of November 2020.
- **Worst drought on record** - NSW has faced one of the worst droughts on record, with recovery in some systems still being slow and which remain drought-affected. Since the onset of drought conditions, WaterNSW has experienced a significant growth in consent transaction applications, particularly for basic landholder rights water bores. The number of completed applications since March 2019 has consistently failed to keep pace with the number of applications received. The unprecedented volume of applications submitted due to drought has further seen our backlog of applications nearly double, placing pressure on our costs and service delivery.
- **Meeting expectations for service provision** - WaterNSW is committed to providing better services to customers at the lowest possible cost. To this end, we have asked IPART to

review the prudence and efficiency of our proposed WAVE Program. This program constitutes a substantial share of the WaterNSW IT capital investment plan for WAMC in the next three years and involves a proposal to renew and transform key operational business processes and supporting IT systems which are operating well beyond their useful life. The WAVE program represents a significant step change in customer service, water delivery and water data management.

- **Customer engagement** - WaterNSW is committed to meaningful engagement with its customers and stakeholders. In considering whether customers were supportive of the key elements of our WAMC Pricing Proposal, we consulted with customers primarily through the Customer Advisory Groups (“**CAG**”) forum. The support from these groups for our proposal has been strong in recognition of the impacts of drought on the community.
- **Efficient capital expenditure** - The efficiency of our proposed water monitoring and IT capital expenditure program is the subject of a detailed technical review with IPART’s consultants. We are actively participating in the consultants’ technical reviews and have worked diligently to respond to over 300 requests over a two-month period for information in order to demonstrate the efficiency of our proposed programs<sup>1</sup>. We are confident that our proposal represents the prudent and efficient capital expenditure to provide required water monitoring services in accordance with the standards set by DPIE-W and to meet our conferred WAMC obligations.
- **Customer pricing impacts** - In our Pricing Proposal, WaterNSW proposed annual WAMC water management price increases of 5 per cent, excluding the impact of inflation, to 2024-25. We believe our Pricing Proposal strikes the right balance between transitioning to cost reflective pricing and minimising pricing impacts on our customers.
- **Cost sharing arrangements** - In assessing whether the existing cost share ratios should be modified, we ask that IPART consider any changes in activities and responsibilities that were not contemplated during the 2018 IPART Rural Valley Cost Share Review. For example:
  - Proposed scope increases due to changes in obligations, service standards and industry structure, e.g. expected cost increases as a result of the Government’s metering reform agenda and compliance activities;
  - Current period allowances are insufficient to fund the significant operating expenditure required to undertake the licensing function, as highlighted in the NRAR/DPIE and WaterNSW Pricing Proposals; and
  - Proposed changes in activity costs groupings that reflect recent changes in industry structure and service delivery models.
- **Demand volatility adjustment mechanism** - IPART has stated in the Issues Paper that WaterNSW wishes to introduce a demand volatility adjustment mechanism (“**DVAM**”) for the upcoming determination. We wish to highlight that a DVAM is already incorporated in the 2016 Determination and is therefore not a new proposal as suggested in the Issues Paper. WaterNSW has not sought compensation via the DVAM over the 2016 Determination period even though water take forecasts were below IPART’s forecasts. This was due to WaterNSW’s strong preference to keep water management prices low for customers, particularly during a time of considerable hardship with continuing drought in many valleys and COVID-19 affecting all of our rural customers in some capacity.

We look forward to continuing our engagement with IPART and other stakeholders over the course of the review to ensure WAMC charges, including those that are specific to WaterNSW, are set at efficient levels.

---

<sup>1</sup> Combined requests for information (RFI) for the Rural Valley and WAMC efficiency reviews.

## 2. Response to Specific Questions

### 2.1 Performance to date and areas of focus for water management

#### 2.1.1 Question 1

##### **How well has WAMC performed its water management functions?**

The objective of the 2016 restructure and conferral of functions from DPIE-W to WaterNSW was to enable DPIE-W to focus on policy and water market regulation and provide oversight on major government funded water infrastructure projects to reduce duplication and improve service delivery across the agencies.

WaterNSW now undertakes functions on behalf of the Ministerial Corporation that were previously provided by the Department. This includes water licensing, advisory services, water take assessments, and account management services provided directly to WAMC customers and water monitoring services provided directly to DPIE-W to support the Department in the discharge of its WAMC functions related to long term water stewardship.

Incidental to these services is the need for WaterNSW to provide efficient and timely services in the provision of customer water transaction and water resource information, implement efficient asset management practices to ensure water monitoring assets are managed effectively, and provide ongoing support for the implementation of the NSW Government's water reform agenda with respect to metering and compliance. WaterNSW has seen a significant increase in demand for water transaction and water resource information in response to an increase in NRAR's compliance capability, and as a result of the prolonged effects of drought.

We note that compliance functions that were previously undertaken by DPIE-W, then conferred on WaterNSW, have been subsequently transferred to NRAR.

The changes to our industry structure and legislative framework have led to increased responsibilities, greater transparency, enhanced regulation and more customer metering. These have increased our costs of providing WAMC services to our customers, including costs to transferred to NRAR that did not represent underlying expenditures.

#### 2.1.2 Question 2

##### ***Do you agree with WAMC's proposed areas of focus for water management (and their associated costs)?***

WaterNSW's proposed areas of focus are largely driven by the responsibilities set out in the Deed of Business Transfer between WaterNSW and the Department and the conferred functions prescribed in the IPART WaterNSW Operating Licence.

There is expected to be a greater focus on the implementation of the NSW Government's metering reform agenda over the next determination period. At the time of finalising our Pricing Proposal, DPIE-W was in the process of finalising the Water Reform changes relating to non-urban metering and hence WaterNSW's Pricing Proposal excluded the costs of these reforms.

Our approach to metering reform is summarised in Section 3.

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

### 2.2.1 Question 3

#### ***How well has NRAR performed its water regulation functions?***

Compliance functions that were previously undertaken by DPIE-W, then conferred on WaterNSW, have been subsequently transferred to NRAR. We interact with NRAR to provide assistance for enforcement and compliance activities.

To this end, on 24 January 2019, WaterNSW and NRAR entered into a memorandum of understanding (“**MOU**”) to provide a framework for a cooperative relationship between WaterNSW and NRAR and a mutual commitment by both parties to establish and maintain processes for effective and efficient:

- a) Information and data exchange related to compliance and enforcement of the water management legislation;
- b) Support for compliance, investigation and prosecution activities;
- c) IT systems access and use related to the administration of the water management legislation; and
- d) Evaluation and review processes to ensure the on-going effective, efficient, transparent and accountable administration of the water management legislation.

WaterNSW will continue to work with NRAR to ensure NSW water management policies and frameworks are implemented effectively and are enforced.

### 2.2.2 Question 4

#### **Will NRAR’s proposed activities and costs facilitate effective and efficient water regulation?**

Please refer to the DPIE/NRAR joint submission to the IPART Issues Paper.

## 2.3 More licence processing may result in cost increases

### 2.3.1 Question 5

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

WaterNSW’s forecast expenditures for the licence processing function are aligned with our actual costs which support the proposition that our forecast levels of expenditure are required to perform the WAMC licensing function to the required service standards, in line with our regulatory requirements.

WaterNSW has struggled to meet the service standards for the performance metrics on the licensing processing function due to the increased number of applications arising from the drought.

This is evident in our operational and financial performance metrics for consent transactions in the current period. In addition, our financial reports highlight that actual operating expenditure has exceeded the allowed revenue due to an increase in workload and staff utilisation on water licensing services.

The Fee for Service Transaction Services service levels and the performance results are set out in the table below.

---

**Table 1 – Fee for Service Transaction Services service levels 2016-17 to 2019-20 (updated with actual results)**

Service Level	Target	2016-17	2017-18	2018-19	2019-20**
Percentage of applications for licence dealings assignment of shares (71Q) processed within 20 days	90%	98%	96%	98%	96%
Percentage of applications for new access licences processed within 40 days	80%	88%	86%	93%	97%
Percentage of applications for water management work and use approvals processed within 60 days	80%	82%	80%	80%	85%
Percentage of applications to extend a water management work approval processed within 20 days	90%	96%	84%	90%	70%
Percentage of applications for an approval for a bore for domestic and stock rights processed within 10 days	90%	94%	88%	89%	84%

\*The WaterNSW licensing team works towards five specific service levels in respect of the Fee for Service Transaction Services provided for the Ministerial Corporation. WaterNSW has three full years of data for these service levels, from the time that WaterNSW commenced these functions, namely 1 July 2016.

\*\* updated with actual end of financial year results

Compared to relatively good performance in 2016-17, the first year of WaterNSW holding these functions, 2017-18 saw us miss our targets for two metrics. The reasons for 2017-18 service standards not being met for two metrics are:

- The early impacts of the drought were being felt by landholders, leading to a 66% increase in basic landholder rights (“BLR”) bore assessments from the previous financial year; and
- As critical water needs (i.e. BLR bores) are prioritised over other non-critical applications, this led to a delay in processing some extensions for other licence categories.

As noted above, NSW has faced one of the worst droughts on record, with recovery in some systems still being slow and which remain drought affected.<sup>2</sup> Since the onset of drought conditions, WaterNSW has experienced significant growth in consent transaction applications received by the Assessments and Approvals team, particularly for BLR water bores. The number of completed applications since March 2019 has consistently failed to keep pace with the number of applications received. The unprecedented volume of applications submitted due to drought has further seen our backlog of applications nearly double.

Current staffing levels for Licensing and Advisory services have been insufficient to meet the rise in new applications from drought and address the existing backlog. We have incurred an additional \$4.3 million on average (updated with 2019-20 actual results) over the current determination period to ensure performance of our water consent transaction functions and meets customer expectations. This is shown in the table below.

<sup>2</sup> NSW Government Combined Drought Indicator, accessed 16 October 2020 (<https://edis.dpi.nsw.gov.au/>)

**Table 2 – Revenue compared to actual cost – Consent Transactions (\$000s, \$2020-21)**

	2016-17	2017-18	2018-19	2019-20*	2020-21
Consent transaction opex	4,709	8,199	7,200	8,459	7,228
IPART forecast consent transaction revenue	2,246	2,246	2,246	2,246	2,246
Actual Revenue	2,256	3,214	3,455	3,140	2,246
<b>Variance opex to Actual revenue</b>	<b>-2,452</b>	<b>-4,985</b>	<b>-3,745</b>	<b>-5,319</b>	<b>-4,982</b>

\*Updated with actual results

We submit that an increase in Transaction Charges is required to ensure that WaterNSW can recover the efficient costs of processing consent transaction applications in line with the requirements of the *Water Management Act 2004* and the National Water Initiative Pricing Principles and Objectives. We note the conclusions of the NSW Ombudsman Water: compliance and enforcement – 17 August 2018, Page 4:

*“Good governance involves ensuring – or at the very least attempting to ensure – that agencies are properly resourced. Not doing so is a failure to meet acceptable standards of good public administration.”*

### **Additional DPIE pass through charges (groundwater assessments)**

In our Pricing Proposal, WaterNSW proposed to exclude from our schedule of charges any cost incurred by DPIE-W to finalise applications referred to DPIE-W under the ‘stop the clock’ mechanism. These include, for example, any technical assessment carried out by DPIE-W in relation to trade applications as well as the hydrogeological services provided by DPIE-W as specified in the Deed of Business Transfer. WaterNSW notes that the assessment of the potential impact of groundwater extraction is managed by DPIE-W.

WaterNSW understands that DPIE-W has asked IPART to include the costs of DPIE-W groundwater assessments in WaterNSW’s proposed schedule of charges.

WaterNSW supports this approach, but submits that any DPIE-W groundwater assessment charges should be identified as a DPIE-W cost pass through charge. Splitting the charge into the DPIE-W and WaterNSW components will promote increased transparency of the costs of DPIE-W and provide customers with visibility of the services they receive.

## **2.4 Providing higher levels of service to customers may lead to higher costs**

### **2.4.1 Question 6**

***Do you agree WAMC should focus on providing better services (e.g., more information and consultation) to customers, supported by higher levels of expenditure?***

WaterNSW is committed to providing services to customers that meet their expectations at the lowest possible cost. To this end, we have asked IPART to review the prudence and efficiency of our proposed WAVE Program.

The WAVE Program constitutes a substantial share of the WaterNSW IT capital investment plan for WAMC in the next three years and involves a proposal to transform operational business processes. The WAVE program represents a significant step change in customer service, water delivery and water data management.

The WAVE Program will significantly enhance our ability to serve our customers, thus providing for improvements to our customer interfaces:

- An online licensing and transactions system (Customer, Stakeholder and Water Markets stream);
- Streamlining our delivery and operational decisions for our customer transactions (Water Delivery and Visualisation stream); and
- Enhancements to our ability to monitor and model our water system (Water Monitoring and Modelling stream).

The key objectives of the WAVE Program include:

- Service and efficiency improvement;
- Centralised management of water information;
- Consolidation of IT systems; and
- Mitigation of risks.

For each of the three WAVE streams, the table below sets out the current state of our service delivery, and the proposed solutions which WAVE will deliver. These include:

1. **Customer and Water Markets Program;**
2. **Water Delivery and Visualisation Program;** and
3. **Water Data Program.**

Table 3 sets out the key activities for each WAVE work stream.

**Table 3 – WAVE program by work stream**

Stream	Current Issues	Proposed Solution: Key Activities by Stream
<b>Customer, Stakeholder and Water Markets</b>	<ul style="list-style-type: none"> <li>• Difficult for customers to get access to information in a central location</li> <li>• Licence and trade transactions done over the phone or by paper</li> <li>• Inefficient administration processes for customer service staff</li> </ul>	<ul style="list-style-type: none"> <li>• Online self-service customer portal to make it easier for customers to make transactions and licensing applications.</li> <li>• Enables WaterNSW staff to focus on complex customer queries as simpler customer transactions are automated online.</li> <li>• Workflow based on customer queries and transactions can be more efficiently allocated and addressed to relevant WaterNSW staff.</li> </ul>
<b>Water Delivery and Visualisation</b>	<ul style="list-style-type: none"> <li>• Manual water delivery operations</li> <li>• Time consuming to provide water delivery and operations advice as data is dispersed across multiple sources</li> </ul>	<ul style="list-style-type: none"> <li>• An online 'Water Insights' portal that allows dam operators, water delivery planners and the broader community to understand a range of water system information (e.g. dam inflows, extractions, evaporation). This information will be presented spatially and with graphs over a historical time period.</li> <li>• A centralised control room for integration of the SCADA systems with the ability to monitor and control of river and dam operations.</li> </ul>

Stream	Current Issues	Proposed Solution: Key Activities by Stream
<b>Water Monitoring and Modelling</b>	<ul style="list-style-type: none"> <li>Poor data quality and data drawn from disparate sources</li> <li>Reports, graphs and charts are manually developed</li> <li>Groundwater data not integrated between licences, sites and other technical data</li> </ul>	<ul style="list-style-type: none"> <li>Streamline and make consistent the process for quality checking, rating and publishing data across all data sources.</li> <li>Improve groundwater monitoring using Internet of Things (IOT) devices. For example, implementing a pilot of IOT ground water monitoring devices in the Peel river area.</li> <li>Unify the way data is collected from the field by integrating data collection processes for asset maintenance with telemetry collected data.</li> <li>Provide a data portal for all end users of data to make it easier to access and analyse data.</li> </ul>

The WAVE Program will deliver a range of efficiency benefits to our business, and greater value for money for our customers through more streamlined service delivery and greater access to information. These benefits are outlined below:

- **Replacement of systems** – 41 end of life applications that provide a piecemeal solution currently will be replaced by just 7 new systems. The solution will eliminate the cost of and reliance on DPIE support services and infrastructure platform for applications transferred to WaterNSW in 2016. It also allows proper separation of functions between the entities resolving the legacy uncontrolled access that has persisted since “stage 2” of the Bulk Water Reforms in 2016.
- **Risk mitigation** - in relation to manual data management, key person risk, cyber security or other major incidents that consume business resources and create reputational damage from incorrect data being provided to stakeholders.
- **Efficiency gains** - in substantial productivity uplift across the business from planned improvements in processes.
- **Improved customer service** - from meeting customer expectations that now include web-based transactions, real time visibility of transaction status and water information.
- **Enabling future state** - by providing a simplified, integrated and modern platform that allows development of new and improved processes and services.

#### 2.4.2 Question 7

***Do you consider DPIE, NRAR and WaterNSW consulted adequately with stakeholders on their pricing proposals?***

WaterNSW is committed to meaningful engagement with our customers and stakeholders. In considering whether customers were supportive of the key elements of our WAMC Pricing Proposal, we consulted with customers primarily through the CAG forum. The support from these groups for our proposal has been strong in recognition of the impacts of drought on the community. Our consultation on WAMC activities commenced as part of the February 2019 CAG round presentations, totaling forty meetings (four meeting rounds with ten valleys per round).

Through the last CAG round presentations, there was broad consistency in the key messages from CAG members on the importance of the following matters:

- **Transparency** - seeking separate revenue calculations in IPART's determination based on the efficient charges for the function undertaken by each Water Agency (including ensuring Murray-Darling Basin Authority ("MDBA") and Dumaresq-Barwon Border Rivers Commission ("BRC") costs that are passed through are both prudent and efficient).
- **Cost reflectivity** - aligning the charging for our fee for service and water management activities with our underlying cost structures over time, taking into account the bill impacts of any realignment, noting customers see this as an important journey to be taken in understandable steps.
- **Value for money** - striving to provide least cost solutions to our customers' water needs and to deliver the Government's water reform agenda at lowest cost.

Through our "Voice of Customer" research, customers have told us that they have an increased awareness of the activities WaterNSW provides for unregulated river and groundwater customers. Increased customer service is also perceived by unregulated users.

We are pleased to see as a result of unprecedented groundwater-related transactions, customers surveyed show a greater than 30% increase in the perception of WaterNSW spending money on the 'right things' as compared to 2019 survey results when asked the same question.

The preparation of separate pricing proposals for WaterNSW and DPIE-W (including NRAR) for the 2021 Determination period is the first step towards greater transparency in the provision of WAMC services, while also providing simplicity and clarity through a single set of common charges and responding to customer's demands regarding transparency of costs and services for WAMC functions and activities.

## 2.5 MDBA and BRC costs

### 2.5.1 Question 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?***

We understand that the MDBA actively drives the budget process through the review of State Constructing Authorities (SCA) budget submissions. This includes leading workshops across the state constructing authorities to drive efficient outcomes. As a general proposition, we would support incentives for DPIE to actively engage and participate in the MDBA budget process, although our understanding is that this engagement and participation already occurs. This participation by DPIE has the potential to improve the line of sight between the MDBA budget inputs and the efficient costs to be contributed by customers under the IPART framework.

We encourage the Commonwealth and NSW Governments, MDBA and the BRC to provide greater information and transparency of process in determining spend and calculation of charges to our customers.

During our engagement we regularly heard concerns from customers about the proposed increases in MDBA and BRC charges. Customers asked if IPART was involved in the assessment of their fees, as both are monopoly services, and as yet are not exposed to the prudent and efficient tests.

We are aware that IPART is undertaking a separate review of MDBA and BRC costs and is engaging directly with DPIE-W on this matter.

## 2.6 Capital expenditure

### 2.6.1 Question 9

***Was it efficient for Water NSW to apply capital expenditure from its water monitoring program to cover its shared capital costs?***

Yes. Please see our response to Question 10 below, which discusses the efficiency of our water monitoring and IT expenditure.

WaterNSW notes that IPART's 2016 Determination provided a revenue allowance based on a forecast of capital expenditure. IPART did not, and does not purport to, approve specific capital programs.

Actual capital expenditure is expected to be \$41.0 million (\$2020-21) over the 2016 Determination period (including 2020-21). This is \$21.0 million above IPART's allowance of \$20.0 million. Based on IPART's approach to revenue setting and rolling forward the regulatory asset base (RAB), the return on capital component of the higher expenditure was foregone and borne by the business over the 2016 Determination period.<sup>3</sup>

As outlined in our response to Question 10 below, and given the needs of the business, it became clear once WAMC functions were conferred on WaterNSW that capital investment above the level set in the 2016 Determination was required to provide WAMC services at required service levels.

When licensing and water management (including water monitoring) functions were conferred on WaterNSW in 2016, WaterNSW was required to undertake a detailed assessment of the condition of the water monitoring assets that were transferred to identify the efficient costs moving forward.

WaterNSW required time to develop a complete understanding of water monitoring investment needs, leading to an underspend in capital for this category, particularly early in the determination period. The decision to withhold spending until such time as the state of the water monitoring assets was sufficiently understood was aligned to our strategy to only spend when it is efficient and prudent to do so.

At the same time, it was evident that the capital allowance in the 2016 Determination was insufficient to fund the significant investment required in our information technology ("IT") systems to undertake WAMC functions to meet existing service levels.

WaterNSW's decision to invest in IT systems should not be characterised as a conscious decision to curtail investment in water monitoring assets. Rather, WaterNSW invested in assets required to provide WAMC services at times and levels that were prudent and efficient based on the characteristics of the individual investment. Capital expenditure on corporate assets was prioritised as a result of the urgent need to support the transfer of WAMC functions into WaterNSW e.g. the startup/establishment costs required to support an additional 220+ FTEs.

In total, the individual investments were prudent and efficient, with one category (water monitoring) being underspent, while another category (IT) being overspent relative to the regulatory allowances, with the overall spend expected to be higher than IPART's regulatory

---

<sup>3</sup> This could be corrected by rolling into the RAB the capitalised interest (ROD as well as ROE) incurred in relation to the higher 2016-2020 spend i.e. above the allowance. Re Broken Hill Pipeline determination, we note the precedent where IPART rolled into the RAB, the holding cost associated with capex on the Broken Hill Pipeline incurred during a period where no allowance was provided, as the asset was yet to be commissioned. However, to minimise the potential bill impacts on customers, WaterNSW has not rolled forward the capitalised interest incurred in relation to the higher 2016-2020 spend.

allowance. It would not be appropriate in these circumstances to make any further adjustments due to these individual category under- and over-spends. For example, it would not be appropriate to contemplate reducing future regulated revenues for an underspend in one asset category (water monitoring) without also contemplating increasing future regulated revenues for an overspend in another category (IT), when overall expenditures were higher than assumed by IPART in the 2016 Determination.

To do otherwise would depart from IPART's stated intent to provide an allowance (rather than specific project approvals) for the business to operate over the determination period and re-prioritise its investments as circumstances warrant.

In summary, it is entirely appropriate that WaterNSW invested in IT infrastructure even though water monitoring expenditure was lower than IPART's allowance from the 2016 Determinations for NSW Department of Industry ("DOI"). The counter-factual (i.e. not investing in required IT assets because expenditure on water monitoring was below the regulatory forecast made for DOI in 2016) is not consistent with investing efficiently and meeting our legislative and customer service obligations.

## 2.6.2 Question 10

### *Is WAMC's water monitoring program efficient?*

Yes. WaterNSW notes that the efficiency of our proposed water monitoring capital expenditure program is the subject of a detailed technical review with IPART's consultants. We are actively participating in the consultants' review and have worked diligently to respond to over 300 requests for information as part of the technical review in order to demonstrate the efficiency of our proposed program<sup>4</sup>. We are confident that our proposal represents the prudent and efficient capital expenditure to provide required water monitoring services in accordance with the standards set by DPIE-W.

As outlined in our Pricing Proposal (Section 5), total water monitoring capital expenditure over the 2016 Determination period is estimated to be \$13.4 million, or 20% lower than the IPART allowance. WaterNSW notes that the 2021 Determination is the first time that WaterNSW's costs and programs have been reviewed by IPART and its technical consultants as the previous 2016 Determination and associated allowances were based on expenditure forecasts provided by DOI at the time.

WaterNSW's performance against the regulatory allowances is broken down by corporate capital expenditure and water monitoring activities in the table below:

**Table 4 – Notional split of IPART allowance and actual/forecast capex (\$000s, \$2020-21)**

	2016-17	2017-18	2018-19	2019-20*	2020-21*	Total
<b>Allocation of allowance</b>						
<b>Allowance Account Management, licensing and billing services</b>	271	271	271	271	271	1,355
<b>Allowance corporate capex</b>	249	629	282	389	389	1,938

<sup>4</sup> Combined RFI count for the Rural Valley and WAMC efficiency review

	2016-17	2017-18	2018-19	2019-20*	2020-21*	Total
<b>Allowance Water Monitoring</b>	798	3,494	3,639	4,401	4,401	16,732
<b>Total allowance</b>	<b>1,318</b>	<b>4,394</b>	<b>4,192</b>	<b>5,061</b>	<b>5,061</b>	<b>20,024</b>
<b>Allocation of actuals/forecast</b>						
<b>Actual/forecast corporate capex</b>	4,697	4,500	6,465	4,902	7,031	27,595
<b>Actual/forecast allocated to Water Monitoring</b>	101	479	421	3,654	8,750	13,406
<b>Total actual/forecast</b>	<b>4,798</b>	<b>4,979</b>	<b>6,886</b>	<b>8,557</b>	<b>15,780</b>	<b>41,001</b>

\*Forecast

In 2016, WaterNSW inherited numerous capabilities and assets from DPIE-W in order to streamline processes and drive efficiencies (e.g. 220 staff, approximately 900 hydrometric stations and approximately 6000 groundwater bores).

However, during the 2016 Determination period, we underspent on water monitoring capital expenditure. We note that our Deed of Business Transfer with DPIE-W provided no allowance for capital, as the revenue payments were determined exclusively on an operating expenditure per headcount basis. During the transfer negotiations, DPI Water was unable to present evidence which sufficiently linked the transferred roles to the relevant IPART cost codes and the revenue allowances.

Please refer to our response to Question 9 above regarding our investment in water monitoring and IT over the current regulatory period.

The figures identified in the table above are the subject of a detailed review by IPART's expenditure consultants and may be revised during this process. WaterNSW considers that our capital expenditures during the 2016 determination period have been prudent and efficient in providing WAMC services to our WAMC customers.

WaterNSW maintains that the water monitoring capital expenditure program for the 2021 Determination period as outlined in Section 5 of our Pricing Proposal is prudent and efficient when taking into account expenditure drivers and service outcomes.

We note that the step increase in building block revenues for the capital allowance is also driven by a number of other factors:

- In 2012, IPART decided to write down the value of the WAMC 2011-12 RAB to nil. Given its low regulatory value, and minimal capital allowance for ICT systems and corporate assets, WAMC charges are particularly sensitive to any proposal to allocate shared corporate capex to the WAMC RAB. WAMC investments are prone to becoming stranded assets as a result of the IPART 2012 decision.
- Despite the low regulatory value for WAMC assets, WAMC services are delivered through a significant employee base, resulting in several corporate assets which are used to support the WAMC staff. WAMC services are also supported by an asset base of surface water and groundwater monitoring stations to provide water monitoring services to DPIE-

W (with a gross replacement value that would, by far exceed the value of the current RAB).

A low regulatory value for WAMC assets means there is a high risk that current and future investment in WAMC assets could become stranded in future regulatory decisions.<sup>5</sup> It would be against the *National Water Initiative Pricing Principles and Objectives* for those WAMC assets to become stranded, a second time.<sup>6</sup>

### 2.6.3 Question 11

***Given the increase in WAMC's capital costs, is the arrangement of Water NSW providing WAMC's capital program efficient?***

As mentioned above, the step increases in capital costs and building block revenues for the capital allowances is driven by a number of factors. WaterNSW considers that its capital expenditures over the current regulatory period were prudent and efficient.

In 2012, IPART decided to write down the value of the WAMC 2011-12 RAB to nil. Given its low regulatory value, and minimal capital allowance for ICT systems and corporate assets, WAMC charges are particularly sensitive to any proposal to allocate shared corporate capex to the WAMC RAB.

Despite the low regulatory value for WAMC assets, WAMC services are delivered through a significant employee base, resulting in several corporate assets which are used to support the WAMC staff. WAMC services are also supported by an asset base of surface water and groundwater monitoring stations to provide water monitoring services to DPIE-W (with a gross replacement value that would, by far exceed the value of the current RAB).

We note that the WAMC 2016 Determination did not contemplate and therefore did not provide, a sufficient capital expenditure allowance for ICT systems (including end of life systems) and corporate assets to support the transfer of WAMC functions into WaterNSW, including system consolidation. This included the start-up/establishment costs required to support an additional 220+ FTEs (including FTEs that perform functions that are not WAMC related), placing additional pressure on WaterNSW's ability to reduce costs and minimise bill impacts for WAMC customers.

A significant driver of corporate capital expenditure was the consolidation of WaterNSW's office locations into a single new major office 'hub' located in Parramatta and other regional locations.

Given WaterNSW's employee base comprised ex Sydney Catchment Authority ("**SCA**") staff, ex State Water staff, ex DPI Water staff and staff who joined WaterNSW without any previous affiliation, management viewed it necessary to bring these teams together into one metropolitan Sydney location and/or existing WaterNSW regional locations. This was done to help create a single WaterNSW "team" and contribute to the development of a high-performance culture. Neither of the existing WaterNSW major locations (Sydney CBD, Dubbo or Penrith) was a viable site for a single WaterNSW office location, due to the significant travel distances required for those moving offices.

The capital expenditure program underlying our WAMC capital forecast includes the fair and equitable sharing of corporate capital programs to support WaterNSW's account management, billing and licensing functions relating to our WAMC functions.

---

<sup>5</sup> Either through reducing the value of the RAB or the potential of CSO revenue streams not eventuating.

<sup>6</sup> Since 1994, State and Commonwealth Governments have agreed to implement full cost recovery for water activities to achieve a sustainable and efficient water sector and to improve the condition of water resources. In 2010, COAG agreed to the principles for the recovery of capital expenditure contained in the National Water Initiative Pricing Principles, which include requirements related to the recovery of a return on capital.

Consistent with our cost allocation methodology, we allocate shared corporate capital expenditure using salary and wages as an allocator. While WaterNSW explored the use total expenditure (“**totex**”) as an allocator in the Greater Sydney review, we have not adopted this approach for WAMC based on IPART not accepting this allocator for the 2020 Greater Sydney pricing review.

We note that the regulatory cycles are not aligned across our determinations and the pricing issues concerning our customers will differ depending on the customer base, determination specific issues, the historical context and any bill impact considerations. Therefore, IPART must consider the allocation of corporate capital expenditure holistically, taking into account the Greater Sydney, Rural Valleys and Broken Hill Pipeline determinations.

On this basis, WaterNSW considers it entirely appropriate that we continue to undertake activities with a capital component in providing WAMC services.

We will continue to engage with IPART on the appropriate allocator for corporate capital expenditures over the review period.

## 2.7 Cost Shares and Length of Regulatory Period

### 2.7.1 Question 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.***

In assessing whether the existing cost share ratios should be modified, we ask that IPART consider any changes in activities and responsibilities that were not contemplated during the 2018 IPART Rural Valley Cost Share Review. For example:

- Proposed scope increases due to changes in obligations, service standards and industry structure, e.g. expected cost increases as a result of the Government’s metering reform agenda and compliance activities;
- Current period allowances are insufficient to fund the significant operating expenditure required to undertake the licensing function, as highlighted in the NRAR/DPIE and WaterNSW Pricing Proposals;
- Proposed changes in activity costs groupings that reflect recent changes in industry structure and service delivery models.

There has been a significant change in industry structure and service delivery models for WAMC activities since the 2016-2020 WAMC determination. WAMC activities carried out by WaterNSW are now delivered under a revised operating model and team structure, including WAMC water monitoring functions being carried out by one team at WaterNSW since 2016 that has enabled WaterNSW to achieve significant efficiencies in water monitoring operating expenditure. To align with WaterNSW’s operating model, WaterNSW has aggregated the WAMC activity codes into functional activities, as a more cost reflective grouping.

As part of the efficiency review, WaterNSW provided detailed site information to the IPART consultants in regard to the cost share ratio that could apply to the water monitoring functional activity as proposed by WaterNSW.

WaterNSW will continue to support the IPART consultants in their assessment of whether the existing cost share ratios are appropriate.

### 2.7.2 Question 13

#### ***Over what determination period (i.e., how many years) should we set prices?***

Please see our response to Question 14 provided below.

### 2.7.3 Question 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 (e.g., five years) and aligning these two determinations at the next review?***

WaterNSW has proposed a four-year determination period for WAMC and a one-year determination period for Rural Valley bulk water pricing, which we consider to be appropriate for the latter determination when addressing the considerable uncertainty associated with drought, the global pandemic and recent Government reforms.

As a general proposition, WaterNSW supports the future alignment of our various rural-based regulatory determinations (i.e. rural bulk water, WAMC and the Murray River to Broken Hill Pipeline) in order to increase the efficiency and effectiveness of price regulation and reduce the cost of regulatory for WaterNSW, our rural customers and IPART.

Aligning the Rural Valley Determinations and the WAMC Determination periods (as well as our Broken Hill Pipeline determination periods) would greatly improve the efficiency of the pricing proposal and determination process for both WaterNSW and IPART and improve and harmonise the customer consultation process.

We note that we maintain our support for a one-year determination period for Rural Valleys for 2021-22 to address current uncertainties. If our proposal is accepted by IPART, this would be followed by a subsequent Pricing Proposal to be lodged with IPART on 1 July 2021 seeking a 'standard' four-year determination period starting in the 2022-23 water year.

Our subsequent four-year Rural Valleys Pricing Proposal would be developed and fully informed by a detailed customer engagement process whereby customers have the opportunity to engage with WaterNSW on the bulk water services they require, the long term sustainable costs of providing these services and how WaterNSW should charge for these services.

For clarity, we are not proposing a one-year determination period for WAMC to potentially align with a one-year Rural Valleys bulk water determination period.

Notwithstanding, we suggest that the length of the WAMC determination period is reviewed in light of how IPART addresses the timing of WaterNSW's Rural Bulk Water Prices Determination.

For example, if IPART approves our one-year Rural Valleys determination (which would be followed by a Pricing Proposal seeking a four-year determination period), then IPART may wish to consider setting a five-year determination for WAMC charging to align with the 1+4 year determination periods for Rural Valleys. This would result in alignment of the determination timelines from 1 July 2025.

If, however, IPART rejects our proposal for a Rural Valleys determination period of one-year and instead substitutes it with a four-year determination period, then a 'standard' four-year determination period for WAMC would align the two determination periods from 1 July 2021.

WaterNSW also suggests that IPART factor in any outcomes arising from potential industry reform that may suggest a shorter (i.e. three-year) determination period for WAMC (and Rural Valleys by extension). Information on whether any such reform will occur should become more visible in the leadup to the draft determination.

## 2.8 Pricing Structures and the DVAM

### 2.8.1 Question 15

#### ***What are your views on WAMC's proposed price structures?***

In its review for the 2016 WAMC Determination, IPART accepted DPIE-W's proposed tariff categories incorporating a 1-part tariff (fixed charge), and a 2-part tariff (fixed and variable charges), with different charging rates across 11 valleys in regulated river systems, 8 regions for unregulated river systems and 2 regions for groundwater systems. IPART concluded that maintaining this geographical split in pricing would ensure prices are reasonably cost-reflective.

The cost codes for water monitoring, policy and licensing functions were used to calculate the 1-part and 2-part tariffs with the exception of some cost codes which were used to calculate specific fee for service charges, such as water consent transactions (fee for service charges), meter service charges and the water take assessment charge.

It is understood that, for the most part, DPIE-W personnel did not allocate their time directly to pricing regions, but rather adopted a different approach for accounting time expense.

Instead, operating expenditure was aggregated into a pool which was then distributed to pricing regions using a cost driver. In this way, operating expenditure was split into pricing regions to construct valley-based charges. The same approach was used to allocate capital expenditure into pricing regions in order to establish a RAB for each pricing region.

WaterNSW does not believe a more complicated cost allocation methodology necessarily results in more cost reflective prices. For example, multiple RABs have been established by allocating the aggregated capital expenditure into valleys. The RABs have not been developed using a bottom-up valley-based analysis of the true costs to serve in a particular valley. WaterNSW considers the current approach to modelling valley-based charges to be overly complicated with little or no improvement in achieving accurate cost reflective valley-based pricing.

For example, the costs of administering the more complicated aspects of the licensing regime are corporate support costs. That is, the cost of providing licensing advisory services do not differ depending on whether the licensing query was raised by a customer in the Southern Valleys or the Northern Valleys, nor do they differ based on whether the query was raised in an unregulated river system or a groundwater system.

While WaterNSW supports the current valley-based regulatory reporting requirements to IPART under its Annual Information Returns to maintain continuity of reporting for the WAMC Determination, WaterNSW is unable to find any evidence, based on its reported actual costs to date, that suggests a customer in one geographic region should pay a premium for certain WAMC costs (e.g. licensing advisory services) compared to a customer in another geographical region.

### 2.8.2 Question 16

#### ***Is there merit in setting separate charges to recover MDBA and BRC costs?***

As a general principle, WaterNSW supports pricing arrangements that provide greater information and transparency in the calculation of charges to our customers.

In the 2016 Rural Valley proposal, we received feedback from our customers that they find the system of administration, costs, charging and payments for the MDBA and BRC opaque and difficult to understand. Customers want greater understanding of what the charges relate to and want MDBA/BRC charges to be subject to the IPART test for efficiency and effectiveness.

We agreed with our customers that further detailed information on the charges should be provided to our customers.

Based on feedback from stakeholders and in line with our 2016 Rural Valley proposal, IPART decided to approve separate fixed and variable charges to recover the bulk water cost of the MDBA and BRC in the Murray, Murrumbidgee and Border Rivers.

Similarly, WaterNSW sees merit in the proposal to set MDBA and BRC charges that identify and separately recover the MDBA and BRC costs associated with water management and planning activities.

If stakeholders indicate a strong preference for a separate MDBA and BRC charge, or pricing reform more broadly, WaterNSW considers that this should be reviewed over the 2021 Determination period for consideration at the subsequent WAMC pricing review. This will allow sufficient time to consider the interactions between all rural water management pricing components and the overall impact on customer bills and WAMC revenue.

#### 2.8.3 Question 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?***

In our Pricing Proposal, WaterNSW proposed annual price increases of 5 per cent, excluding the impact of inflation, to 2024-25. We believe our Pricing Proposal strikes the right balance between transitioning to cost reflective pricing and minimising pricing impacts on our customers.

#### 2.8.4 Question 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?***

In its Issues paper, IPART stated that WaterNSW has proposed a demand volatility adjustment mechanism as follows:

*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.*

*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.<sup>7</sup>*

WaterNSW wishes to highlight that a demand volatility adjustment mechanism is already incorporated in the 2016 Determination and is not a new proposal as suggested in the Issues Paper. The following information is reproduced from the 2016 Determination:

**Decision**

32 We will consider at the next determination of WAMC's prices:

- *An adjustment to the revenue requirement and prices to address any over or under-recovery of revenue over the 2016 determination period due to material differences between the level of billable water take over the period and the forecast water take volumes used in making this determination.*
- *Whether and how best to make a revenue adjustment based on the circumstances at the time.<sup>8</sup>*

In approving the DVAM in 2016, IPART accepted stakeholder concerns regarding the reliability of DPI Water's water take forecasts and acknowledged that actual water take may be considerably below forecast because of dry weather and limited water availability, which could lead to an under-recovery of revenue. IPART stated at the time:

*Given the uncertainty and volatility of water take we see merit in introducing a demand volatility adjustment mechanism for WAMC. While our decisions in the 2016 Determination cannot bind a future Tribunal, this **demand volatility adjustment** could be implemented by comparing the forecast and actual water demand over the 2016 determination period and adjusting the revenue requirement over the next determination period, as decided by the Tribunal at that time (emphasis added).<sup>9</sup>*

As highlighted above, WaterNSW has not proposed a new risk management feature for water take assessments. Over the 2022-25 determination period, WaterNSW expects that a higher proportion of revenue would be recovered from variable revenue sources (i.e. 2 part tariffs) compared to the 2016-20 revenue allowances. This is largely driven by the NSW Government metering reforms which are expected to trigger an increase in the uptake of customer owned meters. With respect to the existing DVAM, we wish to highlight the following:

- WaterNSW has not sought compensation via the DVAM over the 2016 Determination period even though water take forecasts were below IPART's forecasts. This was due to WaterNSW's strong preference to keep water management prices low for customers, particularly during a time of considerable hardship with continuing drought in many valleys and COVID-19 affecting all of our rural customers in some capacity; and
- We have suggested a refinement to the approach to calculating the DVAM to bring it into line with IPART's application of the DVAM in other water utility decisions (i.e. Sydney Water, Hunter Water, Central Coast Council) where the trigger for the application of the DVAM is a more transparent and predictable approach of  $\pm 5\%$  variation would be essentially paid by (or paid to) customers in the next determination period through adjustments to their prices.

---

<sup>7</sup> IPART Review of Water Management Prices -Issues Paper, September 2020. Page 29.

<sup>8</sup> IPART Review of prices for the Water Administration Ministerial Corporation – Final Report, June 2016. Page 122.

<sup>9</sup> IPART Review of prices for the Water Administration Ministerial Corporation – Final Report, June 2016. Page 123.

As noted above, while WaterNSW has not proposed a DVAM adjustment for the 2016 Determination period, we nonetheless consider it to be an appropriate mechanism (as IPART did in 2016) to manage volume variations.

## **2.9 Other matters**

### **2.9.1 Groundwater assessment costs in consent transactions.**

Water consent transactions (which are also known as WAMC activity code W09-01) are fee-for-service activities undertaken by WaterNSW and NRAR that manage the issue, trade and amendment of water access licences, water allocations and work approvals.

NRAR processes applications for large licence holders, accounting for 5% of applications and 40% of water take. WNSW processes the remaining 95% of applications.

Applicants for these services pay a fee intended to reflect the costs of the transactions based on the impactor-pays principle. WaterNSW's submission proposed separate schedules for consent transactions managed by NRAR and WaterNSW because each agency has different customers and activities.

### **2.9.2 Floodwater harvesting licensing arrangements**

WaterNSW is likely to assume operational responsibilities for processing floodplain harvesting licences over the upcoming regulatory period in conjunction with NRAR.

We have been advised by the Department that a portion of the implementation costs with respect to floodplain licensing will be paid for by the Commonwealth as part of the establishment of the framework. We understand that the Department has received a fee waiver from the NSW Treasury which covers the initial costs of establishing work approvals for floodplain harvesting. .

The Department has advised WaterNSW that it expects any future consent transactions relating to floodplain harvesting licences (e.g. amendments or trades) should be covered by the consent transaction fees proposed by WAMC for water access licences and water supply works approvals. This approach is supported by WaterNSW.

## **3. Metering reform**

As noted in our Pricing Proposal, the NSW Government is implementing a new metering framework for non-urban water take. Given uncertainty around the policy and operational landscape, and the associated costs of metering reform, WaterNSW excluded the costs of the non-urban metering reform from its Pricing Proposal. This section outlines the drivers and timetable for metering reform and the implementation and ongoing management activities that WaterNSW will be required to undertake to as a consequence of metering reform.

Certain elements of the non-urban metering reform program have only recently become clear, enabling WaterNSW to undertake initial analysis of the costs it anticipates incurring in implementing the new framework and in complying with its requirements on an ongoing basis.

These preliminary cost estimates will be further developed and validated, for provision to IPART by the end of November 2020.

### 3.1 Background

As part of the Water Reform Action Plan (“**WRAP**”) 2017, the NSW Government detailed the implementation of a new metering framework that seeks to improve the standard and coverage of non-urban water meters (“**Metering Reform Program**”). The WRAP was developed following the Matthews Review and the Murray-Darling Basin Compliance Review findings of shortcomings in the NSW water management and compliance and enforcement system.

The Matthews Review was undertaken following allegations of water theft or illegal water take from within the MDB and surrounding regions. At the time, NSW water use accounted for more than half of the water use in the MDB, however an estimated one-third of that water take was unmetered.

The WRAP committed the NSW Government and governance bodies to 40 actions to improve water management in NSW, including a commitment to implement a robust water metering framework. This included the NSW Government clearly articulating and designating roles and responsibilities to the governance and management bodies for NSW water.

The new metering framework has been established with the following key objectives:

- The vast majority of licensed water take must be accurately metered;
- Meters must be accurate, tamper proof and auditable;
- Undue costs on smaller water users are to be minimised; and
- Metering requirements are to be practical and able to be implemented effectively.

For WaterNSW, the major element of the new framework is the introduction of a mandatory metering condition in licences to require metering equipment that meets specified standard plus telemetry to be installed, used and properly maintained on all water supply work approvals above a certain threshold.

Under the new metering framework, water users with works that meet one or more of the following metering thresholds will be required to have a meter:

- Users who are already required to have a meter or measure water take;
- Users with pump infrastructure size of 200mm or larger;
- Multiple works; and
- At-risk groundwater source.

The new metering framework has commenced and will be rolled out over a five-year period, starting with the largest consumers of water and then progressively implemented on a region-by-region basis. The remaining transition to the new metering requirements will impact the 2021 Determination period:

- Stage 1 - 1 December 2020 - for all surface water pumps 500 mm or larger – 1,260 surface water pumps;
- Stage 2 - 1 December 2021 - for all remaining works in the inland northern region – 7,600 additional works;
- Stage 3 - 1 December 2022 - for all remaining works in the inland southern region – 7,380 additional works; and

- Stage 4 - 1 December 2023 - for all remaining works in the coastal regions – 6,000 additional works.

### 3.2 Implementation and ongoing management activities

WaterNSW currently undertakes meter reading, a role which will greatly expand in the 2021 Determination period with the requirements for additional meters to be installed. As a result of these reforms, new meters will need to be installed by customers, with the vast majority of these meters also requiring telemetry.

Given the phased transition to the new metering framework, WaterNSW will be required to extend some of its current practices when undertaking implementation activities to transition to the full and amended metering process. Major implementation activities include those that are required for the transfer to the new metering frameworks and those which require upgrades and will be sustained throughout the next period.

Implementation and ongoing management activities include:

- **Transfer of Government owned meters** – as part of the reform, WaterNSW now has the responsibility to make all government-owned meters on private land compliant with the new non-urban metering regulations. Once these meters are compliant, a new meter maintenance regime will be implemented (based on the meter maintenance requirements in the same regulations). The new meter maintenance requirements are likely to increase the frequency of visits per site per year.
- **Reporting requirements (water users)** – Water users who are required to install a meter, once the meters pass their compliance dates, will be required to self-report monthly. For those water users that need to have telemetry, they will need to report their BLR extractions monthly either via a portal or manually. For those water users that require a meter, but are not required to install telemetry, they must report their water usage (with supporting evidence) and BLR monthly either via a portal or manually.  
  
For those water users that do not need a meter (who need to keep a logbook) they need to report usage and BLR annually either via a portal or manually. Reporting must occur even if the usage is zero. All water users are expected to have to register to use the portal to meet their reporting requirements
- **Reporting Requirements (WaterNSW)** - WaterNSW will need to download the data from each local intelligence device (“LID”) onsite at least once per annum for those not connected to telemetry. These data need to be stored in a data repository and then used for the intended purposes of billing, account management, determining water take, system operations and compliance.
- **Hosting of the Data Acquisition Service (DAS)** – the NSW Government has procured a cloud-based DAS to collect and store data received from the compatible data logging and telemetry devices on meters. Data collected will inform compliance and enforcement activities. The establishment of DAS for ongoing operation and maintenance is to be managed by WaterNSW.
- **Development of a Duly Qualified Person (DQP) Portal** - DQP is a newly created role as part of the Metering Reform Program, being a person with the qualifications, skills and experience to carry out work on metering equipment. The DQP Portal will enable DQPs to register new and replaced meters, telemetry and fill in online and submit QDP certificates. WaterNSW is responsible for certification of compliance and managing ongoing accreditation of meters against requirements. This includes the development and maintenance of the DQP Portal. WaterNSW is also responsible to ensure the data collected are accurate.

- Development of **education and communications materials** that will help explain to customers the nature of the obligations.
- **Supporting customers through the implementation process**, for example, responding to and managing increased inquiries, calls, site visits and complaints.
- **Project management** to oversee and process the changes throughout the business.

### 3.3 Metering process

Through the metering reform transition period, the existing metering landscape, including both systems and customers, presents challenges that drive new and amended processes and costs.

WaterNSW processes under the Metering Reform Program are considered in three areas or workstreams: **Metering Compliance** Process, **Recording and Reporting** Process and **General Enquiries** Process. Educating our customers on the reform changes will also need to occur.

#### 3.3.1 Metering Compliance Process

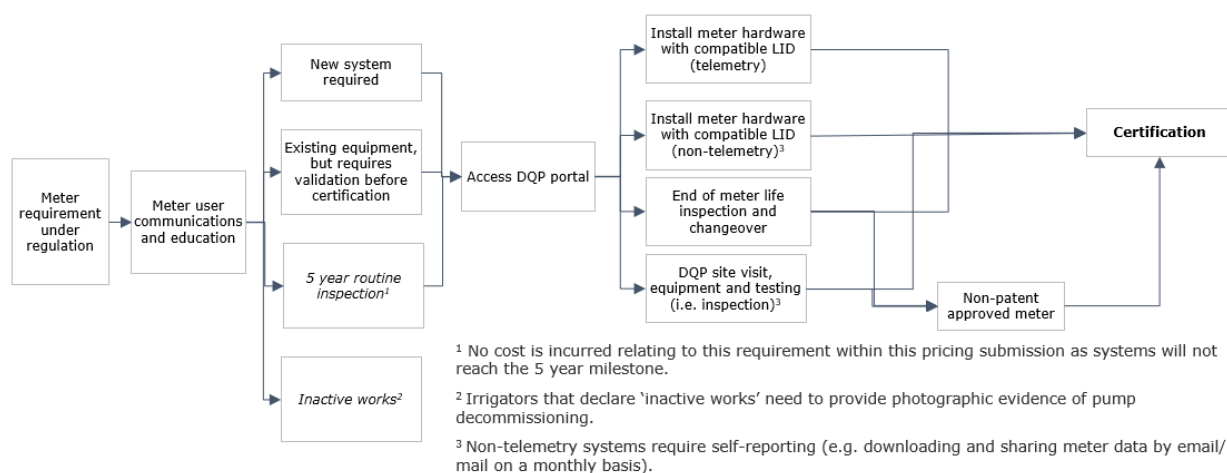
The metering compliance process manages the interface with meter users relating to the implementation and ongoing business processes for the water reform.

Key objectives of this metering workstream: establish the metering program reform accurately and efficiently.

Key steps and activities within this process that drive costs are shown in Table 5. Metering compliance process flow is shown in Figure 2.

**Table 5 – Metering Compliance activities**

Step	Activities
Communications	<ul style="list-style-type: none"> <li>• Manage delivery of communications plan</li> <li>• Facilitate mailouts of communication/ educational materials</li> </ul>
Equipment	<ul style="list-style-type: none"> <li>• Support customers with accurate information</li> <li>• Fault management (system use)</li> </ul>
Access DQP Portal	<ul style="list-style-type: none"> <li>• Build and manage Portal</li> <li>• First level of user support for Portal use</li> <li>• Accredited DQPs</li> <li>• Manage DPQs</li> <li>• Quality assurance of DQPs</li> <li>• Inform DPQs of updates to standards and rules</li> </ul>
Accreditation	<ul style="list-style-type: none"> <li>• Maintain information on accredited systems/ infrastructure</li> <li>• Accredited equipment</li> </ul>
Non-patent	<ul style="list-style-type: none"> <li>• Process non-patent approved meter inspections and certifications</li> <li>• Manage communications and education</li> </ul>
Certification	<ul style="list-style-type: none"> <li>• Process certificates of compliance</li> <li>• Manage ongoing accreditation requirements</li> </ul>

**Figure 1 - Metering Compliance process flow**

### 3.3.2 Reporting and Recording Process

The recording and reporting process primarily manages business as usual meter reform post implementation, including interfacing with the regulator, NRAR. Within this area of activity, WaterNSW is required to receive and record telemetry and meter data, as well as process this information for compliance, inspection and testing. The outputs and reports are provided to NRAR and DPIE to ensure compliance against obligations.

Key objectives of this workstream: maintain metering in an accurate and efficient manner.

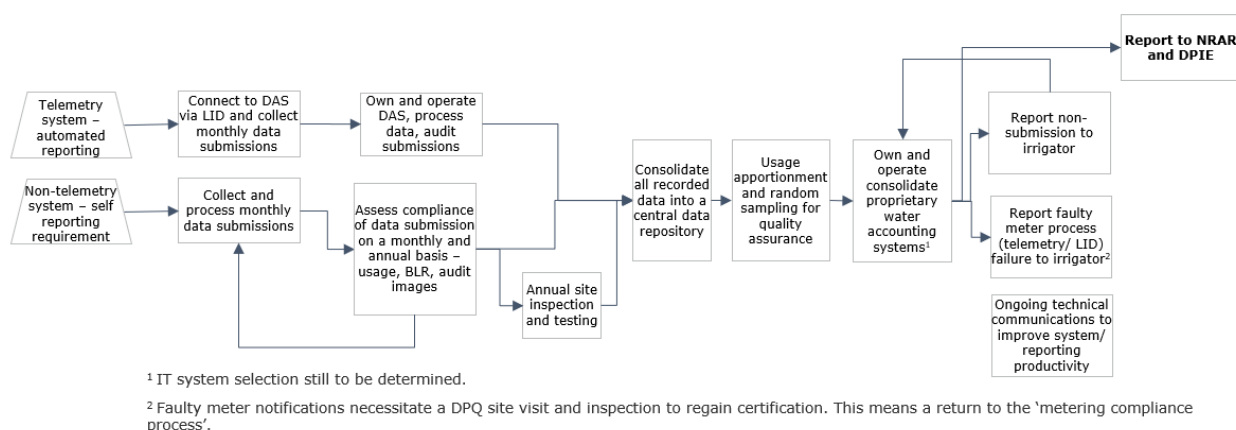
Key steps and activities within this process that drive costs are shown in Table 6. Reporting and Recording process flow is shown in Figure 3.

**Table 6 – Reporting and Recording activities**

Step	Activities
Receive data	<ul style="list-style-type: none"> <li>Receive manual data (emails, mail)</li> <li>Ensure secure connectivity of telemetry systems with DAS (including satellite systems)</li> </ul>
Process data	<ul style="list-style-type: none"> <li>Operate and maintain DAS licence</li> <li>Analyse data</li> <li>Categorise irrigator compliance against licenses</li> <li>Cross check recorded meter images against reported data</li> </ul>
Site inspection	<ul style="list-style-type: none"> <li>Physical annual site visit to inspect compliance of system and recording (including travel)</li> </ul>
Database	<ul style="list-style-type: none"> <li>Manage a centralise database for all metering data</li> </ul>
Verification	<ul style="list-style-type: none"> <li>Matching take to water rights/ licence/s</li> <li>Random sampling a proportion of submissions to verify compliance</li> </ul>
Monitor performance	<ul style="list-style-type: none"> <li>Manage water accounting system</li> <li>Integrate with other systems and communicate (e.g. licences, billing)</li> <li>Monitor customer take-up</li> <li>Manage reporting gaps</li> </ul>
Communications	<ul style="list-style-type: none"> <li>Notify customers of reporting omissions</li> <li>Manage comms and education</li> <li>Proactive comms with users on options for enhanced system/ reporting productivity</li> </ul>

Reporting	<ul style="list-style-type: none"> <li>Report annually to NRAR on extractions against licences</li> <li>If reporting non-compliance persists, report to NRAR</li> </ul>
-----------	---

**Figure 2 - Reporting and Recoding process flow**



### 3.3.3 General Enquiries and Education Process

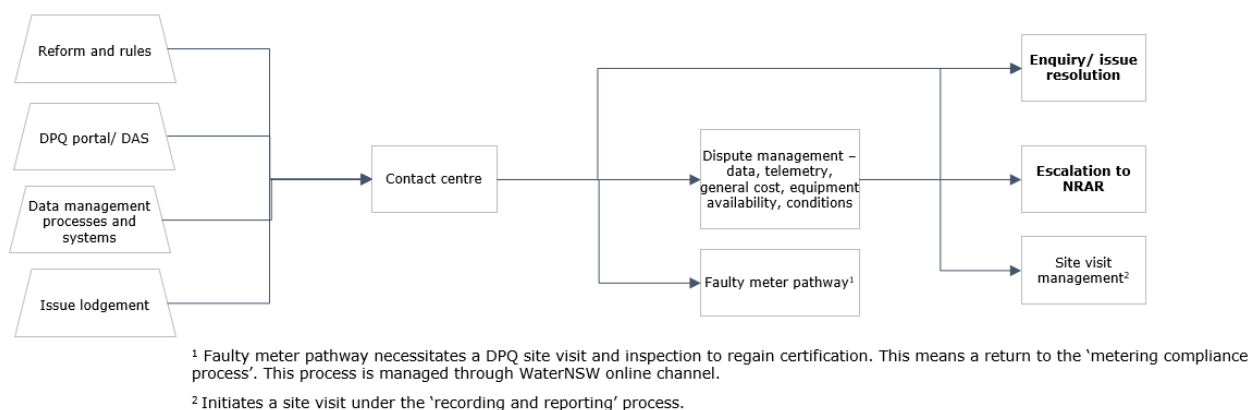
Given the materiality and complexity of the Metering Reform Program, there will be a significant increase in enquiries from customers to WaterNSW. WaterNSW is responsible in the role of public interface between customers and the governance and management of water obligations in NSW. WaterNSW is committed to educating its customers on their obligations under the reforms.

Key objectives of this workstream: address enquiries efficiently and fairly.

Key steps and activities within this process that drive costs are shown in Table 7. The General Enquiries and Education process flow is shown in Figure 4.

**Table 7 – General Enquiries and Education activities**

Step	Activities
Service Centre & Field team	<ul style="list-style-type: none"> <li>Process calls relating to the metering program</li> <li>Provide operational assistance to customers</li> <li>Manage online materials and education, contact details and processes for metering users</li> <li>Train Service Centre and Field staff relating to meter reform and processes</li> </ul>
Manage Disputes	<ul style="list-style-type: none"> <li>Manage dispute and faulty meter cases</li> <li>Develop pathways for resolution or escalation</li> </ul>
Close	<ul style="list-style-type: none"> <li>Close enquiries and resolutions</li> <li>Manage reporting of 'reporting non-compliance' to NRAR in line with guidelines</li> <li>Facilitate site visits</li> </ul>

**Figure 3 - General Enquiries process flow**

### 3.4 Key metering complexities

The complexity of water user, required systems and varied customers, presents challenges that drive costs and process through the transition and on an ongoing basis.

As WaterNSW analyses these forecast costs through the Determination Period, a material step up in metering costs will be required.

Key complexities within the metering process that drive costs and that which are undergoing further critical consideration, include:

- **Licensing:** Water users within the MDB region often hold multiple licences to access water supply. Licences are allocated and provided by WaterNSW to water users dependent on, and on the basis of how and why, the water is being used. Water users accessing and utilizing multiple licenses creates complexity and nuance in the reporting and recording of metering processes.
- **Technical literacy:** There is significant variability in the technical literacy and connectivity of different water users with the region. Engagement, communications and training that WaterNSW undertakes and manages as part of both the transition and ongoing business process are therefore varied and bespoke to users, driving time and costs for the business.
- **Varied systems:** The level and intensity of metering and reporting required under the new frameworks, is driving a significant uplift business processes for WaterNSW during the next regulatory determination period. Given the varied and (for non-telemetry meters) manual processes, meter reading monthly is a significant and time-intensive business process.
- **Allocation of costs:** Given the bespoke nature of water users literacy, systems and consumption, the WaterNSW systems required to transition to and operate within the new metering framework are not applicable to all water users. Therefore, when considering the cost allocation of processes and systems, complexity arises across customer and licence types. Consideration and complexity are noted as to how best to allocate these costs in a transparent, fair and equitable manner.

Certain elements of the non-urban metering reform program have only recently become clear, enabling WaterNSW to undertake initial analysis of the costs it anticipates incurring in implementing the new framework and in complying with its requirements on an ongoing basis.

These preliminary costs estimates will be further developed and validated, for provision to IPART by the end of November 2020.