



Murray Irrigation

Independent Pricing and Regulatory Tribunal NSW
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Friday 16 October 2020

Dear Tribunal Member,

**IPART Review of Water NSW's Rural Bulk Water Prices and WAMC Water Management Prices -
Response Submission to IPART Issues Paper**

Murray Irrigation commends IPART on its 2020/21 regulatory processes for water prices and the even-handed approach displayed in the Issues Papers published by IPART in September 2020. The Issues Papers allow participants an opportunity to raise critical issues with respect to establishing fair and efficient costs related to the water delivery and other management services.

Please note that our submission incorporates both the WaterNSW Rural Bulk Water Prices and WAMC Water Management Prices and this same submission has been uploaded at both sites.

We are deeply concerned at the proposed price increases raised in this paper. Murray Irrigation has engaged consultants RMCG and sought advice from economist Dr Alastair Watson in developing this submission. Our submission outlines some core points:

- The largest part of the proposed increases seems to be attributed to MDBA and the reasoning and evidence for these increases is obscure.
- Inappropriately attributed expenditure for environmental works are largely driven by broader national desires for the Basin Plan.
- Irrelevance of compliance costs attributed to our valley where clearly the issues are extensive and unresolved in other parts of the state.
- Extensive departmental changes and restructuring should not be funded by irrigators.
- The size of the fee increase is excessive especially when compared to the hardships faced by our farming families over many years and long-term trends of water yield vs general security entitlements.
- Larger bulk user discounts must be reinstated given our extensive reporting, accurate metering and self-funded compliance activities to which these charges are attributed.

As a company with a large infrastructure base delivering less water we understand the challenges faced by utilities as well as the challenges to our farming businesses. The latter are critical for the company's and the community's survival. In our paper we also introduce the concept of "beneficiary pays" as a more appropriate principle to consider in future determinations. It is essential that price increases are responsive to fairness and to ability to pay.

We welcome ongoing dialogue with your organisation and are happy to assist with your further queries.

Yours Sincerely,

Philip Endley
Chief Executive Officer



Murray Irrigation

IPART Review of Water NSW's Rural Bulk Water Prices and WAMC Water Management Prices

Joint submission to issues papers

16 OCTOBER 2020

Independent Pricing and Regulatory Tribunal NSW Review



Table of Contents

Table of Contents.....	1
1 Executive Summary and key requests	2
2 About Murray Irrigation Limited.....	4
2.1 Location.....	4
2.2 Within the NSW Murray Valley.....	4
2.3 Water and our modernisation journey	5
2.4 Key challenges.....	5
3 Responses to The WAMC and WaterNSW proposals	6
3.1 Murray Irrigation charges would increase by 28% in one year	6
3.2 Murray Irrigation's key questions for both WAMC and WaterNSW	7
3.3 Further observations	9
Appendix 1. Response to WaterNSW questions raised by IPART.....	11
Appendix 2. Response to WAMC questions raised by IPART	27
4 References	37

Independent Pricing and Regulatory Tribunal NSW Review



1 Executive Summary and key requests

Murray Irrigation commends IPART on its 2020/21 regulatory processes for water prices, and the even-handed approach displayed in the Issues Papers published by IPART in September 2020. The Issues Papers outline the WaterNSW and WAMC price submissions and introduce major economic and other issues. Murray Irrigation appreciates the time taken and professional approach of IPART officers Scott Chapman and Mericar Horbino in their meeting with Murray Irrigation consultants on October 1, 2020. We also believe that the questions asked of participants by IPART in the WaterNSW and WAMC Issues Papers allow participants a reasonable opportunity to discuss critical issues with respect to establishing fair and efficient costs related to water delivery and water management services. Murray Irrigation addresses these questions directly in two appendixes to this submission.

Murray Irrigation challenges the validity of charging irrigators for extensive and peripheral capital works programs, charging for inefficient delivery of service operations, and charging one group (water users) for a large number of activities conducted by WAMC that deliver a much wider community and environmental benefit, which should be contributed by government. Murray Irrigation are aware that during the next six months IPART will be determining their view of the maximum prices WaterNSW and the WAMC can charge in future year(s). The purpose of this paper is to provide some guidance for IPART from the perspective of both Murray Irrigation and our irrigator customers. Murray Irrigation invites IPART to meet with us to discuss how we have tackled important issues of improving engineering efficiency, managing capital expenditure, providing better information to customers and ensuring fairness in establishing water fees. In particular, we disagree with the large increase in costs proposed to be passed through to irrigators for services provided and capital programs delivered by the MDBA river operations team.

Murray Irrigation acknowledges that there are legitimate costs in managing and operating a storage and supply system, particularly by a utility such as WaterNSW. However, we note that the key contributor to the proposed increased costs is the MDBA portion. We believe that the increases proposed by MDBA have not been justified with rigour.

Accordingly the proposed transfer of MDBA costs to irrigators must be reviewed properly and any burden of excessive costs borne by the NSW Government, until such time as the situation can be remedied. Murray Irrigation are critical of the cursory review conducted for IPART in 2017 of MDBA performance in delivering these services and now encourage a *root and branch* analysis of the delivery of functions undertaken by MDBA to be part of this review. Of course, there is a large proportion of the MDBA functions that are conducted by WaterNSW as the operator and *Constructing Authority* for many key Murray River assets. We seek this analysis and request it should take into account affordability as well as cost base. These increases are not affordable in our view.

If IPART are unable to conduct a genuine and satisfactory review of the MDBA operations and capital expenditure programs, or this cannot be undertaken because of jurisdictional issues, Murray Irrigation believe there is a strong case for IPART to rule that a lower default charge apply, based on benchmarking of other IPART-reviewed NSW charges. A possible benchmark may be in line with the WaterNSW charges that are applied to general security users in the efficient operation of the Murrumbidgee Valley, which has similar and comparable characteristics to the Murray Valley (in terms of geography, water volumes diverted and stored, age of key infrastructure, daily demand variability, customer numbers, data needs, flood management needs, length-of river, regulatory structures and dependent irrigation industries).

Independent Pricing and Regulatory Tribunal NSW Review



Key cost increase drivers for Murray Irrigation irrigator customers are excessive. These combined proposals, if adopted would raise the costs beyond a reasonable share of necessary and efficient costs; in particular, three issues are important:

- **Scale, particularly in regard to MDBA costs:** The proposal has suddenly and dramatically included all or part of the NSW share of the cost of incorporating the MDBA's poorly scrutinised and possibly inefficient river operations costs and capital expenditure programs.
- **Inappropriately attributed Cap-ex:** The Basin Plan environmental water projects that are now to be funded by irrigators in the NSW Murray are more extensive, more expensive and are largely the result of a broad national and state political desire to deliver the Murray Darling Basin Plan. As argued below, the MDB Plan now challenges the application of the IPART 'impactor pays' approach to cost sharing.¹
- **Compliance costs:** The sudden need for establishment cost and operational cost of the new NSW regulator (NRAR) should be considered a cost of the failure of Government management of water in northern NSW and should not be funded only by water users. Furthermore, with respect to the likely need for the services of NRAR in southern NSW, irrigators within the large NSW gravity-fed irrigation areas along the Murray and the Murrumbidgee valleys have been implementing self-initiated compliance and high standards of water measurement now for many years. Completely different issues apply to the Northern Valleys with harvesting of overland flows and extraction from unregulated rivers.

Expensive departmental changes and restructuring of state corporations should not be funded by irrigators: More recent and current restructuring in both WaterNSW and in the 'whole of NSW Government' approach demonstrated by regular departmental name-changes (DPIE Water, WAMC), mergers of departments (SCA and WaterNSW), creation of entirely new entities (NRAR) and widespread organisational 'restructuring' in state-wide water management functions has not been driven by the needs or demands of irrigators in the southern-connected MDB. The costs of merging, renaming, restructuring, and replacing key personnel we expect would be significant. Murray Irrigation requests these restructuring costs should be identified by IPART and removed from the proposed cost increases to be applied to water users. Our own experience with restructuring over the last few years has led to a more cost effective and productive workforce whilst being acutely aware of the needs of our irrigator customers.

Technology improvement should provide savings and improvements: Any technological improvements in service delivery in a wide range of service industries are supposed to be cost neutral at worst. Most are developed to improve the customer experience, and to save operational costs, such as travelling to remote sites to manually read meters. Yes, irrigators do want to be confident in water authorities and utilities so they can collect data and provide appropriate information in a timely way, however this information benefits so many others (Local government, emergency services, other water users, NRM agencies²) that it is unreasonable to sheet home the cost of conceptualisation, development, commissioning and ongoing operations to one group.

Size of the proposed increase is excessive: The scale of the proposed increases from both WAMC (5% a year for four years) and for WaterNSW, with the MDBA increases embedded, in the NSW Murray is inappropriate particularly in the context of recent extreme financial hardship experienced by irrigators during an extended period of very low water availability. The nature of the fee increase is also likely to be future compounded, acknowledging that the average water yield from general security entitlements has reduced from

¹ Recently developed in conjunction with external consultants, Aither

² <https://nrmregionsaustralia.com.au/water/>

Independent Pricing and Regulatory Tribunal NSW Review



an average of 74% (pre 2000) to 48% (2000 to 2020). The fixed fee component is effectively an addition of a further 26% against actual used.

Bulk user discount should be maintained or enhanced: Given the extensive reporting of activities, accurate metering of water use and self-funded internal compliance regimes operating within irrigation companies such as Murray Irrigation, the irrigators within the Irrigation Corporations deserve to have the bulk user discounts reviewed, with the larger discounts of past determinations fully reinstated for both WAMC and WaterNSW charges.

2 About Murray Irrigation Limited

2.1 Location

We are located in the Southern Riverina delivering reliable and productive water to around 2,100 family owned landholdings across 724,000 hectares through 2,778km of gravity-fed earthen channels.



2.2 Within the NSW Murray Valley

Murray Irrigation Limited (MIL) is Australia's largest private irrigation and environmental water delivery company with historic peak diversions to its landowner shareholders of more than 1,200GL. MIL can divert up to 12,300ML per day through its two key supply structures, the Mulwala offtake on the Murray River at Mulwala and the Wakool Canal offtake upstream of Stevens Weir on the Edward River.

On 3 March 1995, NSW Government privatised the irrigation system in the NSW Murray Valley and MIL was born. We are an unlisted, public company and constitutionally not for profit. Our irrigators are also our shareholders and include 1,357 family-farm businesses.

Independent Pricing and Regulatory Tribunal NSW Review



We are licensed to operate by the NSW Government, and our irrigators shareholders have 822,526 general security entitlements to the NSW Murray Regulated River resource (as at October 2020). This represents more than 60 percent of all NSW Murray River general security entitlements.

The Murray River System is in southern NSW and demarcates the NSW-Victoria border. The catchment covers 14,950 km² of southern NSW. The Murray River System's main operational storages include Hume Dam (3,005 GL) and Yarrawonga Weir (118 GL). The major NSW tributaries and anabranches include the Edward River, Wakool River, Niemur River, Billabong Creek, Yallakool Creek and Colligen Creek.

The Murray River System contributes 17 per cent of the Murray-Darling Basin water. It is operated and maintained by WaterNSW under the Murray-Darling Basin Agreement, which aims to provide water for the benefit of NSW, Victoria and South Australia.

2.3 Water and our modernisation journey

Water Entitlements on our bulk licence include 822,526 Units of General Security (non-government) and 193,826 Units of General Security (other), 279,786 Units of Conveyance, 121,704 Units of Supplementary, 137 Units of High Security – irrigation and 3,170 Units of High Security - urban.

We have recently modernised our delivery system investing \$230M of government and company funds so that the supply system can be operated remotely, accurately and on-time – providing excellent service to our customers.

Our system is also critically placed to deliver targeted environmental water to a growing number of local environmental assets and capacity to deliver water to meet downstream demand.

2.4 Key challenges

Since privatisation from a government owned entity to Murray Irrigation in 1995, government water policy reform, conservative allocation policy and reduced rainfall have had a profound impact on the viability of our company. Water delivery has reduced from an average annual delivery of over 1,000GL from 1995 to less than 600GL average against an infrastructure base that remains at around \$1 billion.

Independent Pricing and Regulatory Tribunal NSW Review



3 Responses to The WAMC and WaterNSW proposals

3.1 Murray Irrigation charges would increase by 28% in one year

The proposals for price increases are daunting for a time of near zero inflation with depressed farm incomes, following severe drought with very low water allocations for irrigation and poor dryland crops. Murray Irrigation have calculated the requests for revenue and fee increases. These range from price freezes for the more modest WaterNSW fixed charge, to a large 62% increase for the largest existing charge (the MDBA usage charge).

In recent years, our 822,526 General Security Entitlements had 0% allocation for 22 of the 24 months up to June 30, 2020. Two years of paying for water infrastructure charges where no water is allocated is not only painful, it is unsustainable and inequitable. If our irrigators have no income, they cannot afford to pay for a service they do not require.

MIL provides the following simple analysis of proposed changes in government charges, based on the average MIL customer (See Table 3-1). Noting that the impacts over the proposed five year period are difficult to determine due to WaterNSW requesting a one year (2020/21) price increase for its services and the large (and largely unsupported) MDBA charge pass-through. For the purposes of this example, we have calculated the charges based on the average MIL customer: an average number³ of 600 NSW Murray General Security water entitlements held, using an average allocation of 50%⁴ of those entitlements (303ML) in a year.

The prices and totals listed exclude:

- The ~ \$823,000 for MIL or ~\$600 per MIL customer cost of supplying MIL's Conveyance Water, which is paid by all MIL entitlement owners
- The saving to Murray Irrigation and its customers, as a result of the bulk user discount applied to WaterNSW charges, which was \$455,000 in 2019/20 or approximately 10% of WaterNSW total charges to MIL in 2019/20.

This representative example based on recent water availability demonstrates **that the average MIL customer will experience a 28% price increase in Government charges, paying an additional \$1,442.3 a year in the first year (2021/22)** as a result of the combined price increase proposals.

³ Murray irrigation has 1,357 customers holding a total of 822,526ML of NSW General Security Entitlements. This is an average of approximately 600ML each.

⁴ Average allocation over the last 5 years has actually been lower. The NSW DPIE quote ~69% Long Term Average Annual Yield for NSW GS

Independent Pricing and Regulatory Tribunal NSW Review



Table 3-1: A representative example of MIL customer charges for 2020/21 and proposed 2021/22 government charges

Government charge	\$/ML 2020/21	Cost per farm at 50% use	\$/ML proposed 21/22 fee	Cost per farm at 50% use	Increase proposed for 2021/22
1. WAMC Fixed charge	\$1.57	\$942	\$1.62	\$972	3%
2. WAMC usage charge	\$1.10	\$330	\$1.16	\$348	5%
Total cost of WAMC fees		\$1,272		\$1,320	3.80%
3. WaterNSW Fixed charge	\$0.81	\$486	\$0.81	\$486	0%
4. WaterNSW usage Charge	\$2.06	\$618	\$2.29	\$687	11%
5. MDBA fixed charge	\$3.83	\$2,298	\$5.51	\$3,306	44%
6. MDBA usage charge	\$1.61	\$483	\$2.61	\$780	62%
Combined WaterNSW and pass-through MDBA river operations costs		\$3,885		\$5,259	35%
Total Government fees		\$5,157		\$6,579	28%

3.2 Murray Irrigation's key questions for both WAMC and WaterNSW

Irrigators farming within MIL's area of operation have recently endured two years of near zero allocations. As NSW Murray General Security users, the cost of State and MDBA charges (reflected through the combined WAMC and WaterNSW fixed and usage charges) are one of the largest single farm business charges borne by irrigators. Murray Irrigation are requesting IPART review the price increases proposed by both WaterNSW and WAMC for NSW MIL customers, based on the following five key questions:

- 1. Are the services to provide water to Murray Irrigation's customers being provided by WAMC, WaterNSW and particularly MDBA, appropriate and necessary?**

Murray Irrigation believes a number of activities conducted by WAMC and by WaterNSW in regard to both operations and capital works are unnecessary, duplicated, excessively expensive, over-administered and poorly justified. The increase in MDBA prices proposed are the largest component, the least transparent, and the most poorly justified and presumably include irrigators

Independent Pricing and Regulatory Tribunal NSW Review



funding the maintenance and ownership costs for a wide range of costs including recently added staff, new assets and other operating costs.

- 2. Are the shares of the benefits for services that benefit a wider range of beneficiaries of a regulated river being shared fairly? Recognising irrigators are an easy target for recovery of revenues.**

Murray Irrigation acknowledges that WaterNSW is a utility providing a service. However, a number of WaterNSW, and a large component (if not all) of the WAMC activities provide a wider benefit to a wide range of users as well as the environment who benefit from a well-regulated NSW Murray River and, as argued below, are linked to the administrative confusion, ambiguity and political tension surrounding development and implementation of the Murray-Darling Basin Plan.

- 3. Are the actual costs of required services that the WAMC and WaterNSW seek to have paid by irrigators appropriate? i.e. are the services that are determined as necessary actually being delivered efficiently?**

Murray Irrigation believes both the capital programs and the operational activities of WaterNSW and the WAMC can be supplied more efficiently. Irrigators should only be expected to contribute to the costs of a leading-edge, or very efficient organisation.

- 4. Are the tariff designs proposed to recover efficient costs fair? Does the price mix of fixed and usage charges reflect an appropriate mix charges for the range of customer-types?**

Murray Irrigation is seeking a return to a much higher proportion of WAMC and WaterNSW costs to be charged to usage of water, reflecting a highly variable allocation available to GS users in particular, and not increasingly weighted towards the fixed charges related to water ownership. Murray Irrigation proposes that both the WAMC and the WaterNSW costs should be based on the recovery of a maximum of 40% of fixed charge costs, related to entitlement ownership and 60% of average recovery from usage charges.

- 5. Is it appropriate to simply 'lump' massive price increases on Murray users based on pass through costs claimed by a third party (the MDBA operations activities) that is opaque and not subject to appropriate scrutiny?**

Murray Irrigation requests that IPART acknowledge the massive increase in charges requested by both the WAMC and by Water NSW. In particular WaterNSW through its transfer of MDBA 'costs'. Murray Irrigation believe IPART has a role in assuring price increases are fully investigated and capped; and users are supported by Government to avoid unexpected and crippling bill-shock for water users.

Independent Pricing and Regulatory Tribunal NSW Review



3.3 Further observations

Following on from the WAMC and WaterNSW Issues Papers, and from the IPART Report on Rural Water Cost Shares of February 2019.

This section of the submission elaborates some conceptual, technical and administrative issues that contribute to current proposals for substantial price increases for MIL irrigators. For some of the topics discussed, differences between Murray Irrigation and its irrigator shareholders and other aspects of irrigation in NSW are emphasised. In general, these differences support what also seems to be a conclusion of IPART; that there is a good case for setting prices on a valley-by-valley basis. Most obviously, MIL irrigators should not be burdened with the costs of the recently created Natural Resources Access Regulator (NRAR). *Unlike the Northern Valleys, where universal metering⁵ is still incomplete, and the utilisation of overland flows is yet to be regulated⁶, compliance is not an issue.*

As noted, the price rises proposed by WaterNSW are closely linked to far higher capital expenditure by WaterNSW on fishways (or fish-ladders). Fishways are of little or no relevance to MIL's customers who are part of an off-river gravity irrigation system taking water from the Murray less than 150km from the Hume dam wall. The cost of fish ladders throughout thousands of kilometres of NSW rivers and creeks is now the largest single cost item in most weir restoration or renewal projects. Given their engineering cost and prospects of success, the emphasis given to fishways in the MDB Plan should be questioned – this includes their number, design and location. In addition, there are several dimensions of environmental remediation for the MDB that means not all fishways are of equivalent benefit. Choices have to be made between various objectives and components – wetlands, riparian vegetation, end-of-system flows, avian fauna, water quality, native fish, recreational fishing and more. These objectives and components and their numerous possible combinations imply vastly different costs and benefits. The timing of expenditures can also be varied. In short, arbitrary decisions were taken in formulating the environmental component of the MDB Plan with an emphasis on fishways. The suggestion to pass through the costs of constructing, owning, maintaining, monitoring and operating fishways and other capital expenditure associated with the MDB Plan to NSW irrigators is thus unfortunate and, arguably, attempts to sideline IPART, undermining the rationale for independent price regulation.

Further, fishways are being retrofitted essentially because of changed community attitudes to the environment. As suggested above, the concept of environment is elusive and inherently ill defined. Subtly, this challenges the underlying assumptions of the current IPART approach to cost sharing, which is based on the idea that 'those that create the need to incur the costs should pay the costs', or put slightly differently, acceptance of a counterfactual or reference point of 'a world without high consumptive use of water' (or the wider benefits of a regulated river system) . It was then argued from these definitions that consumptive users (irrigators) should bear a substantial proportion of the costs as if the entire environmental running were made by irrigators and the existence of irrigation. Murray Irrigation accepts that cost sharing has always been controversial, as witness the historical account provided by IPART in their report Rural Water Cost Shares released in February 2019. Murray Irrigation contends, however, that other users and competing interests now generate much more of the bureaucratic activity associated with water policy than was previously the case, particularly in popular 'destination' regulated rivers such as the Murray. In effect, there are a number of new impactors! The extra

⁵ [NSW Metering Update 4 October 2019](#) indicates that meters on pump outlets 'over 500mm ' in diameter must be installed by December 2020

⁶ [MDBA Floodplain harvesting and Overland Flows](#) updated Sept 15, 2020)

Independent Pricing and Regulatory Tribunal NSW Review



costs imposed on NSW water agencies by the administrative detail, inherent complexities, and frequent conflict surrounding the MDB Plan should not be a charge on irrigators.

IPART state that their first step in setting prices is to establish 'efficient' costs. Nowhere in the two Issues Papers are precise criteria provided that indicate how IPART or their consultants should or could determine what is efficient. Presumably, these criteria would include engineering aspects like maintaining up-to-date and readily accessible asset registers and management aspects like staff turnover. Murray Irrigation recognise that comparison of business activities and businesses to decide what is efficient cannot be perfect, but also note some parallels in the activities of WaterNSW and MIL; hence the invitation for IPART to visit and investigate the management practices of MIL. At least, the forthcoming IPART draft report should provide more information than previous price determinations on the way the efficiency of WaterNSW and WAMC was analysed. Murray Irrigation notes that the cursory attention given to the meaning of 'efficiency' and its measurement contrasts with detailed attention over many years to equally difficult and contested concepts affecting allocation of costs between customers and government.

In the proposed 2021/22 prices, there has been a substantial increase in the WAMC customer share for irrigators, so much so that the government share of funding has fallen by a third, and that would apply to higher levels of operating and capital expenditure. In justification, the WAMC Issues Paper makes great play of WAMC activities and programmes being supported by irrigators. There is no information about how and when and what was established. Murray Irrigation is unsure how much consultation took place with its shareholders. To the extent that irrigators were consulted, Murray Irrigation suggests that if respondents did not know the cost attached to various activities and programmes, any information obtained is pointless. In any case, consultation is not relevant to MIL because its 1,357 family farms now rely on MIL management to liaise with government agencies. This liaison has also become a low-cost exercise per ML owned and used for government agencies after twenty-five years of irrigator self-determination within the traditional irrigation areas.

In concluding this section, Murray Irrigation notes that participation in inquiries is costly. For this reason, Murray Irrigation supports simultaneous and combined WaterNSW and WAMC price determinations, every four years.

Appendix 1. Response to WaterNSW questions raised by IPART

1. How well has WaterNSW delivered its bulk water services since 2017?

In terms of actually delivering water to irrigators in the volumes ordered when required, WaterNSW has delivered bulk water to customers well, with very low incidence of restrictions, or delays to water delivery. However, Murray Irrigation Limited (MIL) is critical of water management related to loss levels incurred in the delivery of water via the Murray River in regard to high (and increasing) loss levels⁷, which erode the volume of water available to irrigators.

Reducing loss levels for water delivery is a solution to maximising water for water users and other beneficiaries of a well-managed river. Losses in regulated systems are falling for almost all other river and canal operators- but not for the river operators of the Murray system who seem to be performing at the same level of loss, or possibly worse levels than was the case twenty years ago. For example:

*“This water year (2018–19) the main factors influencing water losses has been the hot dry conditions combined with low inflows, high demands and the need for overbank transfers through the Barmah-Millewa Forest. These factors have resulted in conveyance loss estimates for the year to date (1 June 2018 – 31 January 2019) at about 620 GL. Based on similar years, annual conveyance volumes are likely to reach between 850 GL and 1000 GL by the end of May 2019.”*⁸

This is relatively high for regulated river conditions, but still inside the expected range given the seasonal and operational conditions and is comparable to losses experienced in 2002–03 and 2015–16. The expected losses this year have a small impact on state water resource shares. Uneven tributary inflow has a far greater impact.”

In terms of expenditure, MIL is shocked at the marked increases recently incurred, and those proposed for 2021/22 and do not wish to see a repeat of the last four years.

1. Was WaterNSW’s capital expenditure over the 2017 determination period efficient?

Efficiency has two dimensions – deciding which activities are worthwhile, and for those that are, assessing whether they are administered and delivered effectively. The cumulative overspend by WaterNSW (Figure 3-1) indicate that they do not appear to be operating efficiently, nor are accountable in their expenditure. MIL acknowledge that there appears to have been some failed attempts in corporate systems development to improve organisational efficiency during the last four years.

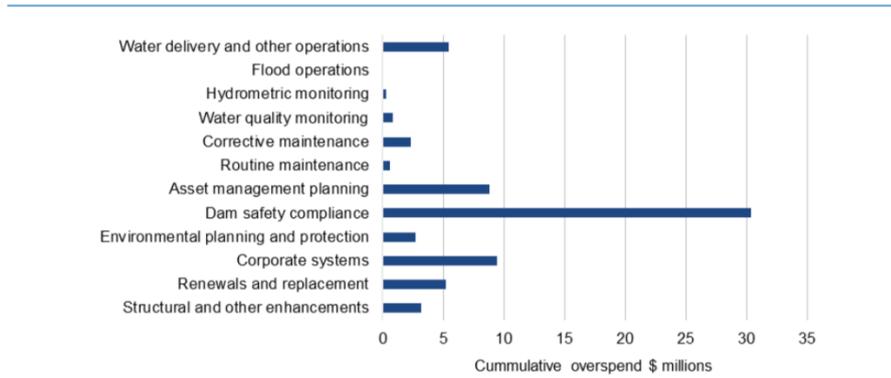
⁷ RMCG (2019) Recognising under-use in the Southern Basin – and taking action. Methodology and Analysis.

⁸ Murray Darling Basin Authority: A Losses in the River Murray System 2018–19 iii

Independent Pricing and Regulatory Tribunal NSW Review



Figure 2.1 Water NSW core capital expenditure overspends for the 2017 determination period by category (\$2020-21)



Data source: Water NSW, *Pricing proposal to IPART*, June 2020, Table 13, pp 60-61; IPART analysis.

Figure 3-1 Core capital overspends in 2017 determination

The Dam safety compliance program is an example of what MIL believe to be an inefficient program. Although as best as MIL can interpret that the dam safety compliance program will not fall upon irrigators⁹, MIL is concerned that there was a \$30.4 million overspend, particularly when the project rationale was inconsistent with NSW Government risk management. An example is the Keepit Dam upgrade, which has cost in excess of \$100 million.

Keepit Dam is a popular inland sport and recreation destination near Tamworth, offering year-round attractions for water sports and fishing enthusiasts, nature lovers, bushwalkers, campers and picnickers¹⁰. The primary benefit of the dam upgrades was to *‘improve the ability of the dam to withstand extreme floods and earthquakes’* – and therefore the primary beneficiaries of this upgrade which took the safety of the dam to a level well beyond ‘very, very safe’, were downstream residents, recreational users of the dam and water users. On the face of it, the risk of this type of event occurring is rare and the consequence very high, equating to a ‘moderate’ risk. According to the NSW Treasury Risk Management toolkit for the public sector¹¹, moderate risks ‘are to be treated as long as the costs do not outweigh the benefits’. Modern NSW and Basin Authority dam safety considerations seem to extend beyond normal risk management criteria, thus raising the question of irrigators’ responsibilities to fund this extra level of risk-management caution.

MIL note that the intent of this project was to reduce the life safety risk to below Australian National Committee on Large Dams (ANCOLD) limits that are outlined in the *ANCOLD Guidelines on Risk Assessment (2003)*. However, ANCOLD may have a different risk lens and budget understanding to that of the NSW Government. ANCOLD also states that the guidelines are ‘merely an indicator of an approach that may be taken’.¹² Given the unlikely probability of an extreme flood or earthquake occurring, or the unlikely impact of loss of life if the

⁹ There is inconsistency in WaterNSW pricing application on whether ‘Dam safety compliance’ or ‘Dam safety compliance on pre 1997 capital projects’ was the cause of \$30.4 million overspend. See table 13 of the WaterNSW pricing report where there is no reporting on expenditure for Dam Safety compliance post 1997.

¹⁰ <https://www.waternsw.com.au/supply/visit/keepit-dam>

¹¹ https://www.treasury.nsw.gov.au/sites/default/files/pdf/TPP12-03b_Risk_Management_toolkit_for_the_NSW_Public_Sector_Volume_1_-_Guidelines_for_Agencies.pdf

¹² <https://www.ancold.org.au/?product=guidelines-on-risk-assessment-2003>

Independent Pricing and Regulatory Tribunal NSW Review



dam did fail in an earthquake (the closest town of Gunnedah is 30km downstream), it would have seemed probable that NSW Government have higher risk priorities to fund.

WaterNSW has stated that the Dam safety compliance overspend of \$30.4 million works 'were necessary under the new regulation framework which requires WaterNSW to demonstrate that 'all reasonable measures have been undertaken to reduce risk'. MIL consider this out of step with modern day risk management, where not all risks should and need to be reduced. All reasonable steps to 'manage' risk would have been appropriate and correct and WaterNSW presumably should have raised this misalignment of risk interpretation with the Minister. Additionally, this type of risk reduction works is typically classified as climate change adaptation and should be borne by the state.

In regard to the Corporate Systems overspend of \$9.4million¹³, the Consolidation of Information Management Systems project management overspend¹⁴ and the consolidation of WaterNSW's office locations for the purpose of team and culture, is not the responsibility of irrigators. MIL also note the shift of 'rewriting of the licensing system' from the IPART water delivery allocation to the corporate systems allocation to bridge the gap in expenditure and are unclear as to why this has occurred. Any future Corporate system 'improvement initiatives' should be funded by the state. In addition, a reasonable expectation of these above initiatives would be significant internal financial efficiencies and improved customer service as a result of the mergers, which is not evident in the 2021-22 proposed capital expenditure of \$7.9million.

2. Is WaterNSW's proposed expenditure on maintenance efficient?

It appears IPART and WaterNSW are at loggerheads on the proposed expenditure, given the allowance allocation differentiates between 40-91% over the 2017-2021 determination period¹⁵. WaterNSW have forecast to spend \$84 million on routine and corrective maintenance over the 2017 Determination period, which is \$33 million (or 66%) higher than the IPART allowance of \$50 million. The rationale is 'the level of maintenance expenditure is necessary to avoid costly asset failures'.

Although there is not enough information provided to determine efficiency, MIL recognise that a comparison of business activities and businesses to decide what is efficient cannot be perfect, but also note some parallels in the activities of WaterNSW and MIL; hence the invitation for IPART to visit and investigate the management practices of MIL.

3. Do you have any comments on WaterNSW's operating activities and associated operating costs?

Firstly, the cost share of operating costs between Murray Valley irrigators and NSW Government¹⁶ (Table 2) is seemingly unjust, given the range of beneficiaries in the system. This is further explored in Q.12 below.

¹³ WaterNSW 2021 Rural Valleys Pricing Proposal, pg. 60.

¹⁴ WaterNSW 2021 Rural Valleys Pricing Proposal, pg. 65.

¹⁵ WaterNSW pricing proposal pg. 85, Table 28

¹⁶ WaterNSW pricing proposal pg. 79

Independent Pricing and Regulatory Tribunal NSW Review



Table 2. WaterNSW’s user share of operating expenditure for the Murray Valley (\$)

User	Median 2017-21	2020-21	2021-2022
Murray Valley – Gross	4,207,350	5,338,400	4,137,200
Murray Valley – User	3,961,250	5,063,500	3,893,400
Government	221,500	273,200	243,900

Secondly, based on a review of information provided, some of the key drivers of higher operating costs over the current period were not entirely necessary. To assist IPART (outlined in Table 3 below) MIL have addressed WaterNSW’s key drivers¹⁷ by providing our view of the validity of the claims. MIL have also provided suggested improvements - based on our experience.

Table 3. WaterNSW Key Drivers for higher operating costs

Key drivers for higher operating costs	Avoidable?	Suggested improvements
No allowance in the current period for land tax and energy cost increases	No – accept	-
Increased labour costs arising from EBA outcomes in 2018 and the associated impact on employee entitlements that were not reflected in the current regulatory allowances, noting the disparity in NSW Public sector and State owned corporation salaries and salary rises in other sectors	No – accept	-
Increased FTEs to maintain operating licence obligations and customer service standards, including additional staff required for dam safety and system operations	Yes	Outsourcing. Through outsourcing, MIL now maintain a skeleton crew to cover the baseload of work and ramp up with contractors to cover the peaks. This has reduced staffing and equipment costs and has the added benefit of allowing us to bring in appropriate skills and equipment for various tasks, rather than doing the work less efficiently with our own gear.
No allowance was provided for planned overtime costs	Yes	Flexible work arrangements. MIL have increased staff efficiencies by introducing a 9.5hr day (from 7.6). The ‘tool time’ for staff has increased from 5 hours per day, to 7 hours per day, a 40% increase in productivity. <i>Tool time</i> measurement is standard practice in best practice maintenance programs. They work the following roster: Week 1: Mon-Fri work, Sat-Sun off Week 2: Mon-Sun work Week 3: Mon-Sun off Total work hours per 3 weeks = 9.5hrs x 12 days = 114hrs (same as 3 x 38hr weeks). MIL pay staff a 15% roster allowance, which covers the fact they work weekends and do not get public holidays.

¹⁷ WaterNSW pricing proposal pg. 7

Independent Pricing and Regulatory Tribunal NSW Review



Key drivers for higher operating costs	Avoidable?	Suggested improvements
		Where we used to have to pay overtime for incidents on a weekend or public holiday as no-one was at work, whereas this is no longer required.
Marginal increases in operating costs to support a significantly higher capital program	Yes	<p>Weekly planning and scheduling. Reactive work is 2-5 times more expensive than planned and scheduled work (and significantly more dangerous). MIL have put in place an industry standard work management and planning process and MIL now operates with less than 15% reactive work. (Less than 10% is generally considered best practice). Given the travel time involved with the vast distances we cover. 15% is an excellent result. Scheduled completion of projects is ~80% and continues to climb. 90% is considered best practice.</p> <p>Plant and Equipment. Through maintaining equipment and undertaking partial component rebuilds, MIL have now doubled the useful life of our plant & equipment, whilst spending less than 20% of replacement cost.</p>
Changes in cost allocation across various parts of the business	Yes	-
An operating cost allowance in the current regulatory period which was \$3 million below our actual cost structure in 2016-17	Yes	-
Water management reforms resulting from a number of independent investigations into water management and compliance practices in New South Wales (e.g. the Ken Matthews Review)	Yes	-
Higher overheads being allocated to Rural Valleys due to an increase in the total overhead pool	Yes	-

4. Is the current structure of the RTP efficient and equitable?

As outlined earlier in this document, efficiency has two dimensions – deciding which activities are worthwhile, and for those that are, assessing whether they are administered and delivered effectively. In short, Murray Irrigation does not believe the proposed WAMC and WaterNSW prices are equitable or efficient. WaterNSW is a State-Owned Corporation, run to service water users on behalf of NSW Government. As an irrigator and environmental water supplier, MIL understand seasonal volatility and managing risk in a relatively unpredictable climate. However, the structure of the RTP adopted by WaterNSW is not equitable to irrigators

Independent Pricing and Regulatory Tribunal NSW Review



in a dry or wet season. MIL does not object to contributing to insurance to ensure WaterNSW are viable, provided the loss *and* gain of each year is distributed the same.

As MIL understand, the RTP product that was designed initially and IPART's volatility allowance for dry years, should have been appropriate for WaterNSW needs. WaterNSW is a State Owned Corporation, run to service water users on behalf of NSW Government. If WaterNSW make a revenue loss due to water sales being lower than predicted, water users have a vested interest to ensure they are viable. Equally, WaterNSW has a responsibility to be transparent and accountable for expenditure decisions when there is a profit - either reimbursing growers or reinvesting it appropriately.

MIL suggest WaterNSW transfer the risk ownership to the insurance company and allow the insurance company to own the volatility – profiting in good years and paying out in bad. Murray Irrigation requests that IPART make strenuous efforts to establish the efficient level of service delivery for both the combined activities of WAMC and WaterNSW. This is particularly important for NSW Murray General Security (or GS) irrigators suffering financial hardship after a prolonged period of very low allocations.

We expect that all costs incurred by State agencies and their partners (in this case the MDBA) that are then attributed to both Government (on behalf of the wider community) and to irrigators are audited, reviewed and communicated clearly to those that are being asked to pay.

5. How should WaterNSW manage its revenue volatility risk?

They should not pass this cost to irrigators through higher fixed charges. Revenue volatility is best managed by Government. Simply transferring the volatility of income related to seasonal variation to irrigators is unfair.

A high proportion of fixed costs:

- Transfers the cost to irrigators, the party least able to afford the high fixed cost in a year of low water availability
- Discourages actions within WaterNSW which may reduce costs and encourage business efficiency within WaterNSW when water is scarce

6. How should WaterNSW most efficiently meet its requirements for fish passageways?

See Section 3.3 for MIL's further considerations on the broader issue of the need and the responsibility for developing, owning and operating new fishway infrastructure.

'WaterNSW forecasts a large increase in capital projects driven by environmental requirements. These projects are mostly fish passageways and are offsets to dam safety upgrades in the Namoi, Gwydir, Macquarie and Lachlan valleys. The 2021-2025 environmental expenditure is forecast to increase significantly (\$72 million compared with \$3 million)'.¹⁸

Some efficiency solutions may include:

- i. Cease upgrading dams based on an out-of-date risk management approach (which often trigger the need for fish passageways)

¹⁸ IPART Review of Water NSW's rural bulk water prices. pg. 13.

Independent Pricing and Regulatory Tribunal NSW Review



- ii. Include fish passageway infrastructure costs in the dam upgrade costs – not as an expensive afterthought
- iii. Seek professional advice on bulk procurement of the components and installation of fish passageways, potentially partnering with other states
- iv. Stop the current wave of expensive experimentation on design and construction of fish ladders which are driving the relative costs of like for like fish-passage structures upwards dramatically and inhibit mass-production of pre-cast elements that could be built across the state
- v. When undertaking renewals and replacement, co-deliver asset rationalisation projects to decommission assets that are of a financial burden to the asset owner.

7. What are your views about Water NSW's overall level of core capital expenditure over the 2021 determination period?

The level of proposed core capital expenditure of \$48.2 million is disconcerting and doesn't seem to be quite right. In recent times, there has been little inflation and there should always be a level of continuous improvement, however the costs of WaterNSW capital expenditure are as expensive as the previous determination period¹⁹. Our views on environmental expenditure that delivers broad environmental benefit is outlined above (Section 3.3 and Q.7) and below (Q.12). MIL support IPART in maintaining an allowed limit on expenditure that is similar in value (\$) to previous years.

Outlined below are some operational improvements MIL have made in the past decade, which provide examples of continuous improvement in capital expenditure. MIL welcome IPART to discuss any of the below further with us.

- **Risk-led approach over asset replacement.** In the past, MILs approach to capital was 'asset replacement' rather than 'risk assessment, control and life extension'. If this approach continued, modelling indicated MIL's Asset Maintenance and Renewal Reserve (AMRR) would be exhausted in the next 15-20 years as a result of many of the structures built in the mid 1900's reaching end of life. Over the past 3 years, extensive risk assessments have taken place, and a large program of life extension work has occurred on our ~500 public bridges. Testing and independent engineering confirms that early intervention and life extension work can significantly increase the life of assets for a fraction of replacement cost. These works were undertaken during tight timeframes but use of our planning and scheduling process has ensured that for each of the years these works have occurred, the program has come in under budget, under schedule and delivered in excess of the original scope.
- **Risk assessment and proportionate control.** An example of an excellent outcome is what we have achieved with guardrails. MIL previously had been unwilling to touch guardrails as the view was if we touch them, we have to put in something that meets today's standards and we can't afford it. Accordingly, guardrails were in an extremely poor state of repair. MIL has worked with local council to risk assess bridges. In many cases we have been able to install fit for purpose but far cheaper delineators, rather than the standard high cost steel railings. Savings are in the order of hundreds of thousands. The public safety outcome, and financial outcome for MIL, have both improved as a result of this risk based approach.

¹⁹ WaterNSW 2021 Pricing proposal, pg. 62.

Independent Pricing and Regulatory Tribunal NSW Review



- **Technology adaptation.** Several years ago, MIL found that many of our bridge/regulators had severe undermining of the foundations. Quoted repair costs by PIIOP contractors were in excess of \$3m. By working with industry leaders and utilising high pressure grout injection, repairs were completed for a fraction of the cost (**less than 50%**).
- **Rationalisation.** MIL is working with landholders to rationalise, simplify and reduce assets in the field that are no longer adding the value they used to. Examples include:
 - removing concrete bridges across drainage channels and replacing them with rock crossings that cost less than 10% of a bridge, and
 - removing a bridge in exchange for providing an access track to an alternative nearby crossing.

Modelling now indicates that with our new approach to CAPEX, the company AMRR will be sustainable with current fees + CPI for the next 50+ years.

8. Should governments bear all the costs of increasing water security and availability for licence holders?

No, and in the NSW Murray they do not. To the extent that the NSW Government is interested in better securing town water, and the cost of stock and domestic water for rural households, it is worth noting that those living along our inland rivers (including the NSW Murray and its tributaries and anabranches) do not pay at all for the privilege of a regulated river and a very secure water supply.

9. Who should pay for future expenditure on major drought-related projects, including asset renewals and upgrades?

There is a strong argument the (new) user or beneficiary of more secure supplies should pay, and that irrigators should not be asked to pay for providing secure water for communities and water-users living in remote locations, well away from existing infrastructure that provides a secure water supply. There are also substantial environmental benefits that arise from drought-related projects, such as the storage of a secure water source to be available for critical base flows, that can be delivered in dry years to sustain fish populations. Nevertheless, this question is not directly relevant to the NSW Murray as the supply of water for basic human needs along the length of the NSW Murray is very secure.

10. Over what determination period should we set prices?

It is agreed with IPART that a four-year determination period is appropriate, and that all participants in the pricing process have known a four-year determination was to be settled by June 30, 2021. MIL do not agree with any shorter timeframe, given the time required to respond to the pricing and to adapt to a new price regime is significant. In response to this review, MIL have spent significant time and investment, including using internal staff resources and consulting with our customers. To sufficiently address the issues paper²⁰, MIL have employed consultants to support the submission, at a cost to the business. There is also the risk that further poorly considered but very large price demands will simply be wheeled out again.

²⁰ WaterNSW's pricing application is 215 pages long and we appreciate that IPART's issues paper is only 35 pages long.

Independent Pricing and Regulatory Tribunal NSW Review



Whilst recognising that all organisations have periods of stress and resultant disorganisation, MIL believe that WaterNSW's inability to budget beyond one financial year²¹ for a response that has been pending since 2017, should not fall upon the customer. It is also reflective of the inconsistent standard of operations MIL have outlined throughout this submission. In response to Water NSW's rationale:

'A one-year determination period will permit WaterNSW to fully engage with customers to determine and assess the long term sustainable costs moving forward and customers' willingness and ability to pay for these levels of service, to fully inform our 2022 Determination.'

In the past, when faced with an organisation unable to prepare an adequate case in time, IPART have simply frozen prices, and hit 'reset' for a year later. MIL suggest WaterNSW accept the information outlined in this submission, when determining our willingness to pay. MIL also suggest WaterNSW set out the costs it incurs on works and facilities that service the Murray Valley in a level of detail familiar to MIL's board and even customers for all end-users.

11. Are there policy and industry reforms that make four-year forecasts of costs and usage difficult? Has COVID-19 hampered WaterNSW's customer consultation?

In our experience no, four-year forecasts are not difficult. COVID-19 has not hampered WaterNSW's consultation and MIL commend their efforts of consulting with us on a range of projects underway or planned. However, MIL have not seen any evidence of active community consultation on transparency of costs. It is possible the lessons learned during the worst of the COVID-19 limitations on consultation, meetings and travel will provide the basis for better and more meaningful connection with customers at a lower cost.

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

We do not agree with the current sharing ratios suggested. To be able to explain why IPART should completely review the cost-shares proposed by WaterNSW and seriously consider our updated cost share ratios, MIL firstly reject IPARTs²² adoption of the 'impactor pays' cost share principle:

'costs are allocated between water users and the NSW Government (on behalf of other users such as recreational users and the broader community) on the basis of whichever party created the need for an activity (and its associated costs) to be incurred.'

In this instance, the 'impactor pays' principle is flawed for several reasons:

- It overlooks many beneficiaries who may not have created the need but use and significantly benefit from the need. This is known in economics as 'free riding'²³
- Irrigators are 'impacting' only to the extent they can make a living and can sustainably provide food for human consumption. Therefore, it should not be treated the same as other impactors, such as mining of mineral-extraction industries, or even forestry. Through irrigation, our customers sustain human life and are an essential service.

²¹ IPART Reviews have been conducted every four years since 1995.

²² IPART Rural Water Cost Shares, 2019. ²²

²³ Free riding is where individuals are able to benefit from a good or service without paying – and therefore there is no incentive to stop using it.

Independent Pricing and Regulatory Tribunal NSW Review



MIL ask IPART to encourage WaterNSW and the NSW Government to lift their gaze to acknowledge and accept why irrigation exists. The assumption that *'in a world without high consumptive water use, these (cost sharing) activities would not be required'* is relevant in the narrow context of the direct interaction between NSW Water and irrigators; but is irrelevant in the broader context of a functioning regulated river system such as the Murray, with more than 100 years of providing widespread benefits to the broader community of interests.

Secondly, MDBA state (as a fact) that as a result of water for the environment, *'Everyone benefits from a healthy river'*²⁴. MIL agrees. Any water that is used from irrigation is water that flows in the system and supports environmental values (until the water allocation reaches its destination). Water storages and infrastructure can also provide critical water supplies to support native fish during times of drought and enable targeted and better managed watering to maximise environmental outcomes. Therefore, if 'impactor pays' is the adopted principle, MIL suggest expanding on the list of impactors of a well-regulated river *i.e. those who create the need to incur the costs*. These 'impactors' include:

- The Federal Government – for the inception of the MDB Plan and the 2750 GL (2,750 billion litres)²⁵ of water recovery from irrigators, without transparency on who pays for the storage and delivery of the water. Environmental water benefits are in-river or on the immediate flood plain and cost money to manage. In the NSW Murray valley, a total recovery of 332.5 GL/year has occurred – 219.5 purchased from water users and 113 recovered from infrastructure efficiencies.²⁶ The current federal government are now acknowledging the impact that water recovery has had on irrigators and small communities - and are subsequently scrapping the buybacks.²⁷
- Tourists, fishers, recreational boating enthusiasts
- National parks (on the floodplain)
- Local Government Agencies and individuals benefiting from flood and drought management activities.

The large burden of these rapidly growing costs has fallen on the steadily decreasing number of irrigators who in the case of NSW GS users, are already battling with limited water security. Irrigators have often expressed the view that **'given irrigators use one third of the average total flows in the river, a reasonable and logical expectation is that we pay for one third of the share of the costs of operating a well-regulated river'**.

If IPART are not able to expand on the list of impactors, MIL strongly believe in considering a 'beneficiary pays' principle, or an amalgam of beneficiary and impactor pays. There is a growing list of beneficiaries whose values are dependent on a flowing river. The benefits and beneficiaries outlined in the 2017 MDB report *'Social and economic benefits from environmental watering'* can be applied to irrigation water. Irrigation water provides environmental benefits to a system, as it is in essence, a component of water in the river. The associated infrastructure can also play a significant role in better managing these flows to maximise environmental outcomes.

The beneficiaries of water flowing in a river and within a catchment include:

²⁴ <https://www.mdba.gov.au/managing-water/water-management-facts>

²⁵ A final water recovery calculation is not available yet, but MDBA confirms Basin-wide it has exceeded this amount - <https://www.mdba.gov.au/basin-plan-roll-out/water-recovery>

²⁶ <https://www.mdba.gov.au/sites/default/files/docs/Table-2-Env-Water-Recovery-Est-at-31Mar2020.pdf>

²⁷ <https://theconversation.com/morrison-government-plan-to-scrap-water-buybacks-will-hurt-taxpayers-and-the-environment-145613>

Independent Pricing and Regulatory Tribunal NSW Review



- **Tourism and employment.** High operational water levels are required to maintain navigation on the Murray River for boats, limiting the operational water level range (re-regulation capacity) of weir structures. An example of this is in Echuca, where high water levels are maintained for their paddle steamer boats.

Another example of tourism beneficiaries is in northern Victoria.

*'A \$1.2 million Nature-Based Tourism Hub is connecting iconic natural assets around Koondrook, Cohuna and Kerang, including the Gunbower State Forest, Murray River and Kerang Lakes. Hub projects include cycling tracks, walking tracks, canoe trails, and the Kerang–Koondrook Rail Trail. Over time, the Hub is expected to attract an additional 6,000 visitors to the region annually and increase visitor nights by 1,800 annually. Broader benefits because of the hub and the future Murray River Adventure Trail include an estimated output of \$12.8 million and more than 70 additional jobs.'*²⁸

- **Residents.** Amenity and lifestyle (including rapidly increasing property values) benefits from their proximity to the greater basin's regulated rivers, lakes and wetlands.
- **Recreational fishing, boating and associated jobs.** As mentioned, high operational water levels are required to maintain navigation on the Murray River for boats, limiting the operational water level range (re-regulation capacity) of weir structures. An example of the system constraints exists in the works approval for Stevens Weir, Deniliquin, where a maximum draw-down rule applies to maintain historical water levels for navigation. These constraints reduce the operational flexibility in delivering customer water orders, resulting in lower overall delivery efficiency in the system. From an operational perspective, this creates resource impacts at certain 'stress points' within the valley, particularly at peak demand times²⁹.
- **Downstream users.** A further example is the fight against salinity in the Murray River. Despite it has now practically become an issue of the past, salinity management is the basis of a very large proportion of today's SA flow shares (or dilution flows) and still drives a lot of redundant investment and annual operational expenses for the MDBA. There is a credible argument that the salinity problem has been solved in two ways: by flooding the issue with millions of Megalitres of Environmental water every year; and by allowing water to have been traded from areas of poorer soils (where the water-logging was raising highly saline water tables and was mobilising a lot of salt).
- **Storages and critical flows.** During droughts, large storage dames like Hume and Dartmouth are a lifeline for native fish and associated aquatic wildlife as they can provide refuge and critical base flows as was demonstrated in the previous two seasons. Widespread fish kills along the Darling last year are an excellent example of what can happen if there are no large storages to conserve and provide critical flows.

It is unclear as to why irrigators must pay for the bulk of water management within the river system where so many other beneficiaries exist along this same system. MIL acknowledge that irrigators make a direct financial profit from water (much less-so in recent years), whereas some beneficiaries of river management and investment receive benefits that are much more difficult to quantify in financial terms. Therefore, MIL's

²⁸ Socio and Economic Benefits of Environmental Watering, MDBA.

²⁹ https://www.waternsw.com.au/__data/assets/pdf_file/0019/132616/20-Year-Infrastructure-Options-Study-June-2018.pdf

Independent Pricing and Regulatory Tribunal NSW Review



assessment of cost sharing, preferred cost share ratio and rationale is outlined below (Table A1-3 and Table A1-4).

Table 4 MIL preferred cost share ratio

Impactor	WaterNSW Cost share activities and %	MIL suggested irrigator cost share activities and %
Water users are the sole impactor (100% user share)	<ul style="list-style-type: none"> Customer support Customer billing Metering and compliance Direct insurances Irrigation corporation and district (ICD) rebates Risk transfer product (RTP) 	<ul style="list-style-type: none"> Customer support Customer billing Metering and compliance Irrigation corporation and district (ICD) rebates
Water users are major impactors	<ul style="list-style-type: none"> Water delivery and other operations (95%) Flood operations (80%) Hydrometric monitoring (90%) Water quality monitoring (80%) Corrective maintenance (95%) Routine maintenance (95%) Asset management planning (95%) Dam safety compliance (80%) Environmental planning and protection (80%) Corporate systems (80%) Renewals and replacement (95%) 	<ul style="list-style-type: none"> Water delivery and other operations (70%) Flood operations (30%) Hydrometric monitoring (30%) Water quality monitoring (30%) Corrective maintenance (95%) Routine maintenance (95%) Environmental planning and protection (30%) Corporate systems (30%) Renewals and replacement (70%) Direct insurances (30%) Risk transfer product (RTP) (30%)
The NSW Government	Dam safety compliance, pre-1997 capital projects	<ul style="list-style-type: none"> Dam safety compliance, pre-1997 capital projects Dam safety compliance that exceeds objective risk management criteria (0%) Hydrometric monitoring (30%) Water quality monitoring (30%) Corporate systems (30%)
NSW Government on behalf of state beneficiaries and the MDBA buyback legacy		<ul style="list-style-type: none"> Flood operations (30%) Water delivery and other operations (70%) Environmental planning and protection (30%)

Activity	Irrigator %	MIL explanation
Water delivery and other operations	30%	As outlined, there are many beneficiaries of efficient and well managed water in catchments.

Independent Pricing and Regulatory Tribunal NSW Review



Activity	Irrigator %	MIL explanation
	Except flood mitigation which should be <30%	Flood mitigation: In particular, in relation to flood-mitigation, the network of storages and weirs operated according to current operating settings, acts to greatly mitigate the damage to both urban & farm infrastructure including roads, recreational facilities, dwellings, farm buildings, access tracks, crops and grazing caused by damaging rises in stream flows in almost all flood events, perhaps excepting prolonged major floods.
Hydrometric monitoring Water quality monitoring	30%	<p>There is an important role for government in ensuring that data are collected efficiently and disseminated widely. In many countries, hydrometric data collection and management is simply considered a public good.</p> <p>There is no intrinsic 'value' in hydrologic data – the value depends upon the uses to which the data are put. The pricing of hydrologic data should therefore emphasise demand for the data rather than its 'cost', which is difficult to both define and measure.</p> <p>Some organisations are both participants in the collection and users of hydrologic data – this does not include irrigators. This has important implications for the way data collection should be organised and the way that data can be priced. For example, in Victoria, Melbourne Water collect hydrological data and charge for use³⁰. Irrigators don't have a need for hydrometric monitoring, at least not enough to pay for the majority of the service.</p> <p>There is a case for the NSW Government to fund some of the costs of data collection on the grounds of its responsibility for overall stewardship and coordination of the water industry.</p>
Environmental planning and protection (80%)	30%	<p>Fishway passages and offsets are required to sustain environmental values within the waterways. MIL encourage IPART to review how these costs are borne on other Murray Darling states (In Victoria, MIL believe these are funded through State Government revenue (DELWP Water and Catchments) and allocated to Catchment Management Authorities (Victorian equivalent of NRMs) to deliver).</p> <p>The proposed 2020-21 \$3.3 million should be invested on behalf of the people of NSW and taken from state revenue.</p>
Corporate Systems (80%)	30%	<p>CIMS project management overspend³¹ and the consolidation of workplaces for the purpose of team and culture is not the responsibility of irrigators to fund.</p> <p>The public expectation of these initiatives would be significant internal financial efficiencies and improved customer service as a result of the mergers, which is not evident in the 2021-22 budget.</p>
Renewal and replacement of assets	30%	<p>The renewal and replacement of assets is a legacy issue and should be borne by all water users, not just the impactor.</p> <p>The 2017-18 delay in infrastructure upgrades to allow for the WaterNSW merger is not appreciated. It does not seem that WaterNSW future expenses are in any way 'prudent' given an anticipated \$5.2 million exceedance of its capital allowance for the 2017 determination period.³²</p>

³⁰ <https://www.melbournewater.com.au/about/prices-and-charges/hydrologic-data>

³¹ WaterNSW 2021 Rural Valleys Pricing Proposal

³² WaterNSW 2021 Rural Valleys Pricing Proposal pg. 63.

Independent Pricing and Regulatory Tribunal NSW Review



Activity	Irrigator %	MIL explanation
Direct Insurances	30-50%	A cost share proportional to benefit derived by irrigators of commercial insurance costs is appropriate.
Risk Transfer product	30% of the efficient cost of obtaining such insurance, or the estimated cost of self-insurance.	Murray Irrigation assumes this refers to variable income risk related to seasonal variation in inflows and water sales. Murray Irrigation notes that Risk Transfer insurance can be expensive. Put simply Murray Irrigation feels this is a risk the state should take based on the huge diversity of industries and geographical regions that fees for a wide variety of services payable to the NSW Government.
Metering and compliance	0%	MIL should be exempt from this cost as they have their own metering and compliance unit, which is independently audited. Murray Irrigation also fund the operation, auditing and remote sensing infrastructure of its two large river-inlet meters.
Dam safety compliance	0%	<p>The dam safety compliance program \$30.4 million overspend is unacceptable and is not a cost that should be borne by users. MIL is not willing to contribute to the Dam safety compliance program, until there is a proven track record of:</p> <ul style="list-style-type: none"> • WaterNSW spending on time and within budget • Appropriate strategic planning of dam upgrades • Correct adoption of modern day risk management principles, in line with the more generally used NSW guidelines. <p>It is evident that WaterNSW is unable to manage dam safety expenditure within the scope of budget (possibly due to political interventions, poor decision making and an obsessive aversion to risk promoted by possibly self-serving interests), MIL do not believe irrigators should fall victim to cost recovery for extremely conservative, poorly delivered programs subject to poor planning, failure to meet delivery schedules and cost blow-outs).</p>

13. We are required to set prices that recover WaterNSW's efficient costs in the MDB valleys. If efficient costs are increasing, how should costs be recovered over the determination period?

The MDB costs make up around 75% of the total costs in the Murray Valley, and are proposed to increase by 65% from last year, or more specifically, \$18,471,000 in 2021-22³³.

MIL is aware that MDBA and the Dumaresq-Barwon Border Rivers Commission (BRC) costs will be passed on in full and will increase significantly, as outlined below (Table 5: MDBA pass through charges comparison from 2020 to 2022)

³³ IPART Issues paper, table 2.4.

Independent Pricing and Regulatory Tribunal NSW Review



Table 5: MDBA pass through charges comparison from 2020 to 2022³⁴

	2020-21 (\$)	2021-22 (\$)	% change
Murray Valley Bulk User share MDBA	12,580,000	18,471,000	47
Murrumbidgee Bulk User share MDBA	281,000	410,000	46
General Security Fixed charge (per/ML)	3.83	5.51	43.9
Variable usage (per/ML)	0.33	0.51	54.5

We fundamentally reject contributing 75% of MDB costs and strongly refute that irrigators of the Murray Valley alone should wear this price-hike. We call on IPART to recommend the MDBA are subject to scrutiny on efficiencies in expenditure and that the NSW share of MDBA costs are borne more broadly throughout NSW's Basin rivers.

Several reasons for this include:

- The way environmental water is managed, stored and used does not benefit Murray valley irrigators
- If costs of business are relatively constant (in a period of <2% inflation) MIL cannot understand how MDBA can excuse this increase. Our expectations are of a good level of service, but MIL also expect efficiency gains, not just employing more people.
- MIL have very little direct communication from MDBA on how this figure is decided and how the money is used - what, when and where³⁵.

14. How should we set prices in coastal valleys?

Fair and reasonably in comparison to other impactors. It is not lost on irrigators in Western NSW that coastal prices are more likely to be based on affordability – a novel concept for struggling farmers in the drought torn Murray valley of NSW. If the rationale is that the end user cannot pay – then the counter argument is three years of nearly 0% water allocation for MIL general security entitlement holders would entitle Murray users to significant fee relief and significantly greater than the relief offered to smaller NSW irrigators during recent prolonged drought periods³⁶.

15. What is the appropriate mix of fixed and usage charges?

As proposed by Water NSW, MIL do agree with IPART that a 40:60 mix is fair and believe that all tariffs related to water charges from WAMC and WaterNSW should be adjusted accordingly. Based on recent usage relative to entitlements held by customers within Murray Irrigation (a 50% average availability in recent years and a LTAAY³⁷ of 69%), the appropriate ratio for a fair mix of recovering costs is far closer to 27% fixed and 73% usage for combined WaterNSW, MDBA and WAMC charges.

³⁴ WaterNSW Rural Valleys Pricing proposal (pg. 40).

³⁵ MIL is aware of the complex report: River Murray Operations cost review, Cardno. Dec 2019, which is difficult to understand.

³⁶ Any relief provided in recent years, although very welcome, was capped at \$4000 per landowner, a relatively modest amount given the costs of the drought for many farm businesses.

³⁷ Long Term Average Annual Yield, or utilisation-rate based on long term water allocation and usage.

Independent Pricing and Regulatory Tribunal NSW Review



Our grounds for this are:

- Governments are much better able to withstand variable income than individual irrigators. The cost of smoothing income for Governments is much greater than that of family farmers in the NSW Murray Irrigation area, given their large geographic spread through many valleys, and the diversity of income between rural and urban industries.
- A lower fixed charge encourages Government agencies to also seek to reduce costs during years of low water availability. High fixed charges remove the supplier of services from the financial reality their customers are facing.
- In extreme droughts, Governments often assist primary producers through direct support to fixed water charges. With lower fixed charges, the expenditure for this sort of support payment will be also significantly lower.

Within the total charges, the MDBA and BRC charges for the Murray valley are even more punishing for a drought vulnerable, variable use customer at 80:20. We disagree with this structure, particularly on the grounds that a fair tariff shares volatility risk equitably between WaterNSW and its customers.

As previously mentioned, in recent years our 822,526 General Security Entitlements had 0% allocation for 22 of the 24 months up to June 30, 2020. If the future is anything like the recent past, paying for water infrastructure charges where there is little water allocated is not only painful, it is unsustainable and inequitable. If our irrigators have no income, they cannot afford to pay for a service they do not require.

Appendix 2. Response to WAMC questions raised by IPART

1. How well has WAMC performed its water management functions?

The *Water Management Act 2000* sets out WAMC's main functions:

- Construct, maintain and operate water management works, gauging stations and other monitoring equipment
- Conduct research, collect information and develop technology in relation to water management
- Acquire rights to water, whether within or beyond NSW
- Undertake any action required for the purpose of fulfilling the objects of the *Water Management Act 2000*.

Murray Irrigation Limited (MIL) also³⁸:

- Construct, maintain and operate water management works, gauging stations and other monitoring equipment collect information and develop technology³⁹ in relation to water management
- Undertake some actions that align with the objects of the *Water Management Act 2000*, in order to meet the reporting requirements of the licences that MIL holds with NSW NRAR and NSW Environmental Protection Authority.

We believe there is some duplication of services between WAMC and MIL. MIL's core role is to deliver best-in-class water delivery services to agriculture, government and the environment; to optimise yield on our water entitlements; and to attract and retain water for our region. We foster strong community partnerships and provide a range of education resources for our customers. We participate in a number of different projects that improve operations and irrigation systems for our community. One specific example of where we believe we do not require WAMC to perform its management functions (nor pass on its fees), is water quality monitoring.

MIL deliver the following monitoring activities⁴⁰:

- Water allocation and extraction: annual delivery volumes
- Water use by crop type and comparisons of previous years
- Annual irrigation intensity
- Environmental water delivery amounts (i.e. monthly water delivered for environmental purposes on behalf of the Office of Environment and Heritage)
- Water balance modelling to determine delivery efficiency
- Water table monitoring
- Water quality: salinity and salt load, nutrient and pesticide monitoring (when required).
- Groundwater conditions

MIL support IPART's position that any inefficiencies in WAMC operations should not be borne by its customers. We suggest this may be done through a comparison study of what services are already successfully delivered in each valley.

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

MIL does not entirely agree, as outlined above (Q.1), although MIL do recognise Governments may undertake a wide range of activities. It is paying for this wide range of marginally useful activities that MIL finds unfair.

³⁸ Prior to the establishment of the *Water Management Act 2000*

³⁹ <https://www.murrayirrigation.com.au/water/projects/>

⁴⁰ <https://www.murrayirrigation.com.au/wp-content/uploads/2019/10/Annual-Compliance-Report-2018-19.pdf>

Independent Pricing and Regulatory Tribunal NSW Review



MIL considerations against WAMC's proposed areas for focus are provided below (Table 6. MIL considerations).

Regarding costs, MIL support IPART's intention to consider WAMC's ability to control costs and realise efficiencies. WAMC would be hard pressed to justify that an 'impactor pays principle' would apply to the development of the Water Strategy Program, particularly the regional water sharing plans, when the intent is to strategically plan for water use and allocation to support all parts of society for the foreseeable future.

Table 6. MIL considerations

WAMC Focus	MIL Comment
<p>Water Strategy Program ⁴¹</p> <p><i>'The suite of strategies in the Water Strategy Program will guide how NSW water agencies meet water management obligations and priorities, and ensure they are delivered in the most coordinated, effective and efficient ways over a 20 to 40-year horizon. The strategies will also provide the strategic framework for managing future droughts, and a monitoring and evaluation framework to track performance of water utilities and government in delivering these strategies.'</i>⁴²</p> <p>This will include Regional Water Strategy development.</p>	<p>Support for Murray region to have their own strategy⁴³</p> <p>MIL do not support cost share must include all beneficiaries, 'impactor pays' would not be appropriate application as the programs reach is much broader.</p>
Floodplain and Drainage Management	Support WAMC's proposal for zero costs to be passed on to users. Most direct drainage and flood management activities in the Murray region are conducted by MIL, or its landowners.
Erosion and Salinity control works	We accept these are necessary and required, although MIL encourages IPART to review the necessity of ongoing funding for current programs given the success of the Salinity Strategy over the past 40 years. i.e. this is a battle that has been won!
Evaluation of Water Management Plans	MIL support the evaluation of the Water Management Plans. MIL support IPART's review of evaluation delay and the position that WAMC customers should pay only for their share of the efficient cost.
NRAR	See comments below in Q.3

3. How well has NRAR performed its water regulation functions?

In 2017, the ABC Four Corners program revealed that there was an issue of water stealing in the Murray Darling Basin, particularly in the Northern Rivers. In our view, the NSW Government had not been concerned with the issues raised by the ABC prior to the report. Following the program and the subsequent public outcry⁴⁴, the NSW Government created the Natural Resources Access Regulator (NRAR). Our findings are that NRAR's

⁴¹ W06-05 pg. 40

⁴² WAMC

⁴³ <https://www.industry.nsw.gov.au/water/plans-programs/regional-water-strategies/about>

⁴⁴ Including the 'Matthews Review', NSW Government commitments and NSW Ombudsmen.

Independent Pricing and Regulatory Tribunal NSW Review



level of performance was complex and may have led to unintended consequences, which have shifted the burden to added financial pain for irrigators. Although NRAR's approach in theory was well considered and has been implemented effectively, in practice we have found their financial expenditure was excessive and their results were underwhelming.

According to NRAR's website, '*NRAR has laid the foundations to be a world class regulator*'.⁴⁵ However, this goal has come at a cost to irrigators. NRAR have proposed to spend \$69.3 million⁴⁶ (\$15.5 million each year) over the next five years⁴⁷, which is an increase of 118.2% in comparison to the past five years. In spite of the extensive planning in their approach, NRAR have failed to foresee that these costs would inevitably be passed on to the end user – which are particularly painful following severe drought with low water allocations for irrigation. This liability is the direct consequence of the 'user pays principle', which is the major flaw of the cost share model.

Given the cost share model has been in place between NSW Government and water users **since the mid 1990's**, the proposed increase of 118.2% will result in an incredible financial burden to water users, which should have been taken into consideration by NRAR. The 2018/19 program had doubled its staff resourcing from 69 to 146⁴⁸ and as this submission is being written, NRAR are planning to advertise for 25 new 'boots on ground' officer positions in Dubbo, Tamworth and Deniliquin⁴⁹. We are concerned that there is no budget cap in place and that the burden will continue. In striving to meet this world class regulator standard, NRAR has lost sight of the impact their spending has on the irrigator. **MIL strongly believe NRAR's spending should only increase in line CPI.**

The compliance results that NRAR are achieving are underwhelming, given the exorbitant cost of the program. In 2018/19, NRAR spent \$18,537,000 to deliver its priorities. The compliance results for 2018/19 included 1,285 breach allegations made to NRAR, of which 3.9% ended up in penalty infringement notices and <1% in prosecutions⁵⁰. The fifty infringement notices that were issued totalled \$37,500⁵¹ in revenue. There were three successful prosecutions (and seven others underway), which collected less than \$50,000 in fines. These minor outcomes may not be reflective of the effort, however we encourage IPART to review NRAR's outcomes against financial expenditure.

There may well be a need for NRAR in a large part of the NSW River operations footprint. This appears to be as a result of a widespread, repeated and long-term failure by the NSW Government agencies to manage compliance related to direct extraction by water users from our rivers, particularly in Northern NSW. MIL believe there is a strong case for Irrigators within the Murray Irrigation area of operations to be exempt from paying any costs related to NRAR and MIL encourage IPART to investigate the effective role (and benefit) of NRAR in relation to Murray irrigation.

⁴⁵ https://www.industry.nsw.gov.au/__data/assets/pdf_file/0007/272689/NRAR-progress-report-2018-19.pdf

⁴⁶ IPART Analysis. \$63 million was listed by NRAR.

⁴⁷ NSW Government Pricing Proposal submission to IPART: Compliance Management W08-03. pg. 48

⁴⁸ Natural Resources Access Regulator Progress Report, 2018/19. pg. 39.

⁴⁹ <https://www.industry.nsw.gov.au/natural-resources-access-regulator/about-nrar/nrar-news/nrar-expands-presence-in-regional-nsw>

⁵⁰ Acknowledging that a compliance outcome is only a small, but important part of the picture.

⁵¹ 2018/19 = 1 Penalty Unit is \$750

Independent Pricing and Regulatory Tribunal NSW Review



4. Will NRAR's proposed activities and costs facilitate effective and efficient water regulation?

NRAR's proposed activities will most certainly be effective, but we hold concerns regarding efficiency, and their relevance and cost to an irrigator taking water from a canal near Deniliquin or Finley? MIL encourage IPART to address the concerns outlined in Q.3 above.

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

The flow on effect from introducing NRAR's compliance approach, combined with drought has created a new need in licencing processing that NRAR have noted was difficult to maintain. MIL support IPARTs intent to look more thoroughly at the factors that are driving cost increases, and the need to apply any NRAR charges to irrigators farming within the NSW Irrigation Corporation areas of operations.

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

MIL disagree that WAMC need to focus on providing *better* consultation will all customers, with the exception of being more transparent with pricing and cost sharing proposals. MIL has good existing relationships with its customers and in most instances are able to communicate with WAMC on behalf of our customers. IPART is encouraged to review MIL's low cost, regular and extensive communication and engagement with its shareholder members to determine how WAMC and WaterNSW can improve, and the extent of any cost burden of WaterNSW and WAMC engagement to MIL's customers

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

MIL would like to acknowledge that WaterNSW have consulted with stakeholders in their quarterly rounds of Customer Advisory Group meetings. We appreciate the efforts of this consultation, though it can be challenging to fully understand the depth and diversity of cost implications in the brief periods where this information is presented. We would like to also acknowledge that WaterNSW make an effort to explain in detail their maintenance work activities and some of those implications on associated charges.

In regard to DPIE and NRAR, they appear to have delivered a very comprehensive consultation program that has *informed* the pricing proposals⁵². However, it is unclear as to whether there has been any follow-up consultation specifically on the pricing proposals, outside of this IPART review. It is all well-and-good to seek a wish list from community and stakeholders, but in doing so, new expectations are created. DPIE would have consulted adequately by clearly articulating what the increase in level of community expectations actually means financially to users. MIL see no evidence of this having occurred.

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

MIL consider this issue to be very important, given the proposed \$152.8 million MDBA contribution flows through to MIL irrigators. MIL support IPART's scrutiny of the efficiency of MDBA and BRC contributions, before seeking to pass them on to WAMC and WaterNSW customers.

⁵² KJA, DPIE IPART Price Submission – Detailed Paper B.

Independent Pricing and Regulatory Tribunal NSW Review



9. Was it efficient for WaterNSW to apply capital expenditure from its water monitoring program to cover its shared capital costs?

Although we do not completely understand why this shift in expenditure has occurred, we do not believe this was efficient or ethical. Transferring dedicated funds of this calibre⁵³ should be accompanied by some genuine level of stakeholder consultation. If WaterNSW were unable to spend the money because of administrative requirements or lack of understanding of the need, then the decision of how to expend it should have been tested with the users that pay for the service.

10. Is WAMC's water monitoring program efficient?

The use of in-house and external providers for water monitoring is a standard practice. However, as outlined in Q.1, there is likely to be extensive duplication with irrigation providers. Prior to any further implementation, MIL encourage IPART to review WAMC's water management program, and review the opportunities for removal of duplication, and for greater efficiency.

11. Given the increase in WAMC's capital costs, is the arrangement of WaterNSW providing WAMC's capital program efficient?

MIL encourages IPART to review the current model, and to determine the level of efficiency. MIL also invites IPART, and its dedicated consultants reviewing these issues, to meet with MIL's infrastructure team and to investigate MIL's project delivery and operational model (for projects and operations where a clear parallel or similarity of service requirements is evident) to establish relative efficiency, and opportunities for improvement by WaterNSW and by WAMC.

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

MIL agree with aspects of the cost sharing proposal. The following table (Table 7. MIL cost share analysis) outlines where we object and suggest a modified cost share ratio.

Table 7. MIL cost share analysis

Impactor	WAMC Cost share Activities and %	MIL suggested user cost share of efficient activities and %
Water users are the sole impactor (100% user share)	<ul style="list-style-type: none"> ▪ Surface water quantity monitoring ▪ Water take data collection, data management and reporting ▪ Groundwater activities (i.e., quality and quantity monitoring, data management, modelling) ▪ Water resource accounting ▪ Systems operation and water availability management 	<ul style="list-style-type: none"> ▪ Consents management and licence conversion and water consents transactions ▪ Customer and billing management

⁵³ IPART Review of Water Management Prices.

Independent Pricing and Regulatory Tribunal NSW Review



Impactor	WAMC Cost share Activities and %	MIL suggested user cost share of efficient activities and %
	<ul style="list-style-type: none"> ▪ Regulation systems management ▪ Consents management and licence conversion and water consents transactions ▪ Compliance and enforcement management ▪ Customer and billing management 	
Water users are major impactors	<ul style="list-style-type: none"> ▪ Surface water quality monitoring, (60%) ▪ Surface water modelling (80%) ▪ Environmental water management (80%) ▪ Water plan development (70%) ▪ Regional planning and management strategies (70%) ▪ Development of water planning and regulatory frameworks (80%) ▪ Water management works (80%) ▪ Business governance and support (80%) 	<p><i>These are almost universally broad NRM activities and the role of Government.</i></p> <ul style="list-style-type: none"> ▪ Environmental water management (80%) ▪ Water take data collection, data management and reporting (70%) provided this is not already paid-for by Irrigation corporations, or done by WaterNSW ▪ Development of water planning and regulatory frameworks (80%)
Joint impactor (50% customer share)	<ul style="list-style-type: none"> ▪ Surface water data management and reporting ▪ Surface water ecological condition monitoring ▪ Water plan performance assessment and evaluation ▪ Cross-border and national commitments to water sharing 	<p><i>These are almost universally broad NRM activities, and where irrigator related, do not apply to irrigation corporation operations (i.e. the service is either self-performed, or not required) and typically are functions that are the role of Government.</i></p> <ul style="list-style-type: none"> ▪ Surface water modelling (50%) ▪ Systems operation and water availability management (50%) ▪ Regulation systems management (50%)
Water customers are minor impactors	<ul style="list-style-type: none"> ▪ Surface water algal monitoring (40%) ▪ Blue-green algae management (40%) 	<p><i>These are functions that are the role of Government.</i></p> <ul style="list-style-type: none"> ▪ Compliance and enforcement (oversight) and management (10%) ▪ Regional planning and management strategies (30%) ▪ Surface water quantity monitoring (provides a very broad benefit) (30%) ▪ Water management works (30%)

Independent Pricing and Regulatory Tribunal NSW Review



Impactor	WAMC Cost share Activities and %	MIL suggested user cost share of efficient activities and %
		<ul style="list-style-type: none"> Business governance and support (30%) Water resource accounting (30%) Surface water quality monitoring (30%) Environmental water management (30%) Water plan development (30%) Surface water algal monitoring (40%) Blue-green algae management (40%)
The NSW government is the sole impactor (0% customer share)	<ul style="list-style-type: none"> Floodplain management plan development Drainage management plan development 	<ul style="list-style-type: none"> Surface water data management and reporting Surface water quality monitoring Surface water ecological condition monitoring Water plan performance assessment and evaluation Cross-border and national commitments to water sharing Groundwater activities (ie, quality and quantity monitoring, data management, modelling) Floodplain management plan development Drainage management plan development
NSW Government on behalf of state beneficiaries and the MDBA buyback legacy		<ul style="list-style-type: none"> Environmental water management (80%)

Table A 8-2: MIL cost share rational

Cost Share Activity	MIL proposed %	Rationale
Groundwater activities (i.e., quality and quantity monitoring, data management, modelling)	50%	<p>MIL do not believe Murray Valley irrigators benefit from this data and MIL conduct very significant annual internal monitoring activities that are included in MILs mandated annual operating report.</p> <p>There is a case for the NSW Government to fund some of the costs of data collection on the grounds of its responsibility for overall stewardship and coordination of the water industry.</p>
Compliance and Enforcement Management	0% for the next four years	<p>As outlined in Q.3:</p> <ul style="list-style-type: none"> MIL believe there is a strong case for Irrigators within the Murray Irrigation area of operations to be exempt from paying any costs related to NRAR and encourage IPART to investigate the effective role (and benefit) of NRAR in relation to Murray irrigation. NRAR have no clear plan on limits for expenditure

Independent Pricing and Regulatory Tribunal NSW Review



		<ul style="list-style-type: none"> Lack of compliance results that contribute to state revenue Over emphasis on job creation
Environmental water management	20%	<p>Environmental water benefits are in-river or on the immediate flood plain and cost money to manage.</p> <p>Environmental water is managed very differently to irrigation water.</p> <p>All water that is set-aside to achieve e-water aims is being sourced from the water storages, rather than from the first available water anywhere in the river system (to meet the demand for an irrigators diversion onto a farm). This is particularly noticeable in springtime each year (Sep-Nov).</p> <p>Although quite difficult to calculate, as irrigator demand and within season time of use patterns change, the inability to supply e-water demands from run of river means there is more water needed to be stored to meet e-water demands. The premium may typically be 120% or 130%⁵⁴ of the volume needed in store to meet demand from irrigators holding the same number of entitlements.</p> <p>These risks and impacts adversely affect a large group of NSW irrigators (and sometimes the environmental water holders) as they reduce the relative security of their entitlements, and so the value of the 'products' that could be generated from their full utilisation. In addition, unlike irrigators, environmental water holders enjoy the benefits of higher reserves (or dead storage) through the increased incidence of dam spills in wetter sequences delivering increased uncontrolled river flows.</p>
Surface water quality monitoring	0%	In the 2016 determination period, there was funding allocated to this program that was ultimately shifted to the Cap-ex program. Without better explanation, MIL refuse to pay twice for this cost.

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

It is agreed with IPART and WAMC that a four year determination period is appropriate. The merits for aligning the price determinations for WAMC and Water NSW are:

- Dedicated timeframe to invest resourcing into similar submissions. In response to this review, we have spent significant time and investment, including using internal staff resources and consulting with our customers. To sufficiently address the issues paper, we have employed consultants to support the submission, at a cost to the business.
- The aligned timeframes create financial stability for our customers to plan ahead.

14. If we set a shorter period for WaterNSW rural bulk water prices, are there benefits in aligning WAMC's determination period with WaterNSW rural bulk water? What are the costs and benefits of setting a one-year period for WAMC to potentially align with WaterNSW rural bulk water? Alternatively, what are the costs and benefits of setting a longer period (e.g., five years) and aligning these two determinations at the next review?

It is MIL's preference is that a four year determination period set at the same time for WAMC and WaterNSW and both expiring at the same time (**significantly preferred**).

⁵⁴ This is a preliminary estimate, based on a spread of demand for irrigation water between spring, summer and autumn supply .

Independent Pricing and Regulatory Tribunal NSW Review



However, if IPART were to set a shorter period, the following order of preference is:

- i. A one year determination period set at the same time for WAMC and WaterNSW, followed by a four year determination period. Both expiring at the same time.
- ii. A five year WAMC determination period and one year for Water NSW followed, by four year determination period. Both expiring at the same time.

Note: In the event IPART are unable to properly establish efficient costs for the MDBA operational and Cap-ex expenditures, MIL suggests a freeze on MDBA charges until such a transparent review is possible.

15. What are your views on WAMC's proposed price structures?

Subject to a review of efficiency, and clarity surrounding all MDBA costs *"Our preliminary view is to accept WAMC's proposal on price structures – that is, to accept the proposed:*

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

However, a potential change that we are considering is setting separate charges for MDBA and BRC activities. We consider this change would improve transparency compared with 'bundled' charges that recovers costs for WAMC, MDBA and BRC. This approach is also consistent with the Water NSW rural bulk water service price determination, which sets separate charges for MDBA and BRC services. We seek stakeholders' views about establishing separate charges for MDBA and BRC costs." IPART page 25

The majority of roles and responsibilities that WAMC have adopted are not required by NSW Murray Irrigation limited customer-irrigators. Therefore, a majority of the listed WAMC water management functions, although possibly well warranted by modern community needs, are not relevant to Murray Irrigation this submission.

We support the IPART position that any inefficiencies in WAMC operations should not be borne by its customers.

16. Is there merit in setting separate charges to recover MDBA and BRC costs?

Yes, assuming a reasonable level of scrutiny, this will provide greater clarity about services and costs amalgamated under a third-party banner.

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

In terms of the role of government, or the broader community, many activities conducted by WAMC and costs incurred, are on behalf of the people of NSW, so the concept of full cost recovery is one that should be shared between irrigators and the broad group of 'other beneficiaries' of a well-managed river system. Many of these costs are in the group or costs that have incurred the greatest recent cost-increase (E.g. the creation of NRAR)

Any price path must recognise that excessive one-year price rises are unfair and create a bill-shock for customers. Any price path must incorporate reasonable demands for organisational efficiency improvements.

Independent Pricing and Regulatory Tribunal NSW Review



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

Customers depending on allocations of NSW GS water are the group least able to cope with high charges in years of low water supply. This may not be true for highly secure urban water supplies, and for others benefiting from a well-regulated river system. For this reason, MIL encourages a low fixed proportion of any charges applied. Volatility of revenue resulting from lower fixed charges is a cost that should be borne by government. Government enjoy a broad geographical spread of customers as a natural hedge to local shortages, have a very wide variety of revenue streams and much better capacity to manage budget volatility.

Independent Pricing and Regulatory Tribunal NSW Review



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Independent Pricing and Regulatory Tribunal NSW Review



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