AUSTRALIAN COMPETITION & CONSUMER COMMISSION

Murray–Darling Basin Rural Water Monitoring report

2022–23

June 2024

Acknowledgment of country

The ACCC acknowledges the traditional owners and custodians of Country throughout Australia and recognises their continuing connection to the land, sea and community. We pay our respects to them and their cultures; and to their Elders past, present and future.

Cover photo source: Murray–Darling Basin Authority

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ACCC 05/24_24–19
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Key messages

The ACCC received 3 complaints about water-related matters in 2022–23. Only one of these complaints was from an irrigator. This continued a downward trend since 2018–19.

Hypothetical on-river bills for Sunwater irrigators rose by an average of 3% in 2022–23 compared to 2021–22.

Hypothetical on-river bills for New South Wales rose by an average of 12% for high security and by an average 11% for general security water access entitlement holders in 2022–23 compared to 2021–22.

Goulburn–Murray Water and Lower Murray Water hypothetical on-river bills rose by less than inflation in 2022–23. The hypothetical bills for Goulburn–Murray Water rose by 2% and for Lower Murray Water by 4%.

Hypothetical bills for South Australian private diverters, and Central Irrigation Trust and Renmark Irrigation Trust customers rose by less than inflation in 2022–23. The hypothetical on-river bill rose by 2%.

The charges that SA Water levies on its transportation customers are higher than any other regulated water charges monitored by the ACCC throughout the Basin, reflecting the higher cost of service.

Irrigators have transformed small volumes of irrigation rights in 2022–23.

Across the Basin, the water delivery rights terminated was a very small proportion of the rights on issue (generally less than 1%).

Glossary and abbreviations

ACCC	Australian Competition and Consumer Commission
Basin Plan	A high-level framework agreed between the Australian Government and Basin states that sets standards for the management of the Murray–Darling Basin's water resources. Officially known as the Basin Plan 2012.
Basin Plan Water Trading Rules	Rules set out in Part 12 of the Basin Plan that relate to the trade or transfer of tradeable water rights. The rules commenced on 1 July 2014 and since 2021 have been enforced by the Inspector General of Water Compliance.
Basin states	States and territories that reside partly or wholly within the Murray–Darling Basin – New South Wales, Victoria, Queensland, South Australia and the ACT.
Basin state agencies	Basin state departments and water authorities
BIL	Barossa Infrastructure Limited
BRC	Border Rivers Commission
bulk water charge	A charge payable for either (or both) the storage of water for, or the delivery of water to: (i) infrastructure operators (ii) other operators of reticulated water systems (iii) other persons (including private diverters and environmental water holders).
carryover	Arrangements that allow water entitlement holders to hold allocated water in storage so that it is available in subsequent years.
CIT	Central Irrigation Trust
CPI	Consumer Price Index
DCCEEW	Department of Climate Change, Energy, the Environment and Water (NSW)
DEECA	Department of Energy, Environment and Climate Action (Vic)
DELWP	Department of Environment, Land, Water and Planning (Vic)
DPIE	Department of Planning, Industry and Environment (NSW)
DRDMW	Department of Regional Development, Manufacturing and Water (Qld)
ESCV	Essential Services Commission Victoria

ESCOSA	Essential Services Commission of South Australia
general security (NSW)	In NSW, a water access entitlement (water access licence) which receives water allocation as a lower priority compared to high security and conveyance water.
GL	gigalitres (one billion litres)
GMW	Goulburn–Murray Water
high priority (Queensland) high security (NSW) high reliability (Victoria)	Classes of water access entitlement against which water allocation is made first. They are the most reliable class of water access entitlement and are typically used for town water supply, industrial use, and high-value cropping.
infrastructure charge	Charges that infrastructure operators impose for access to their water service infrastructure, and for services provided in relation to that access.
infrastructure operator	Any person or entity that owns or operates infrastructure for one or more of the following purposes: (i) the storage of water (ii) the delivery of water (iii) the drainage of water for providing a service to someone who does not own or operate the infrastructure.
IPART	Independent Pricing and Regulatory Tribunal of NSW
irrigation infrastructure operator	An infrastructure operator that owns or operates water service infrastructure for delivering water for the primary purpose of irrigation.
irrigation network	The water service infrastructure of an irrigation infrastructure operator, as defined in s 7(4) of the Water Act. In practice, an irrigation network typically constitutes a network of carriers (open channels, pipes and/or natural waterways) that convey water from a water source through customer service points to customer properties. It may be either a gravity fed network (typically using channels and/or natural waterways) or a pressurised network (using pipes).
irrigation right	A person's right against an irrigation infrastructure operator to receive water, which is not a water access right or a water delivery right. It usually can be transformed into a water access entitlement.
joint water supply schemes	Similar to cooperatives where the members form and run an organisation to deliver water to irrigators. The water access entitlement is jointly held by all customers rather than by the irrigation infrastructure operator on behalf of members.

kL	kilolitre (one thousand litres)
LMW	Lower Murray Water
low reliability (Victoria)	In Victoria, refers to a class of water access entitlement (water share) with a lower priority to receive allocation.
medium priority (Queensland)	In Queensland, water access entitlements (known as water allocations) with medium priority have lower reliability than high priority water allocations and are mainly used for agriculture. This means during drier conditions, and when storage levels are low, these water allocations are the first to be restricted. Medium priority water allocation holders pay lower fees than those with high priority water access entitlements.
MDBA	Murray–Darling Basin Authority
ML	megalitre (one million litres)
non-volumetric charge	A charge that does not reference a volume of a water right or physical amount of water – for example, a charge that is levied per account, per outlet or per meter.
NWI	National Water Initiative – A 2004 intergovernmental agreement between the Australian Government and Basin states for national water reform.
off-river infrastructure service/off-river infrastructure operator	The storage, delivery and/or drainage of water diverted from a natural watercourse through a network consisting of off-river channels and/or pipes (which can be gravity fed or pressurised) to another person. An operator providing such services is an off-river infrastructure operator.
on-river infrastructure service/on-river infrastructure operator	Harvesting and storing water through infrastructure such as dams, lakes, weirs and reservoirs located primarily on a natural watercourse, and delivering water, primarily through natural watercourses. An operator providing such services is an on-river infrastructure operator.
private diverter	A person that extracts water directly from a natural watercourse (either a regulated or unregulated river).
pressurised irrigation system	A piped irrigation system that usually requires water pressure for the system to work and requires pumps to pressurise the water.
QCA	Queensland Competition Authority
regulated system	A water system where the water flow is managed through artificial structures such as large dams and weirs.
regulated water charge	A water charge to which the Water Charge Rules apply. Section 91 of the Water Act provides a full definition.
RFI	ACCC request for information

RIT	Renmark Irrigation Trust
Rules	Water Charge Rules and Water Market Rules
southern connected Murray–Darling Basin	The southern Murray–Darling Basin catchments that are hydrologically connected. Water can be traded between any of these catchments (subject to trade limits).
termination	When a person terminates or surrenders the whole or part of a right of access to an operator's network, typically by terminating a water delivery right.
termination fee	A fee that an operator may impose when an irrigator terminates.
tradeable water right	One of: (i) water access right (ii) water delivery right (iii) irrigation right.
transformation	When an irrigator permanently transforms their entitlement to water under an irrigation right against an irrigation infrastructure operator into a water access entitlement held by the irrigator (or anybody other than the irrigation infrastructure operator), thereby reducing the volume (for example, the share component) of the irrigation infrastructure operator's water access entitlement.
Unregulated system	A water system where the water flow is not managed through artificial structures such as dams and weirs. Also referred to as an unsupplemented system in Queensland.
volumetric charge	Charge based on the volume of a water right or physical amount of water. A fixed volumetric charge is a charge based on the volume of water rights held, while a variable volumetric charge is a charge based on the volume of the rights that is used in a particular manner.
WAMC	Water Administrative Ministerial Corporation (NSW)
water access entitlement	Perpetual or ongoing entitlement, by or under a law of a Basin state, to exclusive access to a share of the water resources of a water resource plan area.
water access entitlement trade	Change of ownership and/or location of a water access entitlement.
water access right	Any right conferred by or under a law of a Basin state to hold and/or take water from a water resource, including: ▪ stock and domestic rights ▪ riparian rights ▪ a water access entitlement ▪ a water allocation.

Water Act	*Water Act 2007* (Cth)
water allocation	Specific volume of water allocated to water access entitlements in a given water accounting period. Also referred to as a seasonal water assignment in Queensland.
water allocation trade	Change of ownership and/or location of a particular volume of water allocation.
Water Charge Rules	*Water Charge Rules (Cth) 2010*. Rules for fees and charges payable to an infrastructure operator for: bulk water charges; access to the irrigation infrastructure operator's network, or services provided relating to that access; and matters specified in regulations made under s 91(1)(d) of the Water Act. Also includes rules for water planning and management activities and terminating access to an irrigation infrastructure operator's irrigation network
water delivery right	Right to have water delivered by an infrastructure operator. It typically represents the holder's right of access to an irrigation network (there may also be a right to drainage) and can be terminated.
Water Market Rules	*Water Market Rules 2009* (Cth). Rules dealing with actions or omissions of an irrigation infrastructure operator that prevent or unreasonably delay transformation arrangements or trade of the resulting water access entitlement
water harvesting/ supplementary water	In Queensland, the taking of unsupplemented water under a water access entitlement. Includes the taking of overland flow. In NSW, supplementary water is surplus flow that cannot be captured or re-regulated. Supplementary water access licence holders can only pump water against these licences during these announced periods. NSW is rolling out a licencing framework for floodplain harvesting.
water service infrastructure	Infrastructure for one or more of the following purposes: (i) the storage of water (ii) the delivery of water (iii) the drainage of water for providing a service to someone who does not own or operate the infrastructure.
WPM	water planning and management

Overview

By its nature, water is unequally distributed geographically, with some areas rich in water, and others much drier. As a bulk commodity, it is difficult and thus costly to move water between these often-distant areas. A single operator can provide this service at a lower cost than multiple operators could, making bulk water supply a natural monopoly. Infrastructure operators, being those that harvest, store, and deliver water using natural and artificial infrastructure such as rivers, dams, lakes, weirs, and reservoirs for irrigation, operate within this natural monopoly. These operators possess market power because the infrastructure they use to move water is impractical or too costly to duplicate and they also operate in geographically exclusive areas. This means that they face little or no competition from other operators in the same water market.

This monopoly position also leads to the problem of asymmetric information, where infrastructure operators possess important information that stakeholders, including policy makers and consumers of irrigated water, may not have access to in the absence of regulation. Combined with the natural monopoly in water resources and water infrastructure, this can lead to harmful market conduct and the inefficient and unsustainable use of water as a scarce commodity.

Economic regulation provides a way to address natural monopoly in water resources, including bulk water for irrigation, and addresses problems arising with the presence of asymmetric information in associated water markets.

An infrastructure operator is an entity that owns or operates infrastructure for the storage, delivery or drainage of water for the purposes of providing a service to someone who does not own or operate the infrastructure.[1] Some infrastructure operators store and deliver water on-river. These operators include WaterNSW, Sunwater and the Department of Regional Development, Manufacturing and Water (DRDMW) in Queensland, and Goulburn–Murray Water (GMW) in Victoria. They are referred to as on-river operators and are usually regulated by the economic regulator of the state they are based in.

An irrigation infrastructure operator is an infrastructure operator that owns or operates water service infrastructure for delivering water for the primary purpose of irrigation.[2] While GMW and Lower Murray Water (LMW) in Victoria are government-owned statutory corporations, most irrigation infrastructure operators in the Basin are member-owned entities, which exclusively provide off-river water delivery services. They can therefore be referred to as off-river operators.

The Water Act establishes the frameworks and institutions necessary to ensure that the Basin is managed in the national interest using the principles of economic efficiency and regulation. The ACCC holds several important roles under the Water Act in this regard. These include monitoring regulated water charges (including termination fees), transformations, and compliance with the Water Market Rules and Water Charge Rules (the Rules).[3] The ACCC also provides advice to the Minister on the Rules, and advice to the Murray–Darling Basin Authority (MDBA) on the Basin Plan water trading rules.

The ACCC's water monitoring report allows policy makers and other stakeholders to follow changes in regulated water and other factors influencing the water sector in the Basin.

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1 See s. 7 of the Water Act. Section 91(3) of the Water Act excludes charges in respect of urban water supply activities beyond the point at which the water has been removed from a Basin water resource from the application of the Water Charge Rules.

2 Section 7(4) of the Water Act.

3 Sections 94 and 99 of the Water Act require the ACCC to monitor regulated water charges, transformation arrangements and compliance with the Rules. For context, this report also covers trends in terminations, and water allocation trade undertaken, or facilitated by, irrigation infrastructure operators.

Transparency helps water markets work more efficiently by mitigating information asymmetry and assists policy makers to assess the impact of reforms to the regulatory framework.

We monitor:

- regulated water charges because competition is unlikely to develop between infrastructure operators in geographically exclusive areas for water harvesting, storage, and delivery services. Without competition, prices, quality, service levels and innovation may not be efficient. Monitoring helps policy makers determine whether further regulation is needed. Monitoring may also provide some indication of infrastructure operators exercising market power over irrigators and other customers. The ACCC's monitoring includes water planning and management charges, which usually fund State government water planning and management activities
- transformation arrangements to assess whether irrigation infrastructure operators may be preventing or unreasonably delaying transformation or an associated trade. Transformation allows water formerly available to a customer under an irrigation right to be held directly by the customer or traded to another person. Monitoring transformation arrangements may encourage compliance with the Rules, and in turn reduce barriers to trade, facilitate the operation of efficient water markets and reduce transaction costs
- compliance with the Rules which can help identify when the Rules may not be working as intended and highlight trends.

In addition to these roles, the ACCC enforces the *Competition and Consumer Act 2010* (Cth), including the Australian Consumer Law, which applies to the behaviour of infrastructure operators and water brokers and exchanges. Following the ACCC's water market inquiry[4] and the water market roadmap[5], the Australian Government also legislated new functions for the ACCC as the water market conduct regulator in the Basin. These new functions were recommended by the water market reform roadmap in response to the ACCC's water markets inquiry. The new functions will include Basin-wide laws that address harmful market conduct, including bans on market manipulation, stronger insider trading rules, and a mandatory code of conduct for water market intermediaries.[6]

The ACCC has monitored and promoted compliance with the Rules

The ACCC received 3 complaints and 9 enquiries about water-related matters in 2022–23. This continues the decline in water complaints to the ACCC since 2018–19. The 3 complaints were about:

1. an on-river infrastructure operator declined the transfer of a water allocation because it was not permissible
2. a private contractual dispute between an irrigator and an infrastructure operator
3. a water broker allegedly making false or misleading representations when sending communications to its customers (discussed further below).

The ACCC actively assesses infrastructure operators' compliance with key provisions of the Rules by undertaking annual compliance reviews of infrastructure operators' schedule of charges and responses to the ACCC's requests for information.

The ACCC actively monitors infrastructure operators' compliance with key provisions of the Rules. In addition to assessing complaints and enquiries, the ACCC's approach includes an annual review of infrastructure operator schedule of charges and issuing information requests to infrastructure

4 ACCC (2021), Murray–Darling Basin water markets inquiry – Final report, accessed 08 May 2024.

5 Water market reform: final roadmap report, accessed 08 May 2024.

6 See Parts 5A and 7A of the Water Act, as amended by the Water Amendment (Restoring Our Rivers) Act 2023.

operators and State water management departments in the Basin. Our review of the RFI responses assessed compliance with the Water Market Rules and the Water Charge Rules. This includes assessing every termination fee levied by an infrastructure operator for compliance with the termination fee cap set out in the Water Charge Rules, and all transformation processing times for compliance with the Water Market Rules. Our 2022–23 RFI review did not identify any major compliance breaches.

The ACCC reviewed 31 infrastructure operators' 2022–23 schedule of charges. The schedules of charges we reviewed generally included transparent and accessible information about the infrastructure and water planning and management charges levied by operators, consistent with the requirements and objectives of the Water Charge Rules. Where we identified several operators who had relatively minor inaccuracies in their schedule of charges, we contacted them so they could be corrected. These actions improved compliance with the following requirements of the Water Charge Rules:

- **Pass-through requirements**: Rule 9A of the Water Charge Rules requires infrastructure operators to present certain 'pass-through charges' separately on their schedule of charges. As far as practicable, operators must recover these charges from customers on the same basis as they are incurred by the operator.[7]
- **Information requirements**: Rule 13 of the Water Charge Rules sets out the information that must be included in an infrastructure operator's schedule of charges. Two schedules of charges did not include information required by rule 13, such as the date a schedule came into effect, the legislative, contractual or other authority for a planning and management charge, or information about discounts, surcharges or hardship policies available to customers. Another operator failed to list an infrastructure charge on its schedule. The issues described above have been resolved.

The ACCC has enforced the Australian Consumer Law

The ACCC enforces the *Competition and Consumer Act 2010*, which includes the Australian Consumer Law. In 2022–23, the ACCC received a complaint alleging that a water broker made false or misleading representations when sending email and text messages to its customers. The ACCC assessed the complaint and advised the water broker that it considers that the broker made statements that may have represented that there was a Commonwealth water buyback underway when this was not the case. The ACCC confirmed the broker took steps to address the alleged conduct by amending their website and circulating emails and text messages correcting the representations made to its customers.

The ACCC sent the broker a warning letter, noting that it may have breached the Australian Consumer Law and outlining the penalties for breaches for the false or misleading provisions. The letter noted that the ACCC will continue to monitor the broker's conduct and related complaints and may take further action if the broker engages in similar conduct in the future.

Hypothetical bills influenced by many factors

This year's report highlights that regulated water charges differ substantially between different Basin states, and that state government policy has a significant impact on on-river hypothetical bills. The cost of having one ML of water delivered through an on-river network ranged between $7 for a private

7 Where this is not practicable, these charges (ancillary charges) must be levied on a basis that is reasonably similar to the basis on which the ancillary charges that are being recover through it are recovered. Water Charge Rules rules 9A(3) and (6). More information. The ACCC has issued guidance for infrastructure operators on pass-through charges.

diverter in South Australia to $487 for the holder of bulk water entitlements in the Bullarook basin in Victoria.[8]

The cost per megalitre (ML) of water delivered through an off-river irrigation network in the Basin varies substantially. These differences reflect the variety of network types including whether the infrastructure operator's network is gravity-fed or pressurised (pressurised networks have higher energy costs and generally result in hypothetical bills being higher than gravity fed networks), the water volumes delivered, network size (which can affect economies of scale), the location, type of service, pricing methodology, tariff structures and differing economic regulatory arrangements across the Basin states.

The cost of having one ML of water delivered through an off-river network ranged between:

- $67 and $232 for pressurised networks
- $25 and $153 for gravity-fed networks.

Queensland: Continuing rebates and discounts mean that lower charges continue for Sunwater irrigation customers

Sunwater provides bulk water services in the Queensland part of the Basin. Sunwater's irrigation charges are set by the Queensland government after the Queensland Competition Authority recommends the charges. As in 2021–22, the 2022–23 charges had a 15% discount applied to the Queensland Competition Authority recommended charges. The Queensland Government also continued to provide horticulturists with a 35% discount in 2022–23. The hypothetical bills for Sunwater irrigation customers increased by between 0.2% and 7% from 2021–22.

Sunwater sets the charges it levies its non-irrigation customers. The hypothetical bills for Sunwater's non-irrigation customers such as industrial users rose by between 2% and 3% in the Chincilla Weir, St George and Cunnamulla water supply schemes. There were more significant increases of between 56% and 341% in the Upper Condamine and Macintyre Brook water supply schemes. These increases were due a review of the charges undertaken by Sunwater in 2022. However, Sunwater has confirmed that as they do not have any customers in these tariff groups, no customers currently pay these charges.

The hypothetical on-river bill for DRDMW customers in the Border Rivers water supply scheme rose by 4% from 2021–22.

New South Wales: Hypothetical on-river bills rose by an average of 11–12%

After a substantial rise of an average of 59% for hypothetical on-river bills for general security water access entitlements in 2021–22, there were more moderate rises in 2022–23. The hypothetical on-river bills calculated by the ACCC rose by an average of 11% for general security and by an average of 12% for high security water access entitlements from 2021–22.

8 Does not include the hypothetical bills for Sunwater's non-irrigation customers.

South Australia and Victoria: Hypothetical bills calculated by the ACCC for Victorian and South Australian irrigators rose by less than inflation in 2022–23

In Victoria, Goulburn–Murray Water (GMW) and Lower Murray Water's (LMW) charges are regulated by the Essential Services Commission Victoria (ESCV) in accordance with the Water Charge Rules. On-river charges levied by GMW rose by 2% in 2022–23 and LMW on-river charges rose by 4% in 2022–23, meaning they have fallen in real terms.

South Australian River Murray operations and water storage for South Australia are largely managed upstream, with water sharing arrangements occurring in accordance with the Murray–Darling Basin Agreement. The hypothetical on-river bill calculated by the ACCC for private diverters in the South Australian River Murray, which only includes a single water planning and management charge, rose by 2% in 2022–23 compared to 2021–22. Off-river hypothetical bills for Central Irrigation Trust (CIT) rose by 2% in 2022–23 and for Renmark Irrigation Trust (RIT) by 3%.

Transformation and terminations have slowed

Previous ACCC water monitoring reports have explained that transformations and terminations in the early years (2010–11 to 2014–15) after the Rules commenced reflected trends in Australian Government acquisitions of water access entitlements (through buybacks and investments in water infrastructure upgrades).[9] However, in recent years, irrigators have transformed relatively small volumes of irrigation rights. In 2022–23, New South Wales (NSW) irrigators transformed 5,822 ML of irrigation rights (representing 0.2% of the irrigation rights on issue reported to the ACCC), and South Australians transformed 2,717 ML of irrigation rights (2.1% of the irrigation rights on issue reported to the ACCC).

Across the Basin, the water delivery rights terminated was a very small proportion of the rights on issue in 2022–23 (0.2% of water delivery rights on issue reported to the ACCC).

The 2022–23 water year saw exceptional flooding due to above average rainfall across much of the Basin. Rainfall was the highest on record for the 3 months of August to October for large parts of the Basin in New South Wales, Victoria and Queensland.[10] The volume of water flowing into the River Murray system in November and December 2022 was the largest recorded in 127 years.[11]

The wet conditions contributed to decreases in volumes of water delivered. The volume of water delivered by irrigation infrastructure operators decreased 10% from 3,254,216 ML in 2021–22 to 2,9212,863 ML in 2022–23.

The Basin Plan 2012 sets sustainable diversion limits, which cap how much water can be taken from Basin rivers for town, industrial and agricultural use, while leaving enough water to sustain natural ecosystems.[12] The Basin Plan's primary water recovery target was calculated by comparing the difference between the baseline diversion limits and the sustainable diversion limits. The baseline diversion limits are an estimate of water use limits and water used in the Basin prior to the Basin Plan.[13] The original 'Bridging the Gap' water recovery target for surface water was 2,750 GL/year. Following 2 amendments to the Basin plan in 2018, this target was changed to 2,075 GL/year subject to the implementation of a range of measures to achieve the environmental outcomes with

9 ACCC (2020) Water Monitoring Report 2018–19, p 19.

10 Murray–Darling Basin Authority (2023), Annual Report 2022–23, p 16, accessed 8 May 2024.

11 Murray–Darling Basin Authority (2023), One of the southern Basin's wettest years delivers strong water availability, accessed 8 May 2024.

12 Section 6.04(2) of the Basin Plan 2012. Murray–Darling Basin Authority (2024), Sustainable diversion limit adjustment mechanism, accessed 10 April 2024.

13 Murray–Darling Basin Authority (2024), Current diversion limits for the Basin, accessed 10 April 2024.

less water.[14] The measures being used to 'bridge the gap' include infrastructure investments, water purchases and supply and constraints measures.[15]

To 31 December 2023, the Australian Government has recovered 1,239.2 GL per year of surface water through water recovery projects and programs. This includes investment in water use efficiency projects such as upgrading irrigation systems on farms, reducing water losses from irrigation delivery systems and purchasing water from the market.[16] However, most of these purchases occurred before 2015–16. Prior to the passing of the *Water Amendment (Restoring Our Rivers) Act 2023* (Cth)[17] which extended the deadline for implementing the sustainable diversion limit adjustment mechanism measures to December 2026, the Productivity Commission and the Murray–Darling Basin Authority identified significant risks to achieving implementation on time.[18]

In 2023, the Australian Government ran a tender for strategic water purchasing of 44.3 gigalitres per year to deliver the Basin Plan.[19] This could increase transformation and termination volumes in 2023–24 and, if further buybacks are undertaken to recover water to achieve Basin Plan targets, in future years.

14 Department of Climate Change, Energy, the Environment and Water (2024) Progress on Murray–Darling Basin water recovery, accessed 22 March 2024.

15 A 'constraint' is a technical term for anything that reduces the ability to deliver water for the environment. Constraints can include physical restrictions such as low-lying bridges, crossings or private land. Constraints can also include operational aspects such as river rules or operating practices. See Murray–Darling Basin Authority (2024), Managing constraints, accessed 10 April 2024. There is also a target to recover an additional 450 GL per year for enhanced environmental outcomes. Measures to achieve these outcomes include efficiency measures with neutral or positive socio-economic impacts. Department of Climate Change, Energy, the Environment and Water (2024), How we recover water in the Murray–Darling Basin, accessed 10 April 2024.

16 Department of Climate Change, Energy, the Environment and Water (2024) Australian Government water purchasing in the Murray–Darling Basin, accessed 22 March 2024.

17 Water Amendment (Restoring Our Rivers) Act 2023, accessed 10 May 2024.

18 Productivity Commission (2023), Murray–Darling Basin Plan Implementation review 2023, accessed 22 March 2024.

19 Department of Climate Change, Energy, the Environment and Water (2024) Australian Government water purchasing in the Murray–Darling Basin, accessed 22 March 2024.

Snapshot of findings 2022–23

Average cost per megalitre of water delivered by off-river infrastructure operators based on 250 ML of water access entitlements or irrigation rights and 100% of that water delivered in 2022–23

	Pressurised networks	Gravity fed networks
New South Wales	$128	$58
Victoria	$125	$81
South Australia	$86[1]	n/a
Queensland	n/a	$66
Highest	$232 Lower Murray Water	$153 Lower Murray Water
Lowest	$67 Central Irrigation Trust	$25 Eagle Creek
Average	$113	$68

Water deliveries by on-river operators increased by 11% in the northern Basin and decreased by 20% in the southern Basin in 2022-23 compared to 2021–22

Gigalitres delivered	2021–22	2022–23
Northern Basin	826	916
Southern Basin	6,626	5,281
Total	**7,452**	**6,198**

Water deliveries by off-river operators decreased by 34% in the northern Basin and 11% in the southern Basin in 2022-23 compared to 2021-22

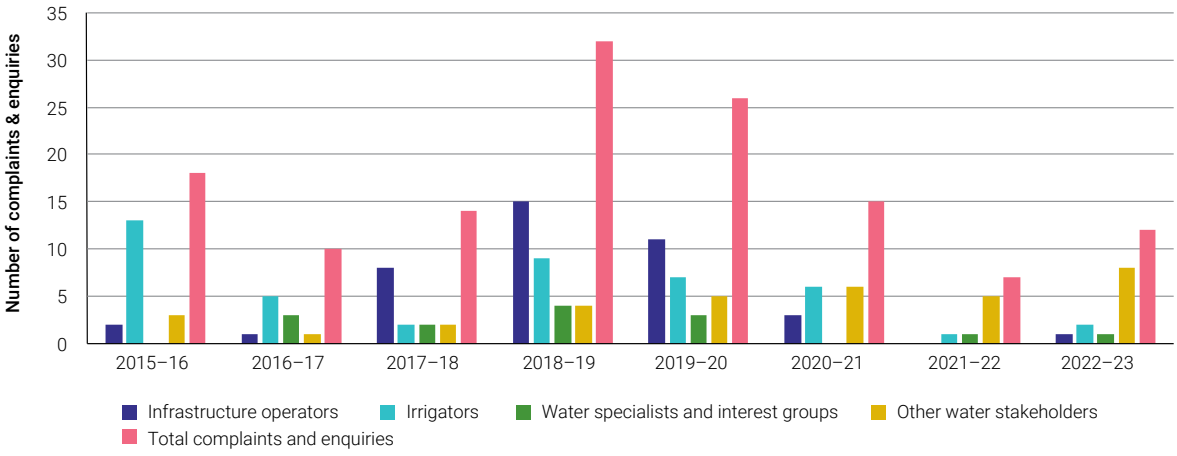
Gigalitres delivered	2021–22	2022–23
Northern Basin	170	113
Southern Basin	3,140	2,800
Total	**3,311**	**2,913**

Transformations and terminations

Transformations of irrigation rights (0.2% in NSW and 2.1% in SA) and terminations of water delivery rights (0.2%) were very low compared to the total volumes of these rights on issue in 2021–22.

Complaints and enquiries

Complaints to the ACCC about water matters are very low. We received 3 complaints and 9 enquiries in 2022–23.



1 This only includes charges levied by Renmark Irrigation Trust and Central Irrigation Trust.

Basin-wide comparison – on-river hypothetical bills

Table 1 The cost of having one ML of water delivered in the northern Basin, based on 1,000 ML of water access entitlements (100% delivered), 2022–23 and the percentage change from 2021–22

Basin State	Bulk water operator	Scheme/Valley/ System	Tariff Group/ Entitlement Category	$/ML	Change from 2021–22 (%)
QLD	Sunwater	Upper Condamine	North Branch – Medium Priority (Lower Bound)[20]	54	0.6
			North Branch – Risk A (Lower Bound)	28	5.0
			Sandy Ck/Cond. Rvr – Medium Priority (Lower Bound)	34	0.3
			High Priority (Upper Bound)[21]	2,014	292.7
		Chincilla Weir	Medium Priority (Lower Bound)	29	0.2
			Medium Priority (Upper Bound)	66	3.0
			High Priority (Upper Bound)	909	3.0
		St George	Medium Priority (Lower Bound)	21	2.2
			Medium Priority (Upper Bound)	119	2.1
		Cunnamulla	Medium Priority (Lower Bound)	31	2.2
			Medium Priority (Upper Bound)	226	3.0

20 Lower bound pricing is defined by the National Water Initiative as the level at which to be viable, a water business should recover, at least, the operational, maintenance and administrative costs, externalities, taxes or tax equivalent regimes (TERs) (not including income tax), the interest cost on debt, dividends (if any) and make provision for future asset refurbishment/ replacement. Dividends should be set at a level that reflects commercial realities and stimulates a competitive market outcome. See: Intergovernmental agreement on a National Water Initiative between the Commonwealth of Australia and the Governments of New South Wales, Victoria, Queensland, South Australia, the Australian Capital Territory and the Northern Territory, p 29.

21 Upper bound pricing is defined by the National Water Initiative as the level at which, to avoid monopoly rents, a water business should not recover more than the operational, maintenance and administrative costs, externalities, taxes or TERs, provision for the cost of asset consumption and cost of capital, the latter being calculated using a weighted average cost of capital. See: Intergovernmental agreement on a National Water Initiative between the Commonwealth of Australia and the Governments of New South Wales, Victoria, Queensland, South Australia, the Australian Capital Territory and the Northern Territory, p 30.

QLD	Sunwater	Macintyre Brook	Medium Priority (Lower Bound)	51	6.6
			Medium Priority (Upper Bound)	443	55.7
			High Priority (Upper Bound)	2,490	340.8
		Maranoa Weir	Medium Priority (Lower Bound)	109	4.2
	DRDMW	Border Rivers	Medium Priority	28	4.2
NSW	WaterNSW	Border Rivers	High Security	27	9.6
			General Security	19	10.6
		Gwydir	High Security	40	13.0
			General Security	26	11.3
		Namoi	High Security	68	14.0
			General Security	48	11.9
		Peel	High Security	99	11.9
			General Security	41	10.6
		Macquarie	High Security	48	13.2
			General Security	31	13.0

Source: ACCC from data provided and published by infrastructure operators.

Notes: DRDMW = Department of Regional Development, Manufacturing and Water (Qld).
This is based on the assumptions used by the ACCC to prepare hypothetical bills for these operators, as described in the relevant State chapter. This table compares the dollar value of 1 ML for 1,000 ML of water delivered.

Table 2 The cost of having one ML of water delivered in the southern Basin, based on 1,000 ML of water access entitlements (100% delivered), 2022–23 and the percentage change from 2021–22

Basin State	Bulk water operator	Scheme/Valley/System	Tariff Group/ Entitlement Category	$/ML	Change from 2021–22 (%)
NSW	WaterNSW	Murray	High Security	20	9.4
			General Security	13	8.6
		Murrumbidgee	High Security	15	11.0
			General Security	11	10.9
		Lachlan	High Security	63	14.6
			General Security	41	14.0
Victoria	GMW	Goulburn	Bulk – Broken	63	2.0
			Bulk – Bullarook	487	2.0
			Bulk – Campaspe	27	2.0
			Bulk – Goulburn	8	2.0
			Bulk – Loddon	47	2.0
			Bulk – Ovens	80	2.0
			Private diverter – all basins	11	2.3
		Murray	Bulk – Murray	10	2.0
			Private diverters – all basins	13	2.3
	LMW	Murray	Private diverter	15	4.1
SA			Private diverter	7	2.5

Source: ACCC from data provided and published by infrastructure operators.

Notes: GMW = Goulburn–Murray Water, LMW = Lower Murray Water.

This is based on the assumptions used by the ACCC to prepare hypothetical bills for these operators, as described in the relevant State chapter. This table compares the dollar value of 1 ML for 1,000 ML of water delivered.

Basin-wide comparison – off-river hypothetical bills

Table 3 The cost of having one ML of water delivered via pressurised off-river networks in the Basin, based on 250 ML of irrigation rights or water access entitlements (100% delivered), 2022–23 and change from 2021–22[22]

Basin State	Irrigation infrastructure operator	Network/entitlement category	$/ML	Change from 2021–22 (%)
SA	CIT	High pressure	96	1.5
		Medium pressure	81	1.8
		Low pressure	67	1.9
	RIT		100	3.4
Vic	GMW	Tresco	89	2.5
		Nyah	92	3.3
		Woorinen	88	1.7
	LMW	Robinvale	232	4.2
NSW	Western Murray	Curlwaa	90	5.4
		Coomealla	116	3.7
		Buronga	182	5.1
	Murrumbidgee Irrigation	Integrated Horticulture Supply high security	123	47.6
Average	SA		86	2.2
	Vic		125	3.3
	NSW		128	12.6

Source: ACCC from data provided and published by irrigation infrastructure operators.

Notes: CIT = Central Irrigation Trust, RIT = Renmark Irrigation Trust, GMW = Goulburn–Murray Water, LMW = Lower Murray Water, Western Murray = Western Murray Irrigation, Murrumbidgee Irrigation = Murrumbidgee Irrigation Limited.

This is based on the assumptions used by the ACCC to prepare hypothetical bills for these operators, as described in the relevant State chapter. This table compares the dollar value of 1 ML for 250 ML of water delivered.

22 The cost of having one megalitre of water delivered via an off-river network varies substantially across the Basin. This reflects volumes of water delivered, network size, location, type of service, tariff structures and whether the infrastructure operator's network is gravity-fed or pressurised. Differing economic regulatory arrangements across the Basin States also impact the on-river component of these charges.

Table 4 The cost of having one ML of water delivered via gravity-fed off-river networks in the Basin, based on 250 ML of irrigation rights or water access entitlements (100% delivered), 2022–23 and change from 2021–22

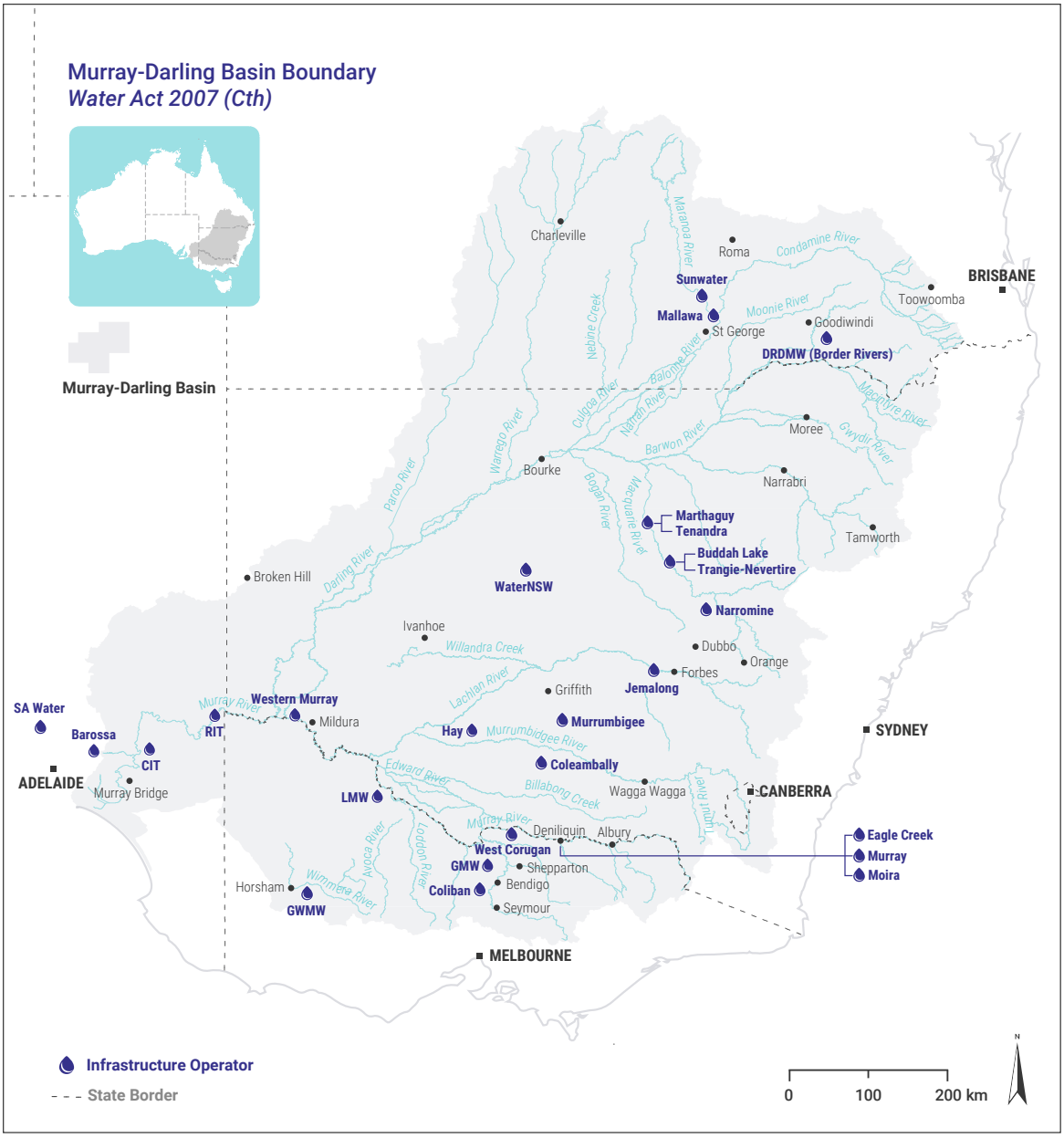
Basin State	Irrigation infrastructure operator	Network/entitlement category	$/ML	Change from 2021–22 (%)
Vic	GMW	Central Goulburn	55	1.0
		Loddon Valley	57	2.2
		Murray Valley	58	1.0
		Rochester	55	0.7
		Shepparton	58	0.5
		Torrumbarry	54	0.6
	LMW	Merbein	118	4.6
		Mildura	153	3.7
		Red Cliffs	125	5.1
NSW	West Corurgan		56	7.3
	Murray Irrigation	B1 Class C	51	5.9
	Eagle Creek		25	16.3
	Coleambally		31	6.9
	Murrumbidgee Irrigation	Gravity – General Security	44	6.5
		Gravity – High Security	48	6.9
	Hay		69	2.4
	Jemalong		92	16.8
	Narromine		79	11.4
	Buddah Lake		57	4.1
	Trangie-Nevertire		78	14.3
	Tenandra		69	10.9
Qld	Mallawa Irrigation		66	0.7
Average	Vic		81	2.8
	NSW		58	9.7
	Qld		66	0.7

Notes: GMW = Goulburn–Murray Water, LMW = Lower Murray Water, Western Murray = Western Murray Irrigation, Murrumbidgee Irrigation = Murrumbidgee Irrigation Limited, Murray Irrigation = Murray Irrigation Limited .

This is based on the assumptions used by the ACCC to prepare hypothetical bills for these operators, as described in the relevant State chapter. This table compares the dollar value of 1 ML for 250 ML of water delivered.

Map

Figure 1 Infrastructure operators in the Murray–Darling Basin



Sources: Geoscience Australia © Topo 250K data (Series 3), Geoscience Australia © Topo 2.5 million data (2003), Murray-Darling Basin Authority © Murray-Darling Basin boundary. Map amended: 2018.

Buddah Lake – Buddah Lake Irrigators' Association
Barossa – Barossa Infrastructure Limited
Coleambally – Coleambally Irrigation Co-operative
Coliban – Coliban Water
CIT – Central Irrigation Trust
DRDMW – Qld Department of Regional Development, Manufacturing and Water
Eagle Creek – Eagle Creek Pumping Syndicate
GWMW – Grampians Wimmera Mallee Water
GMW – Goulburn-Murray Water
Hay – Hay Private Irrigation District
Jemalong – Jemalong Irrigation Limited
LMW – Lower Murray Water
Marthaguy – Marthaguy Irrigation Scheme
Moira – Moira Private Irrigation District
Murray – Murray Irrigation Limited
Murrumbidgee – Murrumbidgee Irrigation Limited
Narromine – Narromine Irrigation Board of Management
RIT – Renmark Irrigation Trust
Tenandra – Tenandra Irrigation Scheme
Trangie-Nevertire – Trangie-Nevertire Irrigation Scheme
West Corurgan – West Corurgan Private Irrigation District
Western Murray – Western Murray Irrigation

Note: This map is based on the post code of operators' main offices. **WaterNSW** delivers water throughout NSW. **SA Water** delivers water throughout South Australia.

1

Introduction

Photo source: Murray–Darling Basin Authority

1. Introduction

The Murray–Darling Basin (the Basin) is the largest and most complex river system in Australia. It stretches from southern Queensland, through New South Wales (NSW), Victoria and the Australian Capital Territory and into South Australia. It is home to 2.3 million Australians and supports a $22 billion agriculture industry annually.[23]

The Basin is divided into 2 parts: the northern and southern Basins. Water in the northern Basin runs into the Darling River and water in the southern Basin runs into the River Murray. The southern part of the Basin is mostly a regulated system with major storages in many rivers. The storages in the 3 major southern rivers – the Murrumbidgee, Murray, and Goulburn – are used to provide regulated flows downstream as far as the lower lakes in South Australia. The ACCC has included the Lachlan, which runs into the Murrumbidgee, in the southern basin, for the purposes of this report.

The volume of water delivered by infrastructure operators, and the crops it is used for varies widely across the Basin. For example, annual crops like cotton are more common in the northern Basin (Queensland and northern NSW), whilst permanent plantings like almond and fruit trees are more common in the southern Basin.

In recent years, there has been a substantial expansion of the almond industry in the southern Basin, especially on the River Murray below the Barmah Choke.[24] The southern Basin also includes significant areas of broadacre cropping in southern NSW (including annual crops such as rice, cotton and pasture), dairy farming and horticulture in northern Victoria, and horticulture in South Australia.

The southern Basin accounts for a large proportion of Australia's irrigated agricultural production and a large volume of Australia's water access entitlements on issue.[25] This is reflected in the fact that in 2022–23, on-river operators delivered 916 GL of water in the northern Basin (up 11% compared to 2021–22) but 5,282 GL in the southern Basin (down 20% compared to 2021–22).

An infrastructure operator is an entity that owns or operates infrastructure for the storage, delivery or drainage of water for the purposes of providing a service to someone who does not own or operate the infrastructure.[26] Some infrastructure operators store and deliver water on-river. These operators include WaterNSW, Sunwater and the Department of Regional Development, Manufacturing and Water (DRDMW) in Queensland, and Goulburn–Murray Water (GMW) in Victoria. They are referred to as either bulk water operators or on-river operators.

An irrigation infrastructure operator is an infrastructure operator that owns or operates water service infrastructure for delivering water for the primary purpose of irrigation.[27] Apart from GMW and Lower Murray Water (LMW) in Victoria, which are government-owned statutory corporations, most irrigation infrastructure operators in the Basin are member-owned entities, which exclusively provide off-river water delivery services. They can therefore be referred to as off-river operators. GMW is also the only infrastructure operator that is vertically integrated, providing both on-river and off-river water delivery services. It is both a bulk water operator and an irrigation infrastructure operator.

23 Murray–Darling Basin Authority (2023) *Murray–Darling Basin Authority Annual Report 2022–23*, p 10. Accessed 13 March 2024.

24 The Barmah Choke is where the River Murray runs through the Barmah–Millewa Forest, upstream of Echuca in Victoria. It is the most well-known hydrological constraint in the southern Basin.

25 See: ACCC (2021), Murray–Darling Basin – water markets inquiry – Final report, p 54.

26 Section 7 of the Water Act.

27 Section 7(4) of the Water Act.

All infrastructure operators have some degree of market power given that the infrastructure they operate is generally uneconomic to duplicate and they operate in geographically exclusive areas where competition is unlikely to develop and are therefore natural monopolies.

Irrigation infrastructure operators may have an incentive to prevent or delay applications from customers to transform their irrigation rights into a water access entitlement that can be traded outside of the operators' irrigation networks. This is because some operators could perceive a threat to their business model, which is usually based on customers paying the operator for the delivery of water. For example, an irrigator that transforms their irrigation rights, sells the resultant water access entitlements, and switches to dryland farming may no longer require water to be delivered to their property. This person may therefore wish to cease paying ongoing fixed infrastructure charges to the operator for their water delivery rights. In such circumstances, the Water Charge Rules allow the operator to levy a termination fee on the terminating customer. The Water Charge Rules aim to strike a balance between the interests of terminating and remaining irrigators, and the operator by limiting the termination fee that the operator can impose,[28] while ensuring a contribution from terminating irrigators to the ongoing fixed costs of operating the infrastructure.[29]

Water trade in the Murray–Darling Basin

Water markets allow irrigators to increase their water supplies, to earn income by selling their water rights when the water is more valuable to someone else, to expand production, or to release capital for investment in their businesses. The following kinds of rights are tradeable water rights:

- **Water access entitlement**: a perpetual or ongoing entitlement, by or under a law of a State, to exclusive access to a share of the water resource of a water resource plan area.
- **Irrigation right**: a person's right against an irrigation infrastructure operator to receive water, which is not a water access right or a water delivery right. It can usually be transformed into a water access entitlement.
- **Water allocation**: a specific volume of water allocated to a water access entitlement in a specific water accounting period.
- **Water delivery right**: a right to have water delivered by an infrastructure operator. It typically represents the holder's right of access to an irrigation network (there might also be a right to drainage) and can be terminated.[30]

28 Rule 72 of the Water Charge Rules limits the maximum general termination fee that an infrastructure operator can levy to 10 times the fixed volumetric charges for the right of access the customer wishes to terminate (subject to specified exclusions). This is levied per unit of water delivery or drainage right for a full financial year, or if an infrastructure operator does not allow the trade of the type of water delivery or drainage right that the customer wishes to terminate, the amount (**not** 10 times the amount) of the fixed volumetric charges. This is levied per unit of water delivery or drainage right for a full financial year. Where there is a separate charge for dedicated infrastructure used exclusively by the terminating customer, which will no longer be used by the customer after the termination, the maximum general termination fee relating to that dedicated infrastructure is the lesser of: a) 10 times the amount of the separate charge for that infrastructure for a full financial year, or b) a reasonable estimate of the total cost of the dedicated infrastructure, net of a reasonable estimate of any contribution towards that cost made by the terminating customer, whether via direct contribution (for example, a lump sum payment) or via the payment of the separate infrastructure charge. Rule 73 of the Water Charge Rules provides that in circumstances where an infrastructure operator and its customer have a contract involving capital works relating to the operator's water service infrastructure, the ACCC can approve an additional termination fee to allow for the recovery of expenditure relating to those works. See ACCC (2020) What the charge rules mean for infrastructure operators and irrigators and ACCC (2016) Review of the water charge rules Final Advice, p 264.

29 ACCC (2016). Review of the water charge rules Final Advice, p 14.

30 Water access entitlement, irrigation right, water allocation, and water delivery right are defined in s. 4 of the Water Act.

The ACCC's role in water

The Water Act provides the frameworks and institutions to ensure that the Basin is managed in the national interest. The ACCC has several roles under the Water Act. These are monitoring regulated water charges (including termination fees), transformations, and compliance with the Water Market Rules and Water Charge Rules (the Rules). The ACCC also provides advice to the Minister on the Rules, and advice to the Murray–Darling Basin Authority (MDBA) on the Basin Plan water trading rules.[31]

The purpose of the ACCC's water monitoring report is to inform stakeholders, including policy makers, of changes in regulated water charges and other factors influencing the rural water sector in the Basin. Transparency helps water markets to work efficiently and assists policy makers to assess the impact of reforms to the regulatory framework. We monitor:

- **Regulated water charges** because competition is unlikely to develop between infrastructure operators in geographically exclusive areas for water harvesting, storage and delivery services. Without competition, prices, quality, service levels and innovation may not be efficient. Monitoring helps policy makers determine whether further regulation is needed. Monitoring may also provide some indication of infrastructure operators exercising market power over irrigators and other customers. We also monitor water planning and management charges, which usually fund State government water planning and management activities.[32]
- **Transformation arrangements** to ensure irrigation infrastructure operators are not preventing or unreasonably delaying transformation or an associated trade. Transformation allows water formerly available to a customer under an irrigation right to be held directly by the customer or traded to another person. Monitoring transformation arrangements may increase compliance with the Rules, reduce barriers to trade, facilitate the operation of efficient water markets and reduce transaction costs.[33]
- **Compliance with the Rules** to ensure effective implementation of the Rules and to help identify when the Rules may not be working as intended.

We also enforce the *Competition and Consumer Act 2010* (Cth), including the Australian Consumer Law, which applies to the behaviour of infrastructure operators and water brokers and exchanges.

31 The ACCC's functions arise under Part 2 (ss.22, 26 – advice on the water trading rules), Part 4 (ss.91–93, Water Charge Rules; ss.94, 99 monitoring) and Part 8 (enforcement) of the Water Act.

32 Regulated water charges are defined in s. 91 of the Water Act. They include charges that operators impose for access to their water service infrastructure, and for services provided in relation to that access. This includes bulk water charges, which are charges payable for either or both the storage of water for, or the delivery of water to, infrastructure operators, other operators of reticulated systems, or other persons prescribed by the regulation 1.05 of the Water Regulations for the purposes of the definition of bulk water charge is s. 4(1) of the Water Act. Water planning and management charges are also included in the definition of regulated water charges.

33 Transformation arrangements are defined in s. 97(1) of the Water Act. They are arrangements that reduce the share component of a water access entitlement of an irrigation infrastructure operator to allow a person's entitlement to water under an irrigation right against the operator (or a part of that entitlement) to be permanently transformed into a water access entitlement that is held by someone other than the operator.

Following the ACCC's water market inquiry and the water market roadmap, the Australian government has legislated for new functions for the ACCC as the water market conduct regulator in the Basin. These new functions were recommended by the water market reform roadmap[34] which responded to the ACCC's water markets inquiry.[35] The new functions include Basin wide laws that address harmful market conduct including:

- bans on market manipulation
- stronger insider trading rules
- a mandatory code of conduct for water market intermediaries.

34 The Hon Tanya Plibersek MP, Minister for the Environment and Water, released the independent Water market reform: final roadmap report on 11 October 2022, alongside the Australian government's response. The roadmap report was developed by the independent Principal Advisor, Mr Daryl Quinlivan AO following consultation with water market participants, including Basin governments and industry.

35 On 8 August 2019, the ACCC was directed to conduct an inquiry into markets for tradeable water rights in the Murray–Darling Basin. This final report for the inquiry draws on: the views of a broad range of stakeholders with interests in the use and trade of water in the Basin, analysis of wide-ranging water market data from 2012 onwards. Other information and documents gathered from various large water users, investors, market intermediaries and government entities. The report makes recommendations to enhance markets for tradeable water rights, including their operation, transparency, regulation, competitiveness and efficiency.

2

Queensland

Photo source: Murray–Darling Basin Authority

2. Queensland

Hypothetical on-river bills calculated by the ACCC increased from 2021–22 by:

- Between 0.2% and 7% for Sunwater's irrigation customers.
- Between 2% and 341% for Sunwater's non-irrigation customers.
- 4% for DRDMW customers in the Border Rivers water supply scheme.

While the hypothetical bills for Sunwater's non-irrigation customers in the Upper Condamine and Macintyre Brook water supply schemes rose by between 56% and 341%, Sunwater has advised the ACCC that no customers currently pay these charges.

This chapter covers:

- On-river hypothetical bills calculated by the ACCC for Sunwater and DRDMW customers in the Basin.
- Off-river hypothetical bills calculated by the ACCC for Mallawa Irrigation.
- Water planning and management in the Queensland part of the Murray–Darling Basin (Basin).

On-river bills

Sunwater

Sunwater is a Queensland Government-owned corporation and is the largest bulk water operator in Queensland. Sunwater's core service is to move, treat, store and distribute water to irrigators, industry and communities across Queensland. It operates and maintains $13.9 billion of water infrastructure assets including 19 dams, 64 weirs and barrages, 70 major pumping stations, and more than 2,500 kilometres of pipes and channels, which are used to deliver water to over 5,000 customers in Queensland, including irrigators, urban and industrial customers.[36]

Sunwater provides bulk water services to around 400 customers in its water supply schemes in the Queensland part of the Basin. It delivered 120,230 ML of water to Queensland Basin customers in 2022-23, a 65% increase from 2021–22.

In December 2021, the ACCC exempted Sunwater from the operation of Part 6 of the Water Charge Rules for 5 years.[37] This means that Sunwater's charges are set under Queensland State law, rather than by the ACCC under Part 6 of the Water Charge Rules.

Sunwater's irrigation charges are set by the Queensland government after the Queensland Competition Authority (QCA) recommends the charges. Sunwater's charges for non-irrigation customers are set by Sunwater. The charges for both irrigation and non-irrigation customers consist of a fixed charge (Part A) charged per ML of water access entitlement and a volumetric charge (Part B) charged per ML of water taken.

36 Sunwater (2023) 2022–2023 annual report, p 8, accessed 06 March 2024.

37 ACCC (2021). Decision on whether to exempt Sunwater from its Part 6 obligations under the water charge rules.

Irrigation customers

The QCA's recommended charges generally aim to achieve lower bound pricing for irrigation customers. With lower bound prices, the water business is neither earning a return on, nor recovering, the initial investment in the existing assets. The Queensland Government's policy is that prices should increase gradually until they reach a level where they recover the irrigation share of the water scheme's operating, maintenance and capital renewal costs but do not recover a return on, or of, the scheme's initial asset base (at 1 July 2000).[38]

In January 2020, the QCA recommended irrigation charges for Sunwater's bulk water supply and associated distribution schemes. These prices were to apply over the period 1 July 2020 to 30 June 2024. Following this:

- In June 2020, the Treasurer of Queensland decided that for 2020–21, the irrigation prices should remain at 2019–20 levels or be set at 2020–21 QCA recommended prices whichever was lower. The reason given for this was the 'impacts arising from drought, current broader economic conditions and the coronavirus (COVID-19) outbreak on irrigators' businesses.'[39]
- In June 2021, the Treasurer of Queensland determined the charges that would apply between 2021–22 to 2023–24. The charges had a 15% discount applied to the QCA recommended charges.[40]
- The Queensland Government provided additional support to horticulture growers through the Horticulture Irrigation Pricing Rebate Scheme. The scheme allows horticulture growers to obtain a further discount of 35% of their irrigation charges by applying for rebates. These rebates are available over the 3-year period between 2021–22 to 2023–24.[41] [42]

Chart 2.1 shows that the hypothetical on-river bills for Sunwater's irrigation customers (1,000 ML at 100% delivered) rose by between 0.2% in the Chinchilla Weir to 7% in the Macintyre Brook. The hypothetical bills in the Maranoa River continue to be higher than the hypothetical bills in Sunwater's other water supply schemes. To the ACCC's knowledge, Sunwater has not actually charged these customers any fixed or variable charges since 2014–15 because salinity issues have made water deliveries from Turner Weir (the main supply asset) unreliable.[43]

38 QCA (2020), Fact Sheet: Final report: Rural irrigation price review 2020–24, p 1, accessed 7 March 2024.

39 Extraordinary Queensland Government Gazette No. 5, 5 May 2020, Volume 384, recommendation 10, p 28, accessed on 8 March 2024.

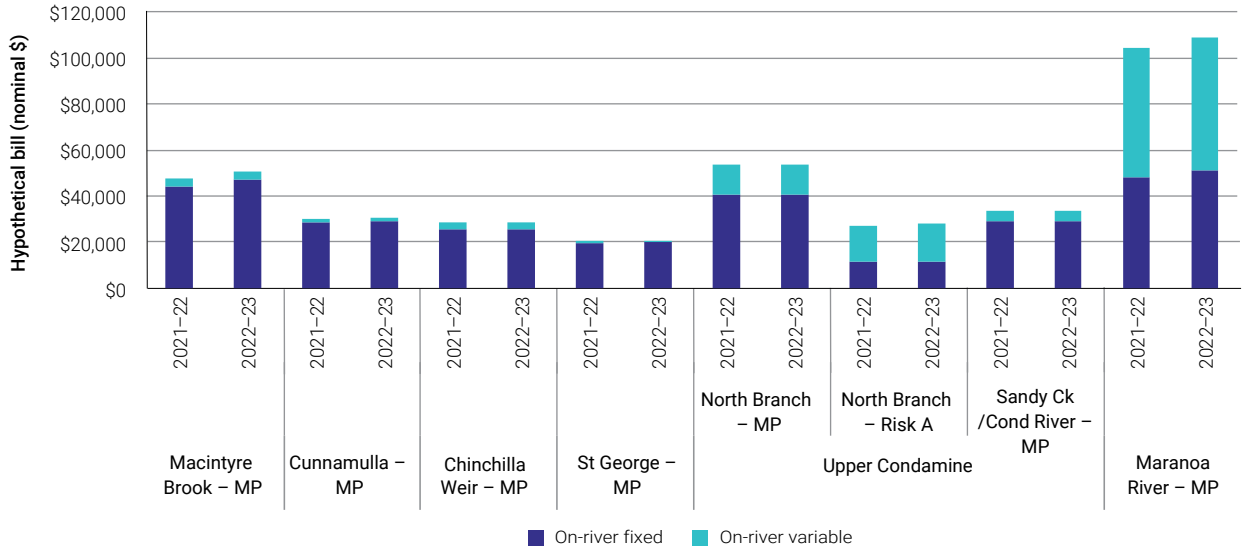
40 Queensland Government Gazette No. 25, 4 June 2021, Volume 387, p 122, accessed on 8 March 2024.

41 Queensland Rural and Industry Development Authority, Horticulture irrigation Pricing Rebate Scheme Guidelines, accessed on 8 March 2024.

42 We do not include these rebates in our hypothetical bill calculation because not all irrigators are eligible for it.

43 Sunwater, Maranoa River Water Supply Scheme, Scheme Summary, p 2, accessed 22 March 2024.

Chart 2.1 Hypothetical on-river infrastructure operator bills (nominal $) for irrigation customers, 1,000 ML water access entitlements, 100% delivered, Sunwater, by charge component



Source: ACCC from data provided by Sunwater.

Non-irrigation customers

Sunwater sets the charges it levies on its non-irrigation customers, such as industrial users. These charges aim to reflect upper bound pricing[44] which, unlike lower bound prices, means that Sunwater earns a return on, and recovers the initial investment in, existing assets. Sunwater non-irrigation charges are generally indexed annually with a review of the charges occurring less frequently.

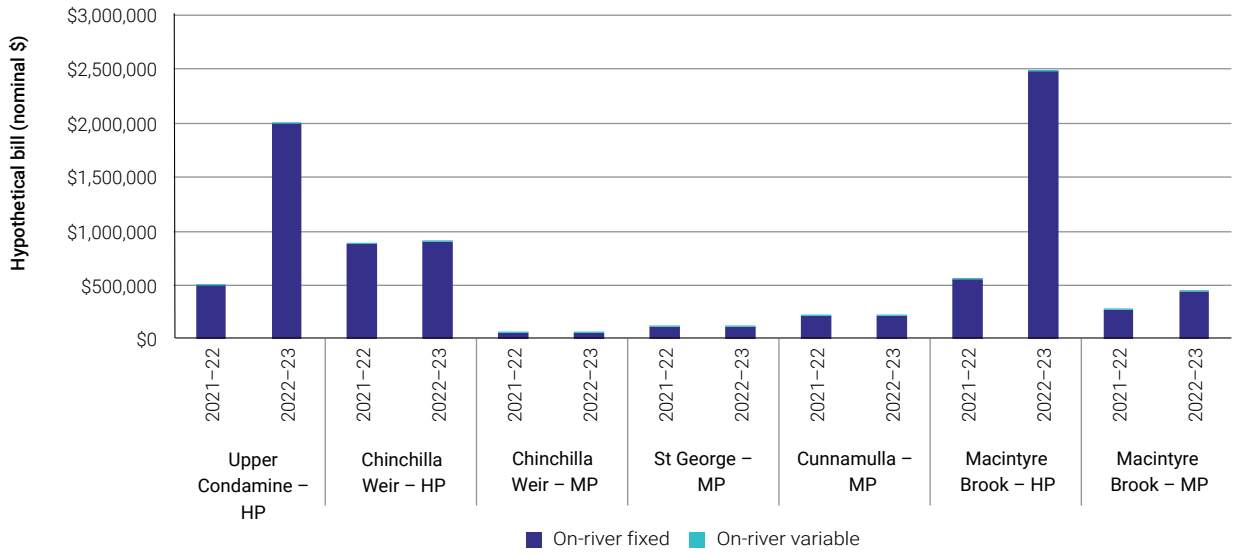
Chart 2.2 shows that the hypothetical on-river bills for Sunwater's non-irrigation customers (1,000 ML at 100% delivered) rose by between 2% and 3% in the Chinchilla Weir, St George and Cunnamulla water supply schemes. There were more significant increases in the other schemes with:

- Upper Condamine – High Priority hypothetical bill rose by 293%.
- Macintyre Brook – Medium Priority hypothetical bill rose by 56%.
- Macintyre Brook – High Priority hypothetical bill rose by 341%.

The large increases in Upper Condamine and Macintyre Brook are a result of a review conducted by Sunwater in 2022. This review led Sunwater to recalculate charges in 2022, and the changes came in effect from 1 January 2023. Sunwater has confirmed that as they do not have any customers in these tariff groups, no customers currently pay these charges.

44 Sunwater, Upper Condamine Water Supply Scheme, Fees and charges schedule – effective 1 July 2022, p 5, accessed 21 March 2024.

Chart 2.2 Hypothetical on-river infrastructure operator bills (nominal $) for selected non-irrigation customers, 1,000 ML water access entitlements, 100% delivered, Sunwater, by charge component



Source: ACCC from data provided by Sunwater.
Notes: HP is High Priority, MP is Medium Priority.

Border Rivers water supply scheme

The Border Rivers region is made up of a group of rivers in a region straddling the New South Wales and Queensland border. The Border Rivers Water Supply Scheme (Border Rivers) represents the Queensland component of the Border Rivers catchment, which covers around 49,500 km in southern Queensland and north-eastern NSW, with roughly an equal share in each State.[45] A 450 km section of the Dumaresq, Macintyre and the Barwon rivers forms the border between Queensland and New South Wales.[46]

The New South Wales–Queensland Border Rivers Intergovernmental Agreement 2008 (Border Rivers Agreement) provides direction on water sharing and access, interstate trading, and managing flows of streams shared by both states in the Border Rivers catchment. The primary decision-making functions under the Border Rivers Agreement are carried out by the Dumaresq–Barwon Border Rivers Commission (BRC). The BRC does not own water infrastructure or levy charges.

Under the *Water Act 2000* (Qld) the State of Queensland represented by DRDMW is the holder of the Resource Operations Licence for the Border Rivers Water Supply Scheme. DRDMW is the owner of infrastructure in the scheme (wholly or, in relation to some infrastructure, jointly with NSW). DRDMW is also the Queensland 'controlling authority' under the *New South Wales–Queensland Border Rivers Act 1946* (Qld).

In 2022–23, the volume of water access entitlements held by customers in the Border Rivers remained unchanged from 2021–22 at 2,526 ML of high priority and 81,888 ML of medium priority. Reflecting high water availability, DRDMW delivered 325% more water to private diverters in the Border Rivers in 2022–23 (21,217 ML) compared to 2021–22 (4,990 ML).

45 Commonwealth Environmental Water Office, Water Management Plan Chapter 3.1 – Border Rivers, 2020–21, accessed 8 March 2024.

46 MDBA (2023), Border Rivers catchment, accessed 8 March 2024.

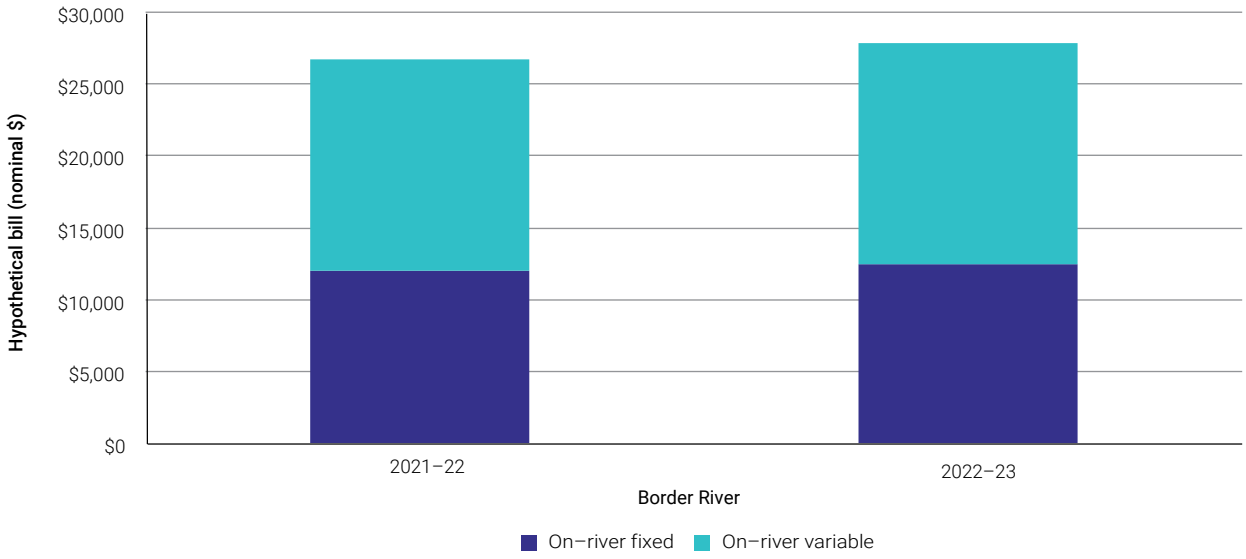
DRDMW levies the following charges in relation to the bulk water services it provides in the Border Rivers:

- A Part A charge – this is a fixed charge payable per megalitre (ML) of nominal water access entitlement.[47]
- A Part B charge – this is a variable usage charge payable per ML of water taken during a particular water year.[48]

These charges are levied on medium priority on-river water customers of the Border Rivers, including irrigators.

These charges are prescribed under State subordinate legislation[49] made by the Governor in Council under s 1014 of the *Water Act 2000* (Qld). Chart 2.3 shows that the hypothetical on-river bills (1,000 ML at 100% delivered) in the Border Rivers water supply scheme rose by 4% from 2021–22.

Chart 2.3 Hypothetical on-river infrastructure operator bills (nominal $), 1,000 ML water access entitlements, 100% delivered, Qld Border Rivers water supply scheme, by charge component



Source: ACCC from data provided by DRDMW.

Off-river bills

Mallawa Irrigation

The St George water supply scheme draws its water from the Jack Taylor Weir and Beardmore Dam, and provides irrigation, urban and industrial water supply to users in St. George. From 1 July 2018, Mallawa Irrigation took over ownership and management of the scheme while Sunwater continues to manage the bulk water supply assets in the scheme.[50]

Chart 2.4 show that the hypothetical bills calculated by the ACCC for Mallawa Irrigation were 1% higher in 2022–23 compared to 2021–22.

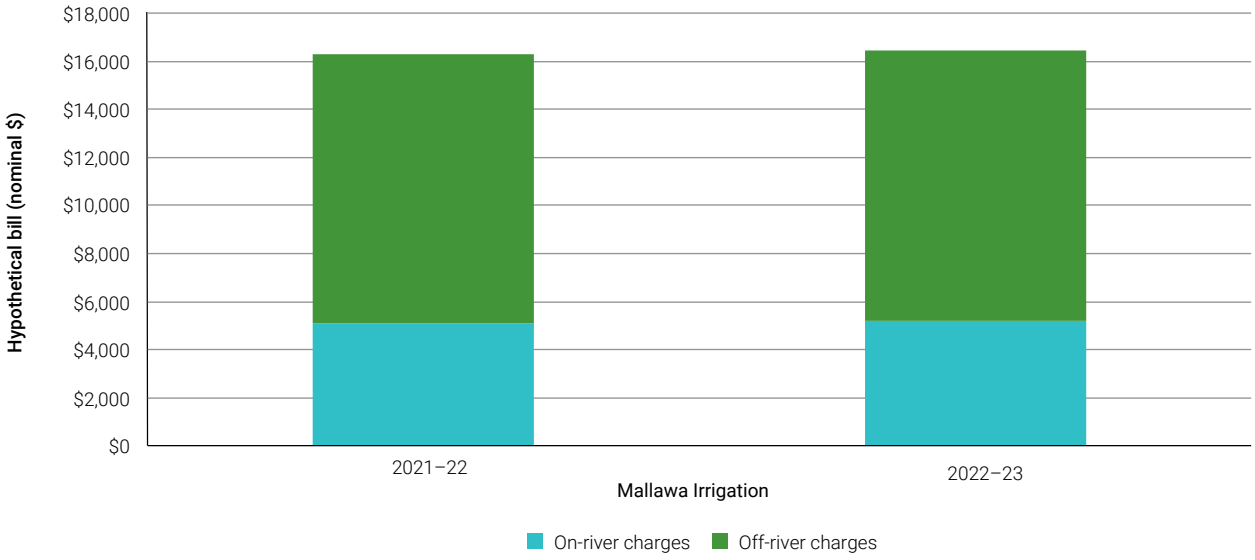
47 A nominal entitlement is the volume of water authorised to be taken during a water year under a water licence. In Queensland, a water access entitlement is referred to as a water licence.

48 Known as the 'annual entitlement' see 28(2) *Water Regulations 2016* (Qld).

49 The charges are prescribed under 133 of the Queensland Water Regulations 2016 and set out in Schedule 14 of the same.

50 Sunwater (2023), St George Scheme, accessed 8 March 2024.

Chart 2.4 Hypothetical off-river infrastructure operator bills (nominal $), 250 ML water access entitlements, 100% delivered, Mallawa Irrigation, by charge component



Source: ACCC from data provided by Mallawa Irrigation and Sunwater.

The ACCC's 2022–23 hypothetical bill for Mallawa Irrigation consists of:

- fixed charges including the Sunwater Part A charge, a drainage charge and a distribution charge
- variable charges including the Sunwater Part B charge and a distribution consumption charge.

The Sunwater charges are for using water in the Beardmore Dam and Jack Dyer weir in the St George water supply scheme and comprise 32% of the 2022–23 hypothetical bill. Although Sunwater charges have been included in the hypothetical bill, Mallawa Irrigation's customers pay the Sunwater charges directly to Sunwater. This is why Sunwater's charges are not included in the schedule of charges published by Mallawa Irrigation on its website.

Water delivered, transformations, terminations and trade

Water delivery decreased in 2022–23 by 27% to 72,105ML and Mallawa Irrigation was a net importer of water in 2022–23.

Table 2.1 Water delivered, water delivery rights and trades, Mallawa Irrigation, 2021–22 and 2022–23

	2021–22 (ML)	2022–23 (ML)	Change (%)
Water delivered (excluding conveyance)	98,241	72,105	-27
Water delivery rights on issue	51,725	51,725	0
Water allocation trade			
In	240	5,054	2,006
Out of	2,021	25	99
Within	1,049	5,877	460

Water Planning and Management revenue and charges in Queensland

The Basin is only a small part of Queensland and the Queensland government, like Victoria, is unable to separate Basin-related spending from total water planning and management spending.

Regulated water planning and management charges are determined by the Queensland Government and are set out in schedules 12, 13 and 14 of the Water Regulation 2016 made under the *Water Act 2000* (QLD).

Water planning and management revenue collected by DRDMW decreased by 58% from nearly $4.9 million in 2021–22 to just under $2.1 million in 2022–23. One of the main drivers was a decrease in the water harvesting charges collected under schedule 14 of Water Regulation 2016, especially in the Lower Balonne water supply scheme. A 95% reduction in the volume of water harvested resulted in the revenue collected falling from $3.25 million in 2021–22 to $179,028 in 2022–23.

3

New South Wales & the Australian Capital Territory

Photo source: Murray–Darling Basin Authority

3. New South Wales and the Australian Capital Territory

Hypothetical on-river bills calculated by the ACCC rose by an average 11% for general security water access entitlements and by an average of 12% for high security water access entitlements (averaged across the valleys). These rises were driven by increases in WaterNSW's rural bulk water charges, which rose between 4.7% and 5.4%[51] and by increases in the water management charges which increased between 3.6% and 8.6%.[52]

Transformation and termination volumes for NSW irrigation infrastructure operators were very low in 2022–23 at less than 1% of the rights on issue reported to the ACCC.

This chapter covers:

- Hypothetical bills calculated by the ACCC for on-river and off-river charges levied by NSW infrastructure operators.
- Transformation and termination volumes for NSW infrastructure operators.
- Water planning and management charges and revenue in the NSW part of the Basin and the Australian Capital Territory.

On-river bills

WaterNSW is a statutory corporation owned by the NSW government. WaterNSW in its role as the system operator in NSW manages water storages, operates the state's river systems and bulk water supply systems. As the system operator it works with the MDBA for the River Murray system.[53]

On-river hypothetical bills calculated by the ACCC for NSW include:

- Infrastructure charges including WaterNSW's bulk water charges (both fixed entitlement and variable usage charges), an annual scheme management charge (for metering reforms), MDBA charges (paid to WaterNSW to recover the NSW government's contribution to the MDBA) in the Murray and Murrumbidgee valleys and Dumaresq–Barwon Border Rivers Commission (BRC) charges in the Border valleys (paid to WaterNSW to recover the NSW government's contribution to the BRC).
- Water planning and management (WPM) charges which aim to recover water users' share of the costs of Water Administration Ministerial Corporation's (WAMC) water planning, regulation, licencing, compliance, enforcement, customer service and other activities. The charges also aim to recovers users' share of the funds NSW contributes to the MDBA and the BRC.[54]

WaterNSW's infrastructure charges are regulated by the Independent Pricing and Regulatory Tribunal of NSW (IPART) in compliance with the Water Charge Rules. The ACCC has determined that at the end of the current regulatory period WaterNSW will cease to be a Part 6 operator under rule 23 of the Water Charge Rules. This means that after 30 June 2025, IPART will continue to regulate WaterNSW's

51 IPART (2022), Annual Review of WaterNSW's rural bulk water charges for 2022–23, Appendix A, accessed 23 February 2024.

52 IPART (2021), Water Administration Ministerial Corporation, Maximum prices for water management services from 1 October 2021, Final Determination, accessed 12 March 2024.

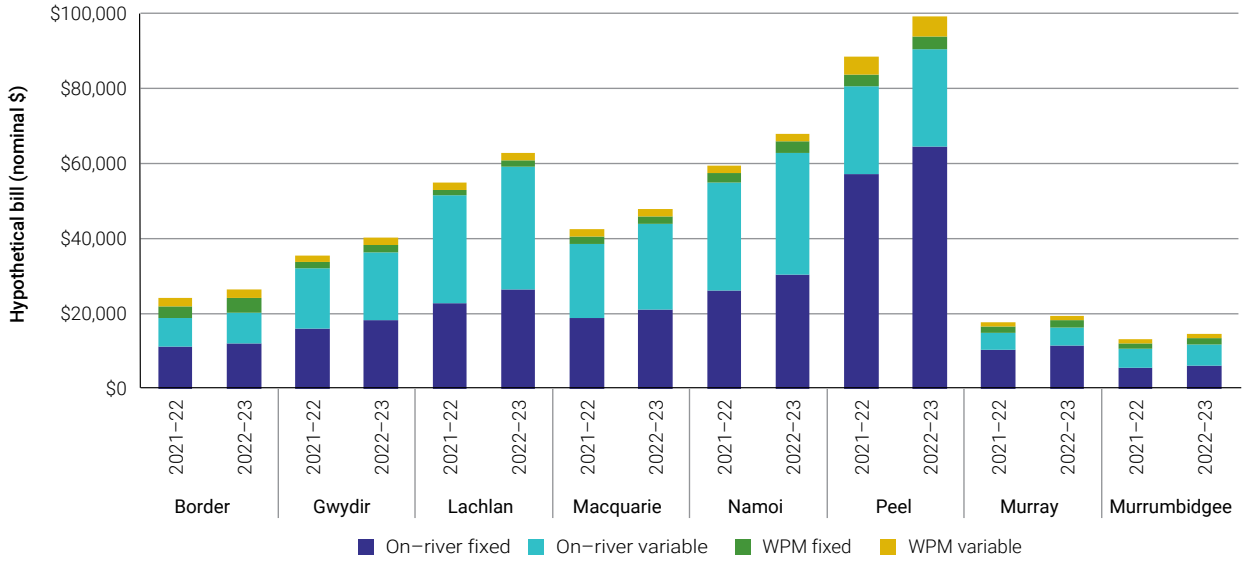
53 WaterNSW (2023), 2022–23 annual report, p 11, accessed 07 February 2024.

54 IPART (2021), Review of prices for the Water Administration Ministerial Corporation from 1 October 2021 to 30 June 2025, p 8, accessed 07 February 2024.

bulk water charges but under NSW State laws and regulatory framework rather than the Water Charge Rules. WaterNSW's WPM charges are also regulated by IPART under NSW State laws and regulatory framework.[55]

Chart 3.1 shows that hypothetical on-river bills for high security water access entitlement holders (1,000 ML at 100% delivered) rose from 2021–22. The increase ranged from 9% in the Murray to 15% in the Lachlan.

Chart 3.1: Hypothetical on-river infrastructure operator bills (nominal$), 1,000 ML high security water access entitlements, 100% delivered, NSW, by charge component

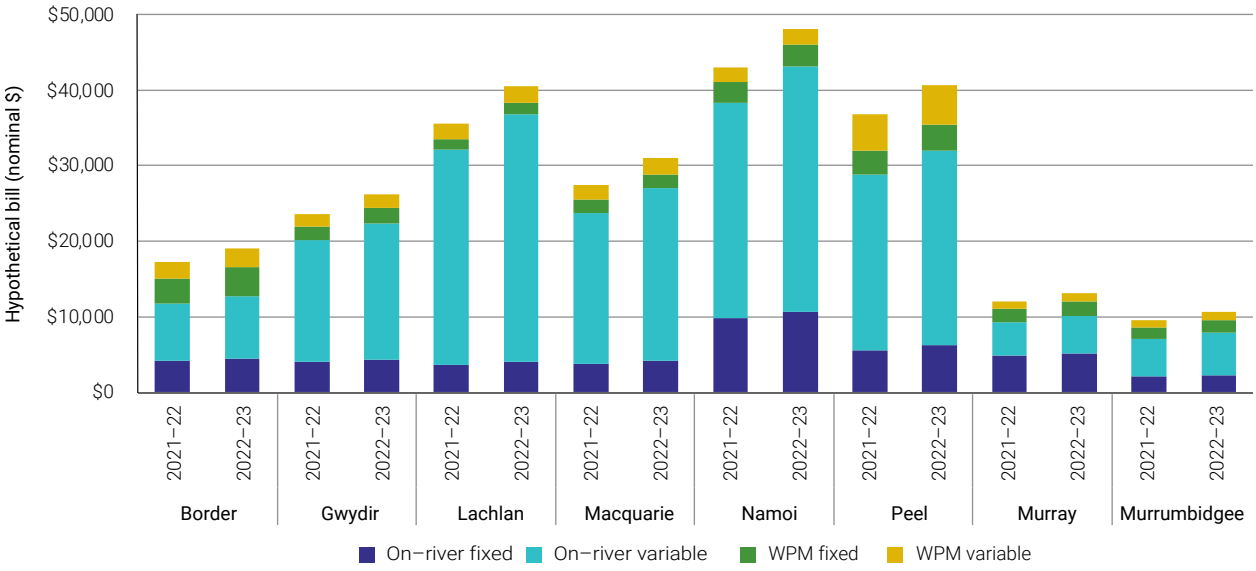


Source: ACCC from WaterNSW data.

Chart 3.2 shows that hypothetical on-river bills for general security water access entitlement holders (1,000 ML at 100% delivered) also rose from 2021–22. The increase ranged from 9% in the Murray to 14% in the Lachlan.

55 IPART (2021), Water Administration Ministerial Corporation, Maximum prices for water management services from 1 October 2021, Final Determination, p 2, accessed 23 March 2024.

Chart 3.2: Hypothetical on-river infrastructure operator bills (nominal$), 1,000 ML general security water access entitlements, 100% delivered, NSW, by charge component



Source: ACCC from WaterNSW data.

While the infrastructure charges rose by between 4.7% and 5.4% and the WAMC charges between 3.6% and 8.6%, the hypothetical bills calculated by the ACCC rose by more than the individual charges.

To reflect IPART's decision that WaterNSW's 2021–22 charges would apply from 1 October 2021, WaterNSW's:

- 2020–21 charges applied from 1 July to 30 September 2021.
- 2021–22 charges applied from 1 October 2021 to 20 June 2022.

Given this, the 2021–22 hypothetical bills calculated by the ACCC for NSW used the weighted sum of the 2020–21 charges (0.25) and 2021–22 charges (0.75). The weighted charges were lower than the 2021–22 charges and so the increase in the ACCC's hypothetical bills are higher than the increase in the charges.

Border Rivers regulated river system

The Border Rivers region is made up of a group of rivers in a region straddling the New South Wales and Queensland border. The Border Rivers valley is made up of the catchments of the Dumaresq, Severn and Macintyre rivers in far north New South Wales.[56]

The BRC determines, enables and monitors each State's eligible share of water that crosses into and along the border between the 2 states. The states jointly fund the BRC's expenses.[57]

WaterNSW operates in the NSW part of Border Rivers region and recovers its own efficient costs and costs relating to the New South Wales Government's funding of the operations of the MDBA and the BRC.[58]

56 Department of Climate Change, Energy, Environment and Water (2024), About the Border River catchment, accessed 29 February 2024.

57 Dumaresq–Barwon Border Rivers Commission (2023), 2022–2023 Annual Report, p 20, accessed 08 February 2024.

58 Users in the Border Rivers regulated water source pay both an infrastructure and a water management charge to recover the New South Wales Government's funding of the BRC.

WaterNSW charges and on-river bills

WaterNSW's 2022–23 charges for the Border Rivers regulated system increased between 3.8% and 7.8%. The on-river hypothetical bill for high security water access entitlement holders rose by 10% (chart 3.1) and for general security water access entitlements by 11% in 2022–23 (chart 3.2).

Lachlan regulated river system

The Lachlan River flows north and then west through New South Wales and is the fourth longest river in Australia. The Lachlan valley is approximately 8% of the Murray–Darling Basin by area and agriculture is the main industry in the valley, using more than 80% of the land.[59]

WaterNSW charges and on-river bills

WaterNSW's 2022–23 charges for the Lachlan regulated river system increased between 5.1% and 8.1%. The on-river hypothetical bill for high security water access entitlement rose by 15% (chart 3.1) and for general security water access water entitlements rose by 14% in 2022–23 (chart 3.2).

Off-river infrastructure operators

The only off-river infrastructure operator the ACCC monitors in the Lachlan regulated river system is Jemalong Irrigation Limited (Jemalong). Jemalong is a member-owned irrigation infrastructure operator and operates a gravity-fed irrigation network.

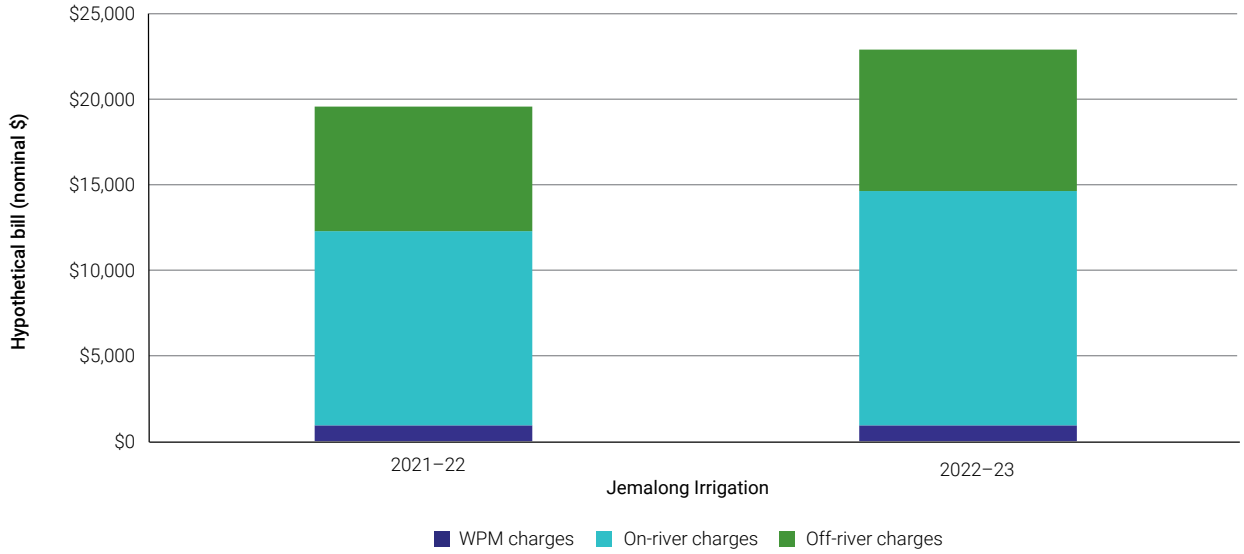
Off-river bills

Chart 3.3 shows that the hypothetical bill calculated by the ACCC for Jemalong rose 17% in 2022–23 (250ML general security irrigation rights, 100% water delivered). Two major drivers for this were increases in the:

- usage charge which rose by 14% in 2022–23 due to increases in Jemalong's operating costs
- variable usage charge on conveyance which rose 44% in 2022–23. This increase was driven by lower projected deliveries of water and higher calculated conveyance loss.

59 Murray–Darling Basin Authority (2023), Lachlan catchment, accessed 09 February 2024.

Chart 3.3: Hypothetical off-river infrastructure operator bills (nominal $), 250 ML general security irrigation rights, 100% delivered, Jemalong Irrigation, by charge component



The ACCC's 2022–23 hypothetical bill for Jemalong consists of:

- fixed charges including recovery of WaterNSW, MDBA and WAMC charges (per ML of irrigation right), entity charge (per entity listed on a Jemalong irrigation right certificate), a water management outlet charge (for a 450mm outlet), a delivery entitlement charge (per ML of water delivery right) and a conveyance charge (per ML of water delivery right)
- variable charges including recovery of WaterNSW, MDBA and WAMC usage charges (per ML of water delivered), Jemalong's usage charge (per ML of water delivered) and a conveyance charge (per ML of water delivered).

Water delivered, transformations, terminations and trade

Water deliveries, termination of water delivery rights, transformations of irrigation rights and permanent trade all decreased in 2022–23. Termination and transformation volumes are small compared to the volume of water delivery rights (0.03%) and irrigation rights (0.03%) on issue. Water allocation trade volumes also changed substantially and Jemalong continued to be a net importer of water allocation.

Table 3.1: Water delivered, transformations, terminations and trades, Jemalong, 2021–22 and 2022–23

	2021–22 (ML)	2022–23 (ML)	Change (%)	Of rights on issue end of 2022–23 (%)
Water delivered (excluding conveyance)	7,198	6,651	-8	
Water delivery rights				
Water delivery rights on issue	79,891	79,871	-	
Water delivery rights terminated or surrendered	30	20	-33	0.03
Water delivery rights traded	13,773	1,862	-86	2
Irrigation rights				
Irrigation rights on issue	71,931	71,911	-	
Irrigation rights transformed	2,328	20	-99	0.03
Irrigation rights traded	9,467	2,454	-74	3
Water Allocation trade				
Into	6,770	14,344	112	
Out of	2,300	23	-99	
Within	7,000	1,265	-82	

Macquarie regulated river system

The Macquarie valley covers about 7% of the Murray–Darling Basin by area. The area supports a diverse range of industry including agriculture, agribusiness, tourism, mining and viticulture. Livestock grazing accounts for 70% to 80% of land area in the valley. One of the largest agricultural uses of water in the valley is cotton production.[60]

WaterNSW charges and on-river bills

WaterNSW's 2022–23 charges for the Macquarie regulated river system increased between 4.4% and 8.2%. The on-river hypothetical bill for both high security and general security water access entitlement holders rose by 13% in 2022–23 (charts 3.1 and 3.2).

Off-river infrastructure operators

The ACCC monitors 5 off-river infrastructure operators in the Macquarie regulated river system. These are:

- Buddah Lake Irrigators Association (Buddah Lake)
- Tenandra Irrigation Scheme (Tenandra)
- Trangie-Nevertire Irrigation Scheme (Trangie-Nevertire)
- Marthaguy Irrigation Scheme (Marthaguy)
- Narromine Irrigation Board of Management (Narromine).

60 Murray–Darling Basin Authority (2023), Macquarie–Castlereagh catchment, accessed 12 February 2024.

All these operators meet the definition of an irrigation infrastructure operator because their water service infrastructure is operated for the primary purpose of being used for irrigation.[61]

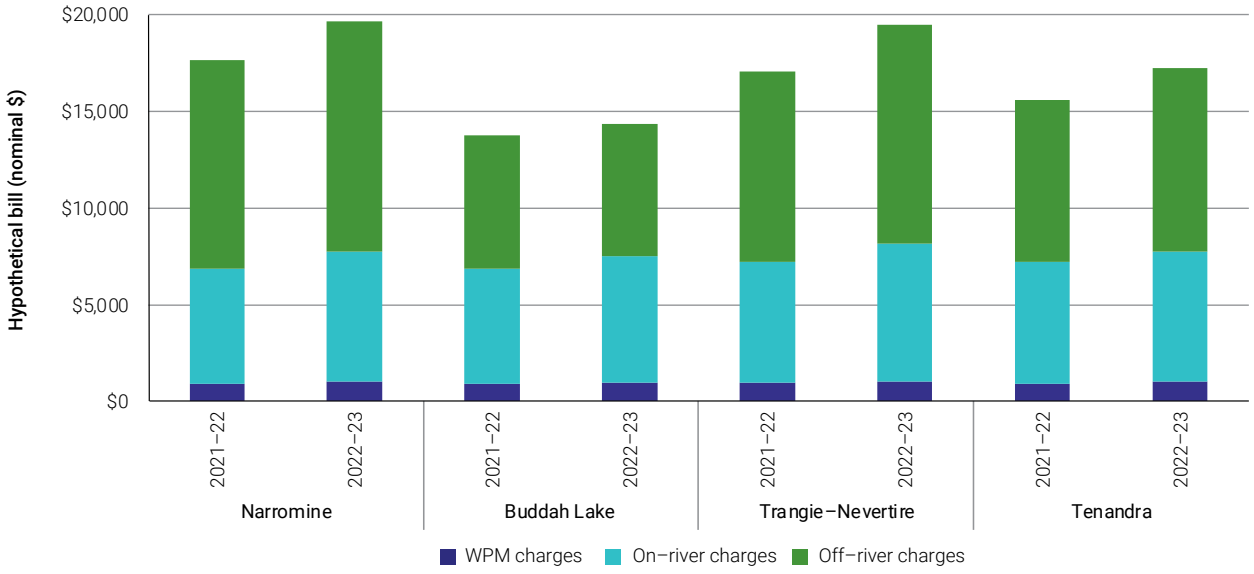
Four of these operators (Buddah Lake, Tenandra, Trangie-Nevertire and Marthaguy) are joint water supply schemes. This means that their customers co-hold a water access entitlement rather than irrigation rights and these rights cannot be transformed under the Water Market Rules.[62]

Off-river bills

Most water access entitlements in the Macquarie regulated river system are general security. For this reason, the ACCC only calculates hypothetical off-river bills for general security irrigation rights.

Hypothetical off-river bills calculated by the ACCC for the Macquarie regulated river system increased by between 4% and 14% (for 250 ML of irrigation rights at 100% water delivered) in 2022–23.[63]

Chart 3.4: Hypothetical off-river infrastructure operator bills (nominal $), 250 ML general security irrigation rights, 100% delivered, Macquarie regulated river system, by charge component[64]



The ACCC's 2022–23 hypothetical bills consist of:

- **Narromine**
  - Fixed charges including recovery of WaterNSW, MDBA and WAMC charges (per ML of irrigation right), the Narromine access fee (per ML of water delivery right), outlet fee (per outlet) and an administration charge (per account).
  - Variable charges including recovery of WaterNSW, MDBA and WAMC usage charges (per ML of water delivered) and Narromine usage fees (per ML of water delivered).
- **Buddah Lake**

61 See ss. 7(4) of the Water Act.

62 The Water Market Rules apply to irrigation rights and provide for the transformation of those rights into new statutory water access entitlements or onto existing water access entitlements.

63 As a result of further information provided, we have changed the way we calculate Tenandra's hypothetical bill. So Tenandra's 2021–22 hypothetical bill is lower than in the 2021–22 report.

64 We have not included Marthaguy's hypothetical bills in this chart. This is because we were unable to access Marthaguy's 2021–22 schedule of charges and so were unable to calculate a 2021–22 hypothetical bill.

- A fixed charge consisting of an operating and maintenance fee which includes recovery of WaterNSW, MDBA and WAMC charges (per ML of water delivery right).
- A variable charge consisting of a water charge which includes recovery of WaterNSW, MDBA and WAMC usage charges (per ML of water delivered).

- **Trangie-Nevertire**
  - Fixed charges including recovery of WaterNSW, MDBA and WAMC fixed charges (per ML of water access entitlement held) and an operating and maintenance charge (per ML of water delivery right).
  - Variable charges including recovery of WaterNSW, MDBA and WAMC usage charges (per ML of water delivered) and a pumping and delivery charge (per ML of water delivered).
- **Tenandra**
  - Fixed charges including recovery of WaterNSW, MDBA and WAMC fixed charges (per ML of water access entitlement held), infrastructure access fee – bottom scheme (per ML of scheme delivery capacity), outlet charge (per outlet), NSW Irrigators Council Pass Through charge (per ML of water access entitlement) and Macquarie River food fibre pass through charge (per ML of water access entitlement).
  - Variable charges including recovery of WaterNSW, MDBA and WAMC usage charges (per ML of water delivered) and delivery fee – bottom scheme (per ML of water delivered).

Water delivered, transformations, terminations and trade[65]

Narromine delivered 21% less water in 2022–23. Narromine reported no terminations or transformations and the volume of water delivery rights and irrigation rights traded were a small proportion (4%) of the rights on issue. Narromine was a net importer of water allocation.

65 As the ACCC is yet to receive Trangie Nevetire's response to the 2022–23 Request for Information, we were unable to include Trangie Nevertire's information in this section.

Table 3.2: Water delivered, transformations, terminations and trades, Narromine, 2021–22 and 2022–23

	2021–22 (ML)	2022–23 (ML)	Change (%)	Of rights on issue end of 2022–23 (%)
Water delivered (excluding conveyance)	18,082	14,272	-21	
Water delivery rights				
Water delivery rights on issue	35,774	35,774	0	
Water delivery rights terminated or surrendered	0	0	0	0
Water delivery rights traded	1,439	1,436	0	4
Irrigation rights				
Irrigation rights on issue	35,574	35,574	0	
Irrigation rights transformed	0	0	0	0
Irrigation rights traded	1,353	1,318	-3	4
Water allocation trade				
Into	5,066	1,354	-73	
Out of	0	0	0	
Within	1,140	1,076	-6	

Buddah Lake delivered 44% less water and no water delivery rights were traded or terminated in 2022–23. Buddah Lake was a net exporter of water allocation in 2022–23.

Table 3.3: Water delivered, water delivery rights on issue and trades, Buddah Lake, 2021–22 and 2022–23

	2021–22 (ML)	2022–23 (ML)	Change (%)
Water delivered (excluding conveyance)	8,459	4,710	-44
Water delivery rights on issue	32,445	32,445	0
Water allocation trade			
Into	0	0	
Out of	0	375	
Within	0	0	

Marthaguy delivered 3% more water in 2022–23. 59 ML of water delivery rights or 0.5% of the rights on issue were traded in 2022–23, and no water delivery rights were terminated. Marthaguy was a net importer of water allocation in 2022–23.

Table 3.4: Water delivered, water delivery rights and trades, Marthaguy, 2021–22 and 2022–23

	2021–22 (ML)	2022–23 (ML)	Change (%)	Of rights on issue end of 2022–23 (%)
Water delivered (excluding conveyance)	7,308	7,560	3	
Water delivery rights				
Water delivery rights on issue	12,579	12,579	0	
Water delivery rights traded	0	59		0.5
Water allocation trade				
Into	1,308	450	-66	
Out of	347	0	-100	
Within	0	59		

Tenandra delivered 179% more water in 2022–23. No water delivery rights were traded or terminated in Tenandra in either 2022–23 or 2021–22. Tenandra also reported no water allocation trade in/out or within its network in either year.

Table 3.5: Water delivered, water delivery rights on issue, Tenandra, 2021–22 and 2022–23

	2021–22 (ML)	2022–23 (ML)	Change (%)
Water delivered (excluding conveyance)	5,170	14,409	179
Water delivery rights on issue	12,326	12,326	0

Murrumbidgee regulated river system

The Murrumbidgee River is the third longest river in Australia and the Murrumbidgee valley covers about 8% of the Murray–Darling Basin by area. Land use is diverse, reflecting differences in geography and climate across the region. Dryland grazing and cereal-based cropping account for more than 75% of land use.[66]

WaterNSW charges and on-river bills

WaterNSW's 2022–23 charges for the Murrumbidgee regulated river system increased between 3.6% and 8.6%. The hypothetical on-river bill for both high security and general security water access entitlement holders rose by 11% (charts 3.1 and 3.2) in 2022–23.

Off-river Infrastructure Operators

The off-river infrastructure operators the ACCC monitors in the Murrumbidgee regulated river system are Coleambally Irrigation Cooperative Limited (Coleambally), Hay Private Irrigation District (Hay) and Murrumbidgee Irrigation Limited (Murrumbidgee Irrigation). All 3 are irrigation infrastructure operators because they operate water service infrastructure for the primary purpose of being used for irrigation.[67]

Off-river bills

Hypothetical off-river bills calculated by the ACCC for the Murrumbidgee regulated river system for general security irrigation rights increased by between 2% and 7% (for 250 ML of irrigation rights at 100% water delivered) in 2022–23.

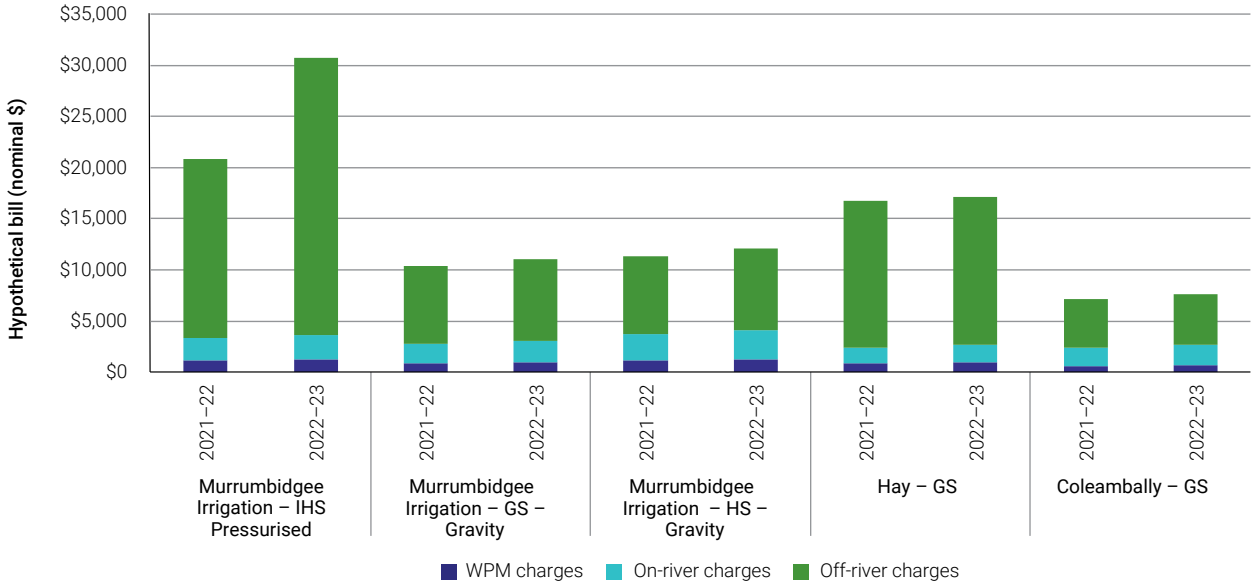
While the hypothetical off-river bill for Murrumbidgee Irrigation's high security – gravity network increased by 7%, the hypothetical off-river bill for Murrumbidgee Irrigation's high security – pressurised network rose by 48% in 2022–23. This increase was driven by an increase in the electricity costs incurred to operate the pump stations and by a reduction in the volume of water pumped.[68]

66 Murray–Darling Basin Authority (2023), Murrumbidgee catchment, accessed 12 February 2024.

67 See s 7(4) of the Water Act.

68 As a result of a change in the ACCC's approach to calculating the electricity costs for Murrumbidgee's pressurised network, the 2021–22 hypothetical bill in for the pressurised network is lower than in 2021–22 report.

Chart 3.5: Hypothetical off-river infrastructure operator bills (nominal $), 250 ML general security irrigation rights, 100% delivered, Murrumbidgee regulated river system, by charge component



The ACCC's 2022–23 hypothetical bills consist of:

- **Murrumbidgee Irrigation**
  - Fixed charges including recovery of WaterNSW, MDBA and WAMC charges (per ML of irrigation right), customer account (per account), delivery entitlement charge (per water delivery rights) and a metre charge (per metre).
  - Variable charges including recovery of WaterNSW, MDBA and WAMC usage charges (per ML of water delivered), usage charges (per ML of water delivered), conveyance charges – for gravity networks (per ML of water delivered) and electricity charges – only for the pressurised network (per ML of water delivered).
- **Coleambally**
  - Fixed charges including recovery of WaterNSW, MDBA and WAMC charges (per ML of irrigation right), annual access charge (per ML of delivery right), compliance levy (per delivery ML of delivery right), sinking fund levy (per ML of delivery right), large outlet charge (per outlet) and peak flow charge (per ML of peak flow per outlet per annum).
  - Variable charges including recovery of WaterNSW, MDBA and WAMC usage charges (per ML of water delivered).
- **Hay**
  - Fixed charges including recovery of WaterNSW, MDBA and WAMC charges (per ML of irrigation right), administration charge – large holdings (per property), outlet charge (per 12ML outlet) and delivery charge (per ML of delivery right).
  - Variable charges including recovery of WaterNSW, MDBA and WAMC usage charges (per ML of water delivered) and delivery/usage charge (per ML of water delivered).

Water delivered, transformations and terminations and trade

Water delivered by Murrumbidgee Irrigation fell by 9% in 2022–23. Both water delivery rights terminated or surrendered, and irrigation rights transformed were lower than in 2021–22. Murrumbidgee Irrigation was a net exporter of water allocation in 2022–23.

Table 3.6 Water delivered, transformations, terminations and trades, Murrumbidgee Irrigation, 2021–22 and 2022–23

	2021–22 (ML)	2022–23 (ML)	Change (%)	Of rights on issue end of 2022–23 (%)
Water delivered (excluding conveyance)	647,658	586,611	-9	
Water delivery rights				
Water delivery rights on issue[69]	1,319,369	1,322,023	0.2	
Water delivery rights terminated or surrendered	4,702	746	-84	0.06
Water delivery rights traded	12,821	5,227	-59	0.4
New water delivery right issued	29,530	3,400	-88	0.3
Irrigation rights				
Irrigation rights on issue	872,620	873,125	0.1	
Irrigation rights transformed	14,366	2,787	-81	0.3
Irrigation rights traded	22,560	48,303	114	6
Water allocation trade				
Allocation trade into	141,230	101,842	-28	
Allocation trade out of	247,203	192,048	-22	
Allocation trade within	339,930	267,727	-21	

Coleambally delivered 4% less water, no water delivery rights were terminated, and the volume of irrigation rights transformed was lower in 2022–23. Coleambally was a net exporter of water allocation in 2022–23.

69 In Murrumbidgee Irrigation, casual usage charges apply to water deliveries in excess of the customer's water delivery rights or where the customers does not hold any water delivery rights.

Table 3.7 Water delivered, transformations, terminations and trades, Coleambally, 2021–22 and 2022–23

	2021–22 (ML)	2022–23 (ML)	Change (%)	Of rights on issue end of 2022–23 (%)
Water delivered to customers (excluding conveyance)	249,873	240,796	-4	
Water delivery rights				
Water delivery rights on issue	485,495	485,495	0	
Water delivery rights terminated or surrendered	0	0		0
Water delivery right traded	3,748	1,644	-56	0.3
Irrigation rights				
Irrigation rights on issue	357,449	356,505	-0.3	
Irrigation rights transformed	2,145	1,317	-39	0.4
Irrigation rights traded	11,373	8,606	-24	2
Water allocation trade				
Into	56,897	44,717	-21	
Out of	112,625	71,418	-37	
Within	47,442	48,564	2	

Hay delivered 11% more water and was a net importer of water in 2022–23.

Table 3.7 Water delivered, transformations, terminations and trades, Hay, 2021–22 and 2022–23

	2021–22 (ML)	2022–23 (ML)	Change (%)
Water delivered to customers (excluding conveyance)	1,908	2,120	11
Water delivery rights			
Water delivery rights on issue	3,381	3,381	0
Irrigation rights			
Irrigation rights on issue	3,381	3,381	0
Water allocation trade			
Into	0	275	
Out of	0	0	
Within	0	0	

New South Wales Murray regulated river system

The New South Wales Murray valley covers about 20% of the Murray–Darling Basin area. Water use in the valley includes for pastoral industries (sheep/wool, cattle and goat farming), irrigated cropping (particularly rice), horticulture and viticulture.[70]

WaterNSW charges and on-river bills

WaterNSW's 2022–23 charges for the Murray regulated river system increased between 3.7% and 7.4%. The hypothetical on-river bills for both high security and general security water access entitlement holders rose by 9% (charts 3.1 and 3.2) from 2021–22.

Off-river Infrastructure Operators

The ACCC monitors the following 5 off-river infrastructure operators in the Murray regulated river system:

- Murray Irrigation Limited (Murray Irrigation)
- Western Murray Irrigation (Western Murray)
- West Corurgan Private Irrigation District (West Corurgan)
- Moira Private Irrigation District (Moira)
- Eagle Creek Pumping Syndicate (Eagle Creek).

All of these operators meet the definition of an irrigation infrastructure operator because their water service infrastructure is operated for the primary purpose of irrigation. Eagle Creek is a joint water supply scheme.

Off-river bills

The ACCC calculated high security bills for each of Western Murray Irrigation's pressurised networks (Curlwaa, Coomeala, and Buronga), and general security hypothetical bills for the Murray Irrigation, Eagle Creek, West Corurgan and Moira gravity networks.

Western Murray differs from the other 4 networks, as it predominantly holds high security water access entitlements, and operates a pressurised network. Murray Irrigation, Eagle Creek, West Corurgan and Moira predominantly hold general security water access entitlements and operate gravity-fed networks. Murray Irrigation operates Australia's largest private water supply network.[71]

The hypothetical bills for the 3 pressurised Western Murray Irrigation networks rose by 4% (Coomeala) and 5% (Buronga and Curlwaa) from 2021–22. The hypothetical bill for Murray Irrigation rose by 6%, West Corurgan by 7% and Eagle Creek by 16%.[72]

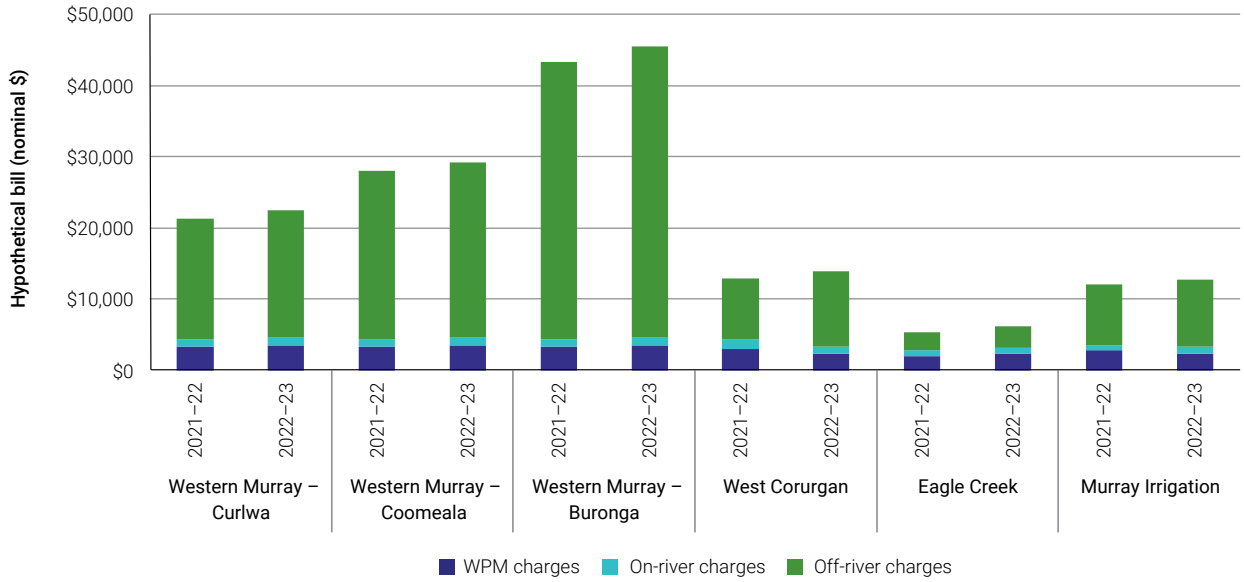
Two drivers for the 16% rise in Eagle Creek's hypothetical bill from 2021–22 are increases in the Eagle Creek fixed charge which rose by 12% and the Eagle creek usage charge which rose by 29%. Increase in Eagle Creek's running costs and reserving money for future pump upgrades were some of the contributing factors to the rise in these charges.

70 Bureau of Meteorology (2024), NSW Murray catchment, accessed 13 February 2024.

71 Murray Irrigation (2023), Annual Report 2023, p 5, accessed 12 February 2024.

72 As the ACCC was unable to obtain the 2022–23 schedule of charges, we have not calculated the hypothetical bill for Moira.

Chart 3.6 Hypothetical off-river infrastructure operator bills (nominal $), 250 ML irrigation rights, 100 % delivered, NSW Murray regulated river system, by charge component



The ACCC's 2022–23 hypothetical bills consist of:

- **Western Murray Irrigation**
  - Fixed charges including recovery of WaterNSW, MDBA and WAMC charges (per ML of irrigation right), access fee (per ML of water delivery right), asset replacement fund (per ML of water delivery right), membership levies fee (per ML of water delivery right), infrastructure loan repayment fee (Buronga only) (per ML of water delivery right) and joint venture repayment fee (Coomealla only) (per ML of water delivery right).
  - Variable charges including recovery of WaterNSW, MDBA and WAMC usage charges (per ML of water delivered) and water usage above fee (applies to usage above specified percentage of delivery entitlements) (per ML of water delivered).
- **West Corurgan**
  - Fixed charges including a fixed government fee (per ML of irrigation right) which includes recovery of WaterNSW, MDBA and WAMC charges and a network access fee (per ML of water delivery right).
  - Variable charges including a water consumption fee (per ML of water delivered) which includes recovery of WaterNSW, MDBA and WAMC usage charges.
- **Eagle Creek**
  - Fixed charges including recovery of WaterNSW, MDBA and WAMC charges (per ML of water access entitlement) and the Eagle Creek fixed charge (per ML of water access entitlement).
  - Variable charges including recovery of WaterNSW, MDBA and WAMC usage charges (per ML of water delivered) and the Eagle Creek usage charge (per ML of water delivered).
- **Murray Irrigation**
  - Fixed charges including recovery of WaterNSW, MDBA and WAMC charges (per ML of irrigation right), annual account administration fees (per account), delivery entitlement (per ML of water delivery right), asset maintenance renewal fees (per ML of water delivery right), large irrigation outlet fee (per outlet), landholding access fee (per landholding) and recovery of the conveyance license charge (per ML of irrigation right).

- Variable charges including recovery of WaterNSW, MDBA and WAMC usage charges (per ML of water delivered), delivery fees (per ML of water delivered) and drainage fees (per ML of water delivered).

Water delivered, transformations, terminations and trade

Western Murray delivered 16% less water in 2022–23. The volume of terminations was up 1,417% from 2021–22. 7,299 ML of water delivery rights or 21% of the water delivery rights held (as at 30 June 2023) was terminated during the year. Western Murray approved a new charging structure which came into effect on 1 July 2023. This structure included changes to the water usage charges. In relation to these changes, Western Murray Irrigation gave customers an offer to terminate their water delivery rights with an 80% discount available to qualifying customers. Irrigation rights transformed also increased and Western Murray Irrigation was a net exporter of water allocation in both 2021–22 and 2022–23.

Table 3.8 Water delivered, transformations, terminations and trades, Western Murray Irrigation, 2021–22 and 2022–23

	2021–22 (ML)	2022–23 (ML)	Change (%)	Of rights on issue end of 2022–23 (%)
Water delivered to customers (excluding conveyance)	25,688	21,569	-16	
Water delivery rights				
Water delivery rights on issue	41,891	34,592	-17	
Water delivery rights terminated or surrendered	481	7,299	1,417	21
Water delivery rights traded	777	485	-38	1
Irrigation rights				
Irrigation rights on issue	32,161	30,662	-5	
Irrigation rights transformed	447	1,498	235	5
Irrigation rights traded	239	81	-66	0.3
Allocation trade				
Into	11,594	8,461	-27	
Out of	15,997	12,241	-23	
Within	2,185	3,475	59	

West Corurgan delivered 8% less water in 2022–23. West Corurgan was a net exporter of water allocation in both 2021–22 and 2022–23.

Table 3.9 Water delivered, transformations, terminations and trades, West Corurgan, 2021–22 and 2022–23

	2021–22 (ML)	2022–23 (ML)	Change (%)	Of rights on issue end of 2022–23 (%)
Water delivered to customers (excluding conveyance)	19,342	17,852	-8	
Water delivery rights				
Water delivery rights on issue	57,649	57,649	0	
Water delivery rights terminated or surrendered	100	0	-100	0
Water delivery rights traded	300	1,236	312	2
Irrigation rights				
Irrigation rights on issue	52,023	51,923	-0.2	
Irrigation rights transformed	0	100		0.2
Irrigation rights traded	250	1,241	396	2
Allocation trade				
Into	220	1,905	766	
Out of	5,231	8,433	61	
Within	3,132	1,938	-38	

Murray Irrigation Limited delivered 6% less water in 2022–23. There were no terminations in either 2022–23 or 2021–22. The volume of irrigation rights transformed fell by 98% to 100 ML. Murray Irrigation was a net importer of water allocation in both 2021–22 and 2022–23.

Table 3.10 Water delivered, transformations, terminations and trades, Murray Irrigation, 2021–22 and 2022–23

	2021–22 (ML)	2022–23 (ML)	Change (%)	Of rights on issue end of 2022–23 (%)
Water delivered to customers (excluding conveyance)	966,400	904,850	-6	
Water delivery rights				
Water delivery rights on issue	1,049,581	1,049,581	0	
Water delivery rights terminated or surrendered	0	0		0
Water delivery rights traded	8,399	8,065	-4	1
Irrigation rights				
Irrigation rights on issue	987,726	982,620	-1	
Irrigation rights transformed	4,106	100	-98	0
Irrigation rights traded	42,685	45,247	6	5
Allocation trade				
Into	153,404	152,892	0	
Out of	136,378	82,281	-40	
Within	196,136	142,482	-27	

Eagle Creek delivered 132% more water in 2022–23. Eagle Creek transitioned from a net exporter of water allocation in 2021–22 to a net importer of water allocation in 2022–23.

Table 3.11 Water delivered, terminations and trades, Eagle Creek Pumping Syndicate, 2021–22 and 2022–23

	2021–22	2022–23	Change (%)	Of rights on issue end of 2022–23 (%)
Water delivered to customers (excluding conveyance)	5,222	12,106	132	
Water delivery rights				
Water delivery rights on issue	13,064	13,063	0	
Water delivery rights terminated or surrendered	196	0		0
Water delivery rights traded	0	40		0.3
Allocation trade				
Into	958	2,081	117	
Out of	2,729	957	-65	
Within	3,687	345	-91	

Small off-river infrastructure operators in New South Wales

There are several other off-river operators in New South Wales reporting to the ACCC that meet the definition of an irrigation infrastructure operator. These operators hold less than 10GL of water access entitlements. These operators include Bama Irrigation Trust, Bringan Irrigation Trust, Bullatale Irrigation Trust, Bungunyah-Koraleigh Irrigation Trust, Cadell Construction Joint Water Supply Scheme, Glenview Irrigation Trust, Goodnight Irrigation Trust, Gunbah Private Water Supply Board, Little Merran Creek Water Trust, Pomona Irrigation Trust and West Cadell Irrigation Trust.[73] The ACCC does not calculate hypothetical bills for these operators or report transformation or termination volumes for these operators.

Water Planning and Management revenue and charges in NSW

Responsibility for water planning and management (WPM) is shared between the NSW Department of Climate Change, Energy, the Environment and Water (DCCEEW)[74] and WaterNSW. DCCEEW is responsible for managing the state's water resources, water policy, water market regulation and for intergovernmental engagement on water related issues. WaterNSW supplies water from its storages, operates a surface and groundwater monitoring network and manages customer billing, water trade and other transactions.[75] While both DCCEEW and WaterNSW share WPM responsibility, WPM charges are collected by WaterNSW.

The ACCC provides an estimate of cost recovery by comparing the annual expenditure on water planning and management activities to annual revenues generated. There are limitations to assessing cost recovery rates as the level of some water planning and management charges do not clearly relate to the costs of water planning and management activities and cost recovery for water planning and management activities, especially capital expenditure, often takes place over an extended period.

Water planning and management expenditure reported by WaterNSW decreased by 17% in 2022–23. This was driven by decreases in:

- Cost allocation to corporate wide projects as greater proportion of costs were allocated to service areas.
- Customer management expenditure due to savings from a new operating model and increased support to rural bulk water services resulting in resource reallocation from water planning and management.
- Efficiency gains in the groundwater quantity water monitoring program.

73 New South Wales Land Registry Services (2022), Private water trusts, accessed 15 February 2023.

74 As at 1 January 2024, the former NSW Department of Planning, Industry and Environment (DPIE) split into the Department of Planning, Housing and Infrastructure and DCCEEW. DCCEEW is now responsible for the water planning and management functions.

75 Department of Climate Change, Energy, Environment and Water (2024), Who's who in NSW water management, accessed 15 February 2024.

Table 3.15: WaterNSW estimated rate of cost recovery ($M)

	2021–22	2022–23	Change (%)
Costs	$40.9	$34.2	-17%
Revenues	$34.8	$38.2	10%
Rate of cost recovery	85%	112%[76]	

The DCCEEW's water planning and management expenditure decreased by 39% to $81.3 million. The change was driven by:

- A reduction in capital expenditure by $66.9 million due to the removal of Commonwealth funding contributions to the Sustainable Diversion Adjustment Mechanism planning and management expenditure. This expenditure was removed as a review of these activities against the National Water Initiative pricing principles found that they are not cost recoverable through water planning and management charges.
- An increase in the operating expenditure due to the costs of new government priorities like metering policy implementation, regulation of floodplain harvesting, ICT uplift and the development and implementation of key water strategies.

Table 3.16: New South Wales Department of Climate Change, Energy, the Environment and Water water planning and management expenditure (2022–23 $M)

	2021–22	2022–23	Change (%)
DCCEEW Costs	$132.9	$81.3	-39%

Water Planning and Management revenue and charges in the ACT

The Environment, Planning and Sustainable Development Directorate (EPSDD) is responsible for the water planning and management activities in the ACT. Icon Water is the supplier of essential water and sewerage services in the ACT and operates infrastructure such as dams and sewage treatment plants.

The costs of the water planning and management activities rose by 14% to $13.4 million. The increase was mainly driven by costs associated with the establishment of a new Office of Water to support water management in the ACT and by the monitoring and evaluation costs associated with the Healthy Waterways program.[77] The increase was offset by decreases in activities including asset purchases for the Healthy Waterways program.

Revenue from water planning and management charges rose by 10% to $32.7 million in 2022–23, driven by an increase in the water abstraction charge. This is a charge to recover the catchment management and environmental costs associated with water extraction.[78]

76 As regulators tend to set charges for regulated businesses before the start of the period, the costs incurred in the period can exceed or trail revenue leading to greater than 100% cost recovery.

77 ACT Government, Environment, Planning and Sustainable Development Directorate, Office of Water, accessed 13 March 2024 and information provided to the ACCC.

78 Icon Water (2024), Government charges that affect water and sewerage prices, accessed 13 March 2024.

4

Victoria

Photo source: Inspector-General of Water Compliance

4. Victoria

There are 4 infrastructure operators in the Victorian part of the Basin. These are Goulburn–Murray Water (GMW), Lower Murray Water (LMW), Grampians Wimmera Mallee Water (GWMW) and Coliban Water (Coliban). All 4 are government-owned statutory corporations. The ACCC only reports on water planning and management revenue and costs for GWMW and Coliban because they primarily deliver urban water. The majority of this chapter focuses on GMW and LMW.

GMW and LMW's charges are regulated by the Essential Services Commission of Victoria (ESCV) in accordance with the Water Charge Rules. However, on 13 April 2022, the ACCC determined that GMW and LMW would cease to be Part 6 operators under rule 23 of the Water Charge Rules. LMW ceased to be a Part 6 operator on 30 June 2023 and GMW will cease to be a Part 6 operator after 30 June 2024.[79] This means that the ESCV will continue to regulate GMW and LMW's infrastructure charges after the end of their current respective regulatory periods but will do so under Victorian law (rather than the Water Charge Rules).

On-river charges levied by GMW and LMW have risen by less than inflation since 2021–22, meaning they have fallen in real terms.

Aside from charges levied by SA Water on its transportation customer, LMW continued to have the highest off-river hypothetical bills in both pressurised and gravity fed systems.

There were no transformations of irrigation rights by GMW and LMW customers in 2022–23.

Irrigators in GMW and LMW terminated slightly lower than the average amount of water delivery rights set in past years.

This chapter covers:

- Hypothetical bills calculated by the ACCC for on-river and off-river charges levied by GMW and LMW.
- Transformation and termination volumes for LMW and GMW.
- Water planning and management in the Victorian part of the Murray–Darling Basin.

GMW's services and charges

GMW is vertically integrated and the largest infrastructure operator[80] in Australia. It is the storage and resource manager for all northern Victorian declared water systems – Broken, Bullarook, Campaspe, Goulburn, Loddon, Murray and Ovens.[81] GMW's services include delivering bulk water to LMW. GMW also delivers water to individual irrigators in 6 gravity-fed irrigation districts – Shepparton, Central Goulburn, Rochester, Loddon Valley, Murray Valley and Torrumbarry and 3 pressurised irrigation districts – Tresco, Nyah and Woorinen.

GMW's pricing for both on-river and off-river services is approved by the ESCV. Pricing for 2022–23 relates to the 3rd year of GMW's current 4-year regulatory period (1 July 2020 – 30 June 2024). The

79 ACCC (2022) Goulburn–Murray Water: Part 6 ceasing decision and Lower Murray Water: Part 6 ceasing decision

80 As defined in s. 7 of the the Water Act. An infrastructure operator owns or operates water service infrastructure for the storage, delivery or drainage or water to provide a service to someone who does not own or operate the infrastructure. Both GMW and LMW also meet the definition of an irrigation infrastructure operator in s. 7(4) of the Water Act because they are infrastructure operators that operate water service infrastructure for the purposes of delivering water for the primary purpose of being used for irrigation.

81 Goulburn–Murray Water (GMW), Overview and seasonal determinations, accessed 23 November 2023.

ESCV approved a revenue cap and set an allowed amount of revenue for each year of the period, based on its assessment of GMW's efficient costs.[82] GMW can propose prices for individual services each subsequent year provided that the total revenue does not exceed the cap.

The revenue allowed for the 2020–24 regulatory period is about 13% lower than for the previous period (2016–20). This reduction is driven by cost efficiencies arising from infrastructure modernisation and GMW's business transformation program.

The ESCV approved several significant changes in price structure for GMW's 2020–24 regulatory period. The major changes, relating to storage fees and distribution charges, were implemented in 2020–21. Subsequent price changes in 2022–23 involved customer fees and service point fees and CPI indexation.

GMW and LMW's on-river charges and bills

GMW has 2 main on-river charges, which cover the costs of its on-river water storage and delivery services in each regulated river system.

- **Entitlement storage fee** – this charge is payable by customers who own water shares (water access entitlements) for regulated rivers. This includes irrigators – whether in networks or private diverters. Entitlement storage fees are levied per ML of the type of water access entitlement held (referred to as water share in Victoria).[83] The storage fees are higher for high reliability shares than for low reliability shares.
- **Bulk water entitlement fee** – this charge is payable for the storage and delivery of water only for customers with bulk water entitlements. This includes GMW's retail arm, urban and rural water authorities (including LMW), commercial businesses and environmental water holders. In most basins, there are only high reliability bulk water entitlements but there are some low reliability bulk water entitlements in the Bullarook and Murray basins.

Entitlement storage fees levied on irrigators and private diverters have fallen in real terms since 2019–20

The entitlement storage fee is levied on (non-bulk) water access entitlement holders, including irrigators in irrigation districts and private diverters. Beginning in the 2020–24 regulatory period, GMW moved to a uniform storage price for entitlement storage fees in each of the basins in the Goulburn and Murray systems. This is a weighted average of the basin prices within that system. The entitlement storage fee for basins in the Goulburn system (Broken, Goulburn, Campaspe, Loddon and Bullarook) was $10.03 per ML and $11.50 per ML for the Murray system (Murray and Ovens basins) in 2022–23.

For GMW's private diverter customers, the entitlement storage fee is the largest component of their bill.[84]

82 ESCV (2020) Goulburn–Murray Water final decision – 2020 Water Price Review, 3 June 2020, p 29, accessed 23 November 2023.

83 For customers in irrigation networks, it is just one component of their bills in addition to charges based on their use of irrigation infrastructure. Private diverters (customers who take water directly from a watercourse) also pay a customer fee, water register fee and service charges.

84 Hypothetical bills include a customer account fee ($130 per year in 2022–23), a water registry fee ($13.91 per year). GMW's service point charge for diverters on regulated waterways was $145 for unmetered and $425 for each metered point. The hypothetical bill assumes that a GMW private diverter is an irrigator who extracts water directly from the watercourse, holds 1,000 ML of high reliability water access entitlement, holds 10 extraction shares based on the Victorian conversion rules at the time of unbundling and a metered service point. An extraction share is a share of the total amount of water that can be drawn from regulated rivers at a certain point over a given period. Extraction shares are used to restrict water extraction in times of high demand. Victorian Water Register, 'Water Dictionary', 2021, accessed 23 November 2023.

LMW is an off-river infrastructure operator that delivers water for irrigation, stock, urban and environmental uses between Kerang and the South Australian border. [85] LMW delivers water to one pressurised irrigation district (Robinvale), and 3 gravity fed irrigation districts (First Mildura, Merbein and Red Cliffs). LMW also passes through GMW's entitlement storage charge (for on-river water storage and delivery services) to customers who are private diverters on the River Murray (below Kerang).

Hypothetical bills for LMW private diverters include the entitlement storage fee passed through from GMW, as well as an LMW operational fee of $3.12 per ML of annual use limit, the LMW service charge ($100 per year) and a water share fee levied by the then Department of Environment, Land, Water and Planning (DELWP) ($13.64 per water access entitlement (water share)).[86]

Hypothetical on-river bills in all GMW systems increased by 2% in 2022–23, a fall in real terms. LMW Murray hypothetical on-river bills increased by 4% in 2022–23.

Victorian bulk water charges vary widely between basins and are generally higher than the charges levied on other water access entitlement holders

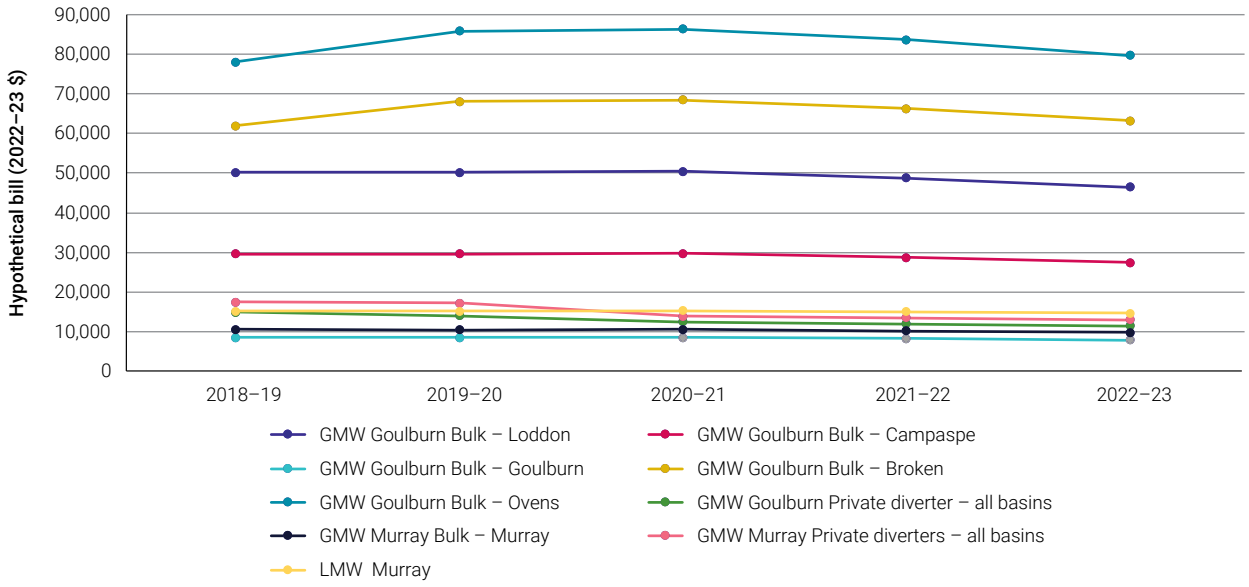
Charts 4.1 and 4.2 shows that on-river bills for holders of bulk water entitlements vary widely between Victorian basins. The only component of these bills is the bulk water entitlement fee, which ranges from $7.84 per ML in the Goulburn to $486.60 per ML in the Bullarook.[87] Apart from the Goulburn basin (in the Goulburn system) and Murray basin (in the Murray system), bulk water charges are generally higher than the storage entitlement fees which are levied on non-bulk water access entitlement holders.

85 LMW does not provide a bulk water service or an on-river infrastructure service. However, LMW does impose a bulk water charge for a bulk water service and therefore meets the definition of a bulk water supplier in the Water Act (s 91) and the Water Regulations 2008 (r 4.01A(3)). GMW provides the bulk water service as the Northern Victorian Resource Manager and LMW passes through the bulk water charges to all its customers. ACCC's 2020–21 monitoring report (s.4.5) provides a further snapshot of LMW's operations.

86 The Annual Use Limit is the maximum volume of water that may be used on the land in an irrigation season and is based on the salinity impact of water use in the Mallee region. The water share fee is a pass through from the Victorian water register, one fee per water access entitlement (water share). As of 1 January 2023, water policy in Victoria is now administered by the Victorian Department of Energy, Environment and Climate Action (DEECA).

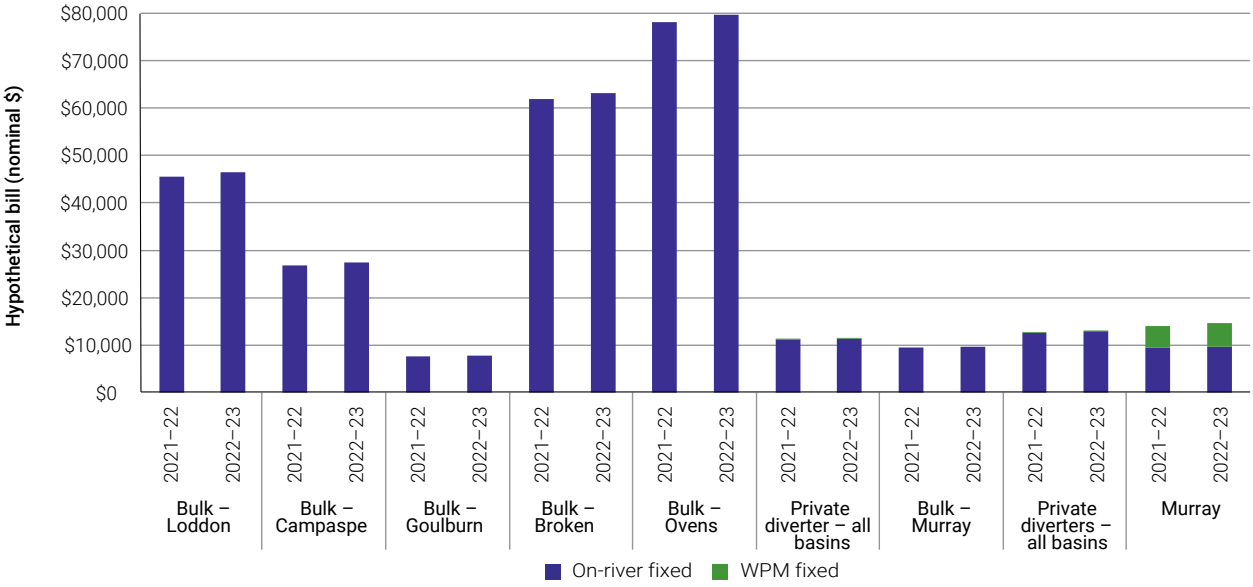
87 $63.18 per ML in the Broken, $7.84 per ML in the Goulburn, $27.39 per ML in the Campaspe, $46.50 per ML in the Loddon, $486.60 per ML in Bullarook, $9.72 per ML in the Murray and $79.69 per ML in the Ovens in 2022–23.

Chart 4.1: Hypothetical on-river infrastructure operator bills (2022–23 $), 1,000ML water access entitlements, 100% delivered, GMW



Source: ACCC from data provided by GMW and LMW.

Chart 4.2: Hypothetical on-river infrastructure operator bills (nominal $), 1,000 ML high reliability bulk entitlements, 100% delivered, GMW and LMW by charge component



Customers with bulk water entitlements in smaller basins (measured by volume of water entitlement on issue) tend to face higher bills. In particular, the 3 Basins with highest hypothetical bills – Bullarook, Broken and Ovens – are the smallest basins. This reflects economies of scale, which provide lower costs per unit as size increases.

GMW and LMW's off-river bills

Like GMW, LMW's off-river charges are constrained by a revenue cap for each year of its regulatory period, set by the ESCV.[88] LMW can propose prices for individual services each year after the first, within pre-defined limits, provided that the total revenue does not exceed the cap. LMW's charges for 2022–23 relate to the last year of LMW's 2018–23 regulatory period.

GMW and LMW off-river bills rose by less than inflation in 2022–23

For gravity-fed areas the off-river component accounts for about 86.7% of the hypothetical bill, with the remaining 13% consisting of on-river charges (12.6%) and water planning and management charges (0.7%). For pressurised areas the off-river component is around 91%.

LMW continued to have the highest off-river hypothetical bill for both pressurised and gravity fed systems in 2022–23, with a per ML charge more than double most other operators in the Basin.

For 2022–23, the ACCC's hypothetical bill analysis is based on the following assumptions:

- For GMW networks, an irrigator holds 250 ML of high reliability water shares and holds a daily water delivery share volume equal to 1/100 of the water share volume or 2.5ML/day.
- A GMW hypothetical bill includes a fixed storage entitlement charge (per ML of high reliability water share), a fixed infrastructure access charge (per ML of daily delivery share), a variable infrastructure use charge (per ML of water used), fixed and variable drainage charges, fixed service point charges (per service point), a fixed customer charge (per customer), and a fixed water register charge.
- For LMW networks, an irrigator holds 250 ML of high reliability water shares and holds an equivalent number of water delivery shares (30) which is 0.12 times the water share of 250 ML.
- A LMW hypothetical bill includes a fixed storage entitlement charge, a fixed delivery share charge, a variable metered water usage fee, a fixed property drainage fee, a fixed service charge and a fixed DELWP water share fee.

Chart 4.3 shows that off-river hypothetical bills for GMW and LMW customers in pressurised networks rose slightly (2% to 4%) in 2022–23.

88 ESCV (2018), Lower Murray Water, final decision, rural services: 2018 Water Price Review, pp. 23 and 27, accessed 23 November 2023.

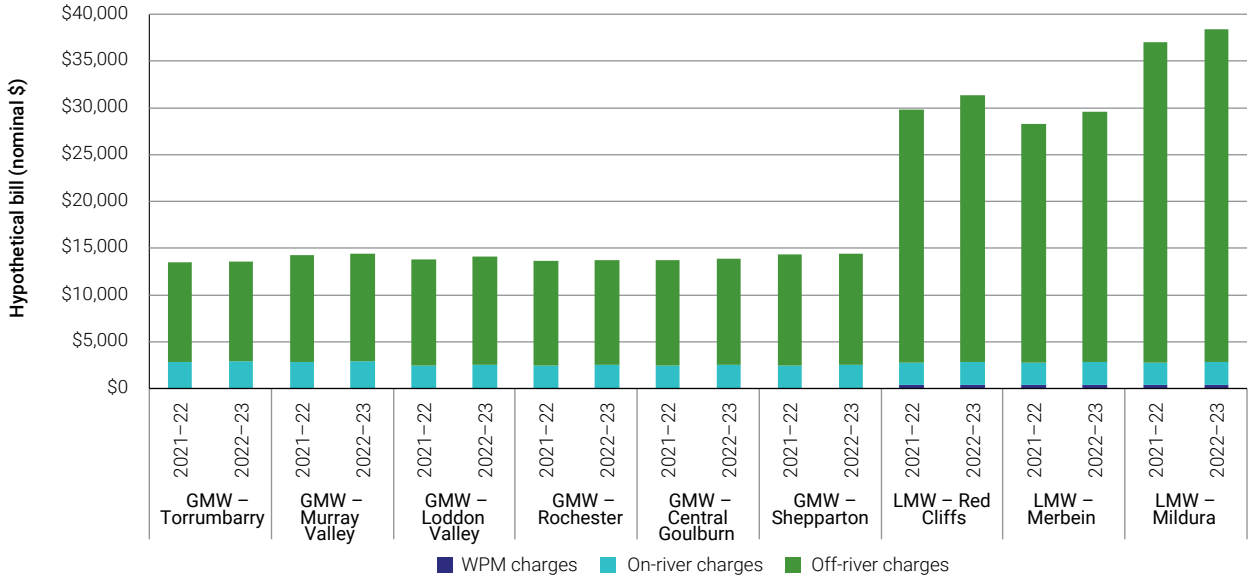
Chart 4.3 Hypothetical off-river infrastructure operator bills (nominal $), 250 ML high reliability water access entitlements, 100% delivered, Victorian pressurised networks, by charge component

Chart 4.4 shows that off-river hypothetical bills for GMW and LMW customers in gravity fed irrigation districts rose between 1% and 5%.

GMW's prices reflect minor changes due to:

- changes in the water register fee, bulk water storage fees and entitlement storage fees
- an adjustment in service point fees.[89]

Chart 4.4: Hypothetical off-river infrastructure operator bills (nominal $), 250 ML high reliability water access entitlements, 100% delivered, Victorian gravity networks, by charge component



89 GMW (2022), Application for Annual Price Review of Fees and Charges 2022/23, accessed 30 November 2023.

Water deliveries, terminations and trade

Water delivered by GMW fell by 14% in 2022–23. Water delivery rights terminated or surrendered were lower than in 2021–22 and GMW was a net exporter of water in 2022–23.

Table 4.1 Water deliveries, terminations and trades, GMW, 2021–22 and 2022–23

	2021–22 (ML)	2022–23 (ML)	Change (%)	Of rights on issue end of 2022–23 (%)
Water delivered to customers (excluding conveyance)	953,922	815,744	-14	
Water delivery rights				
Water delivery rights on issue	4,213,068	4,157,938	-1	
Water delivery rights terminated or surrendered	16,219	10,522	-35	0.25
Allocation trade				
Into	239,265	137,630	-43	
Out of	772,069	577,695	-25	
Within	2,465,169	2,789,973	13	

Water delivered by LMW fell by 20% in 2023. Water delivery rights terminated or surrendered were lower than in 2021–22 and LMW was a net importer of water in 2022–23.

Table 4.2 Water deliveries, terminations and trades, LMW, 2021–22 and 2022–23

	2021–22 (ML)	2022–23 (ML)	Change (%)	Of rights on issue end of 2022–23 (%)
Water delivered to customers (excluding conveyance)	95,882	76,506	-20	
Water delivery rights				
Water delivery rights on issue	184,274	184,208	-0.04	
Water delivery rights terminated or surrendered	371	126	-66	0.1
Water delivery rights traded	88	325	271	0.2
Allocation trade				
Into	353,483	259,386	-27	
Out of	110,986	123,967	12	
Within	73,496	62,136	-15	

Transformations

In 2007 the Victorian Government unbundled water entitlements and nearly all irrigation rights were transformed into tradeable water entitlements. In 2022–23 neither GMW nor LMW processed any transformations.

Water Planning and management revenue and charges in Victoria

Victoria's main source of water planning and management revenue is the Environmental Contribution levy. This is collected from Victorian water supply businesses under the *Water Industry Act 1994* (Vic) and paid into a consolidated fund in accordance with a pre-established schedule of payments, which sets out the amounts payable by each business.[90] It is collected to fund initiatives that seek to promote the sustainable management of water or address adverse water-related environmental impacts.[91] GMW's annual report shows it paid $2,577,000 in environmental contribution levy in both 2021–22 and 2022–23 while LMW's annual report shows it paid $2,251,000 in both 2021–22 and 2022–23.[92]

The Victorian government does not separate water planning management activities that occur within the Basin from activities outside the Basin. Therefore, water planning and management spending figures reported here related to state-wide activities. The Department of Environment, Land, Water and Planning[93] was responsible for the great majority (97%) of Victorian water planning and management costs. The regional operators – GMW, LMW, GWMW and Coliban Water – accounted for the rest.

Victoria's overall cost-recovery on water planning and management charges declined in 2022–23. Costs rose by 12% to $198 million, while revenues declined by 4% to $29 million, covering only 15% of costs. As shown in table 4.2, Victorian infrastructure operators recovered a higher percentage of their water planning and management costs than DELWP, through fees charged to their customers. Only LMW recovers more than 100% of costs.

90 The Water Industry (Environmental Contributions) Act 2004 (Vic) amended the *Water Industry Act 1994* (Vic) to make provision for environmental contributions to be paid by water corporations. It established an obligation for corporations to pay into a consolidated fund annual contribution for the first period, from 1 October 2004 to 30 June 2008 in accordance with the pre-established schedule of payments, which sets out the amounts payable by each Corporation. The contribution period has been extended to 30 June 2024. The new environmental contribution (tranche 5) is $2,251,300 annually which commenced in 1 July 2020 and finishes 30 June 2024.

91 The fifth tranche of the environmental contribution (EC5) began on 1 July 2020, and the Victorian government expected this to raise $693.9 million over 4 years to fund continued delivery of the Government's long term water plan, Water for Victoria. See Department of Environment, Land, Water and Planning (2022), Environmental contributions, accessed 10 April 2024.

92 GMW (2023), Annual Report 2022–23, p 73, accessed 1 December 2023. LMW (2023), Annual Report 2022–23, p 113, accessed 1 December 2023.

93 The Victorian Department of Energy, Environment and Climate Change (DEECA) replaced DELWP on 1 January 2023.

Table 4.2. Water planning and management revenues and costs, Victoria ($million)

	2021–22	2022–23
Revenues		
DELWP	25.06	24.59
GMW	1.77	1.69
GWMW	0.62	0.65
LMW	2.92	2.27
Coliban	0.01	0.01
Total	30.38	29.21
Costs		
DELWP	169.59	190.43
GMW	3.75	4.51
GWMW	0.67	0.70
LMW	1.62	1.88
Coliban	0.03	0.03
Total	175.66	197.55
Cost recovery as %		
DELWP	15%	13%
GMW	47%	37%
GWMW	92%	93%
LMW	181%	121%
Coliban	27%	27%
Vic total	17%	15%

Source: Data provided by the agencies to ACCC.

5

South Australia

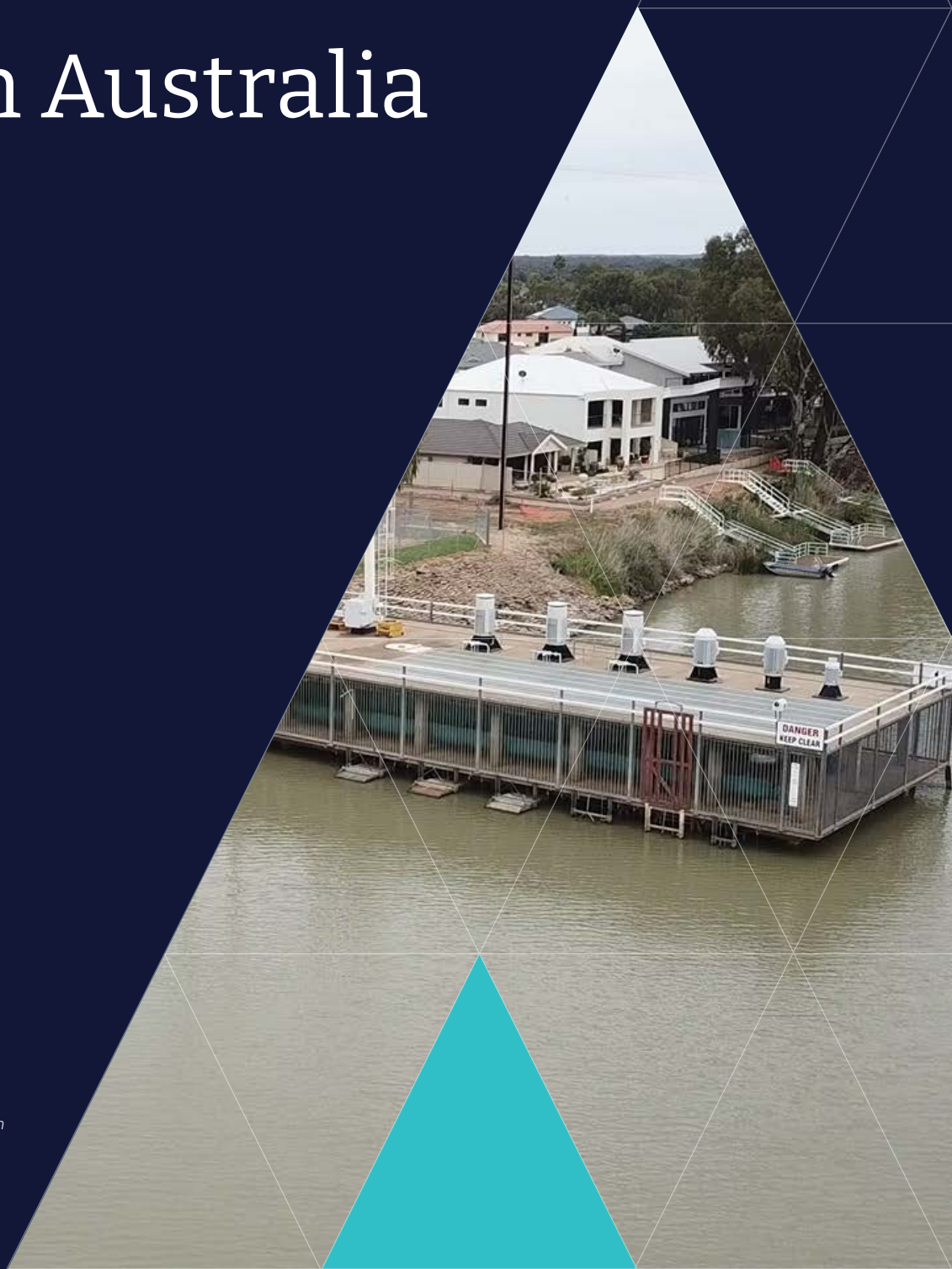


Photo source: Renmark Irrigation Trust

5. South Australia

Hypothetical on-river bills for private diverters in the South Australian Murray fell in real terms in 2022–23 compared to 2021–22. Off-river hypothetical bills for the 2 largest South Australian irrigation infrastructure operators, Central Irrigation Trust (CIT) and Renmark Irrigation Trust (RIT), also fell in real terms in 2022–23 compared to 2021–22. Transformation and termination volumes represented a very low proportion of the water delivery rights and irrigation rights on issue in both RIT and CIT in 2022–23 (2.4% or less).

This chapter covers:

- Hypothetical on-river bills for private diverters in the South Australian Murray, and off-river bills calculated for customers of CIT and RIT.
- Transformation and termination volumes of RIT and CIT.
- Charges levied by SA Water on Barossa Infrastructure Limited (BIL) and other transportation customers in the Barossa, Clare and Eden valleys.
- Water planning and management charges in the South Australian part of the Murray–Darling Basin.

On-river bills for South Australian private diverters fell in real terms

River operations and water storage for South Australia are largely managed upstream, with water sharing arrangements occurring in accordance with the Murray–Darling Basin Agreement (the Agreement). The Murray–Darling Basin Authority (MDBA) is responsible for ensuring that each State (including South Australia) gets the water it is entitled to under the Agreement.[94]

The South Australian Department for Environment and Water (DEW) manages water levels and river flows from the South Australian border using a series of 14 weirs along the River Murray.[95] However, DEW does not levy any charges for the storage or delivery of water. Private diverters on the South Australian River Murray only pay the Natural Resource Management water levy (Division 2),[96] which is a fixed water planning and management charge.

Chart 5.1 shows that the hypothetical on-river bill for private diverters in the South Australian Murray fell in real terms in 2022–23 compared to 2021–22. The only component of this bill is the Natural Resource Management water levy (Division 2). This levy is payable by all water access entitlement holders throughout the South Australian Murray–Darling Basin. It contributes to the implementation of the South Australian Natural Resources Management Strategic Plan. DEW collects the levy, which is then payable to the relevant landscape board to undertake water planning and management activities.[97] This is a fixed levy and there is no variable component.

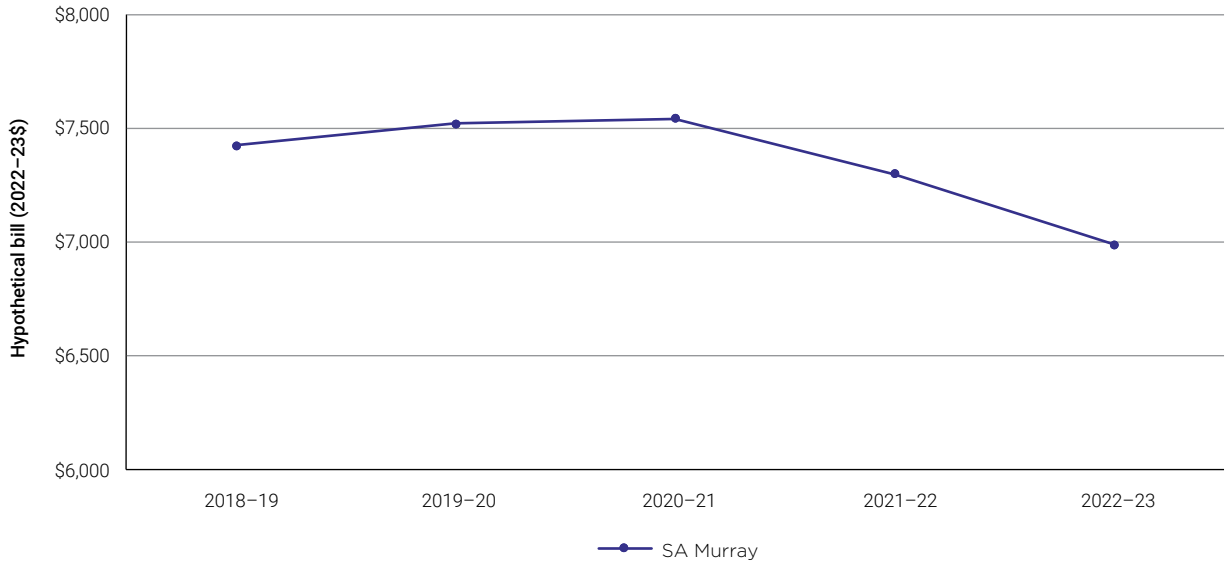
94 Murray–Darling Basin Authority (2023) The Murray–Darling Basin Agreement, accessed 1 February 2024.

95 South Australian Department of Environment and Water (2024) Locks, weirs and storages, accessed 1 February 2024.

96 South Australian Department of Environment and Water (2024) Water charges and how they spent, accessed 1 February 2024.

97 South Australian Department of Environment and Water (2020), Murray–Darling Basin Regulated Water Charges, accessed 1 February 2024. The Board for SA River Murray is the Murraylands and Riverland Landscape Board.

Chart 5.1. Hypothetical on-river infrastructure operator bills (2022–23 $) for private diverters, 1,000 ML water access entitlements, 100% delivered, SA Murray



Off-river bills for RIT and CIT customers fell in real terms in 2022–23

Central Irrigation Trust (CIT) and Renmark Irrigation Trust (RIT) are the 2 largest irrigation infrastructure operators in South Australia and are the only 2 for which the ACCC calculates hypothetical off-river bills.

CIT is headquartered in Barmera and supplies 4,203 customers in 12 irrigation districts in the Riverlands region of South Australia using pressurised systems. In 2022–23, CIT delivered 89,436 ML of water to its customers. This was 88% of the volume of its water access entitlement (101,532 ML).

RIT is headquartered in Renmark and uses over 140km of pressurised pipelines to supply 1,258 customers in the Renmark irrigation district. In 2022–23 RIT delivered 25,566 ML of water or 72% of its water access entitlement volume of 35,701 ML to its customers.

For 2022–23, the ACCC's hypothetical bill analysis for:

- CIT assumes one irrigator located in one of the CIT districts other than Golden Heights or Sunlands with irrigation rights of 250 ML and receiving either a high, medium or low pressure service.[98] It assumes that for each hypothetical bill the irrigator has an irrigation connection on the property and is supplied with irrigation water proportionally at 65% off-peak and 35% peak times.[99] A CIT hypothetical bill includes a fixed irrigation service charge (per ML of water delivery rights held), a fixed landscape water levy (levied per ML of irrigation rights held), a variable peak water consumption charge (per ML of water delivered in peak period) and a variable off-peak water consumption charge (per ML of water delivered in off-peak period).
- RIT assumes one irrigator with irrigation rights of 250ML and has an equivalent farm size of 26.94 hectares. The irrigation rights are converted to farm size because RIT levies its access

98 Golden Heights and Sunlands are high lift high pressure services and the access charges are high for these irrigation districts. Berri, Chaffey (Ral Ral), Cobdogla, Kingston, Lyrup, Moorook, Waikerie are low pressure, Caddell and Mypolonga are medium pressure and Loxton and Chaffey (Cooltong) is high pressure. This information is in CIT's schedule of charges.

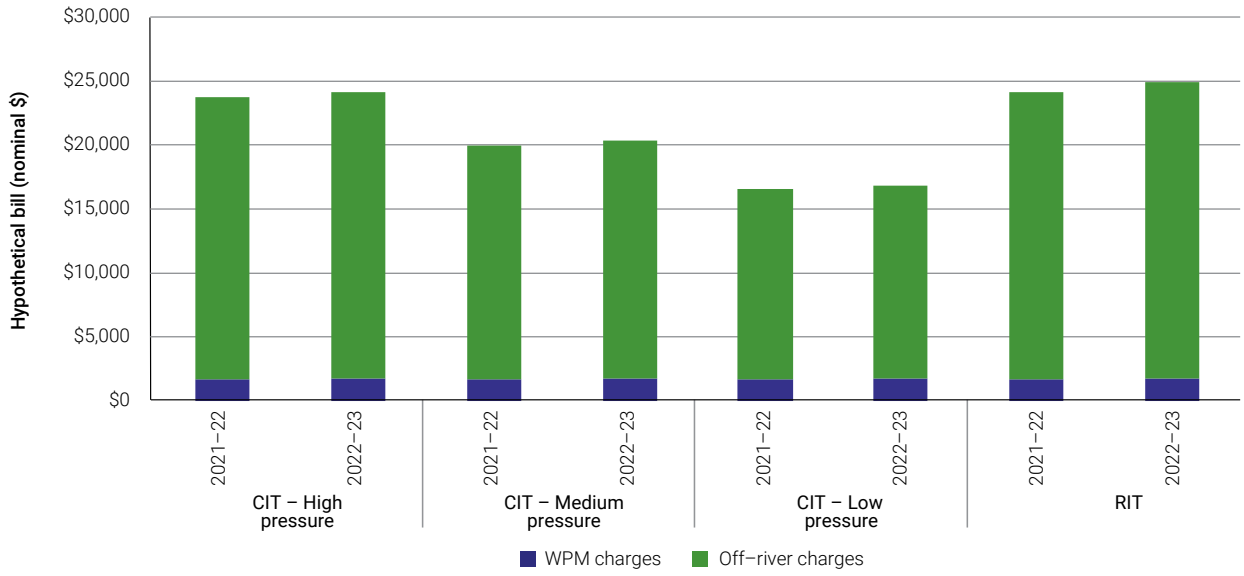
99 CIT's schedule of charges states that customers with an irrigation connection are not liable for any specific drainage charges (all districts except for Sunlands). The ACCC's hypothetical bill assumes the customer has an irrigation connection and is not liable for a drainage charge.

charges based on farm size in hectares. The conversion rule is 9.28 ML per hectare. It assumes that the irrigator receives a low-pressure service and pays a fixed access charge (per rated hectare per annum) – meaning no drainage charges apply. A RIT hypothetical bill also includes, a fixed landscape board levy (per ML of irrigation rights held) and a variable water delivery fee (per ML of water delivered).

Chart 5.2 shows that the hypothetical off-river bills calculated for both CIT and RIT rose marginally in nominal terms in 2022–23. The greatest increase in the 2022–23 hypothetical bill was for RIT which increased by 3%.

It further shows that more than 90% of the hypothetical bills calculated by the ACCC for RIT and CIT relate to charges that are intended to reflect the cost of operating these operators' off-river (pressurised) irrigation networks. The remaining proportion of the hypothetical bills reflects the passing on of the Natural Resource Management water levy (Division 2).

Chart 5.2 Hypothetical off-river infrastructure operator bills (nominal $), 250 ML irrigation rights, 100% delivered, CIT and RIT, by charge component



Water delivered, transformations, terminations and trade in RIT and CIT

Table 5.1 shows that the volume of water delivery rights traded or terminated was a small proportion of the volume of rights on issue (4.8% combined). The volume of irrigation right traded or transformed was also low (around 5.4% combined).

Table 5.1 Water delivered, water allocation and water delivery rights trade, transformation and termination volumes, CIT, 2021–22 and 2022–23

	2021–22 (ML)	2022–23 (ML)	Change (%)	Of rights on issue in 2022–23 (%)
Water delivered (excluding conveyance)	110,690	89,436	-19	-
Water delivery rights				
Water delivery rights on issue	156,580	156,580	0	-
Water delivery rights traded	338	7,126	2,008	4.6
Water delivery rights terminated or surrendered	246	344	40	0.2
Irrigation rights				
Irrigation rights on issue	101,025	98,425	3	-
Irrigation rights traded	1,657	3,559	78	3
Irrigation rights transformed	2,119	2,369	12	2.4
Water allocation trade				
Into	19,310	13,638	-29	-
Out of	10,157	12,129	19	-
Within	31,424	29,848	-5	-

Table 5.2 shows that a very small amount of water delivery rights were traded, terminated or surrendered in 2021–22 or 2022–23, whilst 1.1% of irrigation rights on issue in RIT were transformed in 2022–23.

Table 5.2 Water delivered, water allocation and water delivery right trade, transformation and termination volumes, RIT, 2021–22 and 2022–23

	2021–22 (ML)	2022–23 (ML)	Change (%)	Of rights on issue in 2022–23 (%)
Water delivered (excluding conveyance)	33,172	25,566	-22.9	-
Water delivery rights[100]				
Water delivery rights on issue	45,131	45,077	-0.1	-
Water delivery rights terminated or surrendered	58	55	-5.2	0.1
Irrigation rights				
Irrigation rights on issue	32,836	32,483	-1.1	-
Irrigation rights traded	269	605	124.9	1.9
Irrigation rights transformed	650	347	-46.6	1.1
Water allocation trade				
Into	4,979	4,246	-14.7	-
Out of	6,356	12,746	100.5	-
Within	4,150	7,842	89.0	-

SA Water charges levied on its transportation customers are the most expensive in the Basin

SA Water is a statutory corporation owned by the South Australian government. It supplies water, treats sewage and recycles wastewater in South Australia. Most of SA Water's business relates to urban water supply activities, which the ACCC does not monitor.[101] However, SA Water also delivers water to BIL under an individually negotiated non-standard transportation agreement, and some irrigation customers in the Clare, Eden and Barossa valleys.[102]

The Essential Services Commission of South Australia (ESCOSA) regulates SA Water's revenue and service standards, including imposing a revenue cap. However, the revenue cap only applies to potable water and sewerage services provided by SA Water.[103] Given that regulated assets are used to provide water transportation services, SA Water applies 10% of the income it receives from its water transportation services as revenue that is subject to the revenue cap imposed by ESCOSA.[104]

100 RIT's water delivery rights are in hectares. To convert to ML the hectares are multiplied by 9.28 ML per hectare.

101 See section 91(3) of the Water Act.

102 SA Water (2023), Third party access to infrastructure, accessed 15 January 2024.

103 ESCOSA's price determinations set 4-year revenue caps for drinking water retail services and sewerage retail services and specifies pricing principles for excluded retail services. SA Water and the South Australian Government are responsible for setting specific prices (such as supply and usage charges for residential and non-residential customers) however, those prices must comply with the Commission's allowed revenues. Accessed 15 January 2024.

104 See: ESCOSA's 2020 regulatory determination: Reasons for decision, section 4.1.2.3 explains that a 'mechanism allows SA Water's drinking water and sewerage customers to share the benefits of those commercial opportunities with SA Water. It deducts 10 percent of any such forecast non-regulated revenues from the relevant drinking water or sewerage revenue caps. Ten percent of revenue was determined as a reasonable estimate of the profit earned by SA Water from those services. SA Water has forecast non-regulated revenue under this adjustment mechanism of approximately $10 million per year in the [SA Water Regulatory Determination 2020] period, which results in a forecast deduction of approximately $1 million per year. The adjustment impacts drinking water revenues only, as the relevant assets are for drinking water services, accessed 15 January 2024.

ESCOSA also oversees a conciliation and arbitration regime for the resolution of any disputes in relation to access to SA Water's water delivery infrastructure.[105]

In 2020–21, SA Water published the charges it levies on BIL and its transportation customers in the Barossa, Clare and Eden valleys for the first time.[106] SA Water has published a new schedule of charges each year since 2020–21. SA Water offers a peak transportation service (between 1 November and 31 March) to the Clare valley only, off and peak transportation services (between 1 April and 31 October) to the Barossa, Clare and Eden valleys.

The transportation charges levied by SA Water are substantially higher than any other regulated water charges monitored by the ACCC. This reflects the cost of transporting water significant distances from the River Murray to these customers. These customers also receive potable water (though the water is used for irrigation, usually viticulture).

SA Water's charges depend on both the annual volume of water that the customer agrees to take and the actual volume delivered.

Clare valley peak transportation service

The Clare valley water supply scheme brings filtered water from the River Murray for the purposes of municipal water supply and irrigation (predominantly for wine grapes).

Between 1 November 2022 and 31 March 2023, SA Water levied a 'transportation charge' of $1,850 per ML (subject to 60% minimum transportation charge), and a quarterly supply charge of $70.80 ($283.20 per year) for its Clare valley peak transportation service.

SA Water's 2022–23 schedule of charges for its peak water transportation service provides 2 examples of how its peak transportation charges were applied.

1. An end user agrees to an 'agreed volume' of 1 ML of water but only uses 0.5 ML during the year: The minimum transportation charge was 60% of $1,850 = $1,110 to have this 0.5 ML delivered (equating to $2,220 per ML), plus GST.[107]
2. An end user agrees to an 'agreed volume' of 2 ML of water but only has 1.5 ML delivered. The minimum transportation charge is 60% of $3,700 ($1,850 multiplied by 2) = $2,220. The transportation charge for the water delivered is 1.5 multiplied by $1,850 = $2,775. As the transportation charge for the water volume of water delivered was higher than the minimum transportation charge, this ($2,775) is the amount that would have been payable by the customer ($1,850 per ML, plus GST).

Off-peak transportation service for the Barossa, Clare and Eden valleys

Between 1 April 2022 and 31 March 2023, SA Water's off-peak charges for its water transportation service to the Barossa, Clare and Eden valleys was a 'reservation fee' of $100 per ML of agreed volume, plus a 'consumption fee' of $1,221 per ML of water delivered to the customer. The consumption fee is subject to a minimum transportation fee, which is the agreed volume divided by 3 and multiplied by the consumption fee.

105 Part 9A of the *Water Industry Act 2012* (SA), which commenced on 1 July 2016 provides a negotiate/arbitrate framework for third party access to water infrastructure or sewerage infrastructure and infrastructure services. See ESCOSA, Third party access, accessed 15 January 2024

106 SA Water (2023), Third party access to infrastructure, accessed 15 January 2024.

107 None of the hypothetical bills calculated by the ACCC include GST. However, the charges listed on SA Water's schedule of charges include GST.

SA Water's off-peak charges for its water transportation service to the Barossa, Clare and Eden valleys have decreased from 2021-22. The 'reservation fee' fell by 9% and the 'consumption fee' fell by 7%.

Appendix A to SA Water's schedules of charges for its 2022–23 off-peak transportation service provides 2 examples of how off-peak transportation charges are applied. These examples are below:

1. The customer has an agreed volume of 20 ML but has only 2 ML of water delivered. The agreed volume is divided by 3 to calculate the minimum transportation volume (6.67 ML). This is then multiplied by the consumption fee ($1,221) to calculate the minimum transportation fee ($8,144.07). This is then added to the reservation fee ($100 per ML of agreed volume (20 ML) = $2,000). Therefore, the customer pays $10,144.07 ($8,144.07 + $2,000) to have 2 ML of water transported in the off-peak season. This equates to $5,072.04 per ML of water the customer had delivered.
2. The customer has an agreed volume of 20 ML and had 15 ML delivered. As above, the minimum transportation volume is 6.67 ML and the minimum transportation fee is $8,144.07. As the customer had 8.3 ML delivered above the minimum transportation volume (6.67 + 8.33 = 15), the customer's additional consumption fee is $10,170.93 (8.33 multiplied by $1,221). As above, the reservation fee is $2,000. The customer therefore pays $20,315 to have 15 ML of water delivered (1,354 per ML).

If the customer had all of their agreed volume (20 ML) delivered, this would be multiplied by the consumption fee (20 x $1,221 = $24,420), plus the reservation fee of $2,000 ($28,358 to have 20 ML of water delivered), equating to $1,321 per ML (excluding GST).

SA Water charges levied on BIL reflect BIL's capital contribution towards upgrading SA Water's infrastructure

The charges levied by SA Water on BIL are cheaper than the charges levied on its other transportation customers. BIL made a capital contribution of more than $13 million to SA Water's infrastructure and this allowed SA Water to upgrade its infrastructure to transport BIL's required volume and maintain its services to other customers.[108] The ACCC notes SA Water transports a large volume of water to BIL (11 GL annually).[109]

The schedule of charges for 2022–23 shows that SA Water levies an annual fixed charge of $2,934,022.50 per 11 GL, which equates to $266.73 per ML if 11 GL is delivered. This is in addition to a variable charge of $308.90 per ML of water delivered. To have 11 GL of water delivered BIL would pay $6,331,922.50 or $575.63 per ML.

BIL's charges are intended to reflect the charges levied on it by SA Water, its own operating costs and the cost of the water

The charges that BIL (an irrigation infrastructure operator) levies on its customers are intended to reflect the charges levied on it by SA Water, its own operating costs, as well as cost of the water itself.[110] The ACCC considers that as BIL uses SA Water's infrastructure to extract water from the River Murray to the connection point between SA Water and BIL's infrastructure, the SA Water

108 SA Water (2022), SA Water's 2022–23 schedule of charges for BIL states: "BIL has made capital contributions to SA Water in excess of $13 million to enable water transportation." Accessed 15 January 2024.

109 Barossa Infrastructure Limited (2023), About BIL, accessed 15 January 2024.

110 BIL's 2023 Annual Report state that: BIL 'holds a mix of [water access] entitlements that are owned, on long term leases and forwards, with temporary allocations purchased as needed to meet varying customer demands. The mix of entitlements is also spread over several trading zones on the River Murray, with the majority from South Australia', accessed 15 January 2024.

charges levied on BIL are network operations charges under rule 9A of the Water Charge Rules and can therefore be included in BIL's general fees.[111]

BIL levied an 'off peak water use charge' of $1,020 per ML on its customers in 2022-23. A component of this is attributable to a pass through of SA Water's infrastructure charges. Other charges, including an infrastructure charge, are also payable by BIL customers depending on the specifics of their agreement with BIL.[112]

Water Planning and Management revenue and charges in South Australia

In 2022-23, South Australia's total water planning and management (WPM) revenue was $10.6 million. The majority of this ($9.2 million) comes from the Division 2 Natural Resources Management Levies. The rest is from various transaction charges such as water licence fees and application and permit fees.

In 2022–23, South Australia's total water planning and management costs decreased in nominal terms by 0.7% to $44.1 million. South Australia's overall water planning and management cost recovery has remained steady at 24% in 2022–23 since peaking at 28% in 2019–20.

Table 5.5. Water planning and management revenues and costs in real terms– SA Department for Environment and Water ($ million)

	2021–22	2022–23
WPM revenues	10.5	10.6
WPM costs	44.4	44.1
Cost recovery	24%	24%

111 Under rule 9A of the Water Charge Rules, pass through charges can be combined into the operator's general charges if the charge fits within the definition of 'network operations charges'. Network operations charges are infrastructure charges or planning and management charges levied on an infrastructure operator (taking account of any discounts) on the basis of: (a) water access rights held or used by the operator specifically for the purpose of meeting distribution losses; or (b) infrastructure used by the operator to extract water from a watercourse or discharge water to a watercourse in the course of providing a service to the operator's customers. All other infrastructure and planning management charges are 'ancillary charges' and the operator must recover ancillary charges from its customers by means of one or more separate charges in accordance with rule 9A. The ACCC has released guidance about how to comply with 9A of the Water Charge Rules.

112 BIL shareholders have funded BIL's infrastructure. The original scheme in 2000 cost approximately $30 million, funded 1/3 by share purchase and 2/3 by a long-term bank loan. This was paid off in 2016. Subsequent expansions have followed this same arrangement. Customers pay an annual infrastructure levy to assist in paying off any loans and to provide funds for the purchase of River Murray water entitlements. The infrastructure levy applies to new customer water contracts on a volume basis and varies based on the cost of each expansion. The infrastructure levy is typically paid off over an 8 to 15-year period and once paid off no further infrastructure levies are payable on that water. See BIL (2023) About BIL, accessed 15 January 2024.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