



Environment, Planning and Sustainable Development Directorate

To:	Treasurer Minister for Water, Energy and Emissions Reduction	Tracking No.: CMTEDD2023/3538 EPSDD2023/84129
Date:	23/08/2023	
From:	Deputy Director-General, Environment, Water and Emissions Reduction (EPSDD) A/g Executive Group Manager, Economic and Financial Group (CMTEDD)	
Subject:	Review of the water abstraction charge	
Critical Date:	As soon as possible	
Critical Reason:	To enable the review to commence in a timely manner.	

- UT 23/08/23
- DUT 18/08/23

Recommendations

That you:

1. **Note** that the Environment Planning and Sustainable Development Directorate (EPSDD) has received consultant advice that queries whether the ACT is meeting its obligations under the Commonwealth Water Charge Rules (WCR), through charging more than the ACT's cost for water through the Water Abstraction Charge.

Noted / Please Discuss
Andrew Barr MLA

Noted / Please Discuss
Shane Rattenbury MLA

2. **Note** the ACT has agreed to the WCR, which set-out objectives and principles for the pricing of regulatory water charges, which are based on full cost recovery.

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Andrew Barr MLA

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3. **Agree** to review the methodology for setting water charges to ensure compliance with the WCR and to ensure the charge remains consistent with its purpose.

Agree / Not Agreed / Please Discuss
Andrew Barr MLA

Agree / Not Agreed / Please Discuss
Shane Rattenbury MLA

4. **Agree** that a price investigation notice be issued to the Independent Competition and Regulatory Commission (ICRC) to conduct the review in accordance with section 12 of the Independent Competition and Regulatory Commission Act 1997.

Agree / Not Agreed / Please Discuss
Andrew Barr MLA

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CABINET

5. **Note** that the scope of work to inform the price investigation notice will be provided for Treasurer and Minister for Water, Energy and Emissions Reduction approval.

Agree / Not Agreed / Please Discuss
Andrew Barr MLA

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6. **Note** that you will be kept updated on the progress of the review, including the intention of CMTEDD and EPSDD to prepare a joint Cabinet Submission on the outcomes.

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Andrew Barr MLA.....  3./9./23

Minister's Office Feedback

Shane Rattenbury MLA..... /...../.....

Minister's Office Feedback

Background

1. In August 2022, Cabinet agreed (22/159) to a program of priority reform activities for the management of the ACT's water. This included an action to improve accountability and transparency for current funding arrangements. This action predominately relates to the Water Abstraction Charge (WAC), a regulatory water charge for potable and non-potable water levied by the ACT Government.
2. The WAC is intended to recover catchment management costs, to reflect the environmental costs from water abstraction and the value of the water as a natural resource (scarcity value).
3. The WAC is separately determined for two categories of water use under the *Water Resources (Fees) Determination 2022 (No 2)*, being:
 - a. urban water supply (i.e. potable water use) - \$0.67 per kilolitre in 2022-23; and
 - b. surface water or groundwater (i.e. non-potable water use) - \$0.324 per kilolitre in 2022-23.
4. The Minister for Water determines water fees and charges under s110 of the *Water Resources Act 2007*.
5. The Treasurer has responsibility for competition policy and through this, the capacity to issue price directions to the Independent Competition and Regulatory Commission (ICRC) in relation to the prices charged through monopoly infrastructure providers, such as Icon Water. However, the ICRC has no legislative responsibilities for setting or regulating the WAC.

CABINET

- a. The Treasurer previously issued directions under the *Independent Competition and Regulatory Commission Act 1997* to the ICRC to establish the methodology for determination of the WAC, the appropriate level for the charge, and how it is charged to customers. The 2003 ICRC's advice led to the basis for the WAC that is used today.
 - b. For potable water use, the WAC is collected from consumers on behalf of the Government by Icon Water indirectly through water prices. For non-potable water use, the WAC is paid directly by licence holders to the ACT Government, through invoicing managed by Access Canberra's, Environmental Protection Authority (EPA).
6. The ACT's method for calculating water charges has not been updated since the ICRC's 2003 review to reflect subsequent policy and legislative instruments, including the *Water Act 2007 (Cwlth)*, 2010 National Water Initiative (NWI) Pricing Principles and the Commonwealth Water Charge Rules (WCRs).
7. There has been ongoing scrutiny of the WAC; most recently in the *State of the Lake and Waterways Report (2022)*, which was prepared by the Office for the Commissioner for Sustainability and the Environment (the Commissioner). The Commissioner recommended that the ACT Government publish an annual detailed breakdown of how the WAC revenue is expended. The Government's response ([22/442](#)) agreed in-principle to this recommendation.
8. In 2022, EPSDD (Office of Water) contracted Slattery and Johnson to review the appropriateness of the current WAC reporting and provide advice on potential improvements. The report is provided at [Attachment A](#).

Issues

9. Slattery and Johnson advise a range of issues relating to the WAC that may expose the ACT Government to financial, operational and compliance risk.
10. These issues stem from:
- a. the *Water Act 2007 (Cwlth)*, NWI and WCRs requiring the ACT's WAC to be based on recovery of costs only;
 - b. over-recovery of costs because of increases to the WAC that are not aligned with the ICRC's original methodology, such as the decision of the ACT Government to apply a 3 per cent annual indexation to the WAC for potable and non-potable water rather than looking to ensure cost recovery only;
 - c. the ACT including the market price of water as a factor in the level of the WAC;
 - d. a lack of transparency in how the WAC is set each year; and
 - e. a misalignment between the components of the WAC and ACCC reporting requirements.

National Water Initiative (NWI) and Water Charge Rules (WCRs)

11. Australian governments agreed through the Intergovernmental Agreement on a NWI (2004) to implement water pricing and institutional arrangements that promote economically efficient and sustainable use of water resources, provide revenue stream

for efficient delivery of services, give effect to the principles of user pays where feasible and practical, and avoid perverse or unintended pricing outcomes.

12. The outcomes and actions of the NWI are given effect through:

- a. Murray Darling Basin Water Pricing Objectives and Principles (*Water Act 2007*)
- b. NWI Pricing Principles (2010),
- c. WCRs (2010) - made under the *Water Act 2007*.

13. The WCRs are based on full cost recovery including water planning and management costs, environmental externalities and capital costs. However, in addition to the components of the WCRs, the WAC also factors in, through the scarcity component, the market value of water as an additional mechanism to capture environmental externalities. Scarcity value was considered by the national governments through the national water pricing reforms as an alternative pricing approach to environmental externality, however, it was not adopted as it was considered that there were better mechanisms to achieve the policy objective.

14. Given that the WAC methodology developed by the ICRC in 2003 pre-dates multiple outcomes and actions of the *Water Act 2007 (Cwlth)* and NWI, it is unclear if the current methodology ensures water charges are consistent with these obligations.

Transparency in WAC determination

15. The WCRs state that urban water tariffs should be set using a transparent methodology through a process that considers public comment, or which is the subject of public scrutiny and use independent bodies to set or review prices or price setting processes.

16. The WAC is overdue for review, most recently examined by the ICRC through the Treasurer's 2003 price inquiry. Further, price increases in 2006-07 and 2014-15 were approximately 146 per cent and 3 per cent above WPI respectively.

17. We note the 2006-07 Budget Papers advised the WAC was increasing to '*better reflect the value of water*', provide '*the Government with a return on a valuable resource*' and to '*assist in managing demand for water*'.

- a. It is unclear if the 2014-15 increase in the rate of the WAC had regard to WCRs obligations.
- b. It is also unclear whether the ACT Government's decision, in the 2016-17 Budget Review, to apply an ongoing 3 per cent annual indexation to the WAC for both potable and non-potable water use from 2017-18 onwards, had regard to WCRs obligations.

18. Slattery and Johnson suggest that:

- a. an independent body should have responsibility for routinely reviewing water charge methodology; and

- b. there needs to be greater transparency around the application of the WAC, given there is little public information available on the how the WAC is determined each year or expenditure reconciled.

Transparency in reporting

19. The Australian Competition and Consumer Commission (ACCC) has legislative responsibility for annually monitoring regulated water charges and their compliance with WCRs. The ACT provides the ACCC with an annual statement on the fees charged for water in the ACT, the extent of any change fees and the reason for any change, and the revenue from each charge. Further, the ACT is required to provide a breakdown of the capital, operating and corporate costs to manage water and planning activities to the ACCC.
20. The ACT's reporting on water charges (revenue and expenditure) is unable to be reconciled due to a misalignment between the methodology for the WAC and WCRs and the ACCC's reporting requirements. Improved reporting on the water charge methodology will be a key consideration in any work undertaken by the ACT.

Over-recovery against costs

21. Currently, revenue from the WAC forms part of the ACT Government's consolidated revenue and is not hypothecated. Expenditure of consolidated revenue is set out in the ACT Budget, which includes spending on water initiatives. There is no public reporting on the costs incurred against the WAC, and consequently no transparency around whether the WAC is set at a rate that allows for cost recovery and no more.
22. The ACCC Water Monitoring Report (2020-21) presents that the ACT has the highest cost recovery rate (percent of costs incurred compared to costs recovered) across the Basin States (Attachment B, Figure 1). For example, revenue levied through the WAC has significantly exceeded costs reported for water planning and management activities since 2015-16 (except for 2019-20). Accordingly, in 2021-22, the WAC raised \$29 million in revenue which was significantly greater than the costs reported for water planning and management at approximately \$11 million.
23. Slattery and Johnson found that applying the methodology developed by the ICRC does not support the price trend or absolute value of the WAC increases from 2003-04 to 2022-23 (Attachment B, Figure 2).
24. This is largely attributable to:
 - a. Water supply and environmental cost components of the charge appear to have been increased incrementally each year roughly in line with inflation.
 - b. The scarcity value component of the WAC, which appears to have increased significantly from 4.4 cents/kilolitre in 2003-04 to 45.9 cents/kilolitre in 2022-23.
25. The NWI Pricing Principles address over-recovery of costs: *'where usage charges lead to revenue recovery in excess of upper bound revenue requirements...jurisdictions are to address the over recovery. In addressing the over recovery, revenues should be redistributed to customers as soon as possible'*.

Proposed pathway forward

26. Slattery and Johnson's primary recommendations concentrated on the need for an independent annual review of the WAC and improved public transparency. Both were also recommended by the ICRC in their recommendations to the Treasurer on setting the framework for the WAC in 2003.
27. Given the issues outlined, it is proposed that the Government move towards ensuring that the methodology for setting a water charge is consistent with the ACT's obligations under the WCRs, allows reporting that could be subject to public scrutiny and establishes a periodic review process to ensure the charge remains consistent with its purpose.
28. EPSDD and CMTEDD recommend that the Treasurer seek advice from the ICRC to allow the ACT Government to decide on how to best meet its obligations, and, accordingly, that a price investigation notice be issued to ICRC to conduct the review in accordance with section 12 of the *Independent Competition and Regulatory Commission Act 1997* to this effect.
29. To support this request for advice, EPSDD and CMTEDD are finalising the scope of work for a price inquiry to the ICRC, which will be presented to the Treasurer and Minister for Water for consideration.
30. If agreed, the scope of work for the price inquiry to the ICRC will be drafted to indicate to the ICRC that consideration should be given to the relevant policy objectives such as environmental costs from water abstraction and the value of the water as a natural resource (scarcity value), as well as pricing and regulatory settings, and the cadence of subsequent reviews. Separate legal advice may be required to inform the review.
31. Should the review, if supported, identify there has been an under or overcollection of fees, the ACT will consider the recommended and most appropriate course of action for reconciliation with customers at that time.

Financial Implications

32. The work to be undertaken by the ICRC is expected to cost around \$100,000. This estimate is expected to be revised in consultation with the ICRC and upon finalisation of the scope of work. The cost of the advice is anticipated to be charged to Treasury under s12(5) of the *Independent Competition and Regulatory Commission Act 1997*. The investigation will be co-funded by EPSDD and CMTEDD (Treasury).
33. We expect the ICRC to advise on the most appropriate method to set Government water charges for 2024-25 and beyond. This will assist EPSDD and CMTEDD to estimate the financial implications of adopting the ICRC's advice.

Consultation

Internal

34. Early engagement has occurred with EPSDD Legal Policy. Discussions are ongoing.

Cross Directorate

CABINET

35. No Directorate outside of EPSDD and CMTEDD (Policy and Cabinet, and Treasury) have been advised of the findings of the Slattery and Johnson report.

External

36. The ICRC and Icon Water have been consulted on the practicality of passing through a potable WAC freeze to Icon Water customers in 2023-24.

Work Health and Safety

37. Nil for the purpose of this brief.

Benefits/Sensitivities

38. Increases in the cost of living are placing substantial financial pressure on the Canberra community. The ICRC's final decision for water and sewerage services for the 2023-28 regulatory will add to this pressure. The ICRC's final decision estimates that the combined water and sewerage services bill for an average household consuming 200kL a year will increase by 6.1 per cent on average over the regulatory period. In real terms (excluding inflation) the combined bill is expected to increase at an annual average of 3.1 per cent.

39. EPSDD and CMTEDD officials both agreed to develop a brief to freeze the increase of the WAC in 2023-24, although this was ultimately not recommended to ERC. This reflects consultation in June 2023 with Icon Water and the ICRC indicating that there was insufficient time to reflect a freeze in the 2023-24 water prices, and that any cost reductions could only be passed through to customers in 2024-25.

40. Cabinet will have the opportunity to consider the ACT Government's response to the Non-potable Water Review. The Minister for Water, Energy and Emissions Reduction will recommend an independent review of price setting for non-potable water. The proposal for the ICRC to examine the methodology for setting the 'water' charge addresses this recommendation and moves towards solution setting. Sensitivity in progressing and communicating the 'review' of ACT water charge methodology is advised.

Communications, media and engagement implications

41. No communications or media are proposed, noting the sensitives.

Signatory Name:	Geoffrey Rutledge	Phone:	6207 8628
	Chris Roberts		6207 4081
Action Officer:	Ryan Breen	Phone:	6207 8268
	Ian Lawrence		6205 7234

Attachments

Att A	<i>Review on the reporting of the Water Abstraction Charge, Slattery and Johnson 2022</i>
Att B	Cost recovery and trend in fee increases

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Attachments

Att A	<i>Review on the reporting of the Water Abstraction Charge, Slattery and Johnson 2022</i>
Att B	Cost recovery and trend in fee increases

Review on the reporting of the Water Abstraction Charge

1 Project

The Australian Capital Territory (ACT) Environment, Planning and Sustainable Development Directorate, Office of Water, aims to improve the accountability and transparency of costs incurred and recovered through the Water Abstraction Charge.

The Terms of Reference for this review are shown at **Attachment A**.

2 Water Abstraction Charge

The ACT Government levies a regulatory water charge called the Water Abstraction Charge.

The charge is imposed to recover catchment management costs and to reflect the environmental cost of the extraction of water and the value of water as a resource. The costs are incurred by the Government, as opposed to [Icon Water].¹

The Water Abstraction Charge is charged to water licence holders. The Charge is collected from Icon Water for urban potable water and the Environmental Protection Authority for non-potable water. Icon Water passes the charge onto its customers in addition to charges to recover the water delivery and sewerage system costs borne by Icon Water.

The Water Abstraction Charge is made by the ACT Water Minister through a determination under Section 107 of the Water Resources Act 2007. The current Water Abstraction Charge is made in the *Water Resource (Fees) Determination 2022 (No. 2)*.²

A separate statutory body, the Independent Competition Regulatory Commission (ICRC) regulates pricing in relation to bodies providing water, electricity and sewerage services. The ICRC makes price directions to Icon Water for charges to recover water delivery and sewerage costs. The ICRC has no legislative responsibilities in setting the Water Abstraction Charge.³

¹ ACT Government. (2003). *Disallowable instrument utilities (water abstraction charge) Ministerial Direction 2003 (No 1): Explanatory Statement*. <https://www.legislation.act.gov.au/di/2003-333/default.asp>

² Rattenbury. (2022). *Water Resources (Fees) Determination 2022 (No. 2)*. <https://www.legislation.act.gov.au/di/2022-194/>

³ ACT Government. (2022). *Independent Competition and Regulatory Commission Act*. <https://www.legislation.act.gov.au/a/1997-77/default.asp>

In 2003, the ACT Government asked the ICRC to advise an appropriate methodology to calculate the Water Abstraction Charge, and an appropriate charge.⁴

The ICRC calculated the Water Abstraction Charge based on three components:

1. *Water Supply Costs*: this is the recovery of costs for catchment management, biodiversity and environmental monitoring, environment protection, water utility regulation, health monitoring and regulation, water policy and legal services,⁵
2. *Environmental Cost*: this is a value estimated for the cost to the environment caused by altering the timing and magnitude of downstream flows by retaining water in dams and abstracting it in the ACT,⁶ and
3. *Scarcity Value*: this is the value associated with the consumptive use of water in the ACT that prevents alternative use for other economically valuable purposes such as irrigation.⁷

Since the original calculation of the Water Abstraction Charge the ACT Government has:

- agreed 'Water Charge Rules', as the basis of the price of regulatory water charges (discussed in the *Water Charge Rules* section), and
- made several increases to the Water Abstraction Charge discussed in the *Calculating the Water Abstraction Charge* section).

3 Water Charge Rules

Subsequent to the ICRC advice on the Water Abstraction Charge, Australian governments, including the ACT Government, codified objectives and principles for the pricing of regulatory water charges. These are in the:

- Murray-Darling Basin Water Charge Pricing objectives and principles, legislated in 2007,⁸ and
- National Water Initiative Pricing Principles, agreed in 2010.⁹

⁴ Ninety-eight percent of the Water Abstraction Charge comes from an Urban Water Supply Charge. The 2003 review by the Independent Competition Regulatory Commission only related to the Urban Water Supply component of the Water Abstraction Charge and the ICRC called the 'Urban Water Supply' the 'Water Abstraction Charge'. Budget papers have also mostly called the 'Urban Water Supply Charge' the 'Water Abstraction Charge'.

⁵ Independent Competition and Regulatory Commission. (2003). *Final Report: Water Abstraction Charge. Determining the Water Abstraction Charge* <https://www.icrc.act.gov.au/projects/completed-projects/water-and-sewerage/water-abstraction-charge>

⁶ Independent Competition and Regulatory Commission. (2003). *Final Report: Water Abstraction Charge. Determining the Water Abstraction Charge* <https://www.icrc.act.gov.au/projects/completed-projects/water-and-sewerage/water-abstraction-charge>

⁷ Office of the Commissioner for Sustainability and the Environment. (2018). *The Heroic and the Dammed – Lower Cotter Catchment restoration and evaluation*. <https://nla.gov.au/nla.obj-1885755327/view>

⁸ Australian Government. (2007). Water Act, Part 4 and Schedule 2. <https://www.legislation.gov.au/Details/C2017C00151>

⁹ Australian Government. (2010) *National Water Initiative Water Pricing Principles*. <https://www.dcceew.gov.au/water/policy/policy/nwi/pricing-principles>

These are known as Water Charge Rules. They are based on full cost recovery, and include:

- Water Planning and Management costs,
- Environmental Externalities,¹⁰ and
- Capital Costs.

They specify there should be no cost recovery through water pricing for:

- costs relating to the business of Government, and
- costs that are recouped through other revenue, such as rates and development costs.

The Commonwealth Water Minister may make regulated water charges for Basin States and the ACT in accordance with the *Water Charge Rules 2010* instrument.¹¹ The Commonwealth Water Minister has not exercised this power with respect to the ACT.

The ACT's Water Abstraction Charge has not been updated to be consistent with the Water Charge Rules. A comparison of the costs in the Water Abstraction Charge with eligible costs in the Water Charge Rules show:

- the Water Supply Costs in the Water Abstraction Charge seem mostly equivalent to Water Planning and Management Costs in the Water Charge Rules, with potentially some differences, which are discussed in the *Strategic issues: Water Supply Costs* section.
- the Environmental Costs in the Water Abstraction Charge appear to be different to the Environmental Externalities in the Water Charge Rules. This is discussed in the *Strategic issues: Environmental costs* section.
- the Scarcity Value in the Water Abstraction Charge is not included in the Water Charge Rules. This is discussed in the *Strategic issues: Scarcity value* section.
- it is unclear if the Water Abstraction Charge includes Capital Costs as required in the Water Charge Rules. This is discussed in the *Strategic issues: Capital Costs* section.

3.1 The Australian Competition and Consumer Commission

The Australian Competition and Consumer Commission (ACCC) has legislative responsibility for monitoring regulated water charges and their compliance with the Water Charge Rules.

The ACT Government reports annually to the ACCC the monies received from water fees and charges (primarily the Water Abstraction Charge) and Water Planning and Management Costs identified by the ACT Government.

¹⁰ Australian Government. (2007). *Water Management Act, Schedule 2, Clause 5*. <https://www.legislation.gov.au/Details/C2017C00151>

¹¹ Australian Government. (2010). *Water Charge Rules 2010*. <https://www.legislation.gov.au/Details/F2020C00877>

The ACCC publishes an annual ACCC Water Monitoring Report for all jurisdictions, which includes the Water Abstraction Charge and its associated Water Supply costs in the ACT.¹² This is discussed further in the *Reporting on the Water Abstraction Charge costs* section.

4 Calculating the Water Abstraction Charge

4.1 2003-04 Water Abstraction Charge

The breakdown of the 2003-04 Water Abstraction Charge is shown in *Table 1*.

Table 1: Water Abstraction Charge in 2003¹³

Cost	Water Abstraction Charge Cents per kilolitre
Water Supply Costs	8.2
Environmental Costs	5.1
Scarcity Value	4.4
Recovery from the January 2003 bushfires	2.0
Sub-Total	19.7
Rounding up	0.3
Total	20.0

The method to calculate each cost component is discussed below.

4.1.1 Water Supply Costs

The Water Supply Costs were identified by the ACT Government. Water Supply Costs are those costs incurred by the Government that are directly attributable to the management, operation and administration of the ACT's water supplies (excluding costs incurred by ACTEW - now Icon Water).¹⁴

Costs include:

- weed and feral animal control,
- erosion control through revegetation,
- boundary maintenance including fencing,
- riverine strip fencing,
- maintenance of access roads and tracks
- ranger patrols for inappropriate activities and illegal entry,

¹² ACCC. (2022). *ACCC water monitoring report*. <https://www.accc.gov.au/publications/accc-water-monitoring-report>

¹³ Independent Competition and Regulatory Commission. (2003). *Final Report: Water Abstraction Charge. Determining the Water Abstraction Charge* <https://www.icrc.act.gov.au/projects/completed-projects/water-and-sewerage/water-abstraction-charge>

¹⁴ Independent Competition and Regulatory Commission. (2003). *Final Report: Water Abstraction Charge. Determining the Water Abstraction Charge* <https://www.icrc.act.gov.au/projects/completed-projects/water-and-sewerage/water-abstraction-charge>

- community education relating to catchment and environmental management
- managing visitor activities,
- fire pre-suppression/suppression,
- water resource licensing,
- monitoring water quality and flows,
- regulating activities which affect water quality and fishing, and
- salaries and related costs for water policy and administrative roles.¹⁵

The Water Supply Cost per kilolitre is calculated by dividing the total Water Supply Costs by the total volume of water abstracted.

4.1.2 Environmental Costs

The ICRC estimated Environmental Costs by taking the average cost of water recovered for the environment and multiplying it by the 10-year government bond average interest rate. Total Environmental Costs were then applied across the proportion of water not returned to the river through the water treatment plant against the total water abstracted to calculate cents per kilolitre.¹⁶

The calculation of the Environmental Costs is shown in Table 2.

Table 2: Calculation of the environmental costs¹⁷

	Calculation component	Unit	Metric
a.	Water abstracted	65	gigalitres
b.	Water not returned through the water treatment plant	30	gigalitres
c.	Percentage of water that remains in the ACT (b/a)	46	percent
d.	Average cost to recover water for the environment	2,000	dollars per megalitre
e.	Interest rate on 10-year government bond	5.4	percent
f.	Cost per megalitre (d * e)	111	dollars per megalitre
	Environmental Cost (f * c)/1,000	5.1	cents per kilolitre

The ICRC used the 10-year Government bond rate as a proxy for a risk-free rate of return.

¹⁵ Independent Competition and Regulatory Commission. (2003). *Final Report: Water Abstraction Charge. Determining the Water Abstraction Charge* <https://www.icrc.act.gov.au/projects/completed-projects/water-and-sewerage/water-abstraction-charge>

¹⁶ Independent Competition and Regulatory Commission. (2003). *Final Report: Water Abstraction Charge. Determining the Water Abstraction Charge* <https://www.icrc.act.gov.au/projects/completed-projects/water-and-sewerage/water-abstraction-charge>

¹⁷ Independent Competition and Regulatory Commission. (2003). *Final Report: Water Abstraction Charge. Determining the Water Abstraction Charge* <https://www.icrc.act.gov.au/projects/completed-projects/water-and-sewerage/water-abstraction-charge>

4.1.3 Scarcity Value

The ICRC estimated total Scarcity value by using the weighted average temporary trade price in the Regulated Murrumbidgee valley for the previous two years and adding two-thirds of the price from the previous year to one-third of the price from two years earlier. The total Scarcity value was then applied across the proportion of water not returned through the water treatment plant against the total water abstracted to calculate cents per kilolitre.¹⁸

The calculation of the Scarcity value is shown in Table 3.

Table 3: Calculation of the Scarcity value

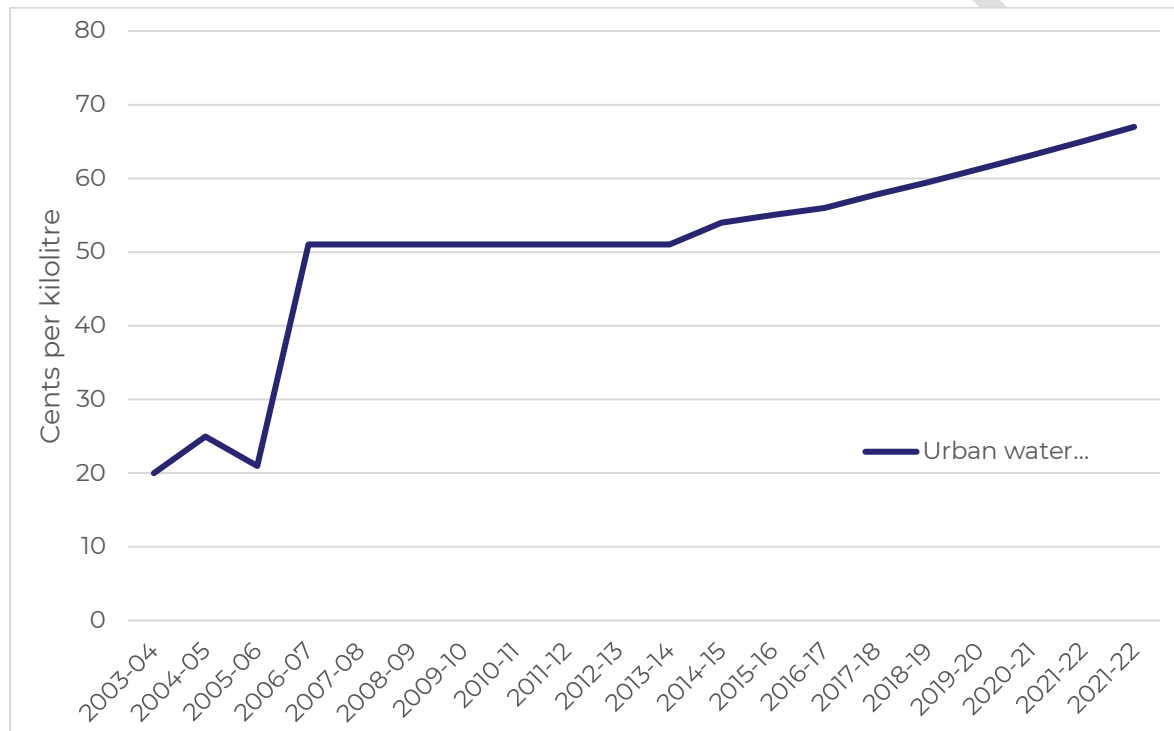
	Calculation component	Unit	Metric
a.	Water abstracted	65	gigalitres
b.	Water not returned through the water treatment plant	30	gigalitres
c.	Percentage of water that remains in the ACT (b / a)	46	percent
d.	Weighted average price of temporary water sales in the Murrumbidgee River in 2001-02	48	dollars per megalitre
e.	Weighted average price of temporary water sales in the Murrumbidgee River in 2002-03	120	dollars per megalitre
f.	Weighting two average prices (d / 3) + (e * 2 / 3)	96	dollars per megalitre
	Environmental Cost (f * c)/1,000	4.4	cents per kilolitre

¹⁸ Independent Competition and Regulatory Commission. (2003). *Final Report: Water Abstraction Charge. Determining the Water Abstraction Charge* <https://www.icrc.act.gov.au/projects/completed-projects/water-and-sewerage/water-abstraction-charge>

4.2 2022-23 Water Abstraction Charge

The 2022-23 Water Abstraction Charge is 67 cents per kilolitre.¹⁹ Figure 1 shows changes to the charge since 2003-04.

Figure 1: Water Abstraction Charge²⁰



In 2006, the then Treasurer explained:

the additional revenue from the 30 cents increase in the WAC provides a return on a valuable resource and assists in managing the demand for water.²¹

The increase in 2014-15 and 2015-16 was explained in the Budget papers:

This increase maintains the intent of the WAC in reflecting the economic value of water as a scarce resource in the Territory.^{22, 23}

The ACT Government has applied annual indexation of three percent since 2017-18.²⁴

¹⁹ ACT Government. (2022). *Water Resources (Fees) Determination 2022*.

<https://www.legislation.act.gov.au/di/2022-138/#:~:text=Water%20Resources%20%28Fees%29%20Determination%202022%20Number%20DI2022-138,Made%20under%20Water%20Resources%20Act%202007%2C%20s%20107>

²⁰ ACT Government. (2022). *Disallowable Instruments*.

<https://www.legislation.act.gov.au/Notifications?category=cDis>

²¹ Stanhope. (2006). *Estimates 2006: Questions on Notice: 60 - Water Abstraction Charge*.

https://www.parliament.act.gov.au/_data/assets/pdf_file/0008/382427/Stanhope_Treasurer_2006.pdf

²² ACT Government. (2014). *2014-15 Budget Paper No. 3: Revenue Initiatives*.

https://www.treasury.act.gov.au/_data/assets/pdf_file/0013/601150/New-Initiatives.pdf

²³ ACT Government. (2015). *2015-16 Budget Paper No. 3: New Initiatives*.

https://www.treasury.act.gov.au/_data/assets/pdf_file/0005/733766/BP3-Chapter-3-New-Initiatives.pdf

²⁴ ACT Government. (2017). *Australian Capital Territory Budget 2016-17: Budget Review*.

https://apps.treasury.act.gov.au/_data/assets/pdf_file/0009/1031688/2016-17-Budget-Review_.pdf

The comparative contribution of each cost component for the 2003-04 and 2022-23 Water Abstraction Charges is shown in Table 4.

Table 4: The comparative contribution of each cost component for the 2003-04 and 2022-23^{25, 26}

	Water Abstraction Charge in 2003-04 (cents per kilolitre)	Water Abstraction Charge in 2022-23 (cents per kilolitre)
Water Supply Costs	8.2	9.8
Environmental Costs	5.1	6.1
Scarcity Value	4.4	45.9
Recovery from the January 2003 bushfires	2.0	2.4
Other charges not explained in Budget papers		2.4
Sub-Total	19.7	66.6
Rounding up	0.3	0.4
Total	20.0	67.0

The Water Abstraction Charge in 2022-23 has been calculated by the 2003-04 cost breakdown (*Table 1*) reported by ICRC, and increasing costs based on the explanations provided in in annual Budget Papers. The increase in each cost is explained below:

- Water Supply Costs of 8.2 cents per kilolitre in 2003-04 were increased by 3 percent annually from 1 July 2017,²⁷ reaching 9.8 cents per kilolitre in 2022-23.
- Environmental costs of 5.1 cents per kilolitre in 2003-04 were increased by 3 percent annually from 1 July 2017,²⁸ reaching 6.1 cents per kilolitre in 2022-23.

²⁵ Independent Competition and Regulatory Commission. (2003). *Final Report: Water Abstraction Charge. Determining the Water Abstraction Charge* <https://www.icrc.act.gov.au/projects/completed-projects/water-and-sewerage/water-abstraction-charge>

²⁶ Rattenbury. (2022). *Water Resources (Fees) Determination 2022*. <https://www.legislation.act.gov.au/di/2022-138/#:~:text=Water%20Resources%20%28Fees%29%20Determination%202022%20Number%20DI2022-138,Made%20under%20Water%20Resources%20Act%202007%2C%20s%20107>

²⁷ ACT Government. (2017). *Australian Capital Territory Budget 2016-17: Budget Review*. https://apps.treasury.act.gov.au/_data/assets/pdf_file/0009/1031688/2016-17-Budget-Review_.pdf

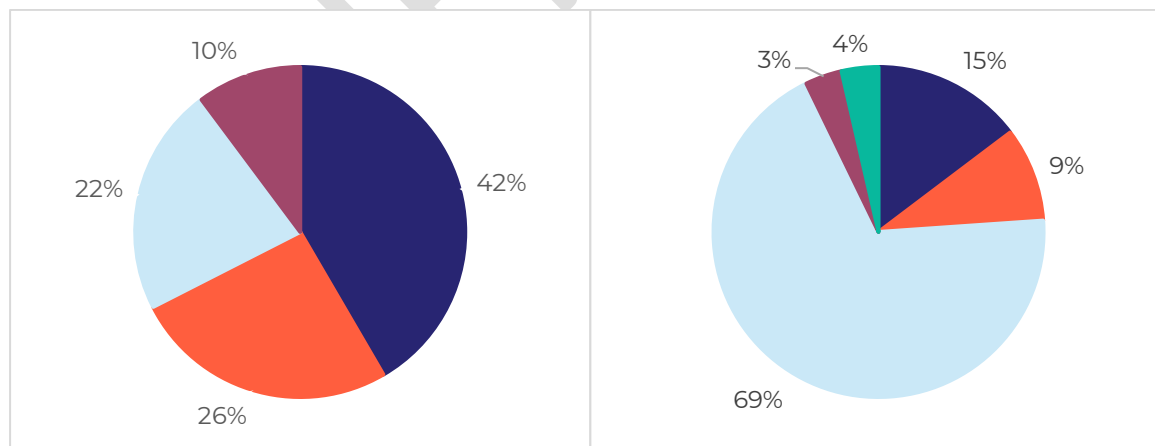
²⁸ ACT Government. (2017). *Australian Capital Territory Budget 2016-17: Budget Review*. https://apps.treasury.act.gov.au/_data/assets/pdf_file/0009/1031688/2016-17-Budget-Review_.pdf

- Scarcity value of 4.4 cents per kilolitre in 2003-04 was increased by 30 cents in 2006-07,²⁹ 3 cents in 2014-15,³⁰ 1 cent in 2015-16³¹ and 38.4 (4.4 plus 30 plus 3 plus 1) cents. In addition, it was increased by 3 percent per annum since 1 July 2017,³² reaching 45.9 cents per kilolitre in 2022-23.
- Recovery costs from the January 2003 bushfires of 2 cents per kilolitre were increased by 3 percent annually from 1 July 2017,³³ reaching 2.4 cents per kilolitre in 2022-23.
- Other charges, not explained in the Budget Papers, totalling 2.4 cents per kilolitre in 2022-23, are:
 - a 5-cent increase in 2004-05,
 - a 4 cent decrease in 2005-06,
 - a 1 cent increase in 2016-17 and
 - a 2 (5 minus 4 plus 1) cent increased by 3 percent per annum from 1 July 2017.³⁴

With the exception Scarcity Value, all costs have increased incrementally each year, roughly in line with inflation. However, the Scarcity Value has increased from 4.4 cents to 45.9 cents, being the biggest factor in the increase from 20 cents in 2003-04 to 67 cents in 2022-23.

The contribution of each cost to the Water Abstraction Charge is shown in Figure 2.

Figure 2: Water Abstraction Charge in 2003-04 (left) and 2022-23 (right)



▲ Water Supply Costs
 ▲ Environmental Costs
 ▲ Scarcity Value
 ▲ Recovery from 2003 bushfires
 ▲ Other charges not explained in Budget papers

²⁹ Stanhope. (2006). *Estimates 2006: Questions on Notice: 60 - Water Abstraction Charge*. https://www.parliament.act.gov.au/_data/assets/pdf_file/0008/382427/Stanhope_Treasurer_2006.pdf

³⁰ ACT Government. (2014). *2014-15 Budget Paper No. 3: Revenue Initiatives*. https://www.treasury.act.gov.au/_data/assets/pdf_file/0013/601150/New-Initiatives.pdf

³¹ ACT Government. (2015). *2015-16 Budget Paper No. 3: New Initiatives*. https://www.treasury.act.gov.au/_data/assets/pdf_file/0005/733766/BP3-Chapter-3-New-Initiatives.pdf

³² ACT Government. (2017). *Australian Capital Territory Budget 2016-17: Budget Review*. https://apps.treasury.act.gov.au/_data/assets/pdf_file/0009/1031688/2016-17-Budget-Review_.pdf

³³ ACT Government. (2017). *Australian Capital Territory Budget 2016-17: Budget Review*. https://apps.treasury.act.gov.au/_data/assets/pdf_file/0009/1031688/2016-17-Budget-Review_.pdf

³⁴ ACT Government. (2017). *Australian Capital Territory Budget 2016-17: Budget Review*. https://apps.treasury.act.gov.au/_data/assets/pdf_file/0009/1031688/2016-17-Budget-Review_.pdf

The Scarcity Value contribution to the Water Abstraction Charge was 22 percent in 2003-04 and 68.9 percent in 2022-23. The relative value of the other charges has declined in proportion to the Scarcity Value charge.

4.2.1 Updating the Scarcity Value

To understand if the increase in the Scarcity Value is consistent with the ICRC method, a Scarcity Value has been assessed using the method recommended by the ICRC and recent data.

The Independent Competition and Regulatory Commission recommended that the Scarcity Value be calculated using the weighted average temporary trade price in the regulated Murrumbidgee River.³⁵

The weighted average price for temporary trades in the regulated Murrumbidgee River used by the ICRC were:

- \$120 per megalitre in 2002-03, and
- \$48 per megalitre in 2001-02.³⁶

Weighting the temporary price by two thirds for the previous year, and one third for the two years prior gave a weighted average cost of \$96 per megalitre.

The weighted average price for temporary trades in the regulated Murrumbidgee River for the last two years were:

- \$80 per megalitre in 2021-22, and
- \$72 per megalitre in 2020-21.³⁷

Weighting the temporary price by two thirds for the previous year, and one third for the two years prior gave a weighted average cost of \$77 per megalitre.

That is, the price of Murrumbidgee temporary trades in 2020-21 and 2021-22 was lower than the price in 2001-02 and 2002-03. It does not support a more than 10-fold increase in the Scarcity Value from 4.4 cents in 2003-04 to 45.9 cents in 2022-23.

The relevance of this calculation is discussed further in *Contributions to the Water Abstraction Charge - Scarcity value - Estimating the scarcity value* section.

5 Strategic issues

5.1 Reporting on the Water Abstraction Charge method

The National Water Initiative Pricing Principles state:

³⁵ Independent Competition and Regulatory Commission. (2003). *Final Report: Water Abstraction Charge. Determining the Water Abstraction Charge* <https://www.icrc.act.gov.au/projects/completed-projects/water-and-sewerage/water-abstraction-charge>

³⁶ Independent Competition and Regulatory Commission. (2003). *Final Report: Water Abstraction Charge. Determining the Water Abstraction Charge* <https://www.icrc.act.gov.au/projects/completed-projects/water-and-sewerage/water-abstraction-charge>

³⁷ WaterNSW. (2022). *NSW Water Register*. <https://waterregister.watarnsw.com.au/water-register-frame>

*urban water tariffs should be set using a transparent methodology, through a process which seeks and takes into account public comment, or which is subject to public scrutiny.*³⁸

The ICRC recommended:

the methodology for determining and applying the WAC should satisfy the following assessment criteria:

- *transparency;*
- *reliability – such that reasonability and measurability tests can be met;*
- *flexibility; and*
- *legality.*³⁹

There is no reporting on the method to calculate the Water Abstraction Charge annually. In some years, the public Budget papers have reported the reason, but not the method, for increases in the Water Abstraction Charge (see the *Calculating the Water Abstraction Charge* section).

Recommendation: That the method to calculate the Water Abstraction Charge is published annually.

5.2 Reporting on the Water Abstraction Charge costs

5.2.1 Reporting costs to the public

In June 2022 Cabinet agreed to establish a new Office of Water. One of its objectives is to:

*improve access to and understanding of water information...*⁴⁰

The ICRC recommended:

*the WAC should, to the extent possible, reflect actual costs that are incurred by the ACT Government or costs that are reflected in imposts that are borne as a result of the ACT's abstraction of water for consumptive purposes. The WAC should be determined on an annual basis with any change in the WAC to take effect from 1 July of each year.*⁴¹

The Office of the Commissioner for Sustainability and the Environment has reported that:

³⁸ Australian Government. (2010) *National Water Initiative Water Pricing Principles*. <https://www.dcceew.gov.au/water/policy/policy/nwi/pricing-principles>

³⁹ Independent Competition and Regulatory Commission. (2003). *Final Report: Water Abstraction Charge. Determining the Water Abstraction Charge* <https://www.icrc.act.gov.au/projects/completed-projects/water-and-sewerage/water-abstraction-charge>

⁴⁰ ACT Government. (2022). *Introducing the Office for Water*. <https://www.environment.act.gov.au/home/home-news-listing/introducing-the-office-for-water>

⁴¹ Independent Competition and Regulatory Commission. (2003). *Final Report: Water Abstraction Charge. Determining the Water Abstraction Charge* <https://www.icrc.act.gov.au/projects/completed-projects/water-and-sewerage/water-abstraction-charge>

*recent exercises to reconcile the amount collected in WAC revenue...with the water related expenditure...highlights the amount collected significantly exceeds the amount spent.*⁴²

There is no public reporting on the costs incurred against the Water Abstraction Charge.

The Office of the Commissioner for Sustainability and the Environment has recommended that the ACT Government:

*publish an annual detailed breakdown of how the Water Abstraction Charge revenue is expended.*⁴³

Recommendation: That the costs used to calculate the Water Abstraction Charge are published annually.

5.2.2 Reporting costs to the ACCC

The ACT Government reports annually to the ACCC the monies received from the Water Abstraction Charge and its associated Water Supply costs. Because reporting to the ACCC does not include Environmental Externalities or Scarcity value, costs reported by the ACCC will always be less than costs incurred under the Water Abstraction Charge.

The ACCC publishes an annual ACCC Water Monitoring Report for all jurisdictions, which includes the Water Abstraction Charge and the Water Planning and Management Costs.⁴⁴

The 'cost recovery rate' is the percentage of costs incurred compared to costs recovered. A cost recovery rate less than 100 percent means that costs are less than cost recovery. A cost recovery rate more than 100 percent means that cost recovery is higher than costs. The ACCC reported on the comparative cost recovery rate for Basin States (excluding Queensland) between 2014-15 and 2021-21, shown in Figure 3.

⁴² Office of the Commissioner for Sustainability and the Environment. (2018). *The Heroic and the Dammed – Lower Cotter Catchment restoration and evaluation*. <https://nla.gov.au/nla.obj-1885755327/view>

⁴³ Office of the Commissioner for Sustainability and the Environment. (2022). *State of the Lakes and Waterways in the ACT*. <https://envcomm.act.gov.au/wp-content/uploads/2022/08/State-of-the-Lakes-Report-Digital.pdf>

⁴⁴ ACCC. (2022). *ACCC water monitoring report*. <https://www.accc.gov.au/publications/accc-water-monitoring-report>

Figure 3: Rates of cost recovery for Basin states, 2014-15 to 2020-21⁴⁵

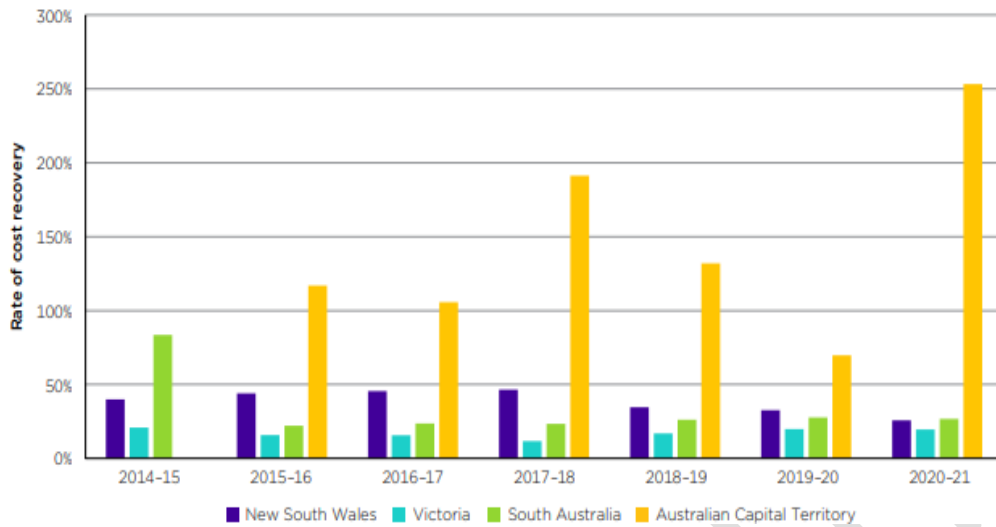


Figure 3 shows that the cost recovery rate reported to the ACCC for the ACT is the highest of the Basin states (excluding Queensland) and has exceeded 100 percent in every year since 2015-16 except in 2019-20. This is explained in part by:

- not all costs recovered in the ACT are reported to the ACCC (Environmental Externalities and Scarcity Value),
- and the ACT's reports capital costs to the ACCC in the year they are incurred, rather than over the life of the asset (see *Desktop assurance review of costs to be reported to the ACCC for the 2021-22 water year*).

These issues are discussed in more detail in: *Contributions to the Water Abstraction Charge - Environmental Costs*, *Contributions to the Water Abstraction Charge - Scarcity value*, and *Contributions to the Water Abstraction Charge - Capital Costs* sections.

5.3 No regulatory price setter

The National Water Initiative states:

*the Parties [the Commonwealth, States and Territories] agree to use independent bodies to set or review prices, or price setting processes, for water storage and delivery by government water service providers...*⁴⁶

The Productivity Commission has called for a revised National Water Initiative, which should:

*enhance the requirement for independent economic oversight by developing national principles, including for the application of price regulation.*⁴⁷

⁴⁵ ACCC. (2022). *Water Monitoring Report: 2020-21*.

https://www.accc.gov.au/system/files/Water%20Monitoring%20Report%202020-21_0.pdf

⁴⁶ Australian Government. (2004). *Intergovernmental agreement on a National Water Initiative*.

<https://www.dcceew.gov.au/sites/default/files/sitecollectiondocuments/water/Intergovernmental-Agreement-on-a-national-water-initiative.pdf>

⁴⁷ Productivity Commission. (2021). *National Water Reform 2020: Productivity Commission Inquiry Report*.

<https://www.pc.gov.au/inquiries/completed/water-reform-2020#report>

There is no body that has a regulatory role in setting the Water Abstraction Charge. The Water Abstraction Charge is set by the ACT Government through a determination under Section 107 of the Water Resources Act 2007.

Improved transparency of the method and costs related to the Water Abstraction Charge is required.

Recommendation: That the Water Abstraction Charge is independently reviewed and that the review is published.

Recommendation: That the review should advise on how often the Water Abstraction Charge should be reviewed.

5.4 Revenue raising

Section 90 of the Constitution confers exclusive power to the Commonwealth to collect customs, excise and bounties.

The ICRC sought legal advice on the ACT Government's powers to make certain charges or levies that could be interpreted as taxes or an excise under s90 of the Constitution.

The ICRC advised that to avoid a constitutional challenge, the Water Abstraction Charge should be made regarding the following principles:

- *that the quantum of the charge should reflect discernible and measurable costs to government (and therefore the community);*
- *discernible and measurable costs can include social and environmental as well as economic costs; and*
- *the charge should not be levied for revenue raising purposes.*⁴⁸

They also advised that:

*any consideration of amendments to the WAC level or the methodology used to set the WAC, other than those recommended in this report, should be consistent with these principles (listed in the preceding paragraph) in order to avoid the possibility of a constitutional challenge.*⁴⁹

There is no public information on the method to determine increases to the Water Abstraction Charge, so it is unclear if the ICRC principles were used when amendments were made to the subsequent Water Abstraction Charges.

⁴⁸ Independent Competition and Regulatory Commission. (2003). *Final Report: Water Abstraction Charge. Determining the Water Abstraction Charge* <https://www.icrc.act.gov.au/projects/completed-projects/water-and-sewerage/water-abstraction-charge>

⁴⁹ Independent Competition and Regulatory Commission. (2003). *Final Report: Water Abstraction Charge. Determining the Water Abstraction Charge* <https://www.icrc.act.gov.au/projects/completed-projects/water-and-sewerage/water-abstraction-charge>

The over recovery of costs is addressed in the National Water Initiative Pricing Principle 6, which says:

where water usage charges lead to revenue recovery in excess of upper bound revenue requirements in respect of new investments, jurisdictions are to address the over recovery. In addressing the over recovery, revenues should be redistributed to customers as soon as practicable.⁵⁰

In 2021-22, the Water Abstraction Charge raised \$29,886,564. Costs identified for water planning and management activities were only \$11,814,500, or 39 percent of revenue.⁵¹ Such a large difference between the revenue and costs are likely to invite questions about whether the Water Abstraction Charge includes a portion for the purpose of revenue raising.

Recommendation: That the independent review includes advice on whether part of the Water Abstraction Charge is levying charges for the purpose of revenue raising, and if so, what risk does that pose to the Government.

5.5 Contributions to the Water Abstraction Charge

5.5.1 Water Supply Costs

Water Supply Costs are called 'Water Planning and Management' costs in the Water Charging Rules.

Environmental management costs are included in Water Supply Costs (see the *Contributions to the Water Abstraction Charge - Environmental Externalities and cost recovery* section). This is consistent with the Water Charge Rules.

The Water Supply Costs in the Water Abstraction Charge calculation include:

catchment management, biodiversity and environmental monitoring, environment protection, water utility regulation, health monitoring and regulation, water policy and legal services.⁵²

Costs that are the business of Government, such as such as water reform, strategy and policy development, are not consistent with the Water Charge Rules or the Water Abstraction Charge Cost Framework developed under this project (see *Desktop assurance review of costs to be reported to the ACCC for the 2021-22 water year*).

⁵⁰ Australian Government. (2010) *National Water Initiative Water Pricing Principles*. <https://www.dcceew.gov.au/water/policy/policy/nwi/pricing-principles>

⁵¹ Environment, Planning and Sustainable Development Directorate. (2022). *Copy of Attachment A – ACT ACCC Reporting WPM – 2021-22 (A39750875).xlsx*

⁵² Independent Competition and Regulatory Commission. (2003). *Final Report: Water Abstraction Charge. Determining the Water Abstraction Charge* <https://www.icrc.act.gov.au/projects/completed-projects/water-and-sewerage/water-abstraction-charge>

Water policy costs and legal services appear to be costs that are the business of Government, and therefore should not be recovered through the Water Abstraction Charge.

Recommendation: That the independent review should review Water Supply Costs against the *Water Abstraction Charge Cost Framework* to ensure they do not include any costs relating to the business of Government.

5.5.2 Environmental Costs

5.5.2.1 Environmental Externalities and cost recovery

The Organisation for Economic Co-Operation and Development defines environmental externalities as:

*the economic concept of uncompensated environmental effects of production and consumption that affect consumer utility and enterprise cost outside the market mechanism.*⁵³

The National Water Commission made a clear distinction between charges to recover the cost of water planning and management and charging for externalities:

*charging for externalities encompasses activities that seek to internalise the impact (cost or benefit) of the externality to the party causing it (e.g. by imposing a specific charge or tax) rather than simply recovering the costs of managing the impact from relevant parties.*⁵⁴

The 'Environmental cost' in the Water Abstraction Charge attempts to estimate:

*the environmental costs associated with the effect on the flow of water downstream associated with altering the timing and magnitude of downstream flows by retaining water in dams.*⁵⁵

That is, it is an attempt to cost an externality, rather than a cost recovery.

The ICRC called its environmental charge 'environmental costs', whereas they are an estimate of environmental externalities, rather than the cost of environmental management.

The Water Charge Rules require water pricing to include 'Environmental Externalities.' However, Environmental Externalities are not defined, nor is there any explanation on how they should be calculated. The Water Charge Rules cite 'resource management costs' as an example of an Environmental Externality'.

⁵³ OECD. (2003). *Glossary of statistical terms: Environmental externalities*.

<https://stats.oecd.org/glossary/detail.asp?ID=824#:~:text=Environmental%20externalities%20refer%20to%20the%20economic%20concept%20of,tend%20to%20be%20lower%20than%20its%20%E2%80%9Csocial%E2%80%9D%20cost.>

⁵⁴ Frontier Economics. (2011). *Externality pricing in the Australian water sector: Waterlines report No. 43*.

<https://apo.org.au/sites/default/files/resource-files/2011-04/apo-nid24658.pdf>

⁵⁵ Independent Competition and Regulatory Commission. (2003). *Final Report: Water Abstraction Charge. Determining the Water Abstraction Charge* <https://www.icrc.act.gov.au/projects/completed-projects/water-and-sewerage/water-abstraction-charge>

This has resulted in the situation where the Water Abstraction Charge 'environmental costs' are actually an estimate of environmental externalities, and the Water Charge Rules 'Environmental Externalities' are actually a cost recovery.

It is unclear whether the 'Environmental Externalities' prescribed in the Water Charge Rules instruct that pricing should include the recovery of the costs of environmental water management, and an additional charge for environmental externalities, or just the former. Noting that the costs of environmental water management are already included in the Water Supply Costs.

5.5.2.2 Environmental Externalities and the Australian Competition and Consumer Commission

The ACCC is responsible for monitoring regulated water charges and compliance with water charge rules. However, it does not appear to require the inclusion of environmental externalities in water charges. It conducted a review of water charge rules in 2016 which did not mention the reporting or monitoring of environmental externalities.⁵⁶

The ACCC's annual monitoring of water charge rules is also silent on environmental externalities.⁵⁷ The annual reporting of water charges to the ACCC is through a spreadsheet generated by the ACCC which does not include a provision for environmental externalities.

Other Basin jurisdictions do not appear to include Environmental Externalities in their regulated water charges. For example, the NSW calculation of rural water prices for 2022-23 does not mention environmental externalities.⁵⁸

5.5.2.3 Estimating the 'Environmental cost'

The ICRC based the Environmental Externality Costs on:

*the average costs to preserve or permanently recover one megalitre of water in the system.*⁵⁹

It is unclear if the 'system' is the Murrumbidgee or the entire Southern Connected Basin. It is also unclear if water recovery relates to a specific water licence category, such as General Security, or all water licence categories (High Security, General Security, Supplementary, etc.).

⁵⁶ Australian Competition & Consumer Commission. (2016). *Review of the Water Charge Rules: Final Advice*. <https://www.accc.gov.au/regulated-infrastructure/water/water-regulation-and-monitoring/review-of-the-water-charge-rules-advice-development/final-advice>

⁵⁷ Australian Competition & Consumer Commission. (2022). *Water Monitoring Report: 2020-21*. https://www.accc.gov.au/system/files/Water%20Monitoring%20Report%202020-21_0.pdf

⁵⁸ Independent Pricing and Regulatory Tribunal: NSW. (2022). *Annual review of WaterNSW's rural bulk water charges for 2022-23: Final Report*. (https://www.ipart.nsw.gov.au/sites/default/files/cm9_documents/Final-Report-Annual-review-of-WaterNSWs-rural-bulk-water-charges-for-2022-23-June-2022.PDF)

⁵⁹ Independent Competition and Regulatory Commission. (2003). *Final Report: Water Abstraction Charge. Determining the Water Abstraction Charge* <https://www.icrc.act.gov.au/projects/completed-projects/water-and-sewerage/water-abstraction-charge>

All water recovery purchases have been funded by Commonwealth, New South Wales, or Victorian governments. The ACT Government has not incurred any costs for water recovery and therefore cannot rightfully argue that water recovery is a cost to be recovered.

Recommendation: That the independent review should advise the best practice:

- treatment of environmental externalities (as opposed to cost recovery) in water pricing, and
- method to incorporate environmental externalities into Regulatory Water Charges.

5.5.3 Scarcity value

The Water Charge Rules do not include any charges for 'Scarcity Value'.

5.5.3.1 Scarcity Value to achieve policy outcomes

Throughout the water pricing reform process there has been consideration that urban prices based on a scarcity value can better achieve policy objectives than urban prices based on a full cost recovery.⁶⁰

The former National Water Commission:

supports further consideration of scarcity pricing in urban areas on the basis that scarcity pricing may be a more efficient way of balancing supply and demand and could significantly reduce the need for water restrictions.⁶¹

Note, this assumes that urban prices are based on a scarcity value only, not in addition to a full cost recovery approach.

The ICRC reported that, because the demand for water is relatively inelastic and therefore relatively insensitive to increased pricing, it is a poor policy tool to reduce water use.⁶²

The ICRC advised that water use has discretionary and non-discretionary components, and perhaps a price signal could be levied against the non-discretionary component.

We note that the ACT Government has implemented other policy responses to reduce water use when it is scarce, such as water restrictions.

⁶⁰ Frontier Economics. (2011). *Efficient water resource pricing in Australia: an assessment of administered scarcity pricing in urban areas – Waterline Report Series No. 44*
https://web.archive.org/awa/20160615124528mp_/http://archive.nwc.gov.au/_data/assets/pdf_file/0016/10933/4_4_Scarcity.pdf

⁶¹ National Water Commission. (2008). *Urban Water Pricing: National Water Commission position*.
https://web.archive.org/awa/20160615110524mp_/http://archive.nwc.gov.au/_data/assets/pdf_file/0019/9730/7_Urban_Water_Pricing_-_PSI.pdf

⁶² Independent Competition and Regulatory Commission. (2003). *Final Report: Water Abstraction Charge. Determining the Water Abstraction Charge*
<https://www.icrc.act.gov.au/projects/completed-projects/water-and-sewerage/water-abstraction-charge>

5.5.3.2 Estimating the scarcity value

The ICRC based the Scarcity value on the weighted average temporary trade price in the regulated Murrumbidgee River.⁶³

It is not clear if the weighted average price of temporary trades relates to a specific water licence category, such as General Security, or all water licence categories (High Security, General Security, Supplementary, etc.,).

The ICRC weighted the 2001-02 year by one third and the 2002-03 year by two thirds. It did not explain the rationale for this.

The price per volume of trades is often not reported in the NSW Water Trade Register. Between 2017-18 and 2021-22, prices were only recorded for between 13 and 30 percent of all trades. Omission of such a large part of the data set means that a weighted average price cannot be determined with any confidence. Note that non-zero price transactions were removed from this calculation.

When the ICRC was conducting its review, market transactions were straight forward trades. Market transactions increasingly include derivatives, such as forward contracts, leasing, carryover parking, options, etc.⁶⁴ There can be large variations in price which could distort a Weighted Average cost calculation.

While it is possible to re-estimate a Water Abstraction Charge using the method advised by the ICRC, it is unlikely to be meaningful and should not be relied on with any confidence.

Recommendation: That the Independent Review include consideration of the:

- inclusion of a Scarcity Value in the Water Abstraction Charge, and
- if appropriate, a method to incorporate Scarcity Value into Regulatory Water Charges.

5.5.4 Capital Costs

Planning and management costs are typically incurred annually so the period that the costs are incurred matches the period when the costs are used.

Capital costs relate to an investment that is expected to last several years. Capital costs are typically expensed over the life of the asset, rather than in the year they were incurred. This is called the 'cost of asset consumption' in the Water Charge Rules and is a similar concept to depreciation or amortisation in financial statements.

Capital costs usually include the cost of the asset adjusted for the cost of financing the costs, or its opportunity costs, and the time value of money.⁶⁵

⁶³ Independent Competition and Regulatory Commission. (2003). *Final Report: Water Abstraction Charge. Determining the Water Abstraction Charge* <https://www.icrc.act.gov.au/projects/completed-projects/water-and-sewerage/water-abstraction-charge>

⁶⁴ Marsden Jacob Associates. (2020). *Murray Darling Basin Water Market Products Scoping Study*. MDBA: Canberra.

<https://www.mdba.gov.au/sites/default/files/pubs/Murray%E2%80%93Darling%20Basin%20Water%20Market%20Products%20Scoping%20Study%20-%20full%20report.pdf>

⁶⁵ Dews, Hawkins and Horton. (1992). *RDP 9205: Measuring the Cost of Capital in Australia2. What is the Cost of Capital?*. <https://www.rba.gov.au/publications/rdp/1992/9205/what-is-the-cost-of-capital.html>

The Water Charge Rules specify that capital costs are recovered over the life of the asset, based on an annual weighted cost of capital.⁶⁶

The ICRC recommends that Capital Costs be apportioned over a three-year period.^{67, 68}

The Water Charge Rules recommend an annual charge for capital costs based on the cost of asset consumption (depreciation) and the cost of capital calculated using a Weighted Average Cost of Capital.⁶⁹

The ACT Government appears to report its capital costs to the ACCC in the year they are incurred, rather than an annual Capital Cost over the life of the asset (see *Desktop assurance review of costs to be reported to the ACCC for the 2021-22 water year*). This overstates annual costs in the year that capital expenditure is incurred and understates them in later years when the capital works are being used.

Recommendation: That the Independent Review include:

- a method to incorporate capital costs into the Water Abstraction Charge, and
- a recalculation of historical capital costs reported to the ACCC.

Recommendation: That the Independent Review prepare a 'Capital Cost Register' to calculate capital costs for reporting to the ACCC and future calculations of the Water Abstraction Charge.

6 Recommendations

1. That the method and costs used to calculate the Water Abstraction Charge are published annually.
2. That the monies raised and costs incurred relating to the Water Abstraction Charge are reconciled and published annually.
3. That the Water Abstraction Charge is independently reviewed and that the review is published.
4. That the independent review should include:
 - a. advice on how often the Water Abstraction Charge should be reviewed,
 - b. consideration of whether the Water Abstraction Charge is levying charges for the purpose of revenue raising, and if so, what risk does that pose to the Government,

⁶⁶ Australian Government. (2007). Water Act, Part 4 and Schedule 2. <https://www.legislation.gov.au/Details/C2017C00151>

⁶⁷ Independent Competition and Regulatory Commission. (2003). *Final Report: Water Abstraction Charge. Determining the Water Abstraction Charge* <https://www.icrc.act.gov.au/projects/completed-projects/water-and-sewerage/water-abstraction-charge>

⁶⁸The ICRC did not separately identify any Capital Costs in the Water Abstraction Charge calculation, so it is unknown if any Capital Costs were used to calculate the Water Abstraction Charge.

⁶⁹ Australian Government. (2010) *National Water Initiative Water Pricing Principles*. <https://www.dcceew.gov.au/water/policy/policy/nwi/pricing-principles>

- c. a review Water Supply Costs against the *Water Abstraction Charge Cost Framework* to ensure they do not include any costs relating to the business of Government,
 - d. advice on the best practice:
 - i. treatment of environmental externalities (as opposed to cost recovery) in water pricing, and
 - ii. method to incorporate environmental externalities into Regulatory Water Charges.
 - e. consideration of the:
 - i. inclusion of a Scarcity Value in the Water Abstraction Charge, and
 - ii. if appropriate, a method to incorporate Scarcity Value into Regulatory Water Charges.
 - f. advice on a method to incorporate capital costs into the Water Abstraction Charge, and
 - g. the recalculation of historical capital costs reported to the ACCC.
5. That the Independent Review prepare a 'Capital Cost Register' to calculate capital costs for reporting to the ACCC and future calculations of the Water Abstraction Charge.

Attachment A: Terms of Reference

Task 1: *Review and confirm the appropriateness of the criteria used by the Environment, Planning and Sustainable Development Directorate for allocating relevant expenditure collected from the Water Abstraction Charge. Propose amendments to the criteria if required to align with the statutory basis for the charge.*

Task 2: *Conduct a desktop assurance review of water planning and management expenditure allocated from the Water Abstraction Charge as reported to the Australian Competition and Consumer Commission for the 2021-22 water year, using the criteria from task 1.*

Task 3: *Report on Task 1 and Task 2, and:*

Discuss the appropriateness of current reporting and provide advice on potential improvements in relation to:

- a. Statutory reporting requirements under the Water Act (Cth)*
- b. Best practice guides and Audit Insights by the Australian National Audit Office*
- c. ACT Government policies relevant to financial reporting.*

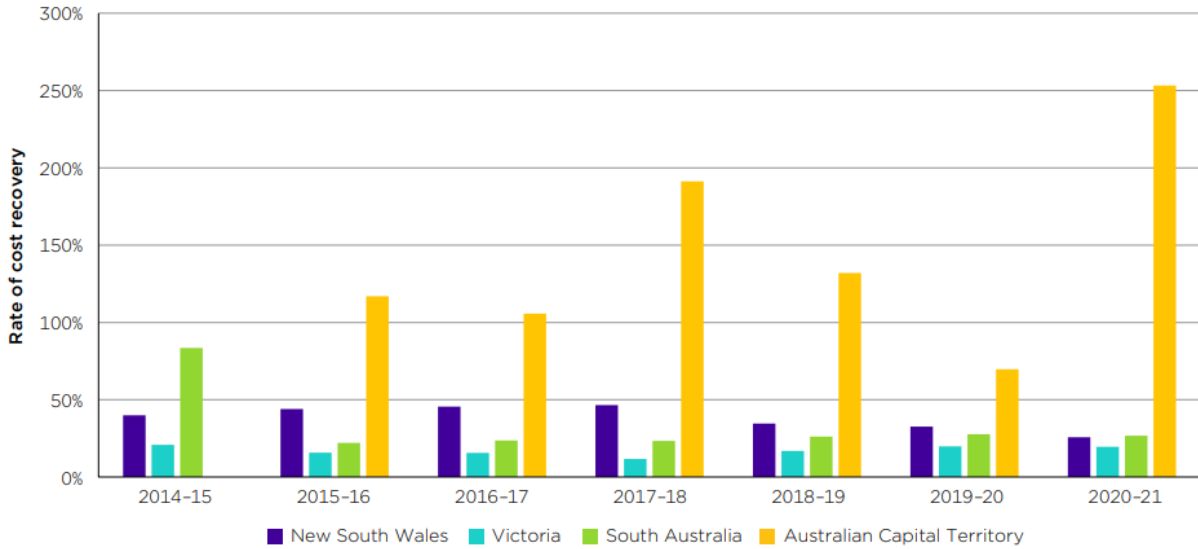
Advise on any strategic risks associated with current reporting on the expenditure of revenue raised through the Water Abstraction Charge.

A Water Abstraction Charge Cost Framework was developed under Task 1.

The Desktop assurance review of costs to be reported to the ACCC for the 2021-22 water year was developed under Task 2. It includes the Water Abstraction Charge Cost Framework.

ATTACHMENT B

Figure 1: Rates of cost recovery for Basin jurisdictions, 2014-15 to 2020-21 (sourced from ACCC (2022), Water Monitoring Report: 2020-21)



Nb. The 'cost recovery rate' is the percentage of costs recovered compared to costs incurred. A cost recovery rate less than 100 per cent means that costs recovery is less than costs. A cost recovery rate more than 100 per cent means that cost recovery is higher than costs.

Figure 2: WAC since 2003-04 (taken from Slattery and Johnson 2023)

