# Submission to the Independent Pricing and Regulatory Tribunal

## Response to the IPART Draft Determination on the review of WAMC Water Management Prices from 1 July 2021

16 April 2021

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# Contents

# 1. Introduction

WaterNSW is pleased to respond to IPART's *Draft Determination on the Review of Water Management Prices from 1 July 2021 for the Water Administration Ministerial Corporation* ("**Draft Determination**" for "**WAMC**") published on 16 March 2021.

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 2021 to 30 June 2025 (our "**Pricing Proposal**"). We consider the Draft Determination process has been thorough and that WaterNSW's positions have been discussed extensively with IPART staff and IPART's expenditure consultants ("**Cardno**").

In this response to the Draft Determination, 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 Draft Determination that will be made available on IPART's website.

As detailed in the body of this submission, we wish to bring the following issues to IPART's attention. These key issues are summarised below and expanded on in the body of this submission.

### Operating expenditure

- **Direct operating cost reductions** – Based on the increased risk to WaterNSW's operating environment, WaterNSW contends that its proposed operating expenditure should be reinstated and that the operating expenditure reductions of $7.4 million for fee for service activities and $4.9 million in general operating expenditure over the 2021 Determination period are unachievable:
    - **Consent Transaction Charges –** IPART's draft decision to impose a large efficiency challenge of 20% to the proposed consent transaction charges is unprecedented and unachievable at the start of the 2021 Determination period. The decision is not cost reflective and does not give due consideration to our actual costs of providing consent transaction services to ensure the performance of our licensing processing function meets customer expectations. We request that IPART revise the proposed efficiency to ensure it is achievable and backed by empirical evidence and is more in-line with other efficiency decisions.
    - **Water Take Assessment Charges** – IPART's approach to retain the water take assessment charge at current levels over the 2021 Determination period assumes no change in regulatory functions or the operating environment since the 2016 Determination. The decision provides regulated funding for approximately 1-1.5 FTE to service the entire state of NSW. Given the vast size of our operating area and the sheer number of water sources, we submit that the proposed resourcing is not practical and would significantly impact on service levels if implemented by WaterNSW.

      As discussed in Section 2.2.3, we do not support the Cardno suggestion for WaterNSW to utilise our water monitoring team to either supplement or complement our existing Customer Field Officer ("**CFO**") workforce. This is on the basis of a number of factors, including that our water monitoring team is fully utilised, peaks are not likely to align with the meter reading peaks and have a priority to maintain critical assets.

      Even if it is possible to implement the recommendations, there would need to be engagement with the relevant unions on the development of the new position descriptions and to facilitate a corporate restructure across the organisation including

staff training as per the requirements of the role. This process would take significant time and effort to implement and would potentially result in an overall increase in labour costs to fund the multi skilled position requirement. Any volume reductions would be potentially offset by an increase in labour costs. Should IPART not accept WaterNSW's concerns as to the practicality of the recommendation, we ask that IPART consider both the timing and cost implications as part of its Final Decision.

In addition, if IPART does not accept our proposal to increase the water take assessment charge to cost reflective levels, then the balance of costs should be socialised with the broader customer base, in line with the requirements of the WaterNSW Operating Licence.

- **Customer Management Activities** – We do not support IPART's proposed reduction to customer management costs of $1.25 million per year. IPART's approach of using the year-to-date 2020-21 actual / forecast data to set the 2021-25 allowances understates the level of funding required to deliver the customer management function over the 2021 Determination period. In 2020-21, there has been a notable increase in activity towards the other functions of WAMC; conversely, this has led to a reprioritisation of effort away from the customer management activity (e.g. consents/drought) in the short term.

  WaterNSW submits that our proposed expenditure for customer management should be approved as it better represents the long term sustainable (steady state) costs of preforming the customer management function. However, if IPART instead decides to use 2020-21 year-to-date costs as the basis to set the 2021 allowances for this activity, we suggest that Cardno applies WaterNSW's most recent forecast for 2020-21 of $3.7 million. This would result in a reduction of $0.8 million per annum compared to $1.2 million per annum in the IPART Draft Decision.

- **Top-down' operating efficiency reductions** – IPART and Cardno have applied $2.0 million of top-down efficiencies over the four years of the 2021 determination to operating expenditures based on separate 'catch-up' ($0.7 million) and 'continuing' efficiency ($1.2 million ) adjustments. Whilst we support IPART's decision not to apply the top-down efficiencies to WAMC water monitoring expenditure and the additional overhead, we have concerns over the catch-up and continuing efficiencies.

  - **Catch-up efficiencies** over the four years based on a cumulative efficiency of 1.1% per annum for operating expenditures (increasing to 4.33% per annum in 2024-25) are arbitrary and unachievable. They rely on a benchmarking analysis to set an efficiency 'frontier' that is non-existent and therefore lacks theoretical foundation. Even accepting IPART's findings and the results of any (unspecified) benchmarking analysis, there are still issues concerning the potential for double-counting when applying IPART's 'scope adjustments'.

    - Of most concern is the precedent this sets and the impact this approach will have on businesses with respect to assessing future regulatory allowances (and therefore the incentives for efficiency) in future IPART Determinations when severing ties from the current 'revealed costs' regulatory compact. We are troubled by a precedent of relying on benchmarking by a consultant at each reset that may not have more consistent application across the water utilities that IPART regulates.
    - WaterNSW considers the role of benchmarking and 'catch-up efficiencies' should not be driven by the approach of one particular expenditure consultant and should instead be the product of a detailed review by IPART of efficiency incentives (i.e. through detailed consideration as part of IPART's current review of how it sets water prices).
    - Our detailed response to IPART's continuing and catch-up efficiencies is set out in our response to the IPART Rural Valleys Draft Determination, submitted to IPART on 16 April 2021, and should be considered part of our response to the WAMC Draft Determination as IPART and its consultants have applied substantially the same methodology for the two reviews.

We request that IPART consider the operating environment WaterNSW was operating under in the current regulatory period, which was not contemplated in the current period allowances.

For instance, in addition to the integration of WAMC functions and activities from DPI Water into Water NSW and the alignment of the three legacy enterprise agreements. the financial pressures to WaterNSW was significant considering the level of assistance provided to customers to help navigate through the drought; and to assist the NSW Government in implementing policy changes and modifications to both the regulatory framework and the operational landscape.

There have been further uncontrollable pressures on WaterNSW such as COVID 19, the funding of material non-compliance and legal cases as well as section 52 orders requested by Parliament, Water NSW has not been operating in a steady state environment over the current regulatory period and we ask that IPART takes this into account when reflecting on the appropriate efficiency adjustments.

- **Continuing efficiencies** - WaterNSW proposes that when determining a continuing efficiency target, IPART should:
  - Give most weight to the measured productivity of the utility industry (rather than the market sector) since the utility industry most closely reflects the input and output characteristics of water businesses; and
  - Give most weight to multifactor productivity estimates over the most recent historical years (rather than 40 years) in order to produce more realistic estimates of the scope for productivity gains over the forthcoming regulatory period.

  Based on the evidence provided above, WaterNSW proposes that a continuing efficiency target of 0-0.35% per annum, rather than the 0.7% per annum should be adopted in the Draft Determination. This matter is addressed in detail in Appendix X.

### Capital expenditure

WaterNSW is pleased that IPART recognises the need for WaterNSW to invest more heavily in our water monitoring network and corporate systems to meet our conferred obligations and the demands of both customers and stakeholders, which are only expected to grow over time. We offer the following comments on specific elements of IPART's capital expenditure decisions in the Draft Determination as discussed in detail in the body of this response.

- **Top-down capital efficiencies** – Atkins / Cardno takes a different approach to assessing its 'catch-up' efficiency for capital expenditure compared to catch-up efficiencies for operating expenditures. Whereas Atkins / Cardno base catch-up efficiencies (at least in theory) on an efficient frontier, for capital expenditure, the consultants apply judgement across four specialised topic areas.
  - We consider that cumulative reductions for catch-up capital efficiencies rising to over 7% in 2024¬25 are unachievable without impacting service levels and potentially double-count "continuing efficiency" reductions and other direct reductions. The reasoning used by Atkins in its review of the Greater Sydney and Rural Valley capital plan does not apply to certain elements of the WAMC's capital plan.
  - Top-down efficiencies **should not be applied to the water monitoring capital budget** – The decision to apply $1.4 million in catch-up efficiencies to our capital plan for water monitoring is inconsistent with the Cardno finding that the business processes used to develop the water monitoring budget are considered best practice. Based on the reasoning provided in the Cardno report, the application of the catch-up efficiency to the WAMC water monitoring capital budget should be removed by IPART.
- **Corporate capital expenditure** - IPART has proposed a 19% or $6.9 million reduction in actual corporate capital expenditure in the 2016 Determination period to be reallocated to the other determinations, such as the Rural Valleys, Greater Sydney and the Broken Hill Pipeline. We are concerned the decision to reprofile the WAMC corporate capex is not

reflective of the costs of providing corporate systems and assets to the WAMC staff base and that these costs would be stranded if they are not reallocated as intended.

WAMC customers should contribute to a fair share of the costs associated with corporate systems given the large staff base supporting WAMC functions and activities. Greater Sydney, Rural Valley and Broken Hill pipeline customers should not cross subsidise the costs of providing WAMC corporate assets and services.

Notwithstanding, should IPART decide to reallocate WAMC corporate capex to the other determinations, we consider that the reallocation to a Rural Valleys Determination needs to occur during the current 2021 Rural Valley price review (and not a future review) as required under the Water Charge Rules 2010.

The suggested changes have material implications for regulatory allowances. We ask that any change be considered in the 2025 Greater Sydney determination, so as to allow proper analysis and to mitigate the implications on revenue allowances across our various determinations.

- **Reduction to forecast motor vehicle expenditure** – The $2.6 million reduction in motor vehicle capex implies that WaterNSW would have to extend the vehicle life to 7 years to ensure the proposed expenditure can be approved at the subsequent price review. The approach is inconsistent with the safety requirements prescribed by the NSW Government, the expected life of vehicles and falls short of WaterNSW's duty of care to its employees with respect to safety. The decision also fails to consider the reduction in resale value and additional maintenance costs required to extend the useful life of the vehicles.
- **Capital expenditure during the 2016 Determination period** – In its Final Report, Cardno stated that the level of corporate capital expenditure allocated to the WAMC business and considered efficient be in line with a moderated profile of expenditure rising from 25% of that submitted by WaterNSW in 2016/17 to 100% in 2019/20. This has the result of reducing efficient expenditure by $7.4 million. As this expenditure has been subject to efficiency assessment through previous expenditure reviews and found to be efficient, Cardno recommended that this amount should in future be allocated to the regulatory asset base(s) of the other businesses that benefited from the expenditure.

  WaterNSW does not support the recommendation to deduct 75% of expenditure related to CIMs, head office consolidation and other corporate projects from the WAMC determination in 2016-17, 50% in 2017-18 and 25% in 2018-19. CIMs was commissioned in April 2019 to support the FTE base. However, under the proposal, the deducted expenditure would not be recovered from the WAMC customer base over the life of the corporate asset.

  The IPART RAB roll forward framework permits capital expenditure to enter the RAB on an as incurred basis. Therefore, the benefits of capital investments may not be derived in the year in which the expenditure is incurred. In this case, the benefits of CIMs can only arise after the system has been commissioned in April 2019.

  WaterNSW argues that the proposed approach is not cost reflective, as corporate assets continue to provide significant benefits to the WAMC customer base over the working life of the asset, irrespective of when the expenditure is incurred and enters the RAB.

### Cost allocation

IPART proposes that WaterNSW changes its basis of allocation for corporate overheads from total expenditure ("**totex**") to total operating costs. WaterNSW's approach to allocating overhead by totex meets accounting standards, has been accepted by the Audit Office in reviewing our accounts, is used by other utilities and meets the criteria of IPART's cost allocation guidelines.

- We submit that it would be overstepping the reasonable role of the regulator for IPART to mandate one particular accounting policy, particularly when our current methodology is fit-for-purpose. It also runs counter to IPART's stated approach in the current review of how IPART regulates water businesses "to promote accountability of the businesses to deliver good outcomes for customers and the community by instead making decisions on the business's behalf.

- Should IPART decide to mandate the change in cost allocation methodology, we consider that IPART needs to exclude non-core activities from calculation given we are unable to allocate additional overhead in an arbitrary manner to our non-core, and commercial customers.

- The proposed change has material implications on our accounting policies and WaterNSW has not had an opportunity to engage the Audit Office on these changes. As such we ask that the cost allocation approach be considered as part of the next Greater Sydney determination so that proper detailed analysis of the implications can be better understood, rather than prematurely entered into from 1 July 2021.

### Inflation forecasting risk

IPART's inflation forecasts can have a significant impact on WaterNSW's financeability. This is due to the potential negative impact associated with differences between IPART's inflation estimates and market-based forecasts that suggests low inflation over the next four years. Maintaining IPART's current approach to forecasting for inflation that results in forecasts of between 2.1% and 2.3%, when the RBA annual inflation estimates are between 1.25%-1.75% further places WaterNSW at significant financial risk.[1]

- In response to inflation forecasting concerns, most economic regulators in Australia (including the QCA[2], AER[3], ERAWA, ESCOSA[4], ICRC and ESC-V) have taken action to address this issue.

- WaterNSW proposes to adopt an alternative 'glidepath' approach to forecasting inflation based on the AER's recent decision on this matter. Applying the glidepath approach to IPART's standard inflation methodology leads to an inflation forecast of **1.7%,** which WaterNSW proposes is a more unbiased and accurate reflection of likely inflation than IPART's current forecasting methodology.

- It is open for IPART to apply this methodology and in no way should it constraint IPART's more detailed considerations on this matter as part of the upcoming WACC review commencing in February 2022.[5]

- If IPART is unwilling to adopt WaterNSW's proposed approach to inflation due to the timing of the WACC review, we ask that IPART allow for any changes to the inflation calculation arising from the review be accounted for during the WAMC (and Rural Valleys) Determination period.

- This matter is addressed in detail in our response to the Rural Valleys Draft Determination in Section 2.8.1 and is not repeated in this submission.

### Other matters

- **Demand volatility adjustment mechanism -** While WaterNSW has not proposed a volatility adjustment under the DVAM for the 2016 Determination period as catered for in the current determination, we nonetheless consider a demand volatility mechanism is an appropriate mechanism (as IPART did in 2016) to manage future volume variations. The decision as to whether to invoke the mechanism could occur at each subsequent determination.

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[1] See RBA Statement on Monetary Policy, February 2021. Table 5.1, page 63.

[2] See https://www.qca.org.au/project/inflation-forecasting/inflation-forecasting-review-2021/

[3] See https://www.aer.gov.au/system/files/AER%20-%20Final%20position%20paper%20-%20Regulatory%20treatment%20of%20inflation%20-%20December%202020.pdf

[4] See ESCOSA *SA Water Regulatory Determination 2020 – Final Determination: Statement of reasons*. Page 5.

[5] See IPART's November 2020 *Water Pricing and Licensing – Regulating Water Businesses Special Review*. Page 12.

## 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.

Information to support our proposal for the recovery of the metering implementation costs was provided to IPART on 30 November 2020 and has been discussed at length with IPART and Cardno since that time. WaterNSW notes that IPART has indicated that it requires additional information on the efficient costs before it is in a position to determination future metering charges.

- WaterNSW is engaging productively with IPART and Cardno to assess any actual (or perceived) information gaps and we are confident that IPART has (or will have) the information it needs to set non-zero metering implementation prices in the Final Determination; and

This would provide customers, Government and WaterNSW with clarity on how metering charges will be set for the next four years to support and implement the NSW Government's non-urban metering policy.

Our detailed response to IPART's Draft Determination on metering charges is contained in a separate metering report called **Appendix B 'Cost of the non-urban metering reform'**.

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.

# 2. Detailed Response to Draft Determination

This section outlines WaterNSW's detailed responses to the Draft Determination.

## 2.1 Regulatory Framework

### 2.1.1 Length of regulatory period

WaterNSW agrees with IPART's draft finding that a four-year period is appropriate for our WAMC Determination. As noted in of our Pricing Proposal, WaterNSW considers 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.

### 2.1.2 Impact of COVID-19

The rapid changes in macroeconomic indicators that the world experienced last year has impacted water utilities and is now posing unique challenges for the regulatory framework that IPART operates. In particular, the medium -term impacts of last year's lockdowns on the economy and the water sector are still unclear.

We already face significant risk to our financeability over the regulatory period as a result of the disconnect between IPART's assumed expected inflation rate and actual inflation. This issue is likely to be worse given the expected lower levels of inflation now prevailing. Further, it is questionable whether the efficient frontier used by the reviewer is still applicable given the downturn currently being experienced in the economy. We have seen our input costs increasing in a number of areas, and there are also potential declines to productivity as our workforce adapts to new working arrangements and safety procedures.

Meanwhile, the impact of COVID-19 on water demand remains uncertain, with behavioural changes and economic growth factors yet to be revealed in actual consumption. Australia's transition to a post-COVID world is increasingly unclear with concerns around the supply, efficacy and safety of vaccines creating a significant risk to economic recovery. As we have noted, accurately forecasting demand and costs in the current environment for the upcoming four year regulatory period presents considerable challenges.

Overall, we urge IPART to take these unprecedented levels of uncertainty into account in preparing its Final Determination. We believe this provides further support for our proposal for IPART to introduce additional mechanisms to manage risk in the regulatory framework, including:

- Addressing inflation forecasting risk and ensuring a return on capital that better reflects the need to attract capital to the water sector than the currently proposed post-tax real 2.8% by adopting our proposed glidepath approach to inflation forecasting; and
- Not accepting the consultants' proposed catch-up efficiencies that lack any detailed analysis on the efficient frontier and have not considered Water NSW's operating environment..

## 2.2 Operating expenditure

The efficiency of our operating expenditure program over the 2021 Determination period has been the subject of a detailed technical review with IPART's consultants. We have actively participated in the consultants' review and responded over 60 requests for information to demonstrate the efficiency of our current programs. We are confident that our operating expenditure over the 2021 Determination period represents the efficient level to provide required services to our WAMC customers.

WaterNSW is a business that has undergone a substantial transition over the current regulatory period, settling processes and systems from its initial formation following the merger in 2015, and incorporating the functions to provide new WAMC services from 2016. WaterNSW now has four separate business functions, with four separate regulatory periods and pricing submission processes.

WaterNSW's regulatory periods are staggered to enable separate consideration of the issues and pricing for each function; however, decisions that are made concerning shared costs and their incorporation in each separate regulatory process have flow-on impacts for the other processes.

This creates significant complexity, unique to WaterNSW among its peers.

Based on the discussion below and the increased risk to WaterNSW operating environment, WaterNSW requests that its proposed operating expenditure be reinstated and that the direct operating expenditure reductions of $4.9 million (excluding fee for service) and $7.5 million for fee for service activities over the 2021 determination are reversed.

WaterNSW maintains that the operating expenditure program for the 2021 Determination period is prudent and efficient.

The consultant's total proposed reductions are based on a combination of direct reductions and top-down efficiencies. These reductions are unsustainable and fail to recognise the increased demands on our organisation to increase (not decrease) our focus on maintaining or improving our performance to meet regulatory and customer service obligations. The justification and transparency of the "efficiency" saving percentages is insufficient to enable WaterNSW to critique Cardno's judgements.

Proposed reductions of this magnitude would impede our ability to meet our financial obligations and customer service standards over the next four years.

The main drivers of the $4.9 million, or 6.4% operating expenditure reduction (excluding fee for service activities) over the five years are as follows:

**Table 1 – Total operating expenditure adjustments**

| Operating Expenditure (excl fee for service) ($000's, $2020-21) | | | | | |
|---|---|---|---|---|---|
| | 2021-22 | 2022-23 | 2023-24 | 2024-25 | Total |
| **WaterNSW Proposed** | **18,821** | **19,365** | **19,318** | **18,920** | **76,424** |
| **IPART Reductions** | | | | | |
| Direct reductions customer management | -1,251 | -1,251 | -1,251 | -1,251 | **-5,004** |
| Catch-up efficiency reductions | -74 | -153 | -225 | -284 | **-736** |
| Continuing efficiency reductions | -122 | -251 | -372 | -482 | **-1,227** |
| **Reallocation of WaterNSW overheads to WAMC** | **+285** | **+422** | **+383** | **+975** | **2,065** |
| **IPART Proposed** | **17,659** | **18,132** | **17,852** | **17,878** | **71,521** |
| Difference (%) | **-6.2%** | **-6.4%** | **-7.6%** | **-5.5%** | **-6.4%** |

Note: Table above excludes fee for service operating expenditure of $27.5 million over four years

The estimated fee for service operating expenditure is $27.5 million over four years for WaterNSW, which is approximately $7.4 million or 21% lower than WaterNSW proposed. The reduction is mostly driven by the decision to impose a 20% efficiency to our proposed consent transaction charges and to retain the water take assessment charge at current price levels, which we do not support on the basis the decision gives undue consideration to our actual costs in

providing consent transaction services to ensure the performance of our licensing processing function meets customer expectations.

The reduction also means that customers are not paying for the true cost of the "fee for services" provided and sets a poor economic signal.

The consultant's total proposed reductions to our operating expenditure forecasts over the four year period are based on a combination of direct reductions and top-down efficiencies. These reductions lack substantiation and are unable to be achieved without creating a material risk for WaterNSW in meeting its operating and compliance obligations. They also fail to recognise the increased demands on our organisation to increase (not decrease) our focus on improving licensing performance to meet customer service levels.

Our substantive comments on the IPART approach to continuing and catch-up efficiencies (as proposed by Atkins and Cardno) are in our response to the Rural Valleys Draft Determination provided to IPART on 16 April 2021. These comments should be considered part of our response to the WAMC Draft Determination as the approach is applied consistently between the Rural Valleys and WAMC Draft Determinations. We also discuss the approaches below.
The following points summarise our concerns with the consultant's proposed top-down operating expenditure reductions.

### 2.2.1 Top-down efficiencies

IPART has applied top-down efficiency reductions of $2.0 million over the four years of the 2021 determination to operating expenditures based on separate 'catch-up' ($0.7 million) and 'continuing efficiency' ($1.2 million) adjustments:

#### 2.2.1..1 Catch-up efficiencies

Cardo proposes catch-up efficiencies for operating expenditures of $0.7 million over the four-year period. Cardno did not undertake a detailed benchmarking study that is a prerequisite to establish an efficient (i.e. Frontier) firm. Instead, the consultant applies a 'catch-up' efficiency to move WaterNSW to the (notional) frontier.

We do not support the application of catch-up efficiencies and consider that the required analytical basis for establishing an efficient frontier has not been provided. As Cardno indicates its rationale for applying a catch-up efficiency is consistent with the approach applied by Atkins for Rural Valleys, our comments below apply to both draft reports.

In its WAMC final report, Cardno applied a catch-up efficiency over the four-year period. Cardno states that a catch-up efficiency "*uses the concept of an efficient 'frontier' company competing in an open market to deliver services to customers. Under this framework, efficiency gains made by the frontier company are referred to as continuing efficiency, with catch-up efficiency applied to companies that are inefficient*".[6]

This necessarily requires confidence and accuracy in establishing the frontier. Atkins (and by extension, Cardno) has provided no analysis as to how (or if) an efficient frontier based on benchmark peers has been calculated.

Atkins states that:

> "*Quantitative benchmarking of Water NSW's performance against other utilities is difficult given the lack of directly comparable entities. Instead, we have reviewed efficiencies achieved by other utilities at a similar position in their transition towards the efficiency.*
>
> *We recognise that there are differences between utility operating models and it is not always straightforward to directly compare organisations operating in different jurisdictions and serving different purposes."*[7]

[6] See Cardno Final Report on the WAMC expenditure review, 11 March 2021. Page 6.
[7] See Atkins Final Report for rural bulk water services. 19 February 2021. Page 53.

Atkins states it has not undertaken a detailed benchmarking study even though this is a prerequisite to establishing an efficient (i.e. Frontier) firm. Despite this lack of a detailed benchmarking study, the consultant nevertheless applies a 'catch-up' efficiency to further reduce WaterNSW's operating expenditures so that costs align to the (undefined) frontier.

Atkins then justifies its proposed catch-up efficiencies by citing two examples of how firms have achieved or outperformed the regulatory allowances, with the most recent example from a 2012 determination (i.e. Atkins outlined how Hunter Water achieved 1% operating expenditure efficiencies from 2009 and Sydney Water found efficiencies higher than the catchup efficiency target in 2012).

WaterNSW finds this relative lack of analysis used to reduce our funding envelope by many millions of dollars extremely concerning. The consultant acknowledges the limitations of benchmarking and its ability to establish an efficiency frontier – a prerequisite for a catch-up efficiency – but applies reductions even in the absence of a frontier in any case.

If a catch-up efficiency is to be given any further consideration by IPART, which we do not support, we request that Atkins and Cardno provide their analysis behind the establishment of the 'efficient frontier', including the benchmark peers selected and how any adjustments for any overseas peers to be comparable to Australian firms (if any) have been undertaken. Without this necessary information, the application of a 'catch-up efficiency' could not be applied in a rigorous manner.

Unlike for combined water and sewerage utilities, there is an insufficient number of benchmark firms in Australia or internationally to establish a credible frontier for WaterNSW. Therefore, any catch-up efficiency applied to WaterNSW lacks rigour or theoretical foundation and its use should have zero weighting in IPART's assessment of efficient costs.

Water NSW is seeking a transparent approach to benchmarking whereby we can move to an identified frontier over the determination period, rather than the current approach of what seems to be arbitrary retrospective adjustments made to determined allowances. We are concerned over the impacts of retrospective adjustments on the 'regulatory compact' and incentives to reveal efficient costs if allowances are to be set arbitrarily by the consultant at each review.

For the reasons cited above, we request IPART to reject any catch-up efficiency proposed by Atkins (or Cardno) for the 2021 determination.

#### 2.2.1..2 Continuing efficiencies

Cardno also applied a 'continuing efficiency' adjustment of **1.2 million** over the four years to operating expenditure to reflect that even the most efficient (i.e. Frontier) firms will become more efficient over time. Atkins (in its Rural Valleys Final Report) describes its approach to continuing efficiencies as follows:

> *We have applied the results from the Australian Productivity Commission Multi-Factor Productivity (MFP) analysis, proposed efficiencies from other water utilities in New South Wales and recent analysis for Ofwat, the water regulator in England and Wales, which has been applied to frontier water companies. We have applied a Frontier Shift of 0.7% per annum cumulating over the Determination period.*[8]

There is little further justification for the basis of applying a continuing efficiency adjustment of that is at the top of the stated range of 0.6% to 0.8% per annum (nor is there sufficient information in the Atkins draft report for WAMC to assess the proposed reductions).

We note that Cardno indicates that its "*assumption of continuing efficiency of 0.7% per annum is based on IPART's analysis of long term efficiency trends*".[9]

IPART states in its Draft Determination that it bases the value of its continuing efficiency adjustment on:

[8] See Atkins Final Report for rural bulk water services. 19 February 2021. Page 21.

[9] See Cardno Final Report on the WAMC expenditure review, 11 March 2021. Page 61.

> *The value of the continuing efficiency adjustment is derived from the compound long-run average of the Australian Bureau Statistics (ABS) multi-factor productivity (MFP) series for the Australian economy.*[10]

As discussed below, there is not one single measure of productivity and we propose that a long-term measure of the economy as a whole is not the most appropriate basis to establish a productivity target for a water utility over the next four years.

The 'frontier company' approach that IPART's consultant, Atkins (and Cardno for the WAMC review), has applied to its catch-up efficiencies assumes ongoing productivity improvements in the operation of the business over time through continuing efficiencies. The productivity improvements are predicated on underlying growth and improvements in the economy that should flow through to the sector.

WaterNSW considers that targeting efficiency is an important element of the regulatory framework in order to deliver long term benefits to customers. With respect to the continuing efficiency, we do not consider it unreasonable to introduce some productivity 'offset' that reflects the expected productivity improvement of the economy as a whole (or alternatively the water sector). This is consistent with the fundamental structure of "CPI-X" regulation. However, we question both the potential double counting of efficiencies when other efficiency adjustments are introduced (e.g. $14.7 million of scope adjustments, WaterNSW's self-imposed efficiencies and $5.5 million of catch-up efficiencies). These concerns also apply to the continuing efficiencies applied to capital expenditure.

We have concerns about the use of continuing efficiencies of 0.7% per annum.

The cumulative effect of IPART's continuing efficiencies is to reduce our operating expenditure (after the removal of any expenditures deemed inefficient by Atkins) by 2.77% in 2024-25 and $3.5 million over the four-year period.

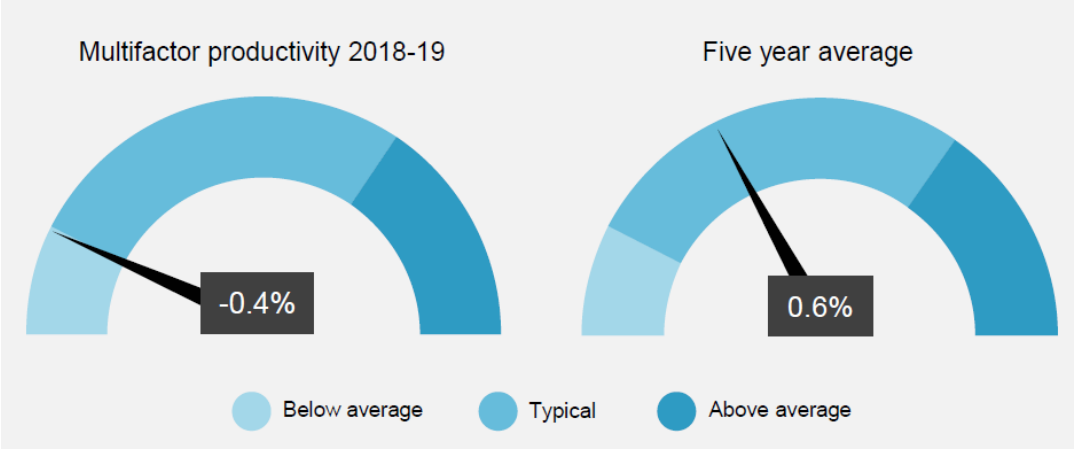
WaterNSW submits that for the purposes of setting expenditure allowances over the *forthcoming* regulatory period, what is required is the best estimate of expected productivity over the *forthcoming* regulatory period - not an estimate of long-term productivity. Long-term productivity reflects the emergence and adoption of new technologies, substitution between inputs (e.g., between labour and capital) and long-term changes in outputs over a period of decades.

Hence, when setting continuing efficiency targets, IPART should consider what is feasible for the water industry over the forthcoming regulatory period, rather than over the long-run.

WaterNSW also notes that even at the market-sector level, estimates of productivity can be sensitive to the measurement period. This can be seen in Figure 1 below, which indicates that productivity in 2018-19 was below average, and considerably lower than productivity measured over a five-year horizon.

[10] See IPART Draft 2021 Rural Bulk Water Draft Determination. Page 37.

**Figure 1 – Multifactor productivity over different periods**




*Source: Productivity Commission, Productivity Insights, February 2020.* Page 2.

The latest analysis by the ABS indicates that, in 2019-20, due largely to the COVID 19 pandemic:[11]

- MFP *fell by 0.7%* across the market sector; and
- MFP *fell by 3.5%* in the utility industry.

Given that the economic effects of the pandemic have not been reversed, it seems highly unrealistic that WaterNSW should be expected to achieve a *0.7% per annum increase in productivity* over the next regulatory period.

However, that is what would be expected of WaterNSW if IPART were to apply its existing approach of setting a continuing efficiency target by reference to average MFP over the past 40 years.

### WaterNSW's proposal

WaterNSW proposes that when determining a continuing efficiency target, IPART should:

- Give most weight to the measured productivity of the utility industry (rather than the market sector) since the utility industry most closely reflects the input and output characteristics of water businesses; and

- Give most weight to MFP estimates over the most recent historical years (rather than 40 years) in order to produce more realistic estimates of the scope for productivity gains over the forthcoming regulatory period.

Based on the evidence provided above, WaterNSW proposes that a continuing efficiency target of **0-0.35% per annum**, rather than the 0.7% per annum should be adopted in the Draft Determination.

The lower bound is set based on evidence from the utilities sector that suggests a productivity factor no higher than zero. Our proposed upper bound is 0.35%, which is the midpoint between the utility sector productivity measure (0%) and the long-term productivity measure applied by IPART (0.7%). We consider this to be a conservative range and that the appropriate factor for a water utility over the next four years lies closer to the utility sector productivity factor (i.e. the lower bound).

Our detailed assessment of the economic considerations when setting a continuing efficiency target is provided in Appendix 2.

[11] See: https://www.abs.gov.au/statistics/industry/industry-overview/estimates-industry-multifactor-productivity/2019-20.

Detailed responses to the consultant's direct reduction proposals are provided in the sections below.

### 2.2.2 Customer Management

IPART's proposal is to reduce the level of customer management operating expenditure by $1.251 million per annum for WaterNSW over the 2022-25 determination period.

WaterNSW submits that IPART has not appropriately considered the stakeholder expectations for this activity over the 2021 determination period, including the operating environment, the new regulatory context, WaterNSW's operating licence obligations, and the recent public scrutiny and inquiries regarding the appropriate level of resourcing for WAMC functions and activities.

We also consider that Cardno has placed too much weighting on 2020-21 year-to-date results to form its view on the efficient allowance and too little weighting on the actual annual expenditure that WaterNSW has incurred during the current regulatory period. Resources have been diverted to other mandatory activities such as drought support management, metering reform implementation, the implementation of water sharing plans, floodplain harvesting requirements, floodplain management plans, audit requirements from the Natural Resource Commission[12] and information requests in response to standing order 52.[13]

WaterNSW does share Cardno's concerns regarding the lack of visibility in setting the 2016-20 regulatory allowances. WaterNSW was not involved in the 2014-15 budgeting process used to set the current period allowances. WaterNSW is in a difficult position in having to explain the variances from the current period allowances in which the logic and reasoning for the proposed allowance were not well documented by the then DPI Water, nor was it understood by the 2015 IPART efficiency consultants, Synergies. WaterNSW had received little detail and documentation from DPI Water on the 2015 budgets, making establishing the basis for the regulatory proposals at the time difficult.

The IPART reviews on expenditure are typically assessed using a top-down approach. In the 2015 IPART price review, IPART relied upon the DPI Water 2015 pricing submission and budgeting processes as an appropriate starting point to set the allowances. However, WaterNSW considers that the DPI Water 2015 submission understated the efficient costs of providing WAMC functions and activities at the required levels of service. This is relevant as the Cardno proposed reductions appear to be to a significant extend based on comparisons with the 2016 Determination allowances.

We submit that the Cardo approach relies too heavily on the assumed accuracy of the 2015 DPI Water budget proposal and ignores our actual/realised cost. In the 2015 Price Review, Synergy raised concerns regarding DPI Water's proposed levels of expenditure. On pages 45-46 of the 2015 Synergy efficiency report, Synergies stated that (emphasis added):

> *The projected increase in FTEs is at odds with the decline in forecast expenditure. Given that most of DPI Water's costs are predominantly salaries, we conclude that DPI Water has applied the 1.5% reduction to its forecast expenditure (to meet the imposed 'efficiency' directive) independently of assessing how this relates to required staff levels. The projected increase in FTEs assigned to water management services would imply that the proposed cost reduction would have to be achieved* ***through means other than remuneration savings, or that they are not achievable.***

Further, Synergies raised concerns regarding the extent to which external revenue sources and consolidated revenue funding were used to offset the costs of providing WAMC services. On

[12] https://www.nrc.nsw.gov.au/wsp-audits

[13] https://www.parliament.nsw.gov.au/lc/Pages/Orders-for-papers.aspx; https://www.parliament.nsw.gov.au/lc/rules/Documents/Standing%20orders%20May%202004.pdf

Page 7 and pages 49-50 of the 2015 Synergy efficiency report, Synergies stated that (emphasis added):

> ***Accounting for external funding DPI Water does not routinely map external funding to each of its monopoly service activities****. The descriptions of W code activities in DPI Water's submission do not separately identify what proportion of future activity under each code will be externally funded as opposed to being funded through water management charges. Furthermore, without detailed information about what past costs have been offset using external funding at an activity level, it is difficult to draw any conclusions about the underlying efficiency of past expenditure*
>
> *…*
>
> *We recommend that the same level mapping be applied for all sources of external funds and publicly reported through the IPART process.* ***Greater transparency is needed about how external funds are being used to offset the cost of water management services****. This will provide assurance and stakeholder confidence that costs are not being recovered twice. Such information would also assist to demonstrate which activities would cease if external funding was no longer available, and which activities (or service levels) would continue but instead be funded through water management charges.*
>
> *Synergies has recommended a reporting template to assist with improving the transparency of how external funds are used to offset costs of water monopoly service activities*
>
> *…*
>
> ***Another potential reason for declining revenue requirement in the forecast period, relative to the current determination period, is that external revenue from Commonwealth government grants is being used to offset the cost of water management services*** *that would otherwise be funded through water user charges.*
>
> *…*
>
> ***The information provided in DPI Water's submission often fails to distinguish between cost trends that are driven by monopoly user services, and recovered from water users, and those that are externally funded****. In order to verify how budgets and resources were established for each activity code, Synergies requested information on the value of externally funded expenditure attributable to each activity. We were advised that DPI Water does not routinely map external funding to each of its monopoly service activities.*
>
> *But more generally, Synergies has been unable to verify that operating expenditure forecasts have been rigorous in excluding staff and other resources that will be used to deliver Commonwealth-funded projects.* ***As a result, conclusions about past cost savings and comparisons to the future costs are difficult to draw*****.**

The apparent mismatch between actual and forecast costs as highlighted in the 2015 Efficiency Report is of serious concern to WaterNSW and may render any comparison against the existing allowances as meaningless.

We also note that it cannot be assumed that the former DPI Water had accurately apportioned regulated costs to activities (net of external revenue sources). This assumption is disputed by Synergies in page 8 of their report (emphasis added):

> *Our detailed review highlighted a number of shortcomings to DPI Water's cost control and reporting systems that could apply more broadly across the organisation.* ***These include issues with forecasting and cost reporting, lack of sufficient cost controls and lack of consideration of outsourcing***
>
> *…*
>
> ***It is evident from DPI Water's submission that incorrect cost allocation to activities has been a systemic problem over the current determination*** *period. This not only makes it* ***difficult for Synergies to assess the efficiency of historical expenditure (as it is not possible to distinguish between real changes in expenditure levels and variations that are simply an outcome of incorrect cost accounting****), it also reduces*

*our confidence that DPI Water is effectively managing its costs at an individual activity level.*

In its 2020 pricing proposal, WaterNSW applied strict budget scrutiny in formulating its expenditure plans, adopting both 'bottom up' and 'top down' assessments in preparing proposed budgets. Our proposed expenditure is supported by our actual/realised costs over the past 4 years, which we consider to be strong evidence of the reasonableness of our proposed expenditure. Cardno's approach of reducing our proposed expenditure by $1.2 million appears to have limited regard to our actual/realised and our proposed levels of expenditure.

The table below presents present the combined cost of water consent transactions and customer management under the licence advisory functional activity. As highlighted during the efficiency review, WaterNSW's licensing staff are involved in both processing licensing applications and responding to customer queries received through the licence advisory line.

We observe that there is a minor step increase in operating expenditure of approximately $400k per annum in 2018-19 into the 2021 determination period and a reduction in operating expenditure compared to 2019-20.

| WNSW Activities '000 | Former DPI Water activities | Former W code | 2016-17 | 2017-18 | 2018-19 | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 | 2024-25 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| License Advisory Services | Water consents transactions | W09-01 | 4,709 | 8,199 | 7,200 | 8,671 | 7,228 | 7,228 | 7,228 | 7,228 | 7,228 | **28,912** |
| | Customer management | W10-01 | 3,743 | 5,960 | 4,065 | 3,284 | 4,325 | 4,385 | 4,640 | 4,672 | 4,411 | **18,108** |
| **Total** | | | **8,452** | **14,159** | **11,265** | **11,954** | **11,553** | **11,613** | **11,868** | **11,900** | **11,639** | **47,020** |
| **Step change from FY19 Actuals** | | | | | | | | **348** | **603** | **635** | **374** | |
| **Step change from FY20 Actuals** | | | | | | | | **-341** | **-86** | **-54** | **-315** | |

**FY21 real dollars*

As demonstrated above, WaterNSW's actual/forecast costs are aligned with the level of effort required to deliver customer management activities to the required levels of service. We consider that there is a clear link between our proposed levels of expenditure, actual costs, and current and emerging stakeholder needs.

The level of resourcing for WAMC activities has been subject to public scrutiny and discussions across multiple Government reviews. We note the conclusions of the NSW Ombudsman Water on the importance of ensuring the three entities are properly resourced as noted below:

*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.*

The proposed reduction will have a disproportionate impact to WaterNSW as the entity responsible for the bulk of WAMC's customer interfacing activities. WaterNSW's proposed expenditure is aligned with our actual costs and designed to meet the current and emerging needs. We expect customer expectation targets will only continue to grow over time.

We ask that IPART and Cardno give due consideration of the evidence supporting our proposed expenditure, including:

- Much greater emphasis actual/realised costs to deliver WAMC services based on current needs; and
- The concerns raised by Synergies in the 2015 Price Review regarding the lack of transparency regarding costs and cost allocation, the prevalence of external funding and the unintuitive logic applied by DPI Water in 2015 where projected increase in FTEs were at odds with the decline in forecast expenditure.

WaterNSW requests that any decision on efficient expenditures for WaterNSW should be considered in the context of our lack of involvement in the 2015 budget process, the current

operating environment and the recent public scrutiny and inquiries regarding the appropriate level of resourcing for WAMC functions and activities.

In addition, IPART should consider the requirements of the WaterNSW operating licence, which now extend to those WAMC services carried out by WaterNSW since the transfer of functions, including the bulk of WAMC's customer interfacing activities.

There are various obligations imposed upon WaterNSW under the operating licence in relation to customer and stakeholder management activities. Customer and stakeholder management provisions are found in provision 6.1 to 6.10 of the WaterNSW operating licence.[14] These conditions did not apply to the then DPI Water as the sole agency responsible for performing WAMC functions and activities prior 2017.

For example, Customer Advisory Groups are established under clause 6.5.4 – clause 6.5.5. Customer Advisory Groups are the primary forum for WaterNSW to regularly consult, on an area basis, with a broad cross-section of its customers on issues relevant to the performance of WaterNSW's obligations to customers.

WaterNSW is required to consult with unregulated river water users, groundwater users and other users who are covered exclusively by the WAMC determination. Membership includes WaterNSW customers from the regulated and unregulated streams, groundwater irrigators, stock and domestic water users, major water utilities, local water utilities, local government, environmental water users and Indigenous Australian water users, as shown below from the operating licence:

> *For each Customer Advisory Group, Water NSW must use its best endeavours to ensure that membership is representative of the Customers in that area and include at least one Customer representing each of the following categories (where there are Customers in this category for the area associated with the Customer Advisory Group):*
>
> *a) stock and domestic water users;*
> *b) Regulated River water users;*
> *c) Unregulated River water users;*
> *d) groundwater users;*
> *e) environmental water users;*
> *f) industrial and commercial water users;*
> *g) Local Water Utilities;*
> *h) Major Utilities;*
> *i) small water users based on their Water Licence volume;*
> *j) medium water users based on their Water Licence volume;*
> *k) large water users based on their Water Licence volume ; and*
> *l) Aboriginal cultural heritage water users*
>
> *…*
> *Water NSW must provide the Customer Advisory Groups with adequate information within its possession or under its control necessary to enable the Customer Advisory Groups to discharge the tasks assigned to them other than information or documents that are confidential.*

We note that there is an expectation from regulators that utilities should develop a deeper understanding of their customers and what they want from their service provider. We also note that WaterNSW is a member of EWON.

[14] https://www.waternsw.com.au/__data/assets/pdf_file/0004/126607/July-2020-WaterNSW-Operating-Licence.pdf

Based on the evidence supporting our proposed expenditure, we consider that WaterNSW's proposal on customer management operating expenditure should be approved in full.

### 2.2.3 Use of 2020-21 actuals to reduce customer management expenditures

IPART's approach of using the year-to-date 2020-21 forecast to set the 2021-2025 allowances understates the level of funding required to deliver the customer management function over the 2021 determination period.

During the efficiency review, WaterNSW disclosed the year-to-date costs for the 2020-21 financial year (to November) for the customer management activity.

Cardno derived an end-of-year forecast of approximately $3.3 million p.a. for the customer management activity. This compares to $4.5 million p.a. in funding on average as proposed by WaterNSW. We consider that Cardno's estimate understates the level of funding required over the 2021 determination.

In 2020-21, there has been a notable increase in activity towards the other functions of WAMC (e.g. as per section 2.2.2. above; consent management, drought, metering reform implementation, NRC audit requirements, flood work management plans, implementation of water sharing plans, standing order 52), leading to a reprioritisation of effort away from the customer management activity in the short term. Hence the 2020-21 costs understates the required funding, whereas our forecasts represents the long term sustainable costs (steady state) of performing the customer management activity.

Given the current operating environment, WaterNSW's operating licence obligations on customer and stakeholder engagement, and the recent public scrutiny and inquiries regarding the appropriate level of resourcing for WAMC functions and activities, WaterNSW requests that IPART reconsider its draft decision and approve WaterNSW's proposal on customer management operating expenditure.

In addition, in relation to the November year-to-date costs for 2020-21, which Cardno used as the basis for its recommended reductions, WaterNSW was unable to review the timesheet allocations in the timeframe provided. A review of timesheet allocations is carried out at the end of each quarter by the business partners and managers. These adjustments usually lead to an increase in direct costs to the relevant activities. Other adjustments typically occur, such as overhead true-ups. Therefore, the year-to-date costs to November are likely understated. For instance, a more recent forecast of costs for this activity in 2020-21 using more up-to-date information is $3.7m as shown below, which is $0.4m higher than the estimate using 5 months of data.

| | |
|---|---|
| **Water Reg LIC MGT Customer Service** | **3,728,793** |
| Admin | 26,495 |
| CAPOHEAD | 502,935 |
| Consultancies | 30,339 |
| Contractors | 115,008 |
| Materials, plant and equipment | 750 |
| Other employee related | 137,521 |
| Salary and Wages | 2,915,744 |

We consider the above factors suggest the year-to-date costs to be an unreliable estimate of the funding required for the 2021 determination period.

We submit that IPART should consider WaterNSW's actual expenditure over the current determination period 2016-17 to 2019-20 of $4.5 million p.a. to be representative of the long term

sustainable (steady state) costs of performing the customer management function rather than using only the 5 months of unreviewed data in 2020-21.

To conclude, WaterNSW submits that our expenditure on customer management activities should be approved as proposed as it better represents the long term sustainable (steady state) costs of preforming the customer management function. However, if IPART decides to use the 2020-21 costs as the basis to set the 2021 allowances for the customer management activity, then WaterNSW requests as a medium that Cardno use WaterNSW's most recent estimate of outturn costs for 2020-21 of $3.7 million. This would result in a reduction of $0.8 million per annum compared to $1.2 million in the IPART Draft Decision.

### 2.2.4 Water Take Assessment Charges

IPART's approach to retain the water take assessment charge at current levels over the 2021 Determination period assumes no change in regulatory functions or the operating environment since the 2016 Determination. The decision provides regulated funding for approximately 1-1.5 FTE to service the entire state of NSW. Given the vast size of our operating area and the sheer number of water sources, we submit that the proposed resourcing is not practical and would significantly impact on service levels if implemented by WaterNSW.

The decision fails to provide sufficient funding to meet the requirements of the WaterNSW Operating Licence, including clause 6.3.1 and related activities such as the validation of meter reading and self reads, the processing and review of data and information and the additional work required for unexplained measurements.

We also do not support the Cardno suggestion for WaterNSW to utilise our water monitoring team to either supplement or complement our existing Customer Field Officer ("**CFO**") workforce, as our water monitoring team:

- Is fully utilised, therefore the team will not have the capacity to carry out CFO activities;
- Peaks are not likely to align with the meter reading peaks;
- Is a highly reactive business so scheduling meter reads would be difficult;
- Are not customer facing and do not have that experience;
- Have a priority to maintain critical assets; and
- Lack understanding of the water regulations, including the management of water take data and its interpretation.

Even if it is was possible to implement the recommendations, there would be a need to engage with the relevant unions on the development of the new position descriptions and to facilitate a corporate restructure across the organisation including staff training as per the requirements of the role. This process would take significant time and effort to implement and would potentially result in an overall price increase in labour costs to fund the multi skilled position requirement. Any volume reductions would be potentially offset by an increase in labour costs. Should IPART not accept WaterNSW concerns as to the practicality of their recommendation, we ask that IPART consider both the timing and cost implications as part of its Final Decision.

IPART has agreed with Cardno's recommendation to retain the water take assessment charge at existing levels. We estimate a revenue shortfall of $0.4 million per annum as a result of the recommendation.[15] The rationale for the recommendation is set out in the Cardno Report as follows:

> *We do not agree with WaterNSW's implied position that a fixed resource base is efficient for this activity. Meter reading does not require specific qualifications or skills. WaterNSW also has a relatively large resource pool for field activities that are based out of locations across the state and have the appropriate support (e.g. vehicles) to undertake this task. It is unclear why meter reading would not be planned and executed alongside the other field*

[15] . assuming approximately 1,900 eligible sites are subject to the charge.

*based activities and thereby realise economies of scale and the flexibility of having these resources work across multiple tasks. We also note that this at the time of the 2016 Determination, this activity was identified as a potential opportunity for investigating outsourcing. This has not occurred. We recommend that WaterNSW's proposed increases are not implemented*

WaterNSW challenges the assumption that tasks associated with meter reading can be carried out by the field staff. We consider the proposal does not reflect the practicalities of operating in a rural environment.

Meter readings in a rural environment are significantly different to meters readings in a metropolitan environment. Meters in metropolitan areas occur at a much higher density (i.e. are placed closed together) and usually at a property boundary making it possible for a meter reader to read multiple meters a day. These meters are often the same brand and model as they are managed by a utility so therefore the process to read the meter and process the subsequent data is relatively straightforward.

For our rural business it is very different, which leads to the Cardno proposed reduction not being pragmatic to implement. This is discussed in the sections below.

#### 2.2.4..1 Time to access the site

Meters for surface water in a rural environment are located close to a river and usually not close to the highway, thereby often resulting in a considerable amount of time to access the site. The site can be challenging to work on and assess. For instance, there can be many different meters placed over a large site, which can take hours to first locate the meters and then perform the reading. Different sites can be hundreds of kilometres from one another and single sites can be many hundreds of square kilometres.

There is no guarantee that sites are conveniently located on a water monitoring route. There is also no guarantee that water monitoring employees can attend to these sites within a normal workday without having an impact on their normal activity which could result in increased costs (overtime) and rework (employee may have to double back if they run out of time).

#### 2.2.4..2 Complexity

The determining of water take in a rural setting is more complex than for an urban meter reading. Once at the meter, the field team needs to take multiple measures to ensure that take is validated and then capture those recordings to ensure that the correct figure is used to bill and manage the customer's water account.

The Customer Field Officer (CFO) Team read a wide range of meters that each have different settings and ways they are operated and read. The meter reading also needs to be interpreted as it can be captured in many different scaling factors including kilolitres, run hours and volume of water. A detailed understanding of the technical specifications of each different meter is required for it to be read accurately.

CFOs are a highly experienced resource as opposed to urban meter readers which is often a relatively lower skilled activity.

#### 2.2.4..3 Customer Service

The complexity of the different rules of the water sharing plans would make it challenging for non-field officers to give useful information. For example, in the Murray valley you have deep, shallow and regulated sources. We note that it would be a very labour and time consuming activity to train other field operators on all these technical matters. More generally, the field team is often expected to provide water users with technical advice and support on a wide range of issues including apportionment, licensing enquiries, active management and water trades.

The ability to answer these queries has been developed over many years and it would not meet customers' expectations if the WaterNSW person on their site was not able to answer these

queries. In addition, the queries of this nature will not diminish given the complexity of the regulatory regime. The queries will need to be answered by someone with a high degree of technical knowledge either on the phone or via and additional site visit that would lead to a considerable increase in costs due to duplicated effort.

Finally, the cost of water monitoring resources (staff) is about 15% higher than that of a dedicated customer field officer. As the current water monitoring team is operating at capacity, an increase in these more expensive resources will be required if they were to undertake water take assessments. We believe Cardno's approach is neither efficient nor implementable and would instead lead to duplication and an increase in costs.

#### 2.2.4..4 Broader customer benefits

From 2016, WaterNSW encouraged customers to report meter reads through online usage surveys. This reduced the need for a manual meter read, but has also led to an increase in the water take assessment charge due to a reduction in the volumes base.

Our view is that WaterNSW is unable to levy the water take assessment charge on customers who provide a self-read. However, WaterNSW incurs the additional costs related to managing customer self reads. Clause 6.3.1 of the WaterNSW Operating Licence states that:

> *Water NSW must determine the volume of water Extracted by, or Supplied to, each of its Customers, at least annually, for the purpose of accurate account management, billing and reporting*[16]

Due to regulatory requirements, WaterNSW is responsible for verifying the accuracy of the self-read provided by the customer. This may include additional site visits to assess the accuracy of the information provided by the customer. The expectation regarding verification has been confirmed with the NSW Audit Office. In addition, compliance is assessed on an annual basis as part of the IPART Operating Licence audit.

As well as the cost of managing customer self reads, WaterNSW incurs additional costs related to the water take assessment activity that provide benefits to the broader customer base such as:

- Application of an alternative water take assessment methodology s91i;
- Validation of meter reading self reads;
- Process and review information;
- Additional work in terms of unexplained measurement errors and managing water usage assessments and disputes; and
- General account management support provided by Field Staff e.g. managing water allocation accounts, WAS, data reconciliation, customer enquiries and disputes.

WaterNSW considers that there is a compelling case to socialise the remaining $0.4 million per annum of expenditure into the general cost base (i.e. fixed and variable charges) due to broader customer benefits.

If IPART does not accept our proposal to increase the water take assessment charge to cost reflective levels, then the balance of costs should be socialised with the broader customer base, in line with the requirements of the WaterNSW Operating Licence.

#### 2.2.4..5 Costs have reduced based on reduced volumes

In the Efficiency Report, Cardno concludes that WaterNSW uses a relatively fixed resource base to carry out water take assessment activities.

[16] https://www.waternsw.com.au/__data/assets/pdf_file/0004/126607/July-2020-WaterNSW-Operating-Licence.pdf

We submit that this comment could be misleading. We have proposed a 19% reduction in resources by 2024-25 (from 3.18 to 2.59 FTEs) in response to lower volumes to provide water take assessment services across the entire state of NSW (excluding the impact of the non-urban metering reform).

Given the vast size of NSW and the sheer number of water sources and valleys, it is impractical for the CFO workforce to decline in proportion to the reduction in volumes on an indefinite basis. Under Cardno's proposal, the water take assessment charge is proposed to be capped at current rates. Cardno's proposal may only enable regulated funding for approximately 1-1.5 FTE for the entire state of NSW. We submit that the proposed resourcing is clearly not practical. At some point, a fixed resource is required to comply with our regulatory requirements, as set out in our operating licence.

> *Clause 6.3.1 Water NSW must determine the volume of water Extracted by, or Supplied to, each of its Customers, at least annually, for the purpose of accurate account management, billing and reporting.*

#### 2.2.4..6 Utilising operational staff to undertake meter reading tasks

In regard to Cardno's recommendation for WaterNSW to utilise its water monitoring team to either supplement or complement our existing CFO workforce, we note that the water monitoring team:

- Is fully utilised, therefore the team will not have the capacity to carry out CFO activities;
- Peaks are not likely to align with the meter reading peaks;
- Is a highly reactive business so scheduling meter reads would be difficult;
- Are not customer facing and do not have that experience;
- Have a priority to maintain critical assets; and
- Lack understanding of the water regulations, including the management of water take data and its interpretation.

We also note that the vehicles used by the water monitoring team often have boats and canoes attached or towed, making site access difficult. In addition, biosecurity issues are a concern. Water monitoring personnel are often asked to hose down their vehicles before they go onto a customer site.

We request that Cardno revise its recommendations on capping the water take assessment charge to consider the significant efficiencies already built into our proposed costs and the impractical.

#### 2.2.4..7 Time to implement and wage implications

Even if it is possible to implement the recommendations, there would need to be engagement with the relevant unions on the development of the new position descriptions and to facilitate a corporate restructure across the organisation including staff training as per the requirements of the role. This process would take significant time and effort to implement and would likely result in an overall increase in labour costs to fund the multi skilled position requirement. Any volume reductions would be offset by an increase in labour costs. Should IPART not accept WaterNSW's concerns as to the practicality of the recommendation, we ask that IPART consider both the timing and cost implications as part of its Final Decision.

In addition, if IPART does not accept our proposal to increase the water take assessment charge to cost reflective levels, then the balance of costs should be socialised with the broader customer base, in line with the requirements of the WaterNSW Operating Licence.

### 2.2.5 Consent Transactions

IPART has applied a 20% efficiency to WaterNSW proposed expenditure consent transaction charges in line with Cardno's recommendations.

WaterNSW is concerned that the IPART recommendation does not give due consideration to our actual/realised costs to deliver consent transaction services to ensure the performance of the licensing processing function meets customer expectations.

As WaterNSW has established a clear link between transaction volumes, our actual and forecast cost, and our performance against key metrics, we submit that the proposed 20% efficiency should be reversed in full.

We consider that any decision on efficient expenditures for WaterNSW should be considered in the context of our lack of involvement in the 2015 budget process, the current operating environment and the recent public scrutiny and inquiries regarding the appropriate level of resourcing for WAMC functions and activities.

Furthermore, the 20% efficiency proposed on consent transaction activities is excessive and does not appear to be backed by empirical evidence. The 20% target is unachievable if applied from the first year of the determination period. We request that Cardno revise the proposed efficiency to ensure it is achievable and backed by empirical evidence. As a minimum, the efficiency should not be significantly higher than the annual catch-up efficiency adjustment for other operating costs (noting WaterNSW does not support the Atkins and Cardno approach to catch-up efficiencies).

We note that WaterNSW was not involved in the 2014-15 budgeting process used to set the current period allowances. WaterNSW is in a difficult position in having to explain the variances from the current period allowances in which the logic and reasoning for the proposed allowance was not well documented by DPI Water nor was it understood by the 2015 IPART efficiency consultants, Synergies. WaterNSW had received little detail and documentation from DPI Water on the 2015 budgets during the WAMC transition.

As discussed earlier in relation to the reduction in customer management operating expenditure, in the 2015 Price Review, concerns were raised regarding DPI Water's proposed levels of expenditure. In page 45-46 of the 2015 Synergy efficiency report, Synergies stated that (emphasis added):

> *The projected increase in FTEs is at odds with the decline in forecast expenditure. Given that most of DPI Water's costs are predominantly salaries, we conclude that DPI Water has applied the 1.5% reduction to its forecast expenditure (to meet the imposed 'efficiency' directive) independently of assessing how this relates to required staff levels. The projected increase in FTEs assigned to water management services would imply that the proposed cost reduction would have to be achieved* ***through means other than remuneration savings, or that they are not achievable.***

Further, Synergies raised concerns regarding the extent to which external revenue sources and consolidated revenue funding were used to offset the cost of WAMC services. In Page 7 and page 49-50 of the 2015 Synergy efficiency report, Synergies stated that (emphasis added). The Synergies' concerns were presented above under "Customer Management" and are not repeated here, although apply equally.

The apparent mismatch between actual and forecast costs as highlighted in the 2015 Efficiency Report is of serious concern to WaterNSW and may render any comparison against the existing allowances as meaningless.

In addition, we cannot assume the DPI Water 2015 pricing proposal accurately apportioned regulated costs to activities (net of external revenue sources). We note the comments in page 8 of the Synergies report (emphasis added):

> Our detailed review highlighted a number of shortcomings to DPI Water's cost control and reporting systems that could apply more broadly across the organisation. **These include issues with forecasting and cost reporting, lack of sufficient cost controls and lack of consideration of outsourcing**
> …
> **It is evident from DPI Water's submission that incorrect cost allocation to activities has been a systemic problem over the current determination** period. This not only makes it **difficult for Synergies to assess the efficiency of historical expenditure (as it is not possible to distinguish between real changes in expenditure levels and variations that are simply an outcome of incorrect cost accounting**), it also reduces our confidence that DPI Water is effectively managing its costs at an individual activity level.

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 meets customer expectations. This is shown in the table below.

| | 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 |
| **Variance opex to Actual revenue** | **-2,452** | **-4,985** | **-3,745** | **-5,319** | **-4,982** |

*Updated with actual results

We consider that there is a clear link between our proposed levels of expenditure, actual costs, volumes, and current and emerging stakeholder needs.

Whilst we have spent approximately $4.3 million on average higher than the IPART allowance in the current determination period, 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. The Fee for Service Transaction Services service levels and the performance results are set out in the table below.

| 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 where we met or exceeded relevant targets in 2016-17, the first year of WaterNSW holding these functions, 2017-18 saw targets for two metrics not being achieved. The reasons for 2017-18 service standards not being met for two metrics are highlighted below:

- 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.

WaterNSW has been unable to meet its targets for two performance metrics due to the extent of the workload required.

WaterNSW requests that any decision on efficient expenditures for WaterNSW based on the allowances provided at the 2016 Determination should be reconsidered in the context of our lack of involvement in the 2015 budget process, the current operating environment and the recent public scrutiny and inquiries regarding the appropriate level of resourcing for WAMC functions and activities.

Cardno should give due consideration to our actual/realised costs to deliver consent transaction services to ensure the performance of the licensing processing function meets customer expectations. As WaterNSW has established a clear link between transaction volumes, our actual and forecast cost, and our performance against key metrics, we submit that the proposed 20% efficiency should be reversed in full. In addition, WaterNSW considers the application of the top down methodology to be robust, conservative and in our opinion, realistic.

If IPART does decide to impose the 20% efficiency, we consider the 20% efficiency proposed on consent transaction activities to be excessive and does not appear to be backed by empirical evidence. The 20% target is unachievable if applied from the first year of the determination period. We request that IPART and Cardno revise the proposed efficiency to ensure it is achievable and backed by empirical evidence.

WaterNSW cannot absorb the 20% efficiency in the consent transaction function over the next determination period given the workload required to date. An efficiency target should only be set if it is achievable. An unachievable target will only hinder our ability to perform our regulatory

functions. Given the mandatory workload required to date on consent transactions activities, which is increasing, not decreasing, WaterNSW will be placed in a position where it will need to reprioritise its workload while addressing competing priorities with limited funding and without a commensurate decrease in service standards. This puts the performance of our other operational activities at risk

We submit that IPART should consider whether efficiencies of this scale can be achieved within a relatively short period of time (3 months' time to commence 1 July 2021). The IPART Draft Decision will compromise our ability to deliver the customer service experience which is expected of WaterNSW. For instance, the ability to meet customer and stakeholder expectations in relation to changes to the metering framework, the water sharing plans, floodplain harvesting requirements, floodplain management plans, and the agreed recommendations from the Natural Resource Commission[17].

### 2.2.6 Scope reductions from the Atkins RV efficiency review

The Cardno efficiency report refers to a scope adjustment by Atkins per the recommendations of the Rural Valleys efficiency review. The recommendation is said to result in a net impact of $20k to the WAMC determination. No further details are provided.

We note that the scope adjustment is likely comprised of multiple adjustments. WaterNSW submits that the scope reductions (including any increase in expenditure) should be disclosed in the Cardno report for transparency.

We understand the combined impact of the scope reductions relates to a $180k p.a. increase in expenditure, offset by a $200k p.a. reduction. The $180k p.a. increase appears to be related to the Atkins' recommendation to provide funding for an additional regulatory FTE under the WAMC determination; however, clarity is sought on this matter.

It is likely the $200k p.a. scope reduction relates to an Atkins recommendation to implement a corporate adjustment to our Customer and Community business unit (C&C) costs as a result of a perceived change in cost allocation from the 2019 Greater Sydney Determination. We advise that this recommendation does not appear to have been included in the IPART Draft Decision and hence there may be an error in deriving the net impact of $20k calculated by Cardno. We support IPART's position, given the proposed scope reduction overlaps with the IPART draft decision to change the approach to cost allocation from totex to direct salaries.

Adjusting for the revised recommendation results in an additional $180k p.a. in funding under the WAMC determination. We submit this correction should be disclosed in both the Cardno supplementary report and the IPART Final Decision.

### 2.2.7 Top down efficiencies - additional overhead allocated to WAMC

We support IPART's proposal not to apply the top down efficiencies to the additional overhead reallocated to the WAMC determination from the other determinations.

The additional overhead would represent a mandatory (uncontrollable) step increase in expenditure from prior years. We agree that the additional overhead should be excluded from both the scope adjustments and the top down efficiencies.

### 2.2.8 Costs of Coal Seam Gas Bores

In the Efficiency Report, Cardno states that:

> *One major issue yet to be resolved in WaterNSW's pricing submission for the 2021 determination period is coal seam gas monitoring. A total of 70 new bores for coal seam*

[17] https://www.nrc.nsw.gov.au/wsp-audits

*gas monitoring have been funded outside of WAMC but once these bores have been developed and implemented, the ongoing operations and maintenance costs will be incorporated into the WAMC costs. WaterNSW considers that it is DPIE's intention that these assets will be transferred to WaterNSW. WaterNSW has also inherited a number of bores from an external entity. In total there are 78 bores that will need instrumentation and ongoing operating and maintenance expenditure.*

*WaterNSW has included indicative annual costs of $5,500 per bore in its submission. However, the testing requirements have not yet been agreed with DPIE and the suite of analytes may not be the same for each bore site. Potentially, these could be substantial costs. WaterNSW is uncertain as to whether a scope of works and confirmed costs will be agreed before the end of the price review process. The user share of these costs will also need to be determined.*

WaterNSW would like to query whether any additional operating expenditure on CSG bores has been included in the Draft Determination.

WaterNSW provided further information on the scope of works and costs for the Coal Seam Gas Bores as part of the efficiency review. An excerpt is shown below:

*The cost estimate for the CGS bores is based on information provided by DPIE regarding the number of bores (79), the average sampling frequency (4 times pa), and the costs for bore maintenance and sampling, and analysis (lab) costs based on the list of analytes provided by DPIE. The analysis cost is market tested as it is based on the* [redacted] *external contract awarded through a competitive procurement process.*

*WaterNSW has assumed 79 CGS bores will be transferred over to WaterNSW as a realistic estimate. This estimate has been prepared in consultation with DPIE and is considered robust by DPIE.*

*Cost items include*

1. *Annual cost per bore - $3,500 X 79 bores – ~$280k pa*
2. *Sampling – 4 x $1000 x 79 bores – ~ $320k*
3. *Cost for analysis –$150k pa*

*Total cost - $750k (excluding overheads, direct cost only)*

Regarding the comment by Cardno the testing requirements have not yet been agreed with DPIE, WaterNSW provided a table on the water quality parameters and testing requirements, which was prepared by DPIE and which we costed out. The table was provided by the Lead Hydrogeologist at DPIE.

Now that the scope and costs are known, WaterNSW considers the costs of CSG Groundwater Bores should be included in the WAMC determination allowances.

### 2.2.9 Overhead allocation

IPART proposes that WaterNSW changes its basis of allocation for corporate overheads from total expenditure ("**totex**") to total operating costs. WaterNSW's approach to allocating overhead by totex meets accounting standards, has been accepted by the Audit Office in reviewing our accounts, is used by other utilities and meets the criteria of IPART's cost allocation guidelines.

Our concerns regarding Atkins findings on our cost allocation methodology is contained and dealt with in greater detail in our response to the Rural Valley 2021 Draft Determination.

Although the recommendation results in additional overhead in the WAMC determination, we maintain the view that our approach to allocating overhead by "totex":

- Meets accounting standards;
- Is consistent with IPART's Cost Allocation Guidelines
- Forms the basis of our financial accounts that have been approved by the Audit Office;
- Is used by other utilities in other jurisdictions. For example, Energex - the largest electricity Network Provider in Queensland that provides energy to 3.4 million residents - uses the totex approach to allocate overhead to its regulated business which was approved by the AER;[18]
- Allocates costs based on underlying business activity, in particular growth capex; and
- Was accepted as a basis to set the Greater Sydney Determination allowances.

We also consider that it is not appropriate for the regulator to mandate that a business applies an alternative accounting policy, particularly when we have adopted cost allocation principles and guidelines that are adopted by almost all regulated utilities, and auditors (i.e. the Audit Office of NSW) have accepted the policy as being appropriate.

Our submission in the points out several errors contained within Chapter 8 in the efficiency report including inaccurate assumptions that non-core activities drive significant corporate activity and erroneous conclusion on the WaterNSW CAM.

If IPART accepts Atkin's findings, WaterNSW is concerned that it would introduce a significant financial risk as we would not readily be able to recover any reallocations that would require other determinations (including the Greater Sydney determination which was finalised in 2020) to be amended. We consider that our current approach to cost allocation is robust, is consistent with the IPART cost allocation guidelines and Accounting Standards and therefore should not be changed based solely on the advice of IPART's technical consultants for this review.

We consider that our current approach is fit-for-purpose and that the case has not been made for change. Changing our cost allocation approach across a complex business based on the advice of one technical consultant would set a concerning precedent that WaterNSW could potentially be forced to change its approach to cost allocation at each review. This would clearly not be appropriate.

We therefore do not support the 'log book" approach to tracking any revenue shortfalls as recommended by Atkins arising from overhead reallocations as this introduces a significant regulatory risk for WaterNSW. If a reallocation was to occur, it would necessarily require an amendment or reopening of the Greater Sydney determination (or perhaps an early determination) to accommodate the reallocation of overhead from Rural Valley and WAMC to the Greater Sydney determination from 2023-24 in order to ensure WaterNSW is not financially disadvantaged by the reallocation over the next four years.

In addition, the primary driver of our cost allocation methodology is to comply with the relevant accounting standards. An unintended consequence of the IPART recommendations is the need for WaterNSW to prepare a separate set of regulatory accounts given we are unable to change the accounting policy unless it complies with requirements of the NSW Audit Office, and as noted in our response to the Rural Valley 2021 Draft Determination, Atkins has not conducted a comprehensive audit of our policy against the requirements of the Australian Accounting Standards or the NSW Audit Office.

The added complexity would necessities additional funding of $0.4 million per annum in operating expenditure to appoint two additional accountants to prepare a separate set or regulatory accounts.

[18] Please see page 22; https://www.aer.gov.au/system/files/Energex%20-%2033.%202015-20%20Cost%20Allocation%20Method%20-%20October%202014.pdf as updated in https://www.aer.gov.au/system/files/Energex%20-%20Cost%20allocation%20method%20-%2018%20October%202018.pdf as approved by the AER.

The Atkins recommendation places additional regulatory complexity on our reporting requirements in attempting to reconcile our audited financial statements against the requirement of the IPART Annual Information Return.

By ignoring our advice, particularly the knowledge of our business and costs, Atkins have made several recommendations that are erroneous and not support by the evidence. We recommend that IPART not adopt Atkins recommendations to change WaterNSW's approach to allocating overhead from totex to direct salaries.

## 2.3 Capital expenditure

As with our operating expenditure program, the efficiency of our capital expenditure program over the 2021 Determination period has also been the subject of a detailed technical review with IPART's consultants.

Under the Draft Decision, IPART has proposed a 19% or $6.9 million reduction in actual corporate capital expenditure in the 2016 determination period to be reallocated to the other determinations, such as the Rural Valleys, Greater Sydney and Broken Hill Determination.

$34.3 million in forecast capital over four years for WaterNSW has been accepted by IPART as prudent and efficient. This represents a significant increase in capital expenditure compared to the 2016-20 allowances. However, the IPART draft decision results in a **$7.8 million or 19% reduction** compared to Water NSW proposal of $42.1 million over the four years. The 19% reduction in capex over the period is due to:

- $2.46 million reduction for top down efficiencies;
- $2.36 million reduction for motor vehicle procurement capex to align with the longer term trend in expenditure; and
- $2.96 million reallocation of ICT capex to the other determinations; not a reduction per se (e.g. -$3.22 million to the other determinations and +$0.26 million to the WAMC determination).

Putting aside the application of the top down efficiencies, the reduction in motor vehicles capex, and the decision to reallocate corporate capex to the other determinations, we are pleased IPART recognises the need for WaterNSW to invest more heavily in our water monitoring network and corporate systems to meet our conferred obligations and the demands of both customers and stakeholders, which are only expected to grow over time.

In particular, whilst the WAMC 2016 Determination did not provide a sufficient capital allowance for ICT systems, IPART's correction to the ICT capex allowance over the 2021 determination period allows WaterNSW to invest more efficiently in our corporate systems over the long term and transition ICT investments to long term sustainable levels in line with our ICT corporate plan.

The reduction in future capital expenditure is set out below.

| Capital Expenditure ($000's, $2020-21) | | | | | |
|---|---|---|---|---|---|
| | 2021-22 | 2022-23 | 2023-24 | 2024-25 | Total |
| **WaterNSW Proposed** | **9,948** | **10,429** | **12,661** | **9,033** | **42,071** |
| **IPART Reductions** | | | | | |
| *ICT expenditure reallocation on a project expenditure basis* | *-800* | *-800* | *-800* | *-800* | ***-3,220*** |
| *Integrated Business Systems business case – reallocate a proportion of expenditure from rural valleys to WAMC based on expected benefits* | *60* | *60* | *60* | *60* | ***260*** |
| *Vehicle procurement scope adjusted to match trend* | *0* | *0* | *-2,560* | *200* | ***-2,360*** |
| Catch-up efficiency reductions | -195 | -409 | -639 | -632 | **-1,874** |
| Continuing efficiency reductions | -63 | -130 | -181 | -218 | **-592** |
| **IPART Proposed** | **8,951** | **9,151** | **8,539** | **7,643** | **34,284** |
| **Difference (%)** | **-10%** | **-12%** | **-33%** | **-15%** | **-19%** |

However, WaterNSW is concerned the decision to reprofile the WAMC corporate capex is not reflective of the costs of providing corporate systems and assets to the WAMC staff base. WAMC customers should contribute to a fair share of the costs associated with corporate systems given the large staff base supporting WAMC functions and activities. Greater Sydney, Rural Valley and Broken Hill pipeline customers should not cross subsidise the costs of providing WAMC corporate assets and services.

Notwithstanding, should IPART decide to reallocate WAMC corporate capex to the other determinations, we argue that the reallocation to the rural valley determination should occur during the current 2021 Rural Valley price review (and not a future price review) as required under the Water Charge Rules 2010.

In addition, WaterNSW's disagrees with IPART's proposal to reduce the amount of funding to renew our motor vehicle fleet. The reduction in motor vehicle capex implies that WaterNSW would have to extend the vehicle life to 7 years to ensure the proposed expenditure can be approved at the subsequent price review. The approach is inconsistent with the safety requirements prescribed by the NSW Government, the expected life of vehicles and falls short of WaterNSW's duty of care to its employees with respect to safety. The approach also does not incorporate an adjustment for higher maintenance costs and lower resale value.

Detailed responses to the consultant's capital expenditure reductions are provided in the sections below.

### 2.3.1 Adjustment to WaterNSW's actual corporate capital expenditure

Under the Draft Decision, IPART proposes to adopt Cardno's recommendation to adjust the value of corporate capital projects allocated to the WAMC determination so that only 25% of the allocated amount enters the WAMC RAB in 2016-17, gradually increasing to 50% of the allocated amount in 2017-18 and 75% of the allocated amount in 2018-19.

Cardno's reasoning is outlined below:

> *Corporate capital expenditure has been subject to a separate review, as set out in Section 5.7. This review concluded that there was no grounds to challenge the prudence and efficiency of corporate capital expenditure in the current period. While we acknowledge the findings of this review, we note that WaterNSW's historic capital expenditure for the*

*WAMC business is a result of its cost allocation methodology. When WaterNSW assumed responsibility for WAMC monopoly services, it did not on day one procure replacement ICT systems or invest in its office accommodation. Our conclusion is that WaterNSW will have taken time to build up its understanding of the WAMC business and the long term capital expenditure requirements. It will have then planned for the procurement of this capital expenditure and has then, and continues to, progressively deliver this expenditure. Accordingly, in the draft report we recommend that the prudent and efficient level of capital expenditure allocated to the WAMC business be profiled over a four year period as shown in Table 7-4.*[19]

We consider that the revised profile fails to take into account the following matters:

- The type of corporate expenditure which entered the WAMC RAB in 2016-17 to 2018-19;
- The causal relationship between the cost allocator applied by WaterNSW and the corporate capital expenditure allocated to the WAMC business; and
- The nature of the IPART RAB roll forward model in which:
    - Capital expenditure enters the RAB on an 'as incurred' basis, not on an 'as commissioned' or partly as commissioned basis, hence the benefits of investments are not always derived in the year in which the expenditure is incurred; and
    - Capital costs are recovered from those customers who benefit from the creation of the asset, over the useful life of the asset.

The project breakdown for WAMC corporate capital expenditure is shown below in nominal terms.

| Project | FY17 | FY18 | FY19 |
|---|---|---|---|
| [redacted] | | | |

[19] See Cardno Final Report on the WAMC expenditure review, 11 March 2021. Page 69.

| Project | FY17 | FY18 | FY19 |
|---|---|---|---|
| [redacted] | | | |

| Project | FY17 | FY18 | FY19 |
|---|---|---|---|
| [redacted] | [redacted] | | [redacted] |
| [redacted] | [redacted] | | [redacted] |
| **Total** | **4,326,726** | **4,232,411** | **6,177,190** |

The majority of 2016-17 and 2017-18 corporate capital expenditure was incurred in relation to the Parramatta Office consolidation and CIMs. In 2018-19, the majority of the expenditure was related to ICT projects, CIMs, motor vehicles procurement and ICT renewals.

We note that approximately 26% of the cost related to 'staff based' corporate capital projects was allocated to the WAMC determination using headcount as an allocator from FY17 to FY19.[20] This methodology was amended in FY20 and the forward years as we switched to the salaries allocator. Where relevant, the balance of the cost was allocated to Greater Sydney and Rural Valleys using a pro rata of the RAB as per the rules of the existing Greater Sydney and Rural Valleys determinations. The allocation aligns with the Greater Sydney 2020 IPART Determination. We note that if the allocation was to change after the Greater Sydney Determination has been issued, WaterNSW would be seeking to ensure we recover the prudent and efficient cost per the Greater Sydney determination. We consider if such a change was to be made, it should have been made as part of the Greater Sydney Determination process.

In its supplementary report to the Greater Sydney 2020 Price Review, Atkins endorsed WaterNSW's original proposal to allocate corporate capital expenditure by salary and wages in 2019-20 and over the 2021-2025 Greater Sydney determination period.

WaterNSW considers that salaries/headcount is an appropriate driver of corporate capital on the basis it represents a good proxy for utilisation and corporate work effort on WAMC functions and activities. Our approach is consistent with the IPART cost allocation principles of causality and practicality in which WaterNSW adopts a casual allocator based on our understanding of the nature of the expenditure.

For instance, the Parramatta Office was opened in late May 2017. From inception, the Management Team, C&C management team and the majority of the C&C operational workforce for WAMC has been in Parramatta. We note that WAMC functions and activities are delivered through a labour force focused on licence processing, licence advisory and account management and billing services delivered by C&C. Because of its customer interfacing responsibilities, the C&C business unit is a front-line operational function for the purposes of WAMC determination.

WaterNSW does not support the recommendation to deduct 75% of expenditure related to CIMs, head office consolidation and other corporate projects from the WAMC determination in 2016-17, 50% in 2017-18 and 25% in 2018-19. CIMs was commissioned in April 2019 to support the FTE base. However, under the proposal, the deducted expenditure would not be recovered from the WAMC customer base over the life of the corporate asset.

The IPART RAB roll forward framework permits capital expenditure to enter the RAB on an as incurred basis. Therefore, the benefits of capital investments may not be derived in the year in which the expenditure is incurred. In this case, the benefits of CIMs can only arise after the system has been commissioned in April 2019.

WaterNSW argues that the proposed approach is not cost reflective, as corporate assets continue to provide significant benefits to the WAMC customer base over the working life of the asset, irrespective of when the expenditure is incurred and enters the RAB. To reiterate,

20

approximately one third of WaterNSW's workforce are involved in performing WAMC functions and activities.

We submit that it would be appropriate for WAMC customers to contribute to a reasonable share of the costs related to CIMs, the Parramatta head office, ICT renewals, vehicle purchases and other corporate costs over the useful life of the asset.

We have assessed that it would be fair and reasonable for WAMC to receive a share of actual corporate capital expenditure based on the proportionate value of salaries/headcount. As stated previously, our proposal is consistent with the IPART cost allocation principles of causality and practicality and the recommendations outlined in the Atkins supplementary report on the Greater Sydney Price Review.

Atkins have stated that the revised profile is supported by the observed trends in water monitoring capital expenditure. We argue however that the assumption fails to consider the reasons for the trend in expenditure over the 2016 determination period.

In page 77 of our WAMC pricing proposal, the reasons for the underspend in water monitoring expenditure are asset specific in nature:

> *During the 2016 Determination period we underspent on water monitoring capital expenditure. In 2016, WaterNSW inherited numerous capabilities and assets from DPIE-W in order to streamline processes and drive efficiencies (e.g. 220 staff and ~900 hydrometric stations, ~6000 groundwater bores)). Despite receiving an associated allowance for water monitoring capital projects, we did not receive all necessary documentation (e.g. business cases) to be able to form a detailed understanding of the expenditure items making up this allowance. Therefore, it required time for WaterNSW to develop a complete understanding, leading to an underspend in capital for these services. The decision to withhold spending despite having an allowance aligns with our strategy to only spend after we have confirmed it is efficient and prudent to do so*

WaterNSW's position regarding the need to understand the nature and condition of its water monitoring assets has been accepted as valid by Cardno.

In Page 16 of our response to the IPART Issues Paper, we outlined the drivers of corporate capital expenditure in the current period:

> *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*

We submit that there is no direct link between 1) water monitoring renewals expenditure on groundwater bores and river gauges located in remote areas in NSW and 2) corporate expenditure on assets such as CIMs, ICT renewals, ICT systems, motor vehicles and head office.

We fail to see the connection between the trend in water monitoring expenditure (i.e. the need to understand the condition of our assets) and the costs of establishing corporate assets (i.e. the need to incur upstart establishment cost to support ~200 WAMC FTEs) in the current period.

We request IPART revisit this matter and we propose that our corporate capital allocation should be approved in full.

### 2.3.2 Allocation on the basis of benefits received

Cardno have stated that the expenditure on corporate assets should enter the WAMC RAB on a *benefits* basis. It is unclear what is meant by the statement that costs should enter the RAB on a benefits basis as opposed to an as incurred basis. We note that no further guidance is provided by Cardno.

Costs enter the RAB on an as incurred basis. This is confirmed in the July 2012 paper on the IPART building blocks model (page 13):

> *In comparison, IPART's building block model uses "as-incurred" capex*[21]

The IPART cost allocation principles state that:

> *Costs should generally be allocated to services on the basis of causality. That is, costs should be allocated to the cost objects that causes the costs to be incurred.*[22]

Capital expenditure on IT assets and systems, in particular the establishment costs related to CIMs, have a causal link to the number of FTEs in the business. We have allocated a proportion of capital expenditure associated with CIMs / IT to the WAMC business based on the headcount driver. As flagged previously, approximately one quarter of WaterNSW's workforce is involved in delivering WAMC functions and activities.

In combination with the IPART RAB roll forward framework, which operates on an as incurred basis, the proposed allocation by headcount ensures that WAMC customers contribute to a share of the costs of IT in proportion to the benefits received. This refers to the benefits of IT infrastructure and systems which support, as an example, our water monitoring and C&C licensing (WAMC) staff. We note that C&C and water monitoring staff have been using our IT systems from inception. They have also been using CIMs since it was commissioned.

In relation to head office expenditure, WaterNSW management are based in Parramatta. From inception, the Management Team, C&C management team and the majority of the C&C operational workforce for WAMC has been in Parramatta staff (costs objects that drive the expenditure on head office). We note that WAMC functions and activities are delivered through a labour force focused on licence processing, licence advisory and account management and billing services delivered by C&C.

In addition, managerial and executive staff have been responsible for the management and effective governance of the WAMC business segment from inception, as facilitated through the establishment of the Parramatta head office.

[21] https://www.ipart.nsw.gov.au/files/sharedassets/website/trimholdingbay/information_paper_-_comparison_of_financial_models_-_ipart_and_australian_energy_regulator_-_july_2012.pdf

[22] Page 13; https://www.ipart.nsw.gov.au/files/sharedassets/website/shared-files/investigation-administrative-water-iparts-cost-allocation-guide/legislative-requirements-iparts-cost-allocation-guide/cost-allocation-guide-march-2018.pdf

An allocation of head office consolidation expenses by headcount (e.g. .the cost objects that drive the expenditure on head office) ensures that WAMC customers contribute to a share of the costs associated with the head office in proportion to the benefits received. The benefits refer to the management and governance of the WAMC business, supported by head office expenditure.

There is a clear cause and effect between corporate capital expenditure and the level of resourcing in the WAMC business. We are concerned that the profile proposed by Cardno would support a cross subsidisation of WAMC corporate costs by the Rural Valley. Broken Hill Pipeline, and Greater Sydney business.

It is unclear what is meant by the statement that costs should enter the RAB on a benefits basis as opposed to an as incurred basis. We note that no further guidance is provided by Cardno. Irrespective, we note that the application of cost drivers will produce an end result, where costs are allocated in proportion to the benefits received by customers. The IPART pricing framework ensures that costs are recovered over the life of the asset on an as incurred basis.

### 2.3.3 Corporate Capital Adjustment inconsistent with the Water Charge Rules 2010

We have identified a material error of omission per the Atkins recommendation to reallocate 2016-20 corporate capital expenditure to the other WaterNSW determinations in future price reviews.

The recommendation is not possible to be implemented at a future Rural Valleys determination. We note that it is an error of omission to make recommendations which are not possible to implement. The error of omission has been identified in both the Atkins Rural Valleys and Cardno WAMC efficiency reports.

To summarise, at page vii of the WAMC efficiency report, Cardno advises that it has reduced the amount of corporate capital expenditure which has been allocated to the WAMC determination using a moderated profile of 25% of the allocated amount in 2016-17 which gradually increases to 100% of the allocated amount in 2019-20.

> *WaterNSW sets out, and we accept, that the 2016 Determination did not allow for sufficient corporate capital expenditure for the WAMC business. However, the level of expenditure is also the result of cost allocation– the WAMC businesses did not suddenly required a step change in corporate capital expenditure, WaterNSW will have taken time to build its understanding of the business and its expenditure requirements. We therefore recommended that the level of corporate capital expenditure allocated to the WAMC business and considered efficient be in line with a moderated profile of expenditure rising from 25% of that submitted by WaterNSW in 2016/17 to 100% in 2019/20.*
>
> *This has the result of reducing efficient expenditure by $7.4 million. As this expenditure has been subject to efficiency assessment through previous expenditure reviews and found to be efficient, we recommend that this amount should in future be allocated to the regulatory asset base(s) of the other businesses that benefited from the expenditure.*[23]

Cardo notes that WaterNSW's total corporate capital expenditure was considered efficient in prior reviews. We assume Cardno is also referring to this 2021 Rural Valley Determination and we ask that Cardno clarify this in their report. The Atkins Efficiency Report (p 176) concludes that corporate capital expenditure was considered prudent and efficient, as shown below.

> *We have taken into account the challenges posed by the merger and how effectively the new strategy has been implemented and we concluded in the round that there were no grounds to challenge the prudency and efficiency of the expenditure. Overall, we believe that the consolidation of the various offices and move to Parramatta appears to have been managed in line with good practice and has been undertaken in a prudent and efficient way. We find the fleet expenditure to be both prudent and efficient; however, it does*

[23] See Cardno Final Report on the WAMC expenditure review, 11 March 2021. Page vii.

*suggest that in the past that there was some inefficiency with a reluctance to sweat the assets.*[24]

The conclusion that WaterNSW's corporate capital expenditure is considered efficient is mirrored in page 54 and page 69 of the Cardno report:

> *Overall, the office accommodation consolidation strategy in the current period was managed in line with good practice and was prudent and efficient*
>
> …
>
> *Corporate capital expenditure has been subject to a separate review, as set out in Section 5.7. This review concluded that there was no grounds to challenge the prudence and efficiency of corporate capital expenditure in the current period.*

If the Cardno recommendation is implemented, we submit that the balance of corporate capital expenditure must be assigned to the 2021 Rural Valleys Determination by default, as total corporate capital expenditure was also considered efficient in both the 2020 Rural Valleys and 2019 Greater Sydney reviews.

We note that the Atkins Rural Valleys report failed to recommend a reallocation of efficient corporate capital expenditure to the rural valleys. This is an error of omission contained within the Atkins report.

Cardno state that the 2016-2020 corporate capital should be allocated to the other determinations *at a future* review. It is unclear why the reallocation cannot occur in the current 2020 Rural Valleys Price Review.

At a subsequent 2025 Rural Valleys Price Review, it would be impossible for IPART to allocate any 2016-2020 corporate capital expenditure to the Rural Valleys RAB.

The RAB roll forward methodology used to set the Rural Valleys RAB is prescribed under the 2010 Water Charge Rules ("WCR" or the "Rules"). It offers IPART limited discretion in setting the starting RAB at each price review.

As the current review is being conducted within the transitional period specified in the Rules, the old Water Charge (Infrastructure) Rules (2010) ("WCIR") will apply with respect to the RAB roll forward methodology. The relevant provisions are set out in Schedule 2 below.

> *The regulatory asset base of a Part 6 operator, for the purposes of the second or a subsequent regulatory period in relation to the operator as a Part 6 operator, is to be determined in accordance with the formula:*
>
> $$(A + B) - (C + D)$$
>
> *where:*
>
> ***A** is the regulatory asset base of the operator determined under this Schedule or the applied provisions in respect of the preceding regulatory period.*
>
> ***B** is the total of the actual (or, in the case of the last year of the preceding regulatory period, forecast) capital expenditure on assets used by the operator to provide infrastructure services (net of actual customer and government capital*

[24] https://www.ipart.nsw.gov.au/files/sharedassets/website/shared-files/pricing-reviews-water-services-rural-water-waternsw-rural-bulk-water-prices-from-1-july-2021/legislative-requirements-waternsw-rural-bulk-water-prices-from-1-july-2021/consultant-report-by-atkins-expenditure-review-of-waternsw-rural-bulk-water-services-and-corporate-cost-allocation-february-2021.pdf

*expenditure contributions) in respect of each year of the preceding regulatory period.*

***C** is the regulatory depreciation in respect of assets used to provide infrastructure services in respect of each year of the preceding regulatory period.*

***D** is the actual (or, in the case of the last year of the preceding regulatory period, forecast) revenue received by the operator from disposal of assets used to provide infrastructure services in respect of each year of the preceding regulatory period.*

Source: https://www.legislation.gov.au/Details/F2017C00488

Note that the starting point for the RAB roll forward methodology beings with variable A, the RAB determined under this Schedule or the applied provisions in respect of **the preceding regulatory period**. Variable B prescribes that only actual capital in the **preceding regulator period** can enter the RAB. Therefore, IPART cannot amend the Rural Valleys RAB to account for expenditure that was incurred in the regulatory period prior to the preceding regulatory period (i.e. two regulatory periods ago).

In effect, it would be inconsistent with the WCR for IPART to amend the Rural Valleys RAB at the subsequent 2025 Rural Valleys Price review in order to implement the consultant's findings to reallocate 2016-2020 corporate capital expenditure to the Rural Valleys determination. We note that it is an error of omission to make a recommendation which is not possible to implement.

We ask that IPART consider the requirements of the WCR and reallocate efficient Rural Valleys capex to the Rural Valleys 2021 Final Determination. If it was the view of Cardno / Atkins that efficient corporate capital expenditure was incurred in the other determinations such as the Rural Valleys Determination, as is implied in the report, then the RAB roll forward methodology dictates that any actual capital expenditure rightfully incurred in the rural valleys shall enter the Rural Valleys RAB during the current price review.

We also note the Atkins / Cardno recommendations may require costs to be reallocated to the Greater Sydney Determination that was settled in June 2020. WaterNSW is concerned that it may be asked to wear the financial implications of the consultants' recommended changes to allocations, and therefore IPART is requested to consider how it would adjust costs for the Greater Sydney determination (e.g. through a reopening or early determination) rather than waiting for three years to make WaterNSW "whole".

We would not expect to be financially disadvantaged until the next Greater Sydney determination in three years in order to implement the consultants' findings on this matter and request that IPART do not accept these proposals on the basis that our current approach to cost allocation meets all relevant accounting and regulatory requirements.

Should the Cardno recommendation stand, we request that both IPART and Atkins-Cardno ensure that WaterNSW recovers its efficient corporate capital expenditure across each of its determinations, in line with the findings contained within the three efficiency reviews conducted by Atkins-Cardo (Greater Sydney/Rural Valleys/WAMC).

WaterNSW asks IPART to consider the timing of any change to corporate capital allocations, and that corporate capital allocations be specifically considered in the next Greater Sydney determination.

### 2.3.4 Proposed reallocation of corporate capital to the other determinations

In the event that IPART decides to reallocate the WAMC corporate capital to the other determinations, we submit that it is not appropriate to allocate corporate capital to the Broken Hill Pipeline Determination.

The Broken Hill Pipeline was commissioned in April 2019, and the inaugural determination for the pipeline commenced in 2019-20. We note that the operation of the pipeline has been wholly outsourced to the market, with approximately one direct internal FTE responsible for the contract management of the pipeline with the operator. We also note that the 2020-21 corporate capex has not been affected by the recommendation to reprofile the WAMC corporate capex.

Due to the limitations in Schedule 2 of the WCR, which provides limited discretion to IPART, IPART is required to reallocate a share of the corporate capex to the Rural Valley determination in this price review.

We recommend that the balance of the WAMC corporate capex should be allocated to the Greater Sydney and Rural Valley determination on the proportion of the value of the RAB. That is, the balance should be allocated 33% to the Rural Valley RAB and 67% to the Greater Sydney RAB.

The proposal to allocate the balance of the corporate capex by proportion of RAB is supported by the rules of the existing determinations e.g. IPART Rural Valley 2017-21 determination as well as the Greater Sydney 2016-2020 determination. For example, at section 4.13 of the 2016 Atkins efficiency report, Atkins stated that

> *In its regulatory submission, WaterNSW stated that:*
>
> > *costs associated with corporate wide capital projects (such as corporate information technology projects) are isolated and then allocated to each region based on the proportional value of the Regulatory Asset Base (RAB). On the basis of RAB proportion, 67% of the cost associated with corporate wide capital projects are allocated to the Greater Sydney customer base.*
>
> …
>
> > *Therefore, whilst WaterNSW's use of RAB as the basis for allocating corporate costs is unlikely to be perfectly reflective of the underlying cost driver, it has the benefit of:*
> >
> > > • *being readily available, and therefore easy to calculate, and*
> > > • *a reasonable proxy for the physical asset base, which will be a driver of some corporate capex costs.*
> >
> > *Overall, these features, and the fact that the costs being allocated are relatively immaterial, leads us to recommend that no change be made to WaterNSW's proposed approach to allocating WaterNSW's corporate capital expenditure costs* [25]

In 2016-17, corporate capital expenditure was allocated based on a percentage of the RAB to meet the rules of the existing determinations. However, as WAMC historically has a very low RAB, but a large headcount (FTEs) relative to Greater Sydney and Rural Valleys, the RAB was not considered an appropriate basis for the allocation of capital costs to the WAMC determination.

In 2017-18 and 2018-19, WaterNSW allocated 27% of the total cost of 'staff based' corporate capital projects to WAMC based on the proportion of headcount (FTEs). This method was applied to overcome the issue of WAMC having a low RAB compared to a disproportionally high head count.

If IPART disagrees with our proposal to allocate a share of corporate capex to the WAMC determination by FTE as described above, then the balance should be allocated by proportion of

[25] https://www.ipart.nsw.gov.au/files/sharedassets/website/shared-files/pricing-reviews-water-services-metro-water-legislative-requirements-sydney-catchment-authority-pricing-investigation-commencing-from-1-july-2016/consultants_report_-_aither_-_waternsw_greater_sydney_expenditure_review_-_february_2016.pdf

RAB to the Greater Sydney and Rural Valleys determinations as per the rules of the existing determination and in accordance with precedent.

The reallocation is shown below:

**Table 1 – Impact of reallocating of corporate capital expenditure ($2020-21)**

| | 2016-17 | 2017-18 | 2018-19 |
|---|---|---|---|
| **Balance of WAMC corporate capex to be reallocated to determinations** | 4,326,726 | 4,232,411 | 6,177,190 |
| IPART proposed reduction to WAMC | 75% | 50% | 25% |
| **Amount to redistribute** | 3,245,045 | 2,116,206 | 1,544,298 |
| **Reallocation to Greater Sydney (66.7%)** | 2,164,445 | 1,411,509 | 1,030,046 |
| **Reallocation to Rural Valleys (33.3%** | 1,080,600 | 704,696 | 514,251 |
| **Total** | **3,245,045** | **2,116,206** | **1,544,298** |

#### 2.3.4..1 Motor Vehicles Adjustment

Cardno has recommended a $2.56m adjustment to motor vehicle procurement capex in the 2023-24 financial year. The adjustment is intended to bring forecast expenditure in line with the medium term trend in motor vehicle expenditure. The reduction appears to be driven by a significant increase in expenditure in 2023-24.

We provide comment on the reasoning behind the expenditure profile.

In 2019, WaterNSW purchased a significant number of vehicles across the business and determinations. The large increase in the total fleet vehicle numbers in 2019 (in comparison to prior years) was the direct result and decision by the business to delay previous vehicle replacements that were due as part of an extensive Fleet review (strategy and standardisation). The review also saw a further decision made by the business to extend the original replacement frequency from 3yrs/100,000km to 5yrs/150,000kms to achieve an optimal total cost of ownership.

The WaterNSW Asset and Fleet vehicle replacement strategy included an extended replacement interval to 5yrs/150,000kms (from 3yrs/100,000kms), hence the increase in expenditure in 2023-24, which is five years from 2018-19. In 2023-24, 42 WAMC vehicles are expected to reach the 5yrs/150,000 kms threshold for replacement. However, the current period actuals understate the cost of WAMC vehicle acquisitions. We have seen significant improvements in direct cost coding by the business since 2018-19.

WaterNSW cannot actively nor further extend vehicle replacements in a manner that is consistent with the Asset Strategy. Our asset strategy considered issues relating to safety. For instance, the 5-year replacement strategy considers the safety features released in new models by the manufacturer. Our strategy also considered the optimal total cost of ownership and reliability standards consistent with NSW Government requirements to renew vehicles that are 5 years old or older.

A reference to the NSW Government motor vehicle operational guidelines is shown below:

> *Agencies should consider the safety implications of ageing purchased, owned or donated vehicles:*
>
> - *Ageing vehicles may not be fitted with current safety features released in new models by vehicle manufacturers.*

- *Ageing vehicles may represent a risk on how well vehicles protect the driver and other road users in cases where the vehicle collides including other vehicle occupants, pedestrians, cyclists and motorcyclists.*
- *Agencies are encouraged to review their purchased or owned vehicles greater than 5 years old against The Used Car Safety Ratings (UCSR) developed by Centre for Road Safety, Transport for NSW.*
- *The UCSR includes a Buyer's Guide to Used Car Safety Ratings (updated annually) and may assist agencies determine replacement strategies, http://roadsafety.transport.nsw.gov.au/downloads/buyers_guide_used_car_safety_ratings.html*

*Standard vehicles must be replaced in accordance with the requirements of the NSW Government Motor Vehicles Scheme SCM0653.*

***3.3.1 Duty of care***

*Employers have a primary duty of care to provide and supervise a safe system of work under the Work, Health and Safety Act 2011. This includes an obligation for agencies to maintain plant and systems of work that are safe and without risk to health. A vehicle used for business is a workplace. An agency must also provide employees with the information, instruction, training and supervision necessary to ensure their health and safety.*

*Agency heads have a responsibility to both ensure that employees using motor vehicles for work-related purposes are properly licensed and to require employees to observe safe driving practices.*

*Employees may have a digital driver licence which is the digital version of the NSW Driver Licence and can be accepted wherever a plastic driver licence can be used in NSW and is broadly accepted interstate.*

*Helpful information regarding NSW Digital Driver's License can be found here:*

- *https://www.service.nsw.gov.au/campaign/nsw-digital-driver-licence/licence-holders-and-nsw-digital-driver-licence*

*Vehicles are to be maintained in accordance with the manufacturer's requirements and must always comply with relevant road transport legislation.*

Source: https://buy.nsw.gov.au/resources/motor-vehicle-operational-guidelines

The recommendation to reduce the motor vehicle capex in 2023-24 implies that WaterNSW would have to extend the vehicle life to 7 years to ensure the proposed expenditure can be approved at the subsequent price review. The approach is inconsistent with the safety requirements prescribed by the NSW Government, the expected useful life of the vehicles and falls short of WaterNSW's duty of care to its employees with respect to safety. In addition, there has been no adjustment to account for increased maintenance costs required to extend the useful life of the vehicles and lower resale value of vehicles.

Should IPART proceed with accepting Cardno's recommendations, we request that IPART consider the operating maintenance costs and resale value implications. We estimate the annual operating cost impact to be material at approximately $0.4 million and the annual resale value loss to be $0.6 million.

### 2.3.5 Top down capital efficiencies

IPART have applied top-down efficiency reductions to capital expenditure of $2.4 million over the four-year regulatory period. $0.6 million or 23% of the reduction is in relation to the catch-up efficiency, while $1.9 million or 76% of the reduction is in relation to the continuing efficiency.

**Table 9 – Capital expenditure top-down efficiency adjustments**

| | 2021-22 | 2022-23 | 2023-24 | 2024-25 | Total |
|---|---|---|---|---|---|
| **IPART Reductions** | | | | | |
| *Catch-up efficiency (%)* | -2.10% | -4.20% | -6.80% | -7.40% | |
| *Catch-up efficiency ($)* | -195 | -409 | -639 | -632 | **-1,874** |
| *Continuing efficiency (%)* | -0.70% | -1.40% | -2.09% | -2.77% | |
| *Continuing efficiency ($)* | -63 | -130 | -181 | -218 | **-592** |

The efficiencies have been applied on the basis of Atkins' judgement and review of WaterNSW's capital process as part of its Rural Valley review and presumably as part of the 2019 Greater Sydney efficiency review. The four key areas where for improvement as identified by Atkins includes:

- Improvements to capital program, development, optimisation and prioritisation
- Improvements to value engineering
- Improvements in cost estimating and the management of contingencies
- The impact of new procurement processes and the likely savings from more effective program management.

The level of top down efficiencies is justified by IPART on the basis that they are comparable to that applied to Sydney Water over previous regulatory periods as per table 4.5 of the draft decision.

WaterNSW suggests that the total efficiency reductions of approximately $2.4 million are excessive and unachievable without compromising our financial and service standard outcomes. The consultant has provided less than four pages in the Report the level of 'top-down efficiencies' for capital expenditures, with the analysis largely drawing on outdated international studies that do not readily reflect WaterNSW's circumstances.

The following paragraphs reproduce the full justification for the 'continuing efficiency' reductions for capital expenditure as provided by Atkins in its Final Report

> *The continuing improvement element of efficiency, termed 'Frontier Shift', relates to the increased productivity derived from process innovation and new systems and technology that all well-performing businesses should achieve. We have applied the results from the Australian Productivity Commission Multi-Factor Productivity (MFP) analysis, proposed efficiencies from other water utilities in New South Wales and recent analysis for Ofwat, the water regulator in England and Wales, which has been applied to frontier water companies. We have applied a Frontier Shift of 0.7% per annum cumulating over the Determination period.*
>
> *In line with the recommendations of the WaterNSW GS and Sydney Water 2020 Determinations, we have not assumed continuing efficiency will reduce expenditure in FY21 because of the COVID-19 response.*[26]

Our detailed proposal for continuing efficiencies for operating expenditure in Section 2.2.1.2 equally applies to capital expenditures and we point the reader to that section.

[26] See Atkins Final Report for Rural Valleys 2021, page 137. https://www.ipart.nsw.gov.au/files/sharedassets/website/shared-files/pricing-reviews-water-services-rural-water-waternsw-rural-bulk-water-prices-from-1-july-2021/legislative-requirements-waternsw-rural-bulk-water-prices-from-1-july-2021/consultant-report-by-atkins-expenditure-review-of-waternsw-rural-bulk-water-services-and-corporate-cost-allocation-february-2021.pdf

### 2.3.6 Catch-up capital efficiencies

The consultant takes a different approach to assessing its 'catch-up' efficiency for capital expenditure compared to catch-up efficiencies for operating expenditures. Whereas Atkins bases catch-up efficiencies (at least in theory) on an efficient frontier, for capital expenditure Atkins applies its judgement across four areas as illustrated below.

**Table 10 – Catch-up efficiency adjustments for capital expenditures**

| Cumulative efficiency challenge (%) | | | | |
|---|---|---|---|---|
| | **2021-22** | **2022-23** | **2023-24** | **2024-25** |
| **Catch-up efficiencies** | | | | |
| *Catch-up: Capital program dev* | *0.11%* | *0.22%* | *0.33%* | *0.44%* |
| *Catch-up: Value engineering* | *0.50%* | *1.00%* | *1.50%* | *2.00%* |
| *Catch-up: Cost estimating* | *0.50%* | *1.00%* | *1.50%* | *2.00%* |
| *Catch-up: Procurement* | *1.00%* | *2.00%* | *3.00%* | *3.00%* |
| **Catch-up efficiency** | ***2.11%*** | ***4.22%*** | ***6.33%*** | ***7.44%*** |

We consider that cumulative reductions for catch-up efficiencies rising to over 7% in 2024-25 are excessive and potentially double-count "continuing efficiency" reductions and other direct reductions, as further detailed below.

In addition to making program-specific adjustments, IPART's proposed catch-up efficiencies are based on findings that:

- WaterNSW has not applied internal top-down efficiency challenges to capital programs;
- WaterNSW's capital processes are at an early stage of maturity (in particular, program development and prioritisation, value engineering, cost estimating and procurement); and
- WaterNSW's asset management processes continue to contain gaps.

We have concerns that IPART's decision to accept Atkins' recommendation has not taken into account progress on the development of a number of our capital processes. WaterNSW considers that IPART should give further consideration to our position as a relatively young organisation, and questions whether the significant catch-up efficiencies that have been proposed are achievable.

In addition, Cardno have used the reasoning provided by Atkins in the efficiency review of the Greater Sydney and Rural Valley expenditure plan. We submit that the reasoning does not apply to certain elements of the WAMC's capital plan. For example, the decision to apply $1.4 million in catch up efficiencies to our proposed capital plan for water monitoring assets is inconsistent with Cardno's finding that the business processes used to develop the water monitoring budget are considered best practice.

For instance, in page 78 of the Cardno report, Cardno states that:

> *WaterNSW comparative analysis of market costs and its derivation of efficiency targets for its monitoring activities have been set out in its Water Monitoring Review Project - Derivation of Efficiency Targets paper, which had an objective 'to demonstrate that our operating model is comparable in cost and service level to alternative operating models, such as outsourcing. If we can show this then we are efficient and effective.' As part of the project, WaterNSW approached a range of*

*comparable organisations with the objective of gathering data to facilitate direct external benchmarking. In order to complete the assessment, WaterNSW:*

*> Confirmed the ability to model the costs of undertaking monitoring in-house*

*> Applied the model to the Greater Sydney Monitoring Network (outsourced at that time) > Compared the modelled Greater Sydney Monitoring cost with the established outsourced contract.*

*Based on the analysis completed, WaterNSW determined that the costs of undertaking Water Monitoring inhouse using the resourcing levels, structure and work practices in place in 2018 was 12% above the market rate. Therefore, an efficiency target of 12% was agreed with staff, with a range of opportunities identified to bridge the gap. This outcome was used as the basis for the business case, and the Board Paper, which supports the water monitoring expenditure included in WaterNSW's Pricing Submission for the 2021 determination period.*

*…*

*Duplication of monitoring around the Greater Sydney borders, due to the monitoring functions in Greater Sydney being carried out by a different organisation prior to the transfer of functions to WaterNSW, meant that in some locations there were two lots of monitoring being carried out. This has led to rationalisation of the work to remove this duplication, with improved efficiency allowing the previously required work effort to be spread out to other activities and locations.*

Furthermore, in page 79 to 80 of the Cardno Report:

*Key efficiencies that were identified and developed by WaterNSW for its water monitoring include the following:*

*> Some efficiencies have been realised by removing duplication of monitoring work at some sites around the Greater Sydney borders*

*>The location of staff was reviewed and optimised for efficiency, including increasing staff levels at the Orange office. The heat mapping analysis to assess where water monitoring staff were located and locating them to where they were needed has also resulted in a new office being located in Coffs Harbour. A 3% efficiency gain was estimated for these changes.*

*> The transfer of water monitoring assets to WaterNSW included some State Water sites. This has allowed WaterNSW to bring in the same data management systems and also gain efficiencies from rationalising co-located and adjacent sites. Additionally, due to a lack of confidence in its data at some of its older sites, State Water were getting WaterNSW staff to monitor these stations. The data improvements, site rationalisation, and the removal of the additional work that was being carried out on State Water's behalf has resulted in efficiencies of 2-3% being estimated.*

*> Trialling new technology logging devices and working with staff as to possible time-savings from improved data management has been estimated to achieve an efficiency of around 1.5%*

*> Remote controlled devices for gauging have been introduced to replace more time-intensive manual gauging activities (e.g. having to wade through rivers to reach the gauging boards). Although these improvements do not apply at every location, WaterNSW's analysis has showed that a 2%*

*efficiency can be achieved if the technological improvement is implemented at all sites where it is an option.*

*> Back office improvements to streamline processes and avoid re-work have been estimated to achieve efficiencies of 2%*

*Collectively through implementing these improvements, WaterNSW identified that efficiencies in the region of 11-12% could be achieved and could be measured and modelled to assess the level of success.*

*In addition, efficiencies have been achieved during the 2016 determination and will be able to be carried across into the 2021 determination period through the reduction of laboratory contracts.*

*As part of its optimisation work across the 2016 determination period, WaterNSW has also added three full time planner positions into the organisation structure to forecast the workload that needs to be delivered. This workload has been mapped into the future and also programmed to be as efficient as can be delivered based on the optimisation and rationalisation work that has been completed during the current period. The three planners have replaced six previous positions.*

*Whereas DPIE had separate teams for different tasks, WaterNSW has looked to multi-skill its monitoring staff so that one person can do the surface, groundwater and take monitoring rather than having to send out a different person to complete each type of monitoring activities. Additional team efficiencies have been realised through the introduction of Team Leader positions to improve staff resource management.*

*These efficiencies have been incorporated into WaterNSW's forecasts for its water monitoring activities in the 2021 determination period.*

The Cardno report concludes at page 80 that:

*The efficiencies have been realised through the optimisation and rationalisation of staffing resources and locations, re-scoping of roles within teams, multi-skilling, improved technology and data management, and a proactive assessment of the workload to actively seek where the monitoring functions could be delivered better. Duplication of monitoring work has also been removed where this had been identified as an issue.*

*Although there are overall reductions in operating expenditure for the WAMC water monitoring services, as WaterNSW has aligned its costs to DPIE's W-code activities using best endeavours, its activities may not directly align with DPIE's activity structure. As a result, there may be some apparent movement between the 2016 and 2021 expenditure for individual activity codes that may not be fully comparable, for example the large decrease in expenditure for groundwater quantity monitoring between the two periods.*

*As the scope of work across the current and future periods is generally the same, the expenditure savings that have been identified to be carried across into the 2021 determination period may also suggest that the operating expenditure in the past was not efficient.*

*Further operating cost efficiencies are also expected to be realised across the 2021 period and into the following determination period as a result of the implementation of WaterNSW's capital expenditure WAVE program. This is expected to result in savings through improved data management and reporting. The WAVE program is intended to include a self-help portal which will allow data users to access their own*

*data rather than making requests to the specific WaterNSW data team to provide the data.*

Most importantly, we observe that Cardno has decided not to apply any catch up efficiency to future water monitoring operating expenditure on the basis that the business processes used to develop the WAMC monitoring budget are in line with good industry practice:

*Catch-up efficiency has been applied where we consider that the business processes used to justify and develop expenditure forecasts fall behind good industry practice.*

*…*

*We have not applied a catch-up efficiency to the activities where DPIE has applied its own internal efficiency challenge to avoid double counting. We have also not applied a catch-up efficiency to water monitoring expenditure in recognition of the efficiency gains made by WaterNSW in recent years.*

We submit that the business process used to develop the WAMC hydrometric budget were also used to develop the WAMC capital budget for water monitoring assets.

The consolidation of the State's water monitoring fleet into WaterNSW has helped transform the efficiency of water monitoring across the State. As highlight by both WaterNSW and Cardno, these efficiencies have been achieved through the integration of business processes and team structures across each of the three IPART determinations.

Based on the reasoning provided in the Cardno report, the application of the catch-up efficiency to the WAMC water monitoring capital budget should be reconsidered by IPART.

## 2.4 WACC and inflation

This submission addresses the following issues relating to WACC, inflation and financeability and the resulting implications, as well as how IPART can take these into account in its final determination for WaterNSW:

- The exceptional impact of the COVID 19 pandemic on the economy as a whole and financial markets more specifically;
- The associated heightened level of uncertainty that exists around all WACC parameters but, in particular, the uncertainty associated with the forecast of inflation used by IPART to derive a real WACC;
- How the uncertainty around the inflation forecast can best be mitigated, and in so doing, minimise the prospect of windfall gains/losses accruing to stakeholders as a result of regulatory forecast error; and
- The implications for the financeability of WaterNSW's business were IPART to not adapt its regulatory framework and methodology to the new economic circumstances.

IPART indicated in the Draft Report that it will adopt an inflation estimate of **2.1%** per annum for deflating the post-tax nominal WACC to a post-tax real WACC.

WaterNSW notes that there is inflation risk associated with IPART's approach to forecasting inflation when calculating the post-tax real WACC. if outturn inflation varies from IPART's forecast. WaterNSW notes that IPART's inflation forecasts (and other regulators' forecasts generally) have been systemically higher than outturn inflation, which results in insufficient cash flows in the determination to achieve IPART's 'notional' real post-tax WACC. This has significant implications for the financeability of WaterNSW's investment program.

### 2.4.1 Forecasting inflation

IPART's existing method for forecasting inflation in calculating the real WACC involves two steps:

- IPART adopts the one-year ahead RBA forecast of inflation, and then assumes that inflation will be 2.5% (the midpoint of the RBA's inflation target range) in every remaining year of the regulatory period; and
- IPART then calculates a geometric average of the expected rates of inflation over the regulatory period.

In the case of a business with a four-year regulatory period, three out of the four numbers over which IPART computes a geometric average will be 2.5%. This guarantees that IPART's forecast of inflation will always be close to 2.5%, irrespective of whether that is a realistic forecast or not. IPART's approach assumes that inflation will always be 2.5% in the second year of every regulatory period, and remain at that level, regardless of:

- Prevailing economic conditions or the economic outlook over the regulatory period;
- Whether actual inflation is close to 2.5%;
- Whether the RBA's 1-year ahead forecast rate of inflation is close to 2.5%;
- Whether the RBA's 2-year ahead forecast is close to 2.5%; and
- Whether investors' prevailing expectations of inflation over the next five years is close to 2.5%.

In WaterNSW's view, the main shortcoming of IPART's existing approach to forecasting inflation is an assumption that inflation will return to 2.5% in year 2 of the regulatory period, under any circumstances. Such an assumption is unrealistic in the present low-inflation environment.

For instance, the Reserve Bank of Australia ("**RBA**"), which IPART has recognised is "objective, and best-placed, to analyse what the available information suggests for expected inflation" has said consistently that the outlook for inflation remains low as the Australian economy recovers from the COVID 19 pandemic. The RBA's latest (February 2021) Statement of Monetary Policy reaffirmed that view, noting that:

> *Spare capacity will remain for some years, dampening inflationary pressures.*[27]

The RBA went on to note that recent increases in inflation were due to the reversal of temporary government policies, such as free childcare, which have now run their course:

> *Headline inflation has been volatile since the pandemic started. The introduction and subsequent reversal of various temporary policy support measures, such as free childcare, have resulted in large price movements. Working in the opposite direction, prices of some retail items, especially household goods, were initially boosted in response to strong demand and supply disruptions. Most of these effects have now run their course.*[28]

Hence, there is no reason to suppose that any recent, short-lived increase in the rate of inflation would continue over the forthcoming regulatory period. To the contrary, the RBA emphasised that inflation is likely to remain "subdued" and "muted" for a number of years due to spare capacity in the economy:

> *Underlying inflation pressures remain subdued and are expected to be fairly muted in the*

[27] *RBA, Statement on Monetary Policy, February 2021*. Page 1.

[28] *RBA, Statement on Monetary Policy, February 2021*. Page 2.

*period ahead. Spare capacity in the labour market remains elevated, and wages growth has eased further from already low rates. Many employers have responded to the economic challenges of the pandemic by delaying wage increases, imposing wage freezes and, in some cases, applying temporary wage cuts. Forward indicators suggest wages growth will remain soft this year.*

*Both underlying price inflation and wages growth are expected to remain below 2 per cent over the forecast period, out to mid 2023. Trimmed mean inflation is expected to be 1¼ per cent over 2021 and 1½ per cent over 2022. For inflation to be sustainably within the Bank's target range of 2–3 per cent, a period of labour market tightness that leads to faster wages growth is needed. However, even the latest, upgraded, forecasts for economic activity and employment still imply a degree of spare capacity and slow wages growth over coming years.*[29]

WaterNSW notes that until recently, most regulators in Australia employed approaches to forecast inflation that were very similar to IPART's existing 'RBA geometric average' approach - namely, adopting RBA forecasts for the first year or two of the regulatory period, assuming an immediate return to 2.5% thereafter and then averaging forecast/assumed rates over some future horizon.[30]

However, in recognition that such an approach has produced unreasonable and unrealistic inflation forecasts for many years, including in the current low-inflation environment, nearly all Australian regulators have now made fundamental changes to their inflation forecasting approaches:

- In its June 2020 determination for SA Water, the Essential Services Commission of South Australia (ESCOSA) adopted a glidepath approach whereby it adopted the RBA's 1-year ahead and 2-year ahead forecasts of inflation for years 1 and 2 of the regulatory period, assumed that the rate of inflation would transition gradually to 2.5% thereafter by year 7 (i.e., a 5-year glidepath) and remain at that level until year 10;[31]
- In every determination since June 2020, the Essential Services Commission in Victoria (ESC) has forecast inflation by applying 50% weight to RBA-based forecasts (similar to IPART's) and breakeven inflation;[32]
- In December 2020, the Australian Energy Regulator (AER) decided that it would adopt a glidepath approach to forecast inflation. Under that approach, the AER would adopt the RBA's 1-year ahead and 2-year ahead forecasts of inflation for years 1 and 2 of the regulatory period, and then assume that inflation would transition gradually via a linear glidepath to 2.5% by year 5. The overall inflation forecast would then be calculated as the geometric average over the rates for years 1 to 5; and[33]
- In February 2021, the Independent Competition and Regulatory Commission (ICRC) published a draft WACC methodology decision in which it proposed to adopt the AER's glidepath approach to forecasting inflation.[34]

Furthermore, in March 2021 the Queensland Competition Authority (QCA) launched a standalone review of its inflation forecasting methodology. The Issues Paper used by the QCA to initiate that review noted that a number of regulators had recently made significant changes to their inflation forecasting methodologies. The QCA has sought views from stakeholders particularly on whether it should adopt either the AER's glidepath method or market-based measures (such as breakeven inflation) to derive its inflation forecasts.

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[29] See *RBA, Statement on Monetary Policy, February 2021*. Page 2.

[30] The notable exception was the Economic Regulation Authority in Western Australia, who has consistently used breakeven inflation to forecast inflation.

[31] See *ESCOSA, SA Water Regulatory Determination 2020, Final Determination: Statement of Reasons, June 2020.* Page 5.

[32] See, for example: *ESC, Melbourne Water Draft Decision, 17 March 2021.* Page 53.

[33] *AER, Regulatory treatment of inflation, December 2020.* Page 6.

[34] *ICRC, Review of methodologies for the Weighted Average Cost of Capital, February 2021.* Page 2.

In summary, due to concerns about the reliability of the 'RBA geometric average' approach—a version of which is employed by IPART - nearly all regulators in Australia have either made fundamental changes to their inflation forecasting inflation recently, or are currently consulting on whether and how they should improve their method for forecasting inflation.

The following table summarises recent changes to the inflation forecasting methodologies by Australian utility regulators.

**Table 2 – Summary of recent Australian regulatory' decisions on forecasting inflation <<work in progress>>**

| Regulator | Previous approach | New approach |
|---|---|---|
| AER[35] | 10-year average based on:<br>a trimmed mean inflation RBA forecast for the first two years of the regulatory period, and the mid-point of the RBA's target inflation band (2.5%) for the remaining eight years. | The AER's December 2020 decision is to shorten the averaging period to a term that matches the length of a regulatory period (typically 5 years) and apply a linear 'glide-path' from the RBA's forecasts of inflation for Years 1 and 2 to the mid-point of the RBA inflation target in Year 5 (e.g. 2.5%). |
| ESCOSA[36] | Geometric mean over 10 years of the RBA inflation forecast for the first year and the midpoint of the RBA's target band for the following 9 years | 10-year average inflation expectation, calculated using the RBA trimmed mean CPI inflation forecasts for two years and a linear 'glide path' to the mid-point of the RBA's inflation targeting band over five years, then remaining at 2.5 percent thereafter. |
| ESC[37] | Forecast inflation for the purpose of determining the real WACC was based on nominal bond rates using the "paired bond approach" which considers current market evidence | Based on the midpoint of the RBA geometric and bond breakeven inflation rates. The RBA geometric inflation rate is the RBA forecast consumer price index inflation rate one and two years ahead and the midpoint of the RBA target inflation band (2.5%) to 10 years ahead.<br>The bond breakeven inflation rate is implied by the difference between the yields on 10-year nominal and indexed (inflation-linked) Commonwealth Government Securities. |
| ERAWA[38] | Treasury bond implied inflation approach. The (2013) approach used the Fisher equation and the observed yields of 5-year CGS of the nominal risk-free rate and 5-year indexed Treasury bonds (which incorporate a market based estimate of a real risk-free rate). | The ERA supports the use of a nominal WACC to address concerns that current negative real risk free rates and low real WACCs do not reflect Australian market conditions..<br><br>Where the ERA is required to forecast inflation for the purposes of the WACC, it will use the 'Treasury bond implied inflation approach' whereby the yield on 10 Year Commonwealth Government Securities and the yield on Indexed Treasury bonds differ by inflation calculated using the Fisher equation. |
| ICRC[39] | The forecast used the mid-point of the RBA's target inflation band over the regulatory period. | Adopted the AER's revised approach of using the RBA's short-term inflation forecasts for the first two years of the regulatory period, then applying a linear 'glide path' to the RBA's 2.5% mid-point for the remaining years of a regulatory period. |
| QCA[40] | Geometric 5 year average of RBA short-term forecasts for years 1 to 3 and the midpoint of the RBA target range for years 4 and 5 | In March 2021, QCA announced it will review its approach to forecasting inflation. |

Source: WaterNSW analysis

[35] See https://www.aer.gov.au/system/files/AER%20-%20Final%20position%20paper%20-%20Regulatory%20treatment%20of%20inflation%20-%20December%202020.pdf page 52.
[36] ESCOSA 2019, p 8.
[37] ESC 2020, page 9.
[38] ERAWA, page .
[39] See ICRC *Review of methodologies for the Weighted Average Cost of Capital, Report 1 of 2021, February 2021 - Draft Report*, page 44.
[40] QCA 2020c, page 11.

This leaves IPART as one of the only regulators in Australia to retain its inflation forecasting approach.[41]

WaterNSW submits that there is overwhelming evidence - including from the RBA - that current inflation expectations over the forthcoming regulatory period are significantly lower than the forecasts produced by IPART's inflation forecasting approach. There has also been broad acceptance that the RBA geometric average approach is producing unreasonable and unrealistic inflation forecasts in the current low-inflation environment.

Given these considerations, WaterNSW proposes that IPART should make some minor modifications to its existing inflation forecasting approach that would significantly improve the reliability of its inflation forecasts. WaterNSW submits that adoption of the AER's glidepath approach would represent the smallest possible departure from IPART's existing approach that would achieve the greatest improvement in the reliability of forecasts.

In arriving at the proposed approach of applying the AER's inflation forecasting methodology, WaterNSW assessed the materials and submissions made during the 2020 review. As an example , we note the view from Deloitte Access Economics (engaged by the AER) on the appropriateness of the glidepath approach as reproduced below.

> *The glide path approach is found to be highly congruent and simple, as well as relatively robust, transparent and replicable. The use of a glide path would provide a provision for potential deanchoring of inflation expectations in coming years. There are issues around how to define the length of the glide path and how to interpolate between the end of the RBA forecast series and the end of the glide path (whether to adopt a linear or exponential path back to 2.5%). That said, if inflation remains below the RBA's target range for an extended period the glide path is likely to produce a 10-year inflation expectation that better reflects expectations.*
>
> *…*
>
> *If this de-anchoring* [of inflation expectations from the RBA target range] *were to occur, a glide-path approach would produce inflation estimates that most closely align with 10-year market expectations.*[42]

In order to implement such an approach, IPART would:

- Retain its approach of computing a geometric average of forecast / assumed inflation rates over the regulatory period. In the case of the five-year regulatory period proposed by WaterNSW, IPART would continue to compute a five-year geometric average. That is, no change to IPART's existing approach would be required in relation to the averaging period;
- Continue to adopt the RBA's 1-year ahead inflation forecast as the relevant forecast for year 1 of the regulatory period. Once again, no change to IPART's existing approach would be required in that regard;
- Alternatively, IPART could consider adopting the RBA's 2-year ahead inflation forecast as the relevant forecast for year 2 of the regulatory period, rather than assuming that inflation would revert to 2.5% in year 2 in all circumstances. This would be a reasonable change to make given that (a) the RBA routinely publishes 2-year ahead forecasts in its quarterly Statement on Monetary Policy, and (b) IPART has stated that the RBA is "best-placed, to analyse what the available information suggests for expected inflation"; and

[41] WaterNSW acknowledges that IPART shortened the geometric averaging period from 10 years to the length of the regulatory period, in its 2018 WACC Methodology decision. However, that change alone has made little difference to its inflation forecasts. IPART's forecasts remain consistently very close to 2.5% — well above any reasonable estimate of inflation expectations over the forthcoming regulatory period.

[42] See Deloitte Access Economics *Review of the regulatory treatment of inflation – Prepared for the Australian Energy Regulator 30 June 2020,* page 38.

- Assume that inflation would transition gradually, via a linear glidepath, from the RBA's 1-year (or 2-year) ahead forecast to 2.5% by the end of the regulatory period. This would be more reasonable than assuming inflation would return to the midpoint of the RBA's inflation target range by year 2 (or 3 in the case of using the RBA's 2-year ahead inflation forecast) and remain at that level thereafter. None of the RBA's commentary on the outlook for general inflation suggests that inflation would return to 2.5% by year 2 or 3 and remain at that level thereafter. To the contrary, the RBA has indicated that due to spare capacity in the economy, inflation is likely to remain below the midpoint of its inflation target range "for some years."

WaterNSW submits that adoption of the AER glidepath approach would have two key advantages:

- The approach would be simple and transparent; and
- It would make use of RBA information only, so would require minimal change to IPART's existing approach.

WaterNSW considers that modification of IPART's existing approach in line with the AER's glidepath approach would be a reasonable interim measure until such time as IPART is able to undertake a comprehensive assessment of its inflation methodology as part of its next WACC Methodology Review in 2022.

While other market-based approaches to forecasting inflation have merit and may be considered by WaterNSW in the upcoming IPART WACC Review, such as the bond breakeven inflation rate, swaps and surveys, for the purposes of the Rural Valley and WAMC determinations we consider that the AER's 'glide path' approach substantially addresses inflation forecasting risk, while being the closest in nature to IPART's current methodology.

WaterNSW proposes that IPART finalise its inflation forecasting methodology for the Rural Valleys (and WAMC) Final Determination using the AER glidepath approach. Based on the assumptions used in the Draft Determination, this produces an inflation forecast of 1.7%.

The AER glidepath approach is the most 'implementable' solution for the 2021 Rural Valleys and WAMC determinations. It is a 'one-off' solution to provide an unbiased inflation forecast for the 2021 determinations to address our unique circumstances and financeability concerns that cannot wait until the 2022 WACC Review is completed.

### 2.4.2 Annual updates to the costs of debt

In its Draft Determination, IPART stated that:

> *Our decision is to use an end of period true-up approach. This is consistent with our decision for the 2020 review of prices for Sydney Water and helps provide price certainty to customers.*[43]

Under IPART's trailing average approach for determining the allowances for the long-term and current cost of debt, IPART must update its decision on the cost of debt each year.[44]

IPART has indicated that it would decide whether to reflect the annual updates of the cost of debt allowance through annual price adjustments or via an end-of-period true-up on a case-by-case basis, as part of its review process. IPART indicated that in making this decision it would have regard to any evidence the regulated firm or its customers put forward to support one approach or the other, with neither option being viewed as the default.

WaterNSW proposes that IPART allow annual updates for the pipeline determination, based on

[43] See IPART 2021 Draft Report - *Review of Water NSW's rural bulk water prices*, page 77.
[44] IPART *Review of our WACC method – Final Report, February 2018*. Page 38.

the following:

- **Cash flow timing impacts**: Without annual updates, the cashflow impact of differences between the cost-of-debt allowance and actual interest costs are borne by the business. This may impact the financeability of the firm, particularly if the firm needs to raise additional debt to fund capital or operating expenditure not factored into the determination allowances and caused by unforeseen circumstances, an outcome which is not in the best interest of customers. A trailing average with annual price adjustments allows the firm to properly align its actual costs with the cost-of-debt allowance to mitigate the cash flow risks described above.

- **Incentive to incur efficient debt raising costs:** Under annual updates, the aim is to determine an annual cost-of-debt allowance which reflects, as much as possible, the actual interest costs expected to be incurred by a prudent and efficient firm, in each year of the regulatory period.

  Annual updates would provide greater ability for a business to adjust its debt raising practices on an annual basis to matching the benchmark allowances.

- **The realisation of immediate price reductions by consumers:** Under the annual price adjustments approach proposed by WaterNSW, if the cost of debt allowance declines during the regulatory period, the resulting price reductions would be passed through to consumers immediately rather than at the end of the regulatory period. WaterNSW expects that the cost of debt allowance to fall over the forthcoming regulatory period, since estimates of the prevailing cost of debt have fallen materially over the past 10 years.

  As the trailing average cost of debt allowance is rolled forward over the next regulatory period, the overall cost of debt allowance is likely to decline as relatively expensive tranches of debt early in the last decade are replaced by relatively cheap tranches of new debt. Under the true-up approach, consumers would only benefit from any such decline in the cost of debt allowance through lower prices at the end of the next regulatory period.

To date, IPART has applied a true-up in every regulatory decision since it finalised its 2018 WACC methodology. IPART's main reason for preferring an end-of-period true-up rather than annual price adjustments is to avoid imposing intra-period price volatility on consumers. However, as IPART itself has explained, the annual changes to the cost of debt allowance (and, therefore, to prices) is "likely to be small" under the trailing average method because only a fraction of the benchmark business's debt portfolio is assumed to be refinanced each year.[45]

WaterNSW agrees with IPART in this regard, and therefore considers that applying annual price adjustments to reflect year-on-year updates to the cost of debt allowance is very unlikely to impose significant intra-period price volatility on consumers.

In our view, annual adjustments are more likely to mitigate the risk of large price movements between regulatory periods than a true-up. The ability under annual adjustment to align the regulatory cost of debt allowance with efficient debt management practices and avoid delays for customers receiving the benefits of a lower cost of debt, suggests that IPART should reassess their stance on annual adjustments for the upcoming Rural Valleys (and WAMC) determinations.

## 2.5 MDBA and BRC costs

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, but understand that this engagement and participation already occurs. This participation by DPIE

[45] IPART *Review of our WACC method – Final Report, February 2018*. Page 27.

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.

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 IPART's draft decision to set MDBA and BRC charges that identify and separately recover the MDBA and BRC costs associated with water management and planning activities.

## 2.6 Cost Shares

There has been a significant change in industry structure and service delivery models for WAMC activities since the 2016 Determination. As such, 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.

Specifically, there has been a significant change in regulatory functions since the 2016 Determination with the establishment of NRAR and the roll out of the non-urban metering reform policy.

As noted in our supplementary submission on the costs of non-urban metering reform, the trigger for the increased costs of metering is the recent changes to the NSW water management and planning framework.

## 2.7 Demand Volatility Adjustment Mechanism

In its Draft Determination, 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 ± 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 ± 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.*[46]

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 Draft Determination. 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.*[47]

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).[48]

Over the 2021 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:

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[46] IPART *Review of Water Management Prices -Draft Determination, September 2020*. Page 29.

[47] IPART *Review of prices for the Water Administration Ministerial Corporation – Final Report, June 2016.* Page 122.

[48] IPART *Review of prices for the Water Administration Ministerial Corporation – Final Report, June 2016.* Page 123.

- 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 at the time 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 more transparent (i.e. ± 5% variation would be essentially paid to (or paid by) customers in the next determination period through adjustments to their prices.

The MDBA Compliance Compact requires metered coverage to be implemented by June 2025, which is within the term of the WAMC determination. This assumption has been formalised by the MDB jurisdictions under the MDBA Compliance Compact and under the roll-out of the NSW Government's non-urban metering reform. The implementation of the metering policy implies additional variable revenue for WAMC as more customers move from a 1-part to a 2-part tariff with the installation of user-owned meters.

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, particularly with the roll-out of the non-urban metering reform over the 2021 Determination period and expected increase in the proportion of revenue to be recovered from the 2-part tariff.

## 2.8 Water entitlements and water take forecasts

### 2.8.1 Water entitlements

During the review process, IPART identified minor discrepancies between the regulated entitlements WaterNSW proposed in its WAMC and Rural bulk water submissions. WaterNSW has confirmed that IPART should use the entitlement figures proposed in the Rural bulk water submission for WAMC regulated river pricing.

We note that IPART has not applied this correction in the WAMC Draft Determination. While the difference is relatively minor (approximately 0.4% of entitlements), we request that IPART use the corrected figures in the Final Determination as shown below, consistent with our Rural bulk water proposal.

**Water entitlement forecasts**

| Valley | GS | HS |
|---|---|---|
| Border | 263,218 | 3,141 |
| Gwydir | 509,665 | 26,920 |
| Namoi | 256,529 | 8,866 |
| Peel | 29,635 | 17,367 |
| Lachlan | 633,166 | 57,252 |
| Macquarie | 632,466 | 42,691 |
| Murray | 2,083,603 | 263,575 |
| Murrumbidgee | 2,267,963 | 438,328 |
| Lowbidgee* | 747,000 | N/A |
| North Coast | 9,531 | 137 |
| Hunter | 138,109 | 70,702 |
| South Coast | 13,946 | 1,175 |
| **Total** | **7,584,831** | **930,154** |

Excludes supplementary licence holders, which do not attract the fixed entitlement charge, with the exception of Lowbidgee.
* refers to supplementary licence holders

### 2.8.2 Water take forecasts

Due to the timing of its pricing submissions, WaterNSW proposed a usage forecast in regulated rivers based on a 20-year rolling average using data from 1999-20 to 2018-19. As data for the 2019-20 financial year is now available, the 20-year rolling average needs to be updated to include data from 2000-01 to 2019-20. The updated 20-year rolling average is presented in the table below.

**Updated water take forecasts excluding Fish River**

| | 20 year rolling average |
|---|---|
| Border | 139,453 |
| Gwydir | 220,489 |
| Namoi | 138,241 |
| Peel | 12,625 |
| Lachlan | 182,100 |
| Macquarie | 232,545 |
| Murray | 1,379,454 |
| Murrumbidgee | 1,531,632 |
| Lowbidgee | 31,964 |
| North Coast | 676 |
| Hunter | 123,631 |
| South Coast | 4,165 |
| **Total excl Fish River** | **3,996,975** |

**Updated water take forecasts for Fish River**

| | 20 year rolling average |
|---|---|
| ***Bulk Raw Water*** | |
| Energy Australia | 1,850 |
| Sydney Catchment Authority | 2,142 |
| Oberon Council | 681 |
| Individual Minor Customers | 51 |
| ***Bulk Filtered Water*** | |
| Lithgow Council | 826 |
| Individual Minor Customers | 103 |

### 2.8.3 Draft Determination comments on consents transactions

We provide the following comments in relation to the Draft Determination.

| Clause/Page | Comment |
|---|---|
| Page 18: Tables 12 – 17 refers to the consent transaction charges for Type A and Type B consent transactions. | To provide clarity, an explanatory note could be inserted in the Determination to suggest the agency covered by Type A charges as opposed to Type B charges |
| Page 21: **Type B Consent Transactions** means Consent Transactions of a type set out in Table 12 other than Type A Consent Transactions. | This definition may imply that all transactions other than NRAR transactions are captured by the WaterNSW charges.<br><br>The treatment of unregulated consent transaction charges is ambiguous under the current drafting. E.g., solicitor enquiries, floodplain harvesting applications. These charges should be excluded from the determination on the basis they are not related to water supply services. We also seek clarify from IPART in relation to the treatment of drillers licences under the IPART Determination |
| Page 34-35: **Type A Consent Transactions** means Consent Transactions of a type set out in Table 12<br><br>**Type B Consent Transactions** means Consent Transactions of a type set out in Table 12 other than Type A Consent Transactions. | The definition of type A Consent Transaction charges may include consent transaction applications that relate to unregulated services e.g. State Significant Projects, Petroleum Activities. We request that IPART confirm this position with NRAR.<br><br>We note that the WaterNSW's operating licence is due to expire 1 July 2022. The operating licence may change subject to the IPART operating licence review. Further, Type B application charges are based on WaterNSW costs to service.<br><br>The definition of type B consent transactions should refer to the conferral of functions under the WaterNSW operating licence from time to time. See conferral of functions page 39 of the WaterNSW Operating Licence. https://www.waternsw.com.au/__data/assets/pdf_file/0004/126607/July-2020-WaterNSW-Operating-Licence.pdf.<br><br>E.g. it is not clear which agency will be responsible for processing the aquifer interference approvals. However, if WaterNSW is conferred this function under the WaterNSW Operating Licence, WaterNSW should be entitled to levy the Type B transaction charge based on WaterNSW's cost to serve. |
| Page 37 Definition of WAMC meter | The definition of WAMC meter should make it clear that it also covers Unregulated and Groundwater meters **owned and operated by WaterNSW**. |

## 2.9 Costs of non-urban metering reform

On 30 November 2020, WaterNSW provided a comprehensive supplementary submission on the costs of non-urban metering reform for the Rural Valleys and WAMC determination, referencing several pricing inputs and assumptions, changes (and expected changes) in legislative and regulatory requirements, the IPART operating licence, and NSW Government policy directives. The submission was also made in response to an IPART RFI on our 4-year expenditure plan for Rural Valley pricing.

The timing of the supplementary submission was flagged in our Rural Valleys and WAMC pricing proposals which were lodged with IPART on 30 June 2020. The timing was triggered by recent changes to both the NSW Government policy on non-urban metering and our regulatory

obligations. Non-urban metering policies have been introduced in other Murray Darling Basin (MDB) Jurisdictions, such as Victoria, as recently as 2020.

IPART appointed Cardno to conduct the WAMC efficiency review, which includes the costs of non-urban metering reform. The agreed scope of works, as shared with WaterNSW, directs Cardno to have regard to:

- Legislative requirements and responsibilities and any other drivers or determinants of its monopoly services; and
- The extent to which the proposed services are mandatory (e.g. a clear legislative requirement) versus discretionary.

The scope of works states that Cardno is required to reach a conclusion on the reasonableness of expenditure levels and performance and to nominate levels of efficient expenditure.

In line with regulatory best practice, IPART is required to consider any regulatory requirements imposed upon the regulated entity. These requirements are set out in the Australian Competition and Consumer Commission (ACCC) Pricing Principles for MDB Valleys, which are legally binding on IPART. Similar guidance is set out in the IPART Water Agency Guidelines.

WaterNSW held several interview sessions with Cardno and IPART to discuss the regulatory costs of implementing the non-urban metering reform. We responded to all information requests related to the inputs and cost models. We also referred to several regulatory obligations and policy directives issued by the NSW Government as part of the review process.

We are continuing to work with IPART and its consultants Cardno to ensure prices incorporate the prudent and efficient costs of implementing the NSW Government's non-urban metering reform.

WaterNSW's comments on IPART"s draft decisions with respect to the implementation of the NSW Government's non-urban metering reform, including additional sensitivity analysis on our cost proposal and a register of relevant risks based on Cardno's feedback, are provided separately to this submission.

Our detailed response to IPART's Draft Determination on metering charges is contained in a separate metering report called **Appendix B 'Cost of the non-urban metering reform'**.

# Appendix 1 – COVID-19: Implications for the economy, water utilities and WaterNSW

This attachment sets out WaterNSW's views on the potential impacts of COVID-19 for the economy, water utilities and WaterNSW as may apply during the 2021 Determination period. This document is an update from our original submission.

## 1. Introduction

Australia has not been through a crisis of the magnitude of COVID-19 for generations. Governments locally and around the world have been scrambling. Policy responses are sometimes confused and contradictory, and leaders are under immense pressure to respond. A broadly consistent policy response to reducing the spread of the virus has seen the enforcement of a degree of lockdown of the population. These measures have created challenges for the global economy. While last year, we expected to see the sharpest recession Australia has seen since the Great Depression of the 1930s[49] the growth in the economy's size over the last six months is the strongest ever recorded since comparable statistics were first put together more than six decades ago.[50]

While the economy seems to be getting back on track, there is still considerable uncertainty around several key factors:

- The impact of emergency government assistance falling away;
- The speed and efficacy of the vaccine roll-out;
- The-opening of international borders; and
- The possibility of future mutations of the COVID-19 virus.

This means there is still significant uncertainty as to how long a full and sustained recovery will take.

Utilities, including the water sector, are not immune to such wide-scale disruptions. Our preliminary analysis at the start of lockdown protocols being put in place in 2020, suggested the short-term impact on the utilities sector will not be as harsh as in other sectors of the economy.

However, we noted that the severity of impact on utilities may be delayed. For example, in 2020 Deloitte Access Economics (DAE) estimated the utilities sector output will begin to decline in FY2021 and continue through FY2022. This compares to what DAE expected in other industries, such as accommodation and food services, where it expected to see a sharp drop in FY2020 and a recovery by FY2022. At this stage DAE still sees considerable uncertainties around a full recovery in the utilities sectors in part due to persistent lower population levels.

There is clearly great uncertainty as to what impact COVID-19 will have on water utilities. The following sections review the underlying uncertainty the pandemic has created and assesses:

- The latest macroeconomic indicators and forecasts;
- The implications the trends in macroeconomic indicators have for current framework IPART uses to regulate the water sector; and
- The likely impacts on the revenue and expenditure drivers for regulated water utilities in the short term (within the 2021 calendar year) and medium term (within the next five years), and the implications for WaterNSW.

[49] Deloitte Access Economics, March 2021, Business Outlook

[50] Deloitte Access Economics

## 2. Macroeconomic impacts – key indicators and trends

Australia's recovery from last year's lockdown has been remarkable. During 2020, real national income has increased by 1.4% - above average of the decade preceding the pandemic. However, as emergency government assistance continues to fall away, DAE expects that growth will gradually slow down and there remains significant uncertainty around the efficacy of the vaccine roll-out, monetary policy and wages growth.

In Australia, the key recent impacts on production and employment are as follows:

- In late March 2021, Deloitte Access Economics forecast Gross Domestic Product (GDP) would increase by1.1% in FY2021 and 4.1% in FY2022 in real terms; however this growth is forecast to decline in succeeding years;[51]
- In the utility sector, output declined by 1.8% in FY2020 and 0.4% in FY2021 and is only forecast to start increasing by 1.8% in FY2022;[52]
- The unemployment rate is forecast to be 6.3% in FY2021, an increase from 5.6% in FY2020. This is expected to slowly recede to 5.3% by FY2023;[53] and
- Australia's population growth is expected to fall from 1.5% in FY2020 to 0.4% in FY2021 and 0.5% in FY2023. [54]

Australian prices and financial markets are responding:

- Inflation is expected to continue to remain at record lows, with headline CPI forecast at 1.3% in FY2021 and only a small decrease in following years. [55]
- The Reserve Bank of Australia (RBA) has reaffirmed its target setting for the cash rate at 0.1% - the lowest in 3 decades.[56]
- The Australian dollar has recovered from last year's 18 year low, with the US exchange rate at US$0.57 per AUD$1 on 16 March FY2020. The Australian dollar is recovering and is expected to trade at US$0.751 per AUD$1 in FY2022 [57]

It is uncertain if the speed of the current economic recovery can be maintained and DAE still believes that there is considerable uncertainty around the medium-term economic outlook.

## 3. Implications for IPART's regulatory framework

Economic conditions in general have improved compared to last year, but we are still experiencing and are expected to experience low inflation rates well into the future. At the same time, there is some uncertainty about output in the utilities sector. These changes in macroeconomic indicators resulting from the pandemic have implications for the regulatory framework that IPART uses to determine water business revenues and prices. In particular:

- The estimated rate of inflation used in the cost of capital and forecast prices and expenditures; and
- Efficiency adjustments, both 'catch-up efficiencies' and 'continuing' efficiencies, in which the concept of a 'frontier company' is used as a benchmark for water businesses' efficient expenditure.

[51] Deloitte Access Economics, March 2021, Business Outlook, p. 54.
[52] Deloitte Access Economics, March 2021, Business Outlook, p. 92.
[53] Deloitte Access Economics, March 2020, *Business Outlook*, p. 138
[54] Deloitte Access Economics, March 2021, Business Outlook, p. 138.
[55] Deloitte Access Economics, March 2021, Business Outlook, p. 103.
[56] RBA, Minutes of the Monetary policy Meeting of the Reserve Bank Board, 2 March 2021.
[57] Deloitte Access Economics, March 2021, Business Outlook, *p. 114*

## 3.1 Inflation impacts on real returns

In determining cashflows for regulated water utilities, IPART uses the standard approach adopted by regulators in other sectors in Australia and in the UK of applying a real rate of return to an indexed regulatory asset base (RAB).

IPART's latest estimate used to derive the real rate of return for utilities, is 2.2% which is higher than IPART's forecast of expected inflation of 2.1% as at 31 July 2020.[58] This is counterintuitive given that actual headline inflation was 1.3% in FY2020[59] and forecast inflation is 1.3% for FY2021 and 1.4% FY2022[60]

As discussed in the CEG report on WACC, inflation and financeability (provided as part of our response to the Greater Sydney Draft Determination in 2020), the difference between actual inflation rates and the current rate of expected inflation used by IPART has already been highlighted as creating a financeability risk for water businesses. This is because over-estimated inflation rates will result in an under-estimated real WACC, resulting in real returns that are lower than expected. The analysis conducted by IPART already highlights the issues this creates for cash flow risk in its own assessment of the funds from operations (FFO) over debt ratio,[61] which tests whether we have generated sufficient free cash flow to repay our debts – payments which are based on nominal interest payments.

The expected low inflation rates resulting from the global pandemic will only serve to exacerbate the cash flow risk and financeability issues already identified. This further highlights the need for IPART to revise its approach to estimating the expected inflation rate, as the impact on financeability will be much greater, the lower the expected inflation rate is compared to IPART's most recent 2.2% estimate.[62]

We note our proposal for IPART to adopt the AER's recent decision on forecasting inflation that is based on IPART's standard approach with a 'glidepath' to the mid-point of the RBA's target inflation range by the end of the regulatory period.

In particular, the AER notes that it considers that its final position addresses some immediate problems highlighted in stakeholder submissions, but that it will be enduring because it is capable of responding to changing economic circumstances. The problems highlighted by stakeholders in their submissions are consistent with the issues WaterNSW is facing in the low inflation environment under a real rate of return regulatory framework. [63]

The AER's recent change in the methodology to estimate expected inflation signals that regulators are taking the impact of low inflation on the financeability of networks regulated under a real rate of return framework seriously and that they are actively making changes to address financeability concerns by making changes to the regulatory framework.

Finally, we note that the RBA indicated just recently that it still sees uncertainties around when inflation will move back to within its own target range. In particular, it noted that that wages growth had remained low, at 1.4 per cent over the year to the December 2020 quarter and that a that a materially lower unemployment rate would be needed to generate wages growth in excess of 3 per cent, which in turn would be required to ensure inflation was sustainably in the 2 to 3 per cent target range.[64]

[58] IPART, WACC biannual update, February 2021.
[59] Deloitte Access Economics, March 2021, Business Outlook*, p. 103.*
[60] Deloitte Access Economics, March 2021, Business Outlook, p. 8.
[61] IPART, March 2020, Draft Report: Review of prices for WaterNSW Rural Valleys, p.84
[62] The expected inflation rate in IPART's draft decision is based the RBA's November 2020 Statement on Monetary Policy and IPART released a financial market update on 25 February 2021 which puts the expected inflation rate 10 bsps higher than in its draft decision. We understand that IPART has used the RBA's February 2021 Statement on Monetary Policy in its latest update.
[63] AER, Final position, regulatory treatment of inflation, December 2020, p 6.
[64] RBA, Minutes of the Monetary Policy Meeting of the Reserve Bank Board, 2 March 2021.

## 3.2 Achieving efficiency improvements in an economic downturn

The 'frontier company' approach that IPART's consultants, Atkins and Cardno, have applied assumes that there will be ongoing productivity improvements in the operation of the business over time. The productivity improvements are predicated on underlying growth and improvements in the economy that should flow through to the sector.

The economic slowdown experienced during 2020 with a 0.2% contraction in FY2020 and a forecast growth of 1.1% for FY2021 and 4.1% for FY2022, brings into question whether the frontier company approach is a valid or applicable in the current environment.[65] As noted above, while the current economic recovery is strong, we note that there are considerable uncertainties around whether this will be sustained . This uncertainty coupled with the effects of last year's slowdown will challenge our ability to achieve the efficiency targets outlined in IPART's Draft Report.

Efficiency improvements at the productivity frontier are underscored by the assumption that efficiency can be achieved through increased scale or technological change. With a slow-down in new connections growth, economies of scale will be difficult to attain. Similarly, investment in technological improvements are likely to be stifled in a time of economic downturn.

In addition, this new operating environment is likely to impact our productivity as:

- Social distancing protocols result in slower manufacturing plant operations, this may require expenditure on larger operating space to keep employees adequately separated while keeping operations timely; and
- Our employees transition to (or from) working from home.

There have been technology constraints as the capacity of the virtual private network in place prior to the lockdown had to be increased to support the volume of people now having to be online and working out of office.

There are risks to productivity as efficiency enhancing IT programs may be delayed to the extent there are any constraints in supply on ICT capacity with increased demand being placed on the resources across the State.

# 4. Expenditure drivers

The range of economic disruptions and government policies will have a mixed and uncertain effect on both water supply needs and the cost to deliver those needs. In particular:

- Changes in water usage behaviour and growth in new water connections in the future;
- New operational requirements on businesses, which may be moderated by downwards pressure on labour and electricity costs; and
- The expected timing of major infrastructure projects and the cost of engineering, procurement and construction (EPC) and imported materials.

## 4.1 Water demand

### 4.1.1 Short term

The key consideration in the short-term is how structural and behavioural changes will impact existing water consumption.

[65] OECD, Economic Outlook, interim report, March 2021, *p. 4*

As people continue to work and live from home under lockdown measures, residential water demand is likely to increase, as seen in other utility sectors such as electricity[66]. This may be slightly moderated by migrants having returned to their overseas home and a general slowdown in population growth.

Small and medium enterprise (SME) water demand is likely to have declined as trading was halted and businesses now having to re-establish their operations, particularly in non-essential services such as hospitality and entertainment.

It is unknown how commercial and industrial (C&I) water demand will change as some trading is picking-up.

### 4.1.2 Medium term

In addition to behavioural changes on water usage, we must consider how changes in growth will impact future connections and increased water consumption.

It is uncertain how last year's lock-down protocols and isolation have impacted water demand; it is possible that the short-term impacts on water usage will continue well into the medium term.

Last year's economic downturn may result in slower growth in new connections, particularly if immigration (a major source of Australia's population growth) does not pick back up and lower population growth rates continue into the future.

However, it is still currently expected that construction of major developments and infrastructure will continue as planned, in particular the investment in Western Sydney and the Aerotropolis. This is in line with the New South Wales Government's commitment to continue to deliver its infrastructure pipeline.[67]

## 4.2 Operating expenditure

### 4.2.1 Short term

*New operational requirements*

This new operating environment has brought on new expectations of businesses such as more frequent and rigorous cleaning of workplaces. In addition, working out of office has required investment in improved information and communication technology (ICT) such as greater virtual private network (VPN) capacity. This is in addition to maintaining office building costs.

The unemployment rate reached its peak in July 2020 with a rate of 7.5%. This has now declined to 5.8% in February 2021[68], but average weekly earnings growth of less than inflation is expected to occur well into FY2024[69]. This means that payment difficulties may create issues for WaterNSW.

### 4.2.2 Medium term

*New operational requirements*

It is likely that some of the short-term disruptions considered above could continue well into the medium term. Even as health concerns ease, certain requirements like improved ICT may

[66] Residential electricity demand increased 14% following the lock-down measures in the Jemena distribution zone. Source: Energy Networks Australia, 16 April 2020, *Commercial down v residential up: COVID-19's electricity impact.*
[67] Dominic Perrotet, NSW Government Treasurer, *Letter to the construction and engineering sectors of NSW*.
[68] Australian Bureau of Statistics, Labour Force, Australia, 18 March 2021.
[69] Deloitte Access Economics, March 2021, Business Outlook, p. 96.

continue to be pertinent, as working from home becomes the 'new normal' and businesses look to prepare in case of future office disruptions.

We will also need to consider how we're protected as we navigate these new risks, including changes to workplace safety and workplace interruptions. It is likely that we will require insurance extensions if we wish to be protected from the impacts of the next pandemic.[70]

*Supply of resources*

It is likely that some proportion of businesses will never recover from last year's shutdown period, despite Government support payments and wage subsidies.

It is therefore likely that the short-term impacts considered above will continue into the medium term. Unemployed workers may be able to transition to low skilled jobs, such as cleaning, relatively quickly. However, it will take time before unemployed labour can transition to skilled areas, such as IT. Overall, higher unemployment is likely to prevail to some degree,[71] putting downwards pressure on labour costs as employment contracts are refreshed in the coming years.

If more businesses continue to fail over the medium-term, there is however the risk of market concentration of suppliers, which may put additional upwards pressure on our prices.

In addition, grid electricity prices may decline if gas prices remain low, more renewable energy enters the market[72] and demand continues to be subdued.[73]

### 4.3 Capital expenditure

*Timing*

Despite the potential slowdown in new growth areas as result of declining population growth, the NSW Government's commitment to deliver major developments and infrastructure means we are still expected to undertake capital expenditure related to Government projects, such as the three major dam projects in our rural valleys.

As highlighted by the NSW Treasurer, continuing capital investments where possible will be vital to supporting the local economy during the economic downturn.

*Cost*

We are uncertain how the cost of planned capital investments will be impacted.

As mentioned above, local businesses are likely to experience reduced demand from the private sector, this includes businesses in engineering, procurement and construction (EPC). This could lead to lower EPC costs as businesses compete for fewer clients in the short term, potentially followed by higher prices due to greater market concentration following business closures in the medium term.

## 5. Summary of COVID-19 impacts

The rapid changes in macroeconomic indicators that the world experienced last year has impacted water utilities and is now posing unique challenges for the regulatory framework that

[70] Foez Dewan from McCabe Curwood, 17 March 2020, *Will my Business Insurance cover me for the impact of COVID-19?*
[71] Deloitte Access Economics, March 2020, *Business Outlook.*
[72] Gas prices are closely linked to oil prices which are currently at all-time lows (reaching negative prices on 21 April). It is unknown when and to what extent oil prices will be able to recover.
[73] Note that electricity prices are not expected to reduce in the short term as retailers and large energy users are often entered into hedged contracts and a delay is expected as retailers refresh their contracts with revised price forecasts.

IPART operates. In particular, the medium -term impacts of last year's lockdowns on the economy and the water sector are still unclear.

We already face significant risk to our financeability over the regulatory period as a result of the disconnect between IPART's assumed expected inflation rate and actual inflation. This issue is likely to be worse given the expected lower levels of inflation now prevailing. Further, it is questionable whether the efficient frontier used by the reviewer is still applicable given the downturn currently being experienced in the economy. We have seen our input costs increasing in a number of areas, and there are also potential declines to productivity as our workforce adapts to new working arrangements

Meanwhile, the impact of COVID-19 on water demand remains uncertain, with behavioural changes and economic growth factors yet to be revealed in actual consumption. Australia's transition to a post-COVID world is increasingly unclear with concerns around the supply, efficacy and safety of vaccines creating a significant risk to economic recovery. As we have noted, accurately forecasting demand and costs in the current environment for the upcoming four year regulatory period presents considerable challenges.

Overall, we urge IPART to take these unprecedented levels of uncertainty into account in preparing its Final Determination. We believe this provides further support for our proposal for IPART to introduce additional mechanisms to manage risk in the regulatory framework, including:

- Addressing inflation forecasting risk and ensuring a return on capital that better reflects the need to attract capital to the water sector than the currently proposed post-tax real WACC of 1.3% for MDB valleys and 2.8% for the Coastal Valleys[74] by adopting our proposed glidepath approach to inflation forecasting; and
- Rejecting the consultants' proposed catch-up efficiencies that lack theoretical foundation and any detailed analysis on the efficient frontier.

[74] IPART, Review of WaterNSW's rural bulk water prices, draft report, March 2021, pp 205-206.

# Appendix 2 – Continuing efficiency

## IPART"s approach

IPART's current approach to determining an allowance for continuing efficiency is to consider 40-year average multifactor productivity ("**MFP**") estimate for the 'market sector' published by the Productivity Commission, which are originally compiled by the Australian Bureau of Statistics (ABS).[75]

The market sector comprises the 12 or 16 industries identified in Figure A5.1 below.

**Figure A5.1 – Industry classifications adopted by IPART**

| **Market sector (12 industries)** | **Market sector (16 industries)** |
|---|---|
| Agriculture, forestry & fishing | Market sector (12 industries) plus |
| Mining | Rental, hiring & real estate services |
| Manufacturing | Professional, scientific & technical services |
| Electricity, gas, water & waste services | Administrative & support services |
| Construction | Other services |
| Wholesale trade | |
| Retail trade | **Non-market sector (4 industries)** |
| Accommodation & food services | Public administration & safety |
| Transport, postal & warehousing | Education & training |
| Information media & telecommunications | Health care & social assistance |
| Financial & insurance services | Ownership of dwellings |
| Arts & recreation services | |

**Source:** Productivity Commission, *Productivity Bulletin*, May 2019, Box A.1, p 49.

IPART's most recent estimate of continuing efficiency by this method is 0.7% per annum.[76]

WaterNSW has two main concerns with IPART's approach:

- IPART rejects estimates of productivity for the 'utilities' (i.e., Electricity, gas, water & waste services) industry on the grounds that poor historical performance of the utilities industry (due particularly to the energy sector) is unlikely to be a good reflection of the efficient frontier for water utilities. Yet, IPART uses the historical performance of the market sector—which contains an even more diverse set of industries—to determine a continuing efficiency target for water businesses.

- By considering average productivity over a long (i.e., 40-year) historical period, IPART gives insufficient weight to the most recent historical trends in productivity when estimating the outlook for continuing efficiency over the regulatory period.

Each of these concerns is elaborated upon below.

## Market sector data is a poorer reflection of potential efficiency gains than the utilities sector

[75] *IPART, Review of prices for Sydney Water, Final Report, June 2020.* Appendix F.

[76] *IPART, Review of WaterNSW's rural bulk water prices, Draft Report, March 2021.* Page 37.

IPART has explained that it considers the historical productivity rate of the utilities industry to be a poor indicator of the potential efficiency gains available to water businesses - largely due to the poor historical productivity of the energy sector:

> *While the utilities sector seems similar in profile to the water utilities, the negative rates of productivity growth shown in Table F.2 below are probably not reflective of an efficient frontier. Rather, they likely reflect the particular issues that have been experienced in Australia over these time frames, especially in the energy sector, which has seen significant restructuring and is not considered to be performing well.*[77]

WaterNSW does not agree with this reasoning.

IPART provides no evidence as to the extent to which poor historical performance of the energy sector has distorted the measured productivity of the utilities industry as a whole. Furthermore, IPART *assumes* without any evidence that negative rates of productivity growth are not reflective of the efficient frontier for water businesses.

If in fact the water industry has been experiencing negative productivity, then adopting IPART's approach (which assumes away such outcomes) would produce an unrealistic and unreasonable continuing efficiency target for the water businesses it regulates.

There is compelling evidence that the productivity of the water industry has been declining for many years - contrary to IPART's assumption.

WaterNSW notes that a 2017 study conducted by Economic Insights for the Essential Services Commission (ESC) in Victoria—covering a sample of 62 water businesses throughout Australia - found that the efficiency of the water industry *fell* by an average of 0.7% per annum between 1998 and 2016.[78] Economic Insights concluded that:

> *Changes in technical [i.e., catch-up] efficiency (as indicated by the parameter mu in the SF model) appear to have had a negligible effect on productivity over the period 1998 to 2016 on average for all utilities in the sample, whereas technical change [i.e., ongoing efficiency or frontier shift] is estimated to have had a negative effect.*[79]

That is, Economic Insights concluded that most of the reduction in productivity over the period was due to an inward shift of the efficient frontier for the water industry, rather than water businesses drifting away from the efficient frontier (i.e., negative catch-up efficiency).

The main reason given by IPART for not relying on the historical MFP for the utilities industry is that the poor productivity performance of the energy sector (which is part of the utilities industry) may mask the productivity of the water sector.

While historically there has been declining productivity amongst Australian energy networks, the Australian Energy Regulator's analysis indicates that there has generally been a significant increase in productivity amongst electricity distribution and transmission networks since 2015.[80] Hence, any decline in the productivity of the utilities industry since 2015 cannot be attributed to the influence of electricity networks. This also goes to the issue of the historical period over which IPART has assessed productivity, discussed in the section titled 'Period of measurement' below.

IPART's main concern over historical measures of productivity for the utilities industry is that the inclusion of the energy sector may produce an unreasonably low continuing efficiency target for water businesses. In response to that concern, IPART uses historical measures of productivity of the market sector that encompasses businesses that are even less comparable to water businesses than are energy businesses.

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[77] *IPART, Review of prices for Sydney Water, Final Report, June 2020.* Page 216.

[78] *Economic Insights, Victorian Urban Water Utility Benchmarking, 21 August 2017.* Page 29.

[79] *Economic Insights, Victorian Urban Water Utility Benchmarking, 21 August 2017.* Page 28.

[80] *Australian Energy Regulator, Annual benchmark report – Electricity distribution network service providers, November 2020.* Section 3; *Australian Energy Regulator, Annual benchmark report – Electricity transmission network service providers, November 2020.* Section 3.

This is problematic because there is no reason to suppose that:

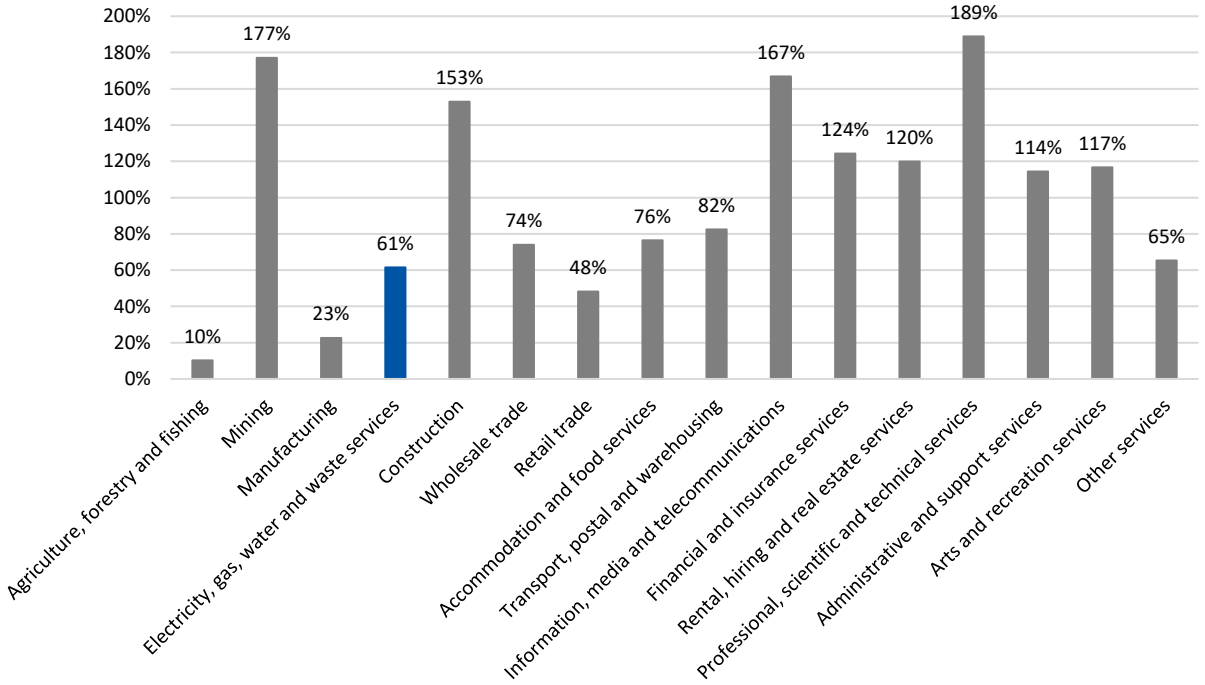
- The input requirements of water businesses (including the types of labour and capital employed, and the mix of inputs) is similar to most other firms in the market sector; or
- The output growth of the water businesses is comparable to the output growth of most other firms in the market sector.

On the first point above, the type and mix of labour and capital employed by water businesses differs vastly from the type and mix of labour and capital employed in nearly all of the other industries included in the market sector. Clearly, the scope for productivity improvements in a given sector will depend on the nature and mix of inputs used for production in that sector.

For instance, there may be greater scope for productivity improvements through advancement in ICT systems in industries that are very technology-intensive (such as media and communications) than in very labour-intensive industries (such as agriculture, forestry and fishing). Similarly, there may be greater scope to realise productivity gains through optimisation of logistics in the transport, postal & warehousing industry than in the utilities industry.

The differences in input requirements and input mix likely explains the significant variation in the growth in inputs used by different industries over time—as illustrated by Figure A5.2. The Figure shows that over the 25-year period between 1994-95 and 2018-19, the inputs employed by the utilities industry grew cumulatively by approximately 61%. This growth is very modest when compared to other industries such as mining (177%); construction (153%); information media and telecommunications (167%); and professional, scientific and technical services (189%).

**Figure A5.2 - Cumulative change in combined inputs (labour, capital and intermediate inputs) by industry, 1994-95 to 2018-19**




*Source: ABS estimates of industry MFP*

IPART assumes that productivity estimates for the market sector are representative of the potential productivity gains for the water industry:

> *Our view is that using economy-wide data (and focusing on the market sector of this data set) represents the efficiencies that could be available to utilities, through internal initiatives or incorporated through supply chains. For instance, productivity initiatives like better logistics through operations research, and ICT systems replacing paper-based systems have affected all sectors of the economy, including water utilities. Wastewater and water treatment plant technology can continue to improve the performance on energy, labour, raw material and even land utilisation. New pipe-making technology*

*continues to deliver pipes that are cheaper to buy and that perform better.*[81]

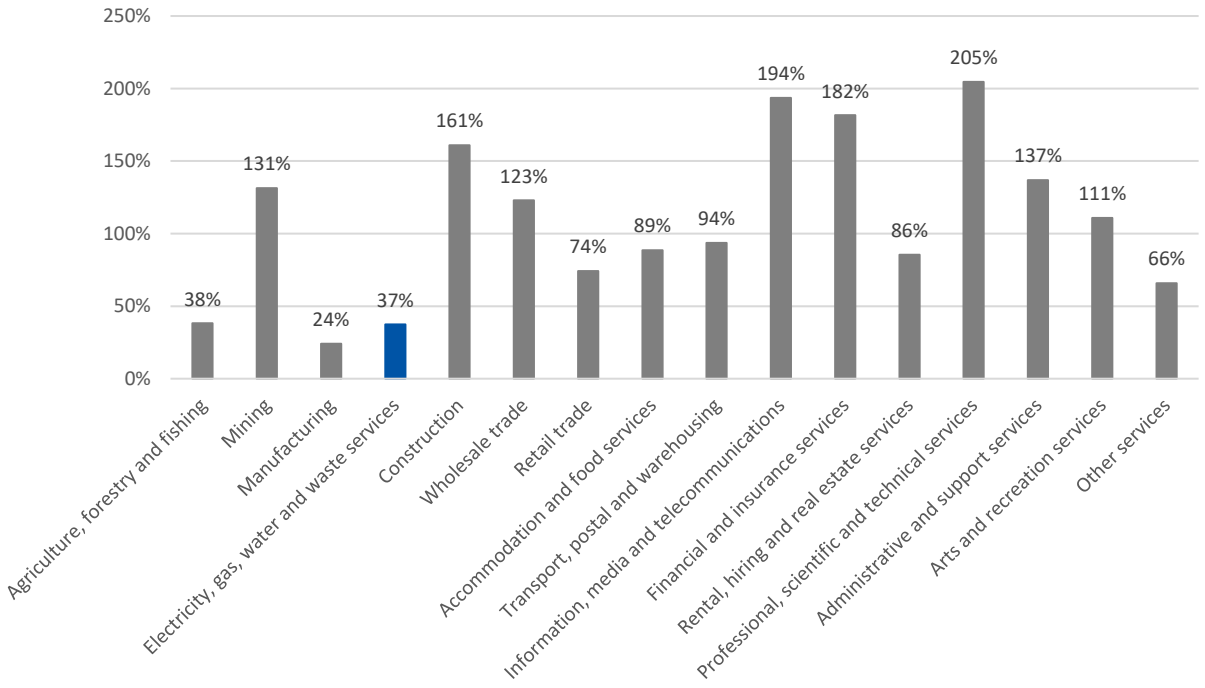
Given the very specific inputs used by the water industry, there is no reason to expect that productivity changes in the general economy are representative of the productivity changes that may be achievable by water businesses.

The ABS measures industry productivity as the ratio of the industry's outputs to its inputs. Output is proxied by sales.[82] The sales (or revenues) of utilities (such as water businesses) would be expected to grow modestly over time as population grows, given that:

- The services delivered by utilities are typically essential services; and
- Many firms in the utilities industry are regulated through incentive regulation, so face incentives to reduce costs (and future revenue requirements) over time (all else remaining equal).

However, the revenues generated by other industries (e.g., mining; construction; information, media and telecommunications) have grown significantly over time, due to various factors such as a significant increase in global demand (e.g., for resources), growth in the property market, and the rapid development of new technologies in certain industries that have delivered new products and services that were previously unavailable to consumers (particularly in information, media and telecommunication and financial services sectors). This can be seen in the ABS data presented in Figure Figure A5.A5.3 below.

**Figure A5.3 Cumulative change in output by industry, 1994-95 to 2018-19**




*Source: ABS estimates of industry MFP*

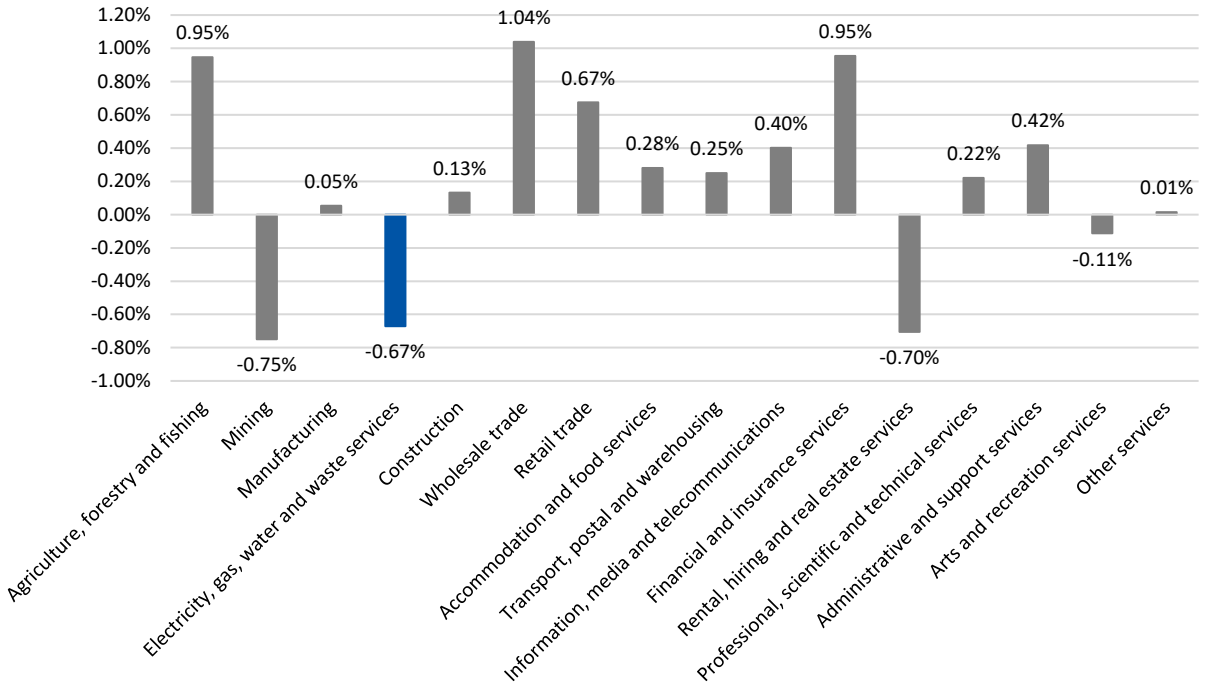
Analysis of the input and output data that underly the ABS MFP estimates is revealing because it shows that while the growth in inputs used by utilities has been fairly modest, the outputs of the utilities industry (i.e., sales) has grown much more slowly, given the inherent characteristics of the services delivered by that industry. Consequently, the productivity of the utilities industry appears to have declined over time, as shown in Figure A5.4.

[81] *IPART, Review of prices for Sydney Water, Final Report, June 2020.* Page 217.

[82] *ABS, Australian System of National Accounts – Concepts, Sources and Methods, 2015.* Page 110. *See also: https://www.abs.gov.au/articles/output-indicator-method-national-accounts*

By contrast, other industries (such as mining; construction; information, media and telecommunications; professional, scientific and technical services) appear to have become more productive over time, even though their inputs have grown substantially more than those used in the utilities industry, because they have experienced very material output growth.

**Figure A5.4 - Average annual rate of change in productivity by industry, 1994-95 to 2018-19**




*Source: ABS estimates of industry MFP*

Figure Figure A5.4 above also shows that there is very significant variation in measured productivity between industries because the inputs and outputs of the industries vary considerably. **This suggests strongly that it is inappropriate to determine a continuing efficiency target for water businesses based on the measured productivity for the market sector**. There is no reason why water businesses can increase their outputs (sales) or reduce their inputs in the same way as firms in non-utility industries.

### Period of measurement

Another concern that WaterNSW has over IPART's approach to determining a continuing efficiency target is the 40-year historical timeframe over which MFP is assessed.

IPART has explained that it determines the continuing efficiency target by reference to a 40-year average of historical MFP (for the market sector) because that is the most reliable way of estimating long-term productivity growth:

> *We maintain that our approach provides the most objective measure of long term average productivity growth in the Australian economy. We consider the sample needs to be sufficiently long to include a full business cycle (and it has been over 25 years since the last recession in Australia). Any decision to truncate the available data would be subjective.* [83]

WaterNSW submits that for the purposes of setting expenditure allowances over the *forthcoming* regulatory period, what is required is the best estimate of expected productivity over the *forthcoming* regulatory period—not, an estimate of long-term productivity. Long-term productivity reflects the emergence and adoption of new technologies, substitution between inputs (e.g., between labour and capital) and long-term changes in outputs over a period of decades.

In the case of the water industry, in the short-term (i.e., over a single regulatory period):

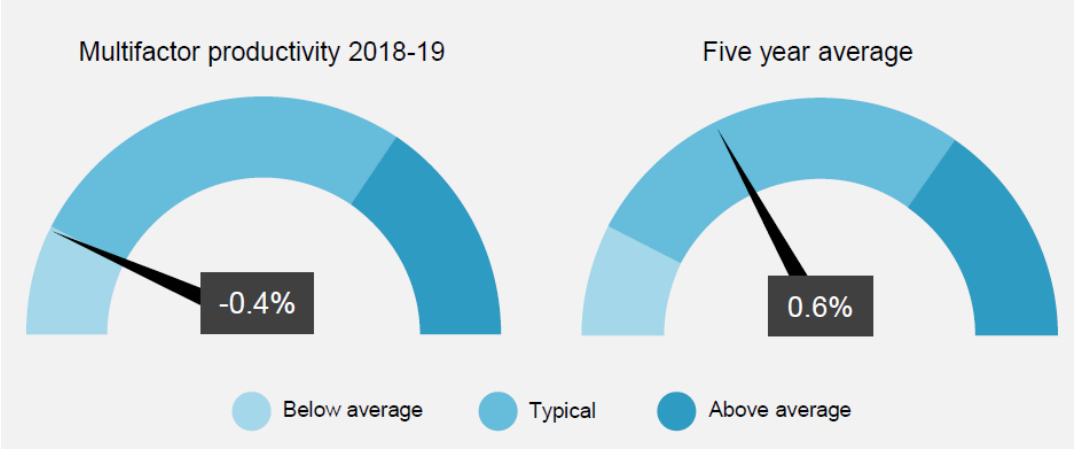
- Inputs to production are fairly 'sticky', particularly given the capital-intensive nature of the industry;
- Outputs are largely fixed, since output growth in the short-run is driven largely by population growth; and
- Technological advances that might reduce the required inputs to production will emerge only gradually, rather than through large step-changes.

Hence, when setting continuing efficiency targets, IPART should consider what is feasible for the water industry over the forthcoming regulatory period, rather than over the long-run.

WaterNSW also notes that even at the market-sector level, estimates of productivity can be sensitive to the measurement period. This can be seen in Figure A5.5 below, which indicates that productivity in 2018-19 was below average, and considerably lower than productivity measured over a five-year horizon.

[83] *IPART, Review of prices for Sydney Water, Final Report, June 2020.* Page 217.

**Figure A5.5 – Multifactor productivity over different periods**




*Source: Productivity Commission, Productivity Insights, February 2020.* Page 2.

The latest analysis by the ABS indicates that, in 2019-20, due largely to the COVID 19 pandemic:[84]

- MFP *fell by 0.7%* across the market sector; and
- MFP *fell by 3.5%* in the utility industry.

Given that the economic effects of the pandemic have not been reversed, it seems highly unrealistic that WaterNSW should be expected to achieve a *0.7% per annum increase in productivity* over the next regulatory period. However, that is what would be expected of WaterNSW if IPART were to apply its existing approach of setting a continuing efficiency target by reference to average MFP over the past 40 years.

## WaterNSW's proposal

WaterNSW proposes that when determining a continuing efficiency target, IPART should:

- Give most weight to the measured productivity of the utility industry (rather than the market sector) since the utility industry most closely reflects the input and output characteristics of water businesses; and
- Give most weight to MFP estimates over the most recent historical years (rather than 40 years) in order to produce more realistic estimates of the scope for productivity gains over the forthcoming regulatory period.

Based on the evidence provided above, WaterNSW proposes that a continuing efficiency target of **0-0.35% per annum**, rather than the 0.7% per annum should be adopted in the Draft Determination.

The lower bound is set based on evidence from the utilities sector that suggests a productivity factor no higher than zero. Our proposed upper bound is 0.35%, which is the midpoint between the utility sector productivity measure (0%) and the long-term productivity measure applied by IPART (0.7%). We consider this to be a conservative range and that the appropriate factor for a water utility company over the next four years lies closer to the utility sector productivity factor (i.e. the lower bound).

[84] See: https://www.abs.gov.au/statistics/industry/industry-overview/estimates-industry-multifactor-productivity/2019-20.