IPART
Independent Pricing and Regulatory Tribunal
New South Wales

# REVIEW OF WATER NSW'S
# RURAL BULK WATER PRICES
## FROM 1 JULY 2021

Issues Paper

September 2020

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# Tribunal Members

The Tribunal members for this review are:

Dr Paul Paterson, Chair

Ms Deborah Cope

Ms Sandra Gamble

Enquiries regarding this document should be directed to a staff member:

Matthew Mansell (02) 9113 7770

Scott Chapman (02) 9290 8449

The team working on this review includes: Eva McBride, Ian Dehlsen, Jessica Forrest and Carol Lin.

# Invitation for submissions

IPART invites written comment on this document and encourages all interested parties to provide submissions addressing the matters discussed.

**Submissions are due by 16 October 2020.**

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

You can also send comments by mail to:

**Review of Water NSW's rural bulk water prices**
Independent Pricing and Regulatory Tribunal
PO Box K35
Haymarket Post Shop, Sydney NSW 1240

Late submissions may not be accepted at the discretion of the Tribunal. Our normal practice is to make submissions publicly available on our website <www.ipart.nsw.gov.au> as soon as possible after the closing date for submissions. If you wish to view copies of submissions but do not have access to the website, you can make alternative arrangements by telephoning one of the staff members listed above.

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

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# 1 Executive summary

The Independent Pricing and Regulatory Tribunal (IPART) is reviewing prices that customers pay for rural bulk water services delivered by Water NSW. It owns and operates most of the dams and other assets that collect and store bulk water in NSW. This water is released on 'regulated rivers' for extraction by its customers[1] who, depending on water availability, have a right to use the amount of water set out in their water access licences (WALs).[2]

Water NSW's rural bulk water customers are mostly irrigators, who use water for agriculture. However, they also include regional towns, industries such as electricity generators, farms for stock and domestic purposes and the Commonwealth and NSW Governments, which hold water for environmental purposes.

As well as the rural bulk water services that are the subject of this review, Water NSW has three other businesses and functions that are beyond the scope of this review:

- **Water Administration Ministerial Corporation (WAMC) functions** – Water NSW undertakes certain water resource management functions on behalf of WAMC. We are currently undertaking a parallel review of WAMC's maximum prices.
- **Water NSW-Greater Sydney** – Water NSW delivers bulk water to Sydney Water and other customers such as the three councils surrounding its catchments.
- **Broken Hill pipeline** – Water NSW delivers bulk water to the town of Broken Hill, where Essential Energy purchases and treats the bulk water, and then distributes treated water to households and businesses.

**Water NSW core functions**

| Rural | WAMC | Greater Sydney | Broken Hill pipeline |
|---|---|---|---|
| Delivery of bulk water to rural customers | Implementing water management policy | Delivery of bulk water to Sydney region | Delivery of bulk water to Broken Hill |

This Issues Paper:

- Summarises Water NSW's proposed costs and prices for the 2021 determination period

1 Water access licence holders on regulated rivers.
2 Water NSW is not responsible for issuing licences or for allocating water to licence holders in any given year. That is a matter for the NSW Department of Planning, Industry and Environment.

- Identifies, analyses and seeks stakeholder feedback on key issues for this review
- Outlines the review process and timeline for the review.

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

## 1.1 Our approach to this review

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

1. We will decide on the scope of Water NSW's rural bulk water monopoly services and the length of the determination period.
2. We will establish the total efficient costs to provide these services over the determination period.
3. We will distribute the total efficient costs between customers and the NSW Government (on behalf of the broader community) based on the 'impactor pays' principle.
4. We will allocate the customer share of total efficient costs by water sources.
5. We will set Water NSW's rural bulk water prices to recover the customer share of efficient costs. We will evaluate the impact of our pricing decisions as part of this process.

In the following sections, we discuss Water NSW's proposal and key issues that we have identified.

## 1.2 We seek feedback on key issues we identified for this review

### Water NSW proposes significantly higher expenditure in the next determination period

We last set Water NSW's rural bulk water prices in 2017, for the period to 30 June 2021.

Water NSW proposes significant increases in both operating expenditure (by 37%) and core[3] capital expenditure (by 38%), compared with the allowances we used to set prices for the 2017 determination period (1 July 2017 to 30 June 2021). According to Water NSW, this expenditure is necessary to maintain services, and to meet regulatory and legislative requirements.

It also proposes higher expenditure to deliver several large drought-related capital projects, primarily in the Border[4], Peel[5] and Lachlan[6] valleys. It proposes that the initial capital costs of these projects be jointly funded by the NSW and Commonwealth Governments, not licence holders.[7]

3 Excluding major drought-related projects.
4 The Mole River project near the Queensland border.
5 Including the new Dungowan dam near Tamworth.
6 The upgrade to Wyangala dam.
7 Water NSW, *Pricing proposal to IPART*, June 2020, p 31.

Importantly, Water NSW's proposed prices for 2021-22 would not cover its forecast costs. This means the NSW Government (taxpayers) would pay for some costs incurred in delivering services to licence holders.

For this review, we will set prices in the Murray–Darling Basin (MDB) valleys according to the Commonwealth Government's Water Charge Infrastructure Rules (WCIR). These rules require us to set prices that are likely to recover the efficient costs of delivering services, net of all other revenue including government grants and subsidies. This means Water NSW's proposal to under-recover its proposed costs in 2021-22 is unlikely to be possible.

Water NSW also proposes a 65% increase in total pass-through costs for Murray–Darling Basin Authority (MDBA) and Dumaresq-Barwon Border Rivers Commission (BRC) costs. This approach significantly affects customer bills in the Border, Murrumbidgee and, in particular, Murray valleys.

Setting prices to recover Water NSW's proposed user share of costs would result in significant price increases and bill increases, as outlined in Chapter 4.

### We seek feedback on the length of the determination period

One thing we must decide is the length of the determination period. Previous determinations for rural bulk water prices have typically been for three or four years. A four-year determination period often strikes the right balance between price stability and adjusting to changes in policy and costs over time. The longer the determination period, the further we have to forecast costs and sales volumes.

Water NSW proposes we set rural bulk water prices for one year, from 1 July 2021 to 30 June 2022.[8] This approach aligns with our next determination of prices for the Broken Hill pipeline. If we set a one-year determination period, we would then need to set prices again from 1 July 2022. Given recent amendments to the WCIR, this second determination may be conducted entirely under the IPART Act, which means prices in MDB valleys may be different.

Chapter 3 discusses this issue.

## 1.3 Having your say and our timetable

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

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

8 The Commonwealth Government's WCIR specify the determination period when we set Water NSW's rural bulk water prices in the Murray–Darling Basin. The standard determination period is four years, but there is some scope to set a different period to align with the determination period of an urban water service delivered by Water NSW.

will consider all these comments before making our Final Determination and publishing our Final Report in June 2021, for new prices to apply from 1 July 2021.

**Figure 1.1 Indicative timeline for this review**


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

## 1.4 Structure of this Issues Paper

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

- Chapter 2 outlines Water NSW's historical and forecast expenditure for the 2021 determination
- Chapter 3 discusses who pays and how prices are set
- Chapter 4 sets out price and bill impacts.

## 1.5 List of questions for this Issues Paper

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


| | | |
|---|---|---|
| 1 | How well has Water NSW delivered its bulk water services since 2017? | 9 |
| 2 | Was Water NSW's capital expenditure over the 2017 determination period efficient? | 9 |
| 3 | Is Water NSW's proposed expenditure on maintenance efficient? | 11 |
| 4 | Do you have any comments on Water NSW's operating activities and associated operating costs? | 11 |
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| 12 | Are there policy and industry reforms that make four-year forecasts of costs and usage difficult? Has COVID-19 hampered Water NSW's customer consultation? | 18 |
| 13 | 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. | 22 |
| 14 | We are required to set prices that recover Water NSW's efficient costs in the MDB valleys. If efficient costs are increasing, how should costs be recovered over the determination period? | 23 |
| 15 | How should we set prices in coastal valleys? | 23 |
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# 2 Water NSW's expenditure

This chapter outlines Water NSW's actual operating and capital expenditure since the 2017 Determination, compares this with the forecasts we used to set Water NSW's prices for the 2017 determination period, and presents Water NSW's forecast expenditure.

## 2.1 Water NSW's expenditure since 2017 was considerably higher than allowed for

We last set prices in 2017, for the period until 30 June 2021. Those prices reflected our allowances for Water NSW's efficient operating costs:

We allowed for both efficient:

- **Operating expenditure** – This is the day-to-day operating costs of delivering services, including maintenance, operations and administration costs. Efficient operating costs are generally fully recovered through the prices we set each year. If Water NSW spends more than we forecast, it typically has to carry that cost and does not recover the difference from customers. Similarly, if it spends less than we forecast, it keeps the difference.
- **Capital expenditure** – This is Water NSW's investment in infrastructure and assets such as dams, equipment and land. We add these efficient investments to Water NSW's total stock of assets (its regulatory asset base or RAB), and recover them through prices more slowly, typically over many years or decades. Unlike operating expenditure, if it spends more or less than forecast, the RAB is adjusted for the difference and prices are adjusted accordingly at the next price determination. This means that in the long run, customers pay only for assets that needed to be, and were, built.[9]

Over the 2017 determination period, Water NSW spent significantly more than we allowed for when setting prices. This was true for both operating and capital expenditure.

### Operating expenditure was higher than allowed for in 2017

Operating expenditure includes Water NSW's ongoing costs, such as labour, electricity and insurance. Water NSW's actual operating expenditure over the 2017 determination period was $208.3 million, which is $51.4 million (33%) more than our allowance when we set prices in 2017 (see Table 2.1).

9 Under the WCIR, all capital expenditure on assets in the MDB over the previous determination period must be added to the RAB if it was used to deliver the bulk water services, not just that expenditure deemed efficient.

**Table 2.1 Actual operating expenditure compared with IPART's allowance for the 2017 determination period ($million, $2020-21)**

| | 2017-18 | 2018-19 | 2019-20 | 2020-21 | Total |
|---|---|---|---|---|---|
| IPART 2017 allowance | 39.7 | 37.9 | 37.3 | 36.0 | 150.9 |
| Actual/forecast | 46.1 | 48.9 | 55.2 | 58.0 | 208.3 |
| Difference | 6.4 | 11.0 | 17.9 | 22.0 | 57.4 |
| Difference (%) | 16% | 29% | 48% | 61% | 38% |

**Note:** The numbers in this table have been adjusted using the correct inflation rate.

**Source:** Water NSW, *Pricing proposal to IPART*, June 2020, p 75.

Water NSW spent significantly more than the allowance we used to set prices in 2017 for routine and corrective maintenance ($33.3 million) and insurance ($16.7 million). This was in part offset by lower spending on dam safety compliance and environmental planning.

### Water NSW's expenditure on drought-related capital projects increased substantially

In 2019, the NSW Government directed Water NSW to build several new capital projects. These included planning and preliminary works for three dam projects (ie, raising the Wyangala Dam wall, replacing the Dungowan Dam, and a new dam on the Mole River), as well as emergency drought works in the Peel, Border and Macquarie catchments to protect town water supplies.

In its proposal, Water NSW considers customers should not have to pay for drought and water security projects directed by the Government. Instead, it proposes IPART allocate these costs entirely to the government.[10]

### Core capital expenditure was higher than the allowance we used to set prices in 2017

We have identified Water NSW's 'core' capital expenditure as its normal expenditure on building, augmenting and maintaining its assets, and excluding expenditure on government directed drought-related capital projects as described above. For this review, we will consider the efficiency of Water NSW's capital expenditure during the 2017 determination period.[11]

10 Water NSW, *Pricing proposal to IPART*, June 2020, p 70. Or, see section 3.3 for further discussion in this Issues Paper.

11 While the WCIR requires all capital expenditure in the MDB since 2017 be added to the RAB, we will assess the efficiency of expenditure in coastal valleys. We may also draw insights from any inefficiencies in historical capital expenditure when setting the forecast level of efficient expenditure from 1 July 2021 in both coastal and MDB valleys.

**Box 2.1 The rules we have to follow when setting prices from 2021**

We conduct this review under two regulatory frameworks:

- We are accredited by the Australian Competition and Consumer Commission (ACCC) to set Water NSW's bulk water prices in the Murray–Darling Basin (MDB) valleys under the Commonwealth Government's *Water Charge (Infrastructure) Rules 2010* (WCIR).
- For coastal valleys and some Fish River customers, we set Water NSW's prices under the *Independent Pricing and Regulatory Tribunal Act 1992* (NSW) (the IPART Act).

We used these same frameworks to set prices in MDB valleys and coastal valleys in 2017. While many of the requirements are similar under both approaches, there are some key differences:

- The WCIR provides little scope to exclude any capital expenditure since 2017 that may have been inefficient. That is, we must include all capital expenditure since 2017 in Water NSW's regulatory asset base – regardless of its efficiency.
- The rate of return (the weighted average cost of capital or WACC) used to calculate an appropriate return on assets is different under two approaches. Currently, the WACC under the WCIR is likely to be significantly lower than that under the IPART Act. Therefore, so will the return on assets we allow for when setting prices.
- The WCIR requires us to set prices so that total revenue from all sources matches the total efficient costs. The IPART Act also aims to recover efficient costs, but must also consider a range of other factors when setting prices.

**Source:** WCIR, Schedule 2; IPART Act, Section 15.

Overall, Water NSW spent $70.1 million (43%) more than the allowance we used to set prices for the 2017 determination period. Water NSW underspent its allowance in the first two years but overspent significantly in the final two years (see Table 2.2).

Of its $234.2 million of core capital expenditure over the 2017 determination period, Water NSW proposes to allocate 78% ($182.4 million) to customers and 22% ($51.8 million) to the NSW Government.

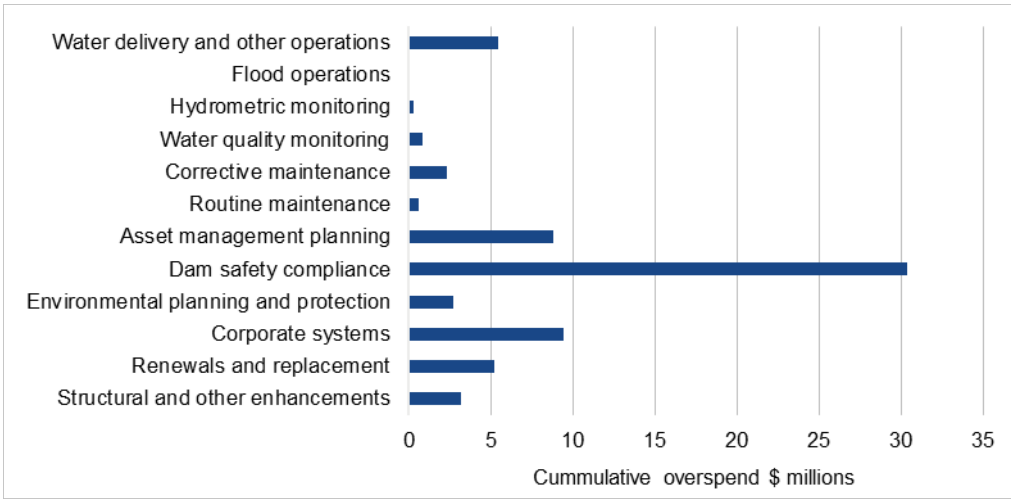
**Table 2.2 Water NSW core capital expenditure for the 2017 determination, excluding drought ($ million, $2020-21)**

| | 2017-18 | 2018-19 | 2019-20 | 2020-21 | Total |
|---|---|---|---|---|---|
| IPART 2017 allowance | 54.7 | 54.3 | 28.7 | 26.4 | 164.1 |
| Actual/forecast | 39.5 | 45.2 | 68.9 | 80.6 | 234.2 |
| Difference | -15.2 | -9.1 | 40.2 | 54.2 | 70.1 |
| Difference (%) | -28% | -17% | 140% | 205% | 43% |

**Source:** Water NSW, *Pricing proposal to IPART*, June 2020, Tables 12 and 13, pp 60-61, IPART analysis.

Relative to the allowances we used to set prices in 2017, Water NSW overspent across all capital expenditure categories (see Figure 2.1). The largest overspends were for dam safety upgrades, corporate capital assets and water planning.

**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.

We have engaged an expert expenditure consultant to review Water NSW's historical and forecast expenditure and recommend an efficient level. We will consider the expenditure consultant's recommendations when setting prices.

### We seek your comments

1 How well has Water NSW delivered its bulk water services since 2017?

2 Was Water NSW's capital expenditure over the 2017 determination period efficient?

## 2.2 We need to forecast expenditure to 2025

To set prices, we need to determine the efficient expenditure Water NSW will incur to provide its monopoly services over the 2021 determination period. We also need to decide who pays for those costs. This will determine the amount it can recover through its prices to customers, and how much government will pay for.

This assessment is critical given the significant increases in operating and capital expenditure Water NSW proposes compared with its 2017 allowances. The expenditure consultant will examine Water NSW's proposed expenditure and recommend an efficient level. We will consider this recommendation when determining efficient operating and capital expenditure to 2024-25.

Water NSW's proposal includes forecasts for only one year – 2021-22 – which is in line with its proposal for a one-year determination period. However, it included other data for a further four years in its annual information return to IPART. We used this data to present proposed expenditure forecasts in this paper.

### Proposed operating expenditure is increasing

Water NSW's operating expenditure is forecast to increase by around 37% compared with its 2017 allowance

Water NSW proposes to spend $53.4 million on operating expenditure in 2021-22, roughly $1.3 million (2.5%) more than its average expenditure over the 2017 determination period, and 42% more than the forecast we used to set prices for 2020-21.[12] Of this amount, Water NSW would allocate 92% ($50.0 million) to users and 8% ($3.4 million) to the government. After that, its operating expenditure will remain relatively stable from 2022-23 to 2024-25 (see Table 2.3).

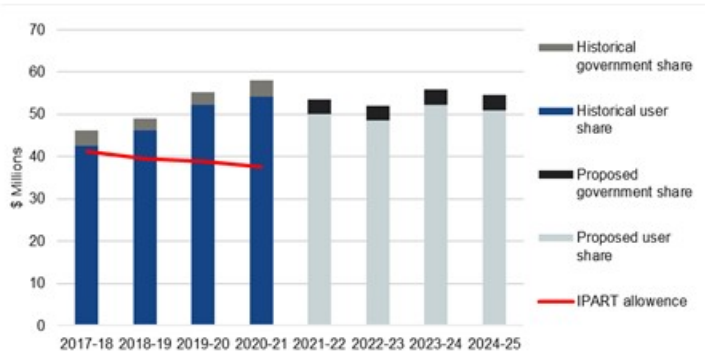
**Table 2.3 Water NSW's forecast operating expenditure ($'000s, $2020-21)**

| | 2020-21[a] | 2021-22 | 2022-23 | 2023-24 | 2024-25 |
|---|---|---|---|---|---|
| User share | 54,207 | 50,000 | 48,516 | 52,123 | 50,915 |
| Government share | 3,799 | 3,387 | 3,361 | 3,718 | 3,608 |
| Total | 58,005 | 53,387 | 51,877 | 55,841 | 54,523 |

[a] Forecast actual expenditure in 2020-21.

**Source:** Water NSW Annual Information Return to IPART, June 2020, Water NSW Pricing Model.

In preparing its forecast for 2021-22, Water NSW held proposed expenditure on most operating activities constant from 2020-21, except for some notable decreases in insurance ($3.6 million, down from $5.9 million) and asset management planning ($2.2 million, down from $2.8 million).[13] Over the four years to 2024-25, Water NSW proposes to spend $215.7 million, compared with around $208 million of actual operating expenditure over the 2017 determination period.




**Water NSW's 2021 operating expenditure**

Water NSW proposes $215.7 million in operating expenditure over the next four years. This is:

- 37% higher than the allowance we used to set prices in 2017
- 3.5% higher than actual operating expenditure over the 2017 determination period.

Maintenance increased significantly over the 2017 determination period

Routine and corrective maintenance is the largest operating expenditure item, and contributes around 39% of Water NSW's total proposed operating costs.[14]

12 Water NSW, *Pricing proposal to IPART*, June 2020, Figure 29, p 75.
13 Water NSW, *Pricing proposal to IPART*, June 2020, pp 77-78.
14 Water NSW, *Pricing proposal to IPART*, June 2020, pp 77-78.

Over the 2017 determination period, Water NSW's actual maintenance expenditure was around $84 million (or 66%) higher than the allowance we used to set prices in 2017. In total, we included around $50 million of maintenance expenditure over four years.[15]

Water NSW argues our 2017 allowance is insufficient and unsustainable, and that the current level of maintenance expenditure is necessary to avoid costly asset failures. In its pricing proposal, it proposes to maintain its actual expenditure of around $21 million per year over the 2021 determination period.[16]

We will review the level of planned and corrective asset maintenance expenditure for efficiency.

### We seek your comments

3 Is Water NSW's proposed expenditure on maintenance efficient?

4 Do you have any comments on Water NSW's operating activities and associated operating costs?

### Water NSW's insurance costs are uncertain

Water NSW proposes insurance costs of $3.6 million in 2021-22. Of this, roughly two-thirds will be spent on the Risk Transfer Product (RTP), and one-third on self-insurance of physical assets through the Treasury Managed Fund.[17] This forecast is much lower than amounts incurred in 2019-20 and 2020-21, despite ongoing increases in RTP costs due to recent payouts (see Box 2.2).

Water NSW's insurance costs increased significantly during the 2017 determination period. This result reflects implementation of the RTP to control against downside losses caused by lower than forecast water sales. Water NSW's current RTP contract expires in 2022. It expects its insurance premiums will be higher in future because it claimed heavily against these policies during the recent drought, and the private underwriter may try to recover losses. Given this, we are uncertain why Water NSW forecasts lower insurance expenditure while its insurance premiums for the RTP are likely to rise.

15 Water NSW, *Pricing proposal to IPART*, June 2020, Table 28, p 85.
16 Water NSW, *Pricing proposal to IPART*, June 2020, p 85.
17 Water NSW, *Pricing proposal to IPART*, June 2020, Table 31, p 88.

**Box 2.2 Should the risk transfer product (RTP) be symmetric?**

In the 2017 Determination, we provided Water NSW with a volatility allowance of $1.3 million a year to cover its efficient costs for insuring against the risk of under-recovering its revenue allowance because of lower than anticipated water sales.

This risk arises because its price structure (which is 40:60 fixed-to-variable in most valleys) does not match its cost structure (which is largely fixed), combined with the significant uncertainty in forecasting sales (which are driven by weather, among other factors).

The RTP was designed to replicate the impact of an 80:20 fixed-to-variable price structure, despite Water NSW having a 40:60 price structure in most valleys. The RTP would not be required if Water NSW's price structure more closely matched its cost structure (eg, if it was 80:20 fixed-to-variable rather than 40:60 fixed-to-variable in most valleys). However, historically, it appears customers favoured a higher proportion of their bill tied to actual water usage.

In the RTP's original design, a third-party insurer would receive the revenue over and above what Water NSW would have received under a cost-reflective 80:20 tariff. It would also insure Water NSW against any revenue losses below what it would have lost at 80:20. This meant the insurer faced downside risk if water sales were lower than anticipated, but would receive a windfall profit if sales were higher than expected. This profit sharing would theoretically lower Water NSW's premium.

However, the RTP appears to have become a more typical insurance product, where the third-party insurer pays out on the downside risk if sales were lower than anticipated, but Water NSW holds any windfall gains. This is asymmetric and leads to higher premiums – which Water NSW seeks to pass onto customers.

We are concerned this direct insurance approach transfers risk from Water NSW to customers: they pay for the higher premiums through prices, but Water NSW gains the benefits of any windfall sales. It could become more of an issue if premiums increase as a result of large payouts during the recent drought.

**Source:** IPART, *Prices for Water NSW Rural from 1 July 2017, Final Report*, pp 93-94; Water NSW, *Pricing proposal to IPART*, June 2020, p 87.

### We seek your comments

5 Is the current structure of the RTP efficient and equitable?

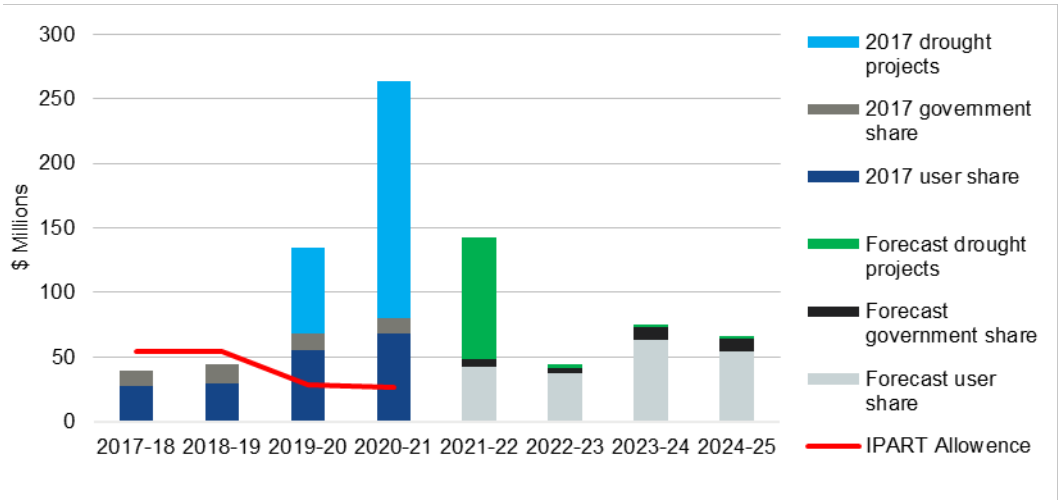
6 How should Water NSW manage its revenue volatility risk?

## Proposed capital expenditure is increasing

Over the next four years, Water NSW forecasts it will spend $329.3 million on capital expenditure. Of this, $102.6 million is for ongoing government directed drought-related capital projects (particularly preliminary work on the new Dungowan Dam), and $226.7 million for core capital expenditure projects.

Figure 2.2 compares Water NSW's historical and forecast capital expenditure with the allowances we used to set prices in 2017. It shows the scale of Water NSW's capital program, and the increase in core and drought-related expenditure.

**Figure 2.2 Water NSW's actual and forecast capital expenditure ($2020-21)**



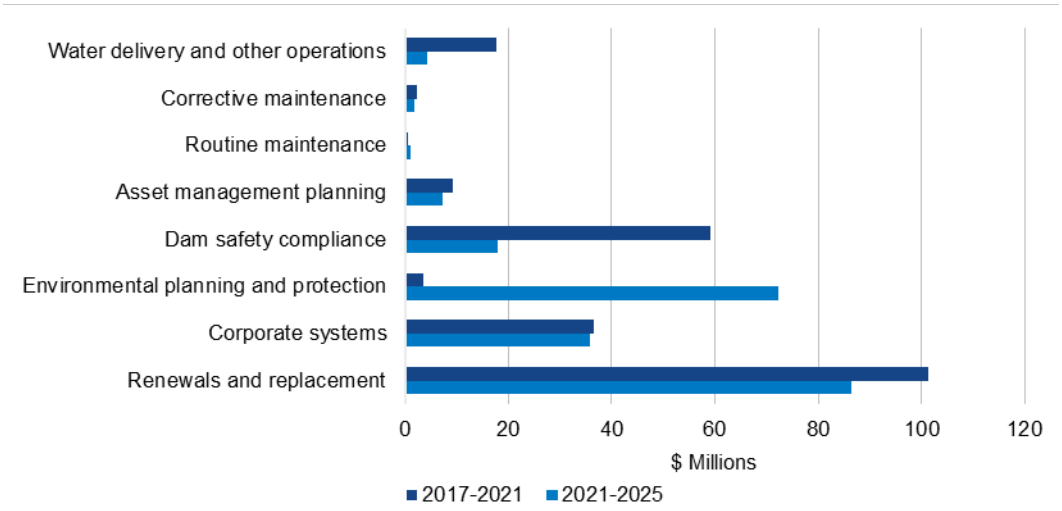

**Data source:** Water NSW, *Pricing proposal to IPART*, June 2020; pp 56-57; Water NSW Annual Information return, June 2020; and IPART analysis.

Core capital expenditure is forecast to increase by 38% compared with allowances used to set prices for the 2017 determination period

Over the four years from 2021-22, Water NSW proposes core capital expenditure of $227 million. While this is 38% higher than the capital expenditure we used to set prices over the 2017 determination period it's slightly less than its actual expenditure over those four years to 2020-21 ($230 million). Asset renewals remains the largest expenditure item, with similar expenditure on corporate systems (see Figure 2.3).

Expenditure on dam safety compliance is lower, presumably as its dams come up to the standard required by the 2019 Dam Safety Regulation. By contrast, environmental expenditure is forecast to increase significantly ($72 million compared with $3 million).

**Figure 2.3 Core capital expenditure by category ($2020-21)**




**Note:** Core capital expenditure including user and government shares, but excluding expenditure on government directed dam and drought-related projects.

**Data source:** Water NSW Annual Information Return to IPART, June 2020 (2017-21), Water NSW Pricing Model (2021-25).

### Environmental expenditure is increasing significantly

As shown above, Water NSW 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.

In its pricing proposal to our concurrent review of water management charges, Water NSW states:

> DPI Fisheries provides direct advice to Water NSW with respect to the requirements for compliance for Water NSW activities. These costs represent the minimum investment required to ensure we operate in a sustainable manner and are consistent with the legislative requirements outlined in the Fisheries Management Act.[18]

#### We seek your comments

7 How should Water NSW most efficiently meet its requirements for fish passageways?

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

### Expenditure on major drought-related projects is likely to fluctuate

Water NSW currently forecasts capital expenditure on drought-related projects will taper significantly from 2022-23. However, we consider expenditure will likely increase again as arrangements for the Dungowan and Wyangala Dam projects are finalised.

18 Water NSW, *WAMC pricing proposal to IPART*, June 2020, p 85.

The NSW Government has publicly announced a 50:50 mix of NSW Government and Commonwealth Government funding for the Wyangala and Dungowan Dam projects.[19] The Commonwealth Government has committed $325 million for the Wyangala Dam and $242 million for the Dungowan Dam through the National Water Infrastructure Development Fund (NWIDF)[20], however no formal funding agreement is in place.[21]

Water NSW proposes allocating none of the costs associated with the major drought-related dams to licence holders. Instead, the NSW and Commonwealth Governments will pay for the initial construction of these projects. We are unsure if the NSW Government will subsidise the ongoing operation and maintenance costs for these dams.

We seek your comments

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

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

## 2.3 MDBA and BRC costs are rising

As part of an inter-governmental agreement, the NSW Government contributes funds each year to the MDBA and BRC. Historically, the NSW Government has recovered some of those contributions through charges on water licence holders – through both Water NSW's rural bulk water prices and WAMC's water management charges.

The MDBA undertakes certain water delivery and management services in the MDB. In particular, it operates the River Murray Operations (RMO), which uses infrastructure on the Murray River to deliver the bulk water services that Water NSW would otherwise deliver directly. MDBA costs make up around 75% of the total costs in the Murray valley.

The NSW Department of Planning, Industry and Environment (DPIE) proposes total MDBA costs will increase by 34.2%, a significant increase compared with the previous allowance. The impact on WAMC and Water NSW rural bulk water costs is different due to a change in cost allocation. DPIE plans to assign MDBA's river management activity costs to WAMC and non-river management costs to Water NSW rural bulk water.[22] As a result, the proposed MDBA contribution of $152.8 million would be split as follows:

- $22.8 million to WAMC (41.4% below its 2016 allowance)
- $130.0 million to Water NSW rural bulk water (73.5% above its 2017 allowance).

19 NSW Government, *Billion dollar investment in NSW dams*, media release 13 October 2019 https://www.nsw.gov.au/media-releases/billion-dollar-investment-nsw-dams, accessed 10 July 2020.

20 National Water Grid Authority, https://www.nationalwatergrid.gov.au/nwi-development-fund/water-infrastructure-projects, accessed 10 July 2020.

21 The Commonwealth Government provides funding under the NWIDF through the *National Partnership For The National Water Infrastructure Development Fund – Capital Component* which the NSW Government has signed on to. However the NSW and Commonwealth Governments have not signed a state specific implementation plan that would include specific funding arrangements for these projects.

22 IPART analysis based on DPIE/NRAR Annual Information Return, June 2020, and Water NSW Annual Information Return, June 2020.

In relation to the BRC contributions, DPIE proposes expenditure of $10.9 million (a 95.6% increase on the previous allowance, albeit from a relatively small base). Currently, the NSW Government recovers around 35% of BRC contributions from the WAMC price determination and 65% from the Water NSW rural bulk water price determination. The split is based on historical natural resource management and river operations costs.[23]

For the 2021 determination period, DPIE proposes to revise this split (28% to WAMC and 72% to Water NSW rural bulk water), reflecting the BRC's forward work plan. This approach would almost double Water NSW's BRC contribution, to $7.9 million.[24]

We have raised concerns about the efficiency of the MDBA and BRC contributions in the past.[25] We are considering what incentives there are (or should be) for DPIE to adequately scrutinise the efficiency of these costs, before seeking to pass them on to Water NSW and WAMC customers.

Water NSW proposes the user share of MDBA and BRC funding increase by around 65% from 2020-21 to 2021-22. This increase reflects allocating a higher proportion of MDBA costs to Water NSW's rural bulk water services over the next few years (see Table 2.4).

**Table 2.4 Allowed user share of MDBA and BRC costs compared with proposed MDBA and BRC costs by valley ($000s, $2020-21)**

| Valley | 2017-18 | 2018-19 | 2019-20 | 2020-21 | 2021-22 | Difference 2020-21 to 2021-22 |
|---|---|---|---|---|---|---|
| Border | 626 | 641 | 628 | 618 | 1,042 | 69% |
| Murray | 15,818 | 11,945 | 11,320 | 11,166 | 18,471 | 65% |
| Murrumbidgee | 3,531 | 2,671 | 2,533 | 2,499 | 4,098 | 64% |
| Total all valleys | 19,975 | 15,258 | 14,481 | 14,284 | 23,611 | 65% |

**Source:** IPART analysis.

We plan to review the efficiency of these costs, and the method for allocating them between the WAMC and Water NSW rural bulk water price determinations.

23 IPART analysis based on DPIE/NRAR Annual Information Return, June 2020, and Water NSW Annual Information Return, June 2020.

24 IPART analysis based on DPIE/NRAR Annual Information Return, June 2020, and Water NSW Annual Information Return, June 2020.

25 IPART, *WaterNSW, Review of prices for rural bulk water services from 1 July 2017 to 30 June 2021, Final Report*, June 2017, p 85; IPART, *Review of prices for the Water Administration Ministerial Corporation, Final Report*, June 2016, p 51.

# 3 Price structures and price setting

After we establish the efficient costs that Water NSW should incur to deliver its services, we decide who should pay these costs and how to structure prices.

## 3.1 We seek feedback on the length of the determination period

When setting prices, we must first decide on the length of the determination period. The standard determination period under the WCIR is four years. However, we can use a different period if it aligns with another determination Water NSW has for an urban service.

### Water NSW proposes a one-year determination

Water NSW proposes a one-year determination period, from 1 July 2021 to 30 June 2022. This aligns with the timing of the price determination[26] for its Broken Hill pipeline, an urban service.[27] We would then conduct another price review and make another determination to set prices from 1 July 2022.

Water NSW argues a one-year determination period provides temporary relief for customers in drought-affected NSW. Under its proposal, it would not seek to recover its proposed costs through prices in 2021-22.[28] It will use the short determination period to engage with customers on their water supply needs.[29]

Water NSW states:

> While Water NSW seeks a one-year determination period that attempts to 'mirror' a deferral by keeping our proposed revenue requirement constant in real terms, we are unfortunately not in a position to extend this deferral beyond one year. This is due to the significant financial pressures on our business resulting from the higher costs of providing bulk water to rural customers relative to the current regulatory allowances.[30]

We released an information paper in July 2020 setting out the key issues and arguments for Water NSW's proposed one-year determination, as opposed to a four-year period. That information paper is available on our website, here.

We received six submissions and one online feedback form in response. Most stakeholders did not support Water NSW's proposal for a one-year determination period, arguing:

- It did not reflect customers' views.
- Consultation has been inadequate – effective consultation and information on the reasons for, and impacts of the proposal, were not provided.

26 IPART, *Water NSW – Prices for water transportation services provided by the Murray River to Broken Hill Pipeline from 1 July 2019, Final Determination*, May 2019.
27 The Broken Hill pipeline delivers bulk water from the Murray River to Broken Hill.
28 Water NSW, *Pricing proposal to IPART*, June 2020, p 7.
29 Water NSW, *Pricing proposal to IPART*, June 2020, p 38.
30 Water NSW, *Pricing proposal to IPART*, June 2020, p 7.

- Water NSW has already had the opportunity to engage with stakeholders and it is not likely it would be in a materially better position in 12 months, compared with now.
- Water users prefer the certainty, predictability and transparency of a four-year process.
- A four-year determination, all other things being equal, is more likely to result in lower prices for four years (rather than only one year under a one-year determination) because the WACC in 2021 is likely to be significantly lower under the WCIR, than under the IPART Act.
- Under-recovery of costs as Water NSW proposes is not appropriate or sustainable, and may result in longer term risk.
- Undertaking two pricing determinations in a short period would be resource-intensive for water user representative organisations, whose resources are limited.

Apart from Water NSW, Essential Energy[31] and an anonymous stakeholder supported a one-year determination period. By contrast, responses from customers and bodies representing customers – including NSW Irrigators Council (NSWIC),[32] Lachlan Valley Water (LVW),[33] Coleambally Irrigation Cooperative Ltd (CICL)[34] and the NSW Public Interest Advocacy Centre (PIAC)[35] – opposed a one-year determination period.

A one-year determination may not provide sufficient time for Water NSW to materially improve its current longer-term cost forecasts; yet a four-year determination now may lock in inaccurate cost forecasts, given Water NSW's changing operating environment.

If we set a short period, we will have to set prices again soon, which may create price instability. However, it may also allow stakeholders to better understand their roles and service requirements arising from drought and policy changes. On the other hand, a longer period (eg, four years) will give customers more price stability. But, services and costs that we forecast for four years may be less relevant in the later years due to policy or industry changes.

### Our preliminary preference is for a four-year determination period

We recognise there are arguments for and against both a one-year and four-year determination period. Our preliminary preference is for a standard four-year determination period.

We seek stakeholders' views on the determination period.

#### We seek your comments

11 Over what determination period should we set prices?

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

31 Essential Energy (Essential Water), *Submission to IPART Information Paper*, July 2020, p 1.
32 NSWIC, *Submission – Water NSW Rural Bulk Water Prices Length of Determination from 1 July 2021*, August 2020, p 4.
33 LVW, *Water NSW Rural Bulk Water Prices – Length of Determination*, August 2020, p 1.
34 CICL, *Length of determination for Water NSW Rural Bulk Water Prices*, August 2020, p 1.
35 PIAC, *Submission to IPART Information Paper*, August 2020, pp 1-2.

## 3.2 We calculate Water NSW's efficient costs

Once we have established the efficient level of expenditure Water NSW needs to deliver services, we calculate the full efficient costs, or notional revenue requirement (NRR). These costs include operating expenditure, allowances for a return on assets and depreciation of those assets, and tax obligations. Then, we allocate these costs between users (or licence holders) and government.

The user share of NRR is the amount of revenue that must be raised through prices to match efficient costs to serve those users. To set cost-reflective prices, we use forecasts of entitlement and water sales (or take) volumes to calculate prices that recover water customers' share of the NRR for each valley.

Water NSW calculated its proposed NRR for each valley using our standard building block method. Table 3.1 presents Water NSW's proposed total NRR (for a four-year determination period), compared with the NRR allowed in the 2017 determination period.

**Table 3.1 Total notional revenue requirement ($millions, $2020-21)**

| | Yearly average over 2017 Determination | 2021-22 | 2022-23 | 2023-24 | 2024-25 | 1-year difference | 4-year difference |
|---|---|---|---|---|---|---|---|
| Operating expenditure [a] | 38.4 | 51.8 | 50.3 | 54.2 | 53.0 | 35% | 36% |
| ICD rebates[b] | 1.4 | 1.4 | 1.4 | 1.3 | 1.3 | 2% | -4% |
| Return of capital | 17.7 | 21.2 | 21.8 | 22.7 | 23.7 | 20% | 26% |
| Return on capital | 28.9 | 18.2 | 18.8 | 19.3 | 20.1 | -37% | -34% |
| Tax allowance | 1.0 | 0.5 | 0.5 | 0.4 | 0.5 | -49% | -53% |
| UOM payback[c] | 1.9 | 1.5 | 1.5 | 1.5 | 1.5 | -19% | -20% |
| Volatility allowance[d] | | 2.3 | 2.3 | 2.3 | 2.3 | 67% | 67% |
| MDBC and BRC costs | 20.6 | 32.8 | 35.0 | 35.0 | 35.1 | 59% | 67% |
| **Total costs** | **109.7** | **129.7** | **131.5** | **136.8** | **137.4** | **17%** | **20%** |
| **User share** | **72.4** | **96.2** | **98.0** | **102.9** | **103.3** | **29%** | **34%** |
| **Government share** | **37.3** | **33.4** | **33.6** | **33.9** | **34.0** | **-8%** | **-7%** |

**a** In its pricing proposal and Annual Information Return, Water NSW presents proposed operating expenditure that includes the costs for RTP (or volatility allowance). This table presents the proposed operating expenditure without the costs for RTP and presented a separate line item for RTP costs.

**b** Irrigation corporations and districts (ICDs) receive water from Water NSW and on supply it to end use customers. They receive a discount on Water NSW charges because they undertake some functions on Water NSW's behalf, such as metering and billing.

**c** The Unders and Overs Mechanism (UOM) was introduced in the 2014 ACCC determination to account for over- or under-recovery of revenue due to water sales uncertainty. We discontinued this mechanism in the 2017 Determination and decided to recover the outstanding balance of this mechanism over 12 years.

**d** Volatility allowance are costs associated with the RTP.

**Note:** Return on capital includes return on working capital which has been adjusted for IPART's updated working capital policy.

**Source:** Water NSW and IPART calculations.

## 3.3 We share costs between users and government

In 2019, we reviewed how future operating and capital expenditure is shared between rural water users (via Water NSW's bulk water prices) and the NSW Government (on behalf of other users and the broader community).[36]

Based on this cost shares review, we maintained our position to use the impactor pays principle to allocate the efficient costs of rural bulk water services between water users and the NSW Government. That is, those that create the need to incur the costs should pay the costs. We allocated costs to users using an activity-based cost sharing framework. That is, we applied a user and government cost share ratio for each of Water NSW's 18 activities.

The purpose of the cost share review was to inform the starting point for determining user and government cost share ratios for the 2021 price review.

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

Table 3.2 presents the rationale and the application of the impactor pays principle to Water NSW's activities set in the 2017 Determination.

**Table 3.2 Assessment of Water NSW's activities**

| Impactor | Activities | How we have identified the impactor? |
|---|---|---|
| Water users are the sole impactor (100% user share) | ▼ Customer support<br>▼ Customer billing<br>▼ Metering and compliance<br>▼ Direct insurances<br>▼ Irrigation corporation and district (ICD) rebates<br>▼ Risk transfer product (RTP) | In a world without high consumptive water use, these activities would not be required.<br>For example, metering and compliance is undertaken because licence holders extract water. If users did not extract water, these activities would not be required. |
| Water users are major impactors | ▼ Water delivery and other operations (95%)<br>▼ Flood operations (80%)<br>▼ Hydrometric monitoring (90%)<br>▼ Water quality monitoring (80%)<br>▼ Corrective maintenance (95%)<br>▼ Routine maintenance (95%)<br>▼ Asset management planning (95%)<br>▼ Dam safety compliance (80%)<br>▼ Environmental planning and protection (80%)<br>▼ Corporate systems (80%)<br>▼ Renewals and replacement (95%) | In a world without high consumptive water use, these activities would still be required for non-consumptive purposes. However, the primary driver of these activities is associated with water users.<br>For example, hydrometric monitoring is primarily driven by water consumption. The government will still require some level of hydrometric monitoring but the government is a minor impactor. |
| The NSW Government is the sole impactor (0% user share) | ▼ Dam safety compliance, pre-1997 capital projects | This activity is a legacy cost and therefore we do not apply the impactor pay principle. Rather the costs are allocated to the NSW Government. |

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

## 3.4 Water NSW proposes using our cost sharing approach to allocate costs for the 2021 determination period

Water NSW proposes to apply the findings of our cost share review to allocate costs between water users and the NSW Government for most of its activities for the 2021 determination period.[37]

However, it proposes allocating all capital costs of major drought-related projects to government, ie, a 0% user share.[38]

37 Water NSW, *Pricing proposal to IPART*, June 2020, p 51.
38 Water NSW, *Pricing proposal to IPART*, June 2020, p 53.

We seek your comments

13 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.

## 3.5 We set prices that recover efficient costs

Once we have decided on efficient costs and set the user share of the NRR, we set prices that meet the NRR over the determination period.

We set prices for MDB valleys under the WCIR, so we must set prices that are likely to raise revenue that meets efficient costs. By contrast, we set prices for coastal valleys under the IPART Act, and have more discretion. In 2017, we set prices in both the North Coast and South Coast valleys that reflected customers' willingness and capacity to pay for those services.

### Water NSW proposes capping increases and not recovering its costs

Water NSW proposed setting prices for 2021-22 that do not recover its proposed costs. For prices in the MDB valleys it proposes:

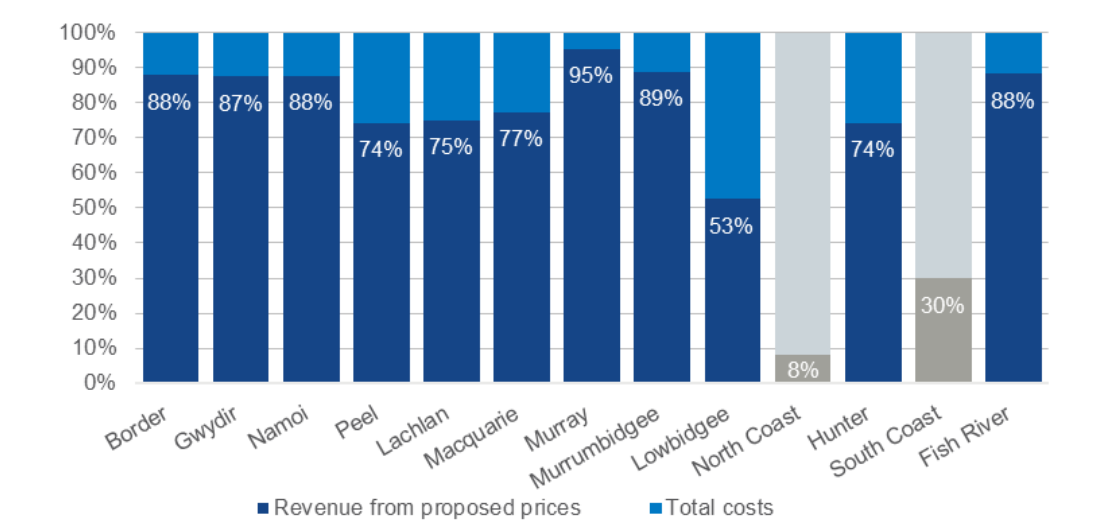
- Holding the 2020-21 NRR constant in real terms
- Adjusting water usage forecasts for decreased demand
- Passing through the user share of all MDBA and BRC costs in full[39]
- Increasing the user share of all other costs by 0.7%.[40]

This proposal significantly under-recovers costs in 2021-22 by around $15 million (or 16%). However, the WCIR do not allow for prices that do not recover efficient costs.[41]

Figure 3.1 sets out the Water NSW's proposed overall level of cost recovery in each valley.

39 MDBA and BRC costs are discussed in Section 2.3.
40 Water NSW, *Pricing proposal to IPART*, June 2020, p 5; Water NSW Rural Valley Pricing Model 2020, June 2020 and IPART analysis.
41 Water NSW Rural Valley Pricing Model 2020, June 2020 and IPART analysis.

**Figure 3.1 Water NSW's proposed cost recovery by valley**




**Note:** Prices in the North Coast and South Coast valleys were set in line with customers' willingness to pay in the 2017 Determination, and are not intended to achieve full cost recovery.

**Note:** Includes MDBA costs in the Murray and Murrumbidgee valleys, and BRC costs in the Border valley.

**Data source:** Water NSW Annual Information Return, June 2020; and IPART analysis.

### We seek your comments

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

## In coastal valleys, we set prices based on willingness to pay in North Coast and South Coast

In the 2017 Determination, we set prices in the North Coast and South Coast valleys well below what was required to recover Water NSW's costs. This was because there are too few customers in these catchments to recover Water NSW's costs, without exceeding their ability to pay.

For coastal valleys, Water NSW proposes holding prices constant in real terms - that is, increasing the 2020-21 prices by inflation only.

### We seek your comment:

15 How should we set prices in coastal valleys?

## 3.6 Fixed and usage charges

When setting prices, in most valleys[42] we set:

- Fixed charges per ML of entitlement, with different charges for:
  - High security entitlements, and
  - General security entitlements[43]
- A variable usage charge per ML of usage.

### Prices in most valleys are set to generate 60% of revenue through usage charges

In 2017, we set prices in most valleys so that 40% of total valley revenue was raised through fixed entitlement charges, and 60% through usage charges (see Table 3.3). This decision reflected feedback from licence holders that they prefer higher usage-based charges and lower fixed entitlement-based charges.

However, most of Water NSW's costs are fixed, and do not vary with water sales. So when water usage is low, Water NSW's lower revenue is not matched by a commensurate reduction in costs. In 2017, we introduced the RTP which compensates Water NSW for its increased revenue volatility risk. The cost of the RTP was set so that where the fixed-to-variable ratio was less than 80:20 in any given valley, the increased cost was added to operating costs for that valley.[44]

Table 3.3 sets out Water NSW's proposed fixed entitlement and usage charge percentages. These are the same as we used to set prices in 2017.[45]

42 The Lowbidgee Valley has only supplementary licences that are charged fixed entitlement charges only.
43 The relationship between high security and general security entitlement charges is driven by the high security premium.
44 If the ratio was at 80:20 in a given valley, no RTP costs were added.
45 IPART, *Water NSW – Review of prices for rural bulk water services from 1 July 2017 to 30 June 2021*, June 2017, p 116.

**Table 3.3 Water NSW's proposed forecast revenue from fixed and usage charges**

| Valley | Price structure (fixed to usage) |
|---|---|
| **Murray–Darling Basin valleys** | |
| Border | 40:60 |
| Gwydir | 40:60 |
| Namoi | 40:60 |
| Peel | 80:20 |
| Lachlan | 40:60 |
| Macquarie | 40:60 |
| Murray | 40:60 |
| Murrumbidgee | 40:60 |
| Lowbidgee[a] | 100:0 |
| Fish River | 80:20 |
| **Coastal valleys** | |
| North Coast | 90:10 |
| Hunter | 60:40 |
| South Coast | 80:20 |

[a] Lowbidgee has only supplementary licences.

**Note:** Excludes MDBA and BRC costs and charges.

**Source:** Water NSW, *Pricing proposal to IPART*, June 2020, p 128.

As shown above, prices in most MDB valleys are set with a fixed-to-usage ratio of 40:60. If we set prices at 80:20, the costs of the RTP may be set to zero. This approach would lower costs allocated to customers. However, it would generate more revenue through fixed charges, regardless of whether water was being used. We are interested in stakeholders views on the trade-off between relatively higher usage-based charges and the higher costs associated with Water NSW's management of revenue volatility risk.

### MDBA and BRC charges are set at 80:20

Currently, the fixed-to-usage ratio set in the Border, Murray and Murrumbidgee valleys to recover MDBA and BRC costs is 80:20. Water NSW proposes to maintain this structure, as it considers it shares volatility risk equitably between Water NSW and its customers.[46]

#### We seek your comments

16 What is the appropriate mix of fixed and usage charges?

46 Water NSW, *Pricing proposal to IPART*, June 2020, p 40.

# 4 What does this mean for prices and bills?

This chapter sets out potential price and bill outcomes under Water NSW's proposal. It does not factor in any potential IPART adjustments to Water NSW's efficient costs.

## 4.1 Proposed prices by valley

Water NSW proposes prices for 2021-22 only. As discussed in Chapter 3, Water NSW's proposed prices do not recover its full costs. To make meaningful comparisons, we undertook preliminary modelling to show stakeholders what prices in each valley would be if Water NSW fully recovered its proposed costs:

- In 2021-22 only, and
- For four years from 2021-22 to 2024-25.[47]

Table 4.1 sets out Water NSW's proposed fixed entitlement charges for both general security and high security entitlements in 2021-22, and compares them with our indicative charges if we set prices to achieve Full Cost Recovery (FCR). We have included FCR prices to show customers the difference between Water NSW's proposed prices and those that we might set if we deemed its proposed costs as efficient.

47 This is our preliminary estimate of what a constant charge across a four-year determination period would be to recover the total costs over those four years.

**Table 4.1 Proposed bulk water fixed charges by valley including MDBA and BRC costs ($2020-21, $/ML of entitlement)**

| | Current 2020-21 | Proposed 2021-22 | 1-year FCR 2021-22 | 4-year FCR 2021-2025 | Change current to proposed | Change current to 1-year FCR |
|---|---|---|---|---|---|---|
| **High security entitlement charge** | | | | | | |
| Border | 10.71 | 14.30 | 15.71 | 15.99 | 33.5% | 46.7% |
| Gwydir | 11.93 | 15.62 | 17.87 | 19.22 | 30.9% | 49.8% |
| Namoi | 18.40 | 24.38 | 27.81 | 29.44 | 32.5% | 51.1% |
| Peel | 44.77 | 45.77 | 61.75 | 62.82 | 2.2% | 37.9% |
| Lachlan | 16.56 | 18.95 | 25.31 | 26.64 | 14.4% | 52.8% |
| Macquarie | 14.55 | 15.65 | 20.27 | 21.42 | 7.6% | 39.3% |
| Murray | 9.49 | 14.34 | 14.75 | 15.54 | 51.1% | 55.4% |
| Murrumbidgee | 4.91 | 6.15 | 6.73 | 6.98 | 25.3% | 37.1% |
| Lowbidgee | Na | Na | Na | Na | Na | |
| North Coast | 12.69 | 12.69 | 12.69 | 12.69 | 0.0% | 0.0% |
| Hunter | 14.15 | 14.37 | 19.39 | 19.91 | 1.6% | 37.0% |
| South Coast | 33.19 | 33.19 | 33.19 | 33.19 | 0.0% | 0.0% |
| **General security entitlement charge** | | | | | | |
| Border | 3.98 | 5.23 | 5.75 | 5.86 | 31.4% | 44.5% |
| Gwydir | 3.75 | 3.63 | 4.15 | 4.46 | –3.2% | 10.7% |
| Namoi | 8.58 | 8.51 | 9.71 | 10.27 | –0.8% | 13.2% |
| Peel | 4.33 | 4.34 | 5.85 | 5.95 | 0.2% | 35.1% |
| Lachlan | 2.94 | 2.80 | 3.74 | 3.94 | –4.8% | 27.2% |
| Macquarie | 3.07 | 3.06 | 3.96 | 4.19 | –0.3% | 29.0% |
| Murray | 4.64 | 6.32 | 6.50 | 6.85 | 36.2% | 40.1% |
| Murrumbidgee | 1.84 | 2.11 | 2.32 | 2.40 | 14.7% | 23.1% |
| Lowbidgee | 0.84 | 0.85 | 1.62 | 1.68 | 1.2% | 92.9% |
| North Coast | 9.83 | 9.83 | 9.83 | 9.83 | 0.0% | 0.0% |
| Hunter | 10.98 | 11.16 | 15.06 | 15.46 | 1.6% | 37.2% |
| South Coast | 17.41 | 17.41 | 17.41 | 17.41 | 0.0% | 0.0% |

**Note:** Includes MDBA costs in the Murray and Murrumbidgee valleys, and BRC costs in the Border valley. FCR prices are indicative only and may change depending on IPART's decisions about Water NSW's efficient costs.

**Source:** Water NSW and IPART calculations.

Table 4.2 shows Water NSW's proposed usage charges in each valley and compares them with indicative charges at FCR.

**Table 4.2 Proposed bulk water usage charges by valley including MDBA and BRC costs ($/ML)**

| | Current 2020-21 | Proposed 2021-22 | 1-year FCR 2021-22 | 4-year FCR 2021-2025 | Change current to proposed | Change current to 1-year FCR |
|---|---|---|---|---|---|---|
| Border | 6.70 | 7.37 | 8.78 | 8.84 | 10.0% | 31.0% |
| Gwydir | 12.79 | 14.21 | 16.27 | 17.42 | 11.1% | 27.2% |
| Namoi | 21.52 | 24.00 | 27.39 | 28.91 | 11.5% | 27.3% |
| Peel | 19.78 | 18.20 | 24.55 | 24.97 | –8.0% | 24.1% |
| Lachlan | 20.51 | 22.42 | 29.95 | 31.47 | 9.3% | 46.0% |
| Macquarie | 14.84 | 15.68 | 20.31 | 21.41 | 5.7% | 36.9% |
| Murray | 3.67 | 4.89 | 5.38 | 5.55 | 33.2% | 46.6% |
| Murrumbidgee | 3.90 | 4.45 | 5.14 | 5.27 | 14.1% | 31.8% |
| Lowbidgee | Na | Na | Na | Na | Na | Na |
| North Coast | 18.77 | 18.77 | 18.77 | 18.77 | 0.0% | 0.0% |
| Hunter | 13.60 | 14.04 | 18.95 | 19.45 | 3.2% | 39.3% |
| South Coast | 18.60 | 18.60 | 18.60 | 18.60 | 0.0% | 0.0% |

**Note:** Includes MDBA costs in the Murray and Murrumbidgee valleys, and BRC costs in the Border Valley. FCR prices are indicative only and may change depending on IPART's decisions about Water NSW's efficient costs.

**Source:** Water NSW and IPART calculations

Table 4.3 and Table 4.4 set out Water NSW's proposed charges for the Fish River Water Supply Scheme for raw and filtered water respectively.

**Table 4.3 Prices and increases for Fish River Scheme bulk raw water ($2020-21 $/kL)**

| | Current 2020-21 | Proposed 2021-22 | 1-year FCR 2021-2022 | 4-year FCR 2021-2025 | Change current to proposed | Change current to 1-year FCR |
|---|---|---|---|---|---|---|
| Minimum annual quantity (MAQ) | | | | | | |
| – Major customers | 0.42 | 0.42 | 0.48 | 0.49 | -0.5% | 16.7% |
| – Minor customers | 0.42 | 0.42 | 0.48 | 0.49 | -0.5% | 16.7% |
| Usage up to MAQ | | | | | | |
| – Major customers | 0.26 | 0.16 | 0.19 | 0.19 | –36.8% | –26.9% |
| – Minor customers | 0.26 | 0.16 | 0.19 | 0.19 | –36.8% | –26.9% |
| Usage in excess of MAQ | | | | | | |
| – Major customers | 0.68 | 0.58 | 0.67 | 0.68 | –14.4% | 0.0% |
| – Minor customers | 0.68 | 0.58 | 0.67 | 0.68 | –14.4% | 0.0% |

**Source:** Water NSW and IPART calculations. FCR prices are indicative only and may change depending on IPART's decisions about Water NSW's efficient costs.

**Table 4.4 Prices and increases for Fish River Scheme bulk filtered water ($2020-21 $/kL)**

| | Current 2020-21 | Proposed 2021-22 | 1-year FCR 2021-2022 | 4-year FCR 2021-2025 | Change current to proposed | Change current to 1-year FCR |
|---|---|---|---|---|---|---|
| Minimum annual quantity (MAQ) | | | | | | |
| – Major customers | 0.68 | 0.74 | 0.78 | 0.79 | 8.8% | 16.2% |
| – Minor customers | 0.82 | 0.74 | 0.94 | 0.95 | –9.8% | 15.9% |
| Usage up to MAQ | | | | | | |
| – Major customers | 0.39 | 0.31 | 0.29 | 0.29 | –19.6% | –25.6% |
| – Minor customers | 0.50 | 0.31 | 0.37 | 0.37 | –37.3% | –26.0% |
| Usage in excess of MAQ | | | | | | |
| – Major customers | 1.07 | 1.05 | 1.07 | 1.08 | –1.6% | 0.9% |
| – Minor customers | 1.32 | 1.05 | 1.31 | 1.32 | –20.2% | 0.0% |

**Source:** Water NSW and IPART calculations. FCR prices are indicative only and may change depending on IPART's decisions about Water NSW's efficient costs.

## 4.2 Proposed bills by valley

Table 4.5 presents the bills for each valley, reflecting three scenarios, namely:

- Water NSW's proposed for 2021-22
- Indicative bills with prices set at full cost recovery for 2021-22, and
- Indicative bills with prices set at full cost recovery over four years to 2024-25.

Our analysis indicates that in most valleys bills that fully recover Water NSW's proposed costs would be significantly higher than the bills proposed by Water NSW. Factors driving higher bills include:

- Increased operating expenditure
- Increased capital expenditure, and
- A higher proportion of costs allocated to users, and a lower proportion allocated to government.

**Table 4.5 Bills by valley including MDBA and BRC costs ($2020-21)**

| | Current 2020-21 | Proposed 2021-22 | 1 year FCR 2021-22 | 4 year FCR 2021-22 | Change current to proposed | Change current to 1 year FCR | Change current to 4 year FCR |
|---|---|---|---|---|---|---|---|
| **High security medium user – 500ML @ 100%** | | | | | | | |
| Border | 8,705 | 10,835 | 12,245 | 12,415 | 24.5% | 40.7% | 42.6% |
| Gwydir | 12,360 | 14,915 | 17,070 | 18,320 | 20.7% | 38.1% | 48.2% |
| Namoi | 19,960 | 24,190 | 27,600 | 29,175 | 21.2% | 38.3% | 46.2% |
| Peel | 32,275 | 31,985 | 43,150 | 43,895 | -0.9% | 33.7% | 36.0% |
| Lachlan | 18,535 | 20,685 | 27,630 | 29,055 | 11.6% | 49.1% | 56.8% |
| Macquarie | 14,695 | 15,665 | 20,290 | 21,415 | 6.6% | 38.1% | 45.7% |
| Murray | 6,580 | 9,615 | 10,065 | 10,545 | 46.1% | 53.0% | 60.3% |
| Murrumbidgee | 4,405 | 5,300 | 5,935 | 6,125 | 20.3% | 34.7% | 39.0% |
| Lowbidgee | Na | Na | Na | Na | Na | Na | Na |
| North Coast | 15,730 | 15,730 | 15,730 | 14,735 | 0.0% | 0.0% | -6.3% |
| Hunter | 13,875 | 14,205 | 19,170 | 19,680 | 2.4% | 38.2% | 41.8% |
| South Coast | 25,895 | 25,895 | 25,895 | 26,565 | 0.0% | 0.0% | 2.6% |
| **General security medium user – 500ML @ 60%** | | | | | | | |
| Border | 4,000 | 4,826 | 5,509 | 5,582 | 20.7% | 37.7% | 39.6% |
| Gwydir | 5,712 | 6,078 | 6,956 | 7,456 | 6.4% | 21.8% | 30.5% |
| Namoi | 10,746 | 11,455 | 13,072 | 13,808 | 6.6% | 21.6% | 28.5% |
| Peel | 8,099 | 7,630 | 10,290 | 10,466 | -5.8% | 27.1% | 29.2% |
| Lachlan | 7,623 | 8,126 | 10,855 | 11,411 | 6.6% | 42.4% | 49.7% |
| Macquarie | 5,987 | 6,234 | 8,073 | 8,518 | 4.1% | 34.8% | 42.3% |
| Murray | 3,421 | 4,627 | 4,864 | 5,090 | 35.3% | 42.2% | 48.8% |
| Murrumbidgee | 2,090 | 2,390 | 2,702 | 2,781 | 14.4% | 29.3% | 33.1% |
| Lowbidgee | 16,800 | 17,000 | 32,400 | 33,600 | 1.2% | 92.9% | 100.0% |
| North Coast | 10,546 | 10,546 | 10,546 | 10,546 | 0.0% | 0.0% | 0.0% |
| Hunter | 9,570 | 9,792 | 13,215 | 13,565 | 2.3% | 38.1% | 41.7% |
| South Coast | 14,285 | 14,285 | 14,285 | 14,285 | 0.0% | 0.0% | 0.0% |

**Note:** Includes MDBA costs in the Murray and Murrumbidgee valleys, and BRC costs in the Border Valley. FCR prices are indicative only and may change depending on IPART's decisions about Water NSW's efficient costs.

**Source:** Water NSW and IPART calculations.