ACT Government
Environment, Planning and Sustainable Development

FOR OFFICIAL USE ONLY

BRIEF

To:	DDG; Director-General
	Tracking No.: 22/25704
From:	Executive Group Manager, Environment, Heritage and Water
Date	17 March 2022
Subject:	Response to the Australian Competition and Consumer Commission's request on revenue and costs associated with the ACT's Water Abstraction Charge.
Critical Date:	22 March 2022
Critical Reason:	The ACT response was due on 15 December 2021. The ACCC advised that the provision of the ACT's report by 22 March 2022 will allow for the ACCC publication in December 2022.

Purpose

Provide a response to the Australian Competition and Consumer Commission's (ACCC) water abstraction charge (WAC) request.

Recommendations

That you:

1. **Note** the information on ACT WAC to be provided to the ACCC at Attachment A; and

Noted / Please Discuss

2. **Sign** the letter at Attachment B and certification page at Attachment C.

Signed / Not Signed / Please Discuss

Geoffrey Rutledge ..... 24 / 03 / 2022

DDG Feedback

Once submitted, and accepted by the ACCC; and prior to any reports being made public.

Please turn this brief into an information brief for the Water Minister with a copy to the Treasurer

Also include a paragraph or two in this week's Ministers Weekly brief informing him that the submission has occurred and the key headline figures

Background

1. The ACCC annually requests water monitoring information from Murray-Darling Basin governments on the revenue raised from water fees and charges, and expenditure on water management activities. These requests for information are authorized under the *Water Act 2007* (Cwlth).

2. The purpose of the ACCC monitoring is to provide public transparency on regulated water charges, trends in termination and transformation of water access rights, water trade, and compliance with Water Charge and Water Market rules in the Murray-Darling Basin.

3. The ACT is subject to section 91 of the *Water Act 2007* (Cwlth) with regard to regulated water charge rules. These rules relate to water fees and charges applied under the ACT *Water Resource (Fees) Determination 2021*; this includes the WAC[1].

4. A formal request for water monitoring information was made by the ACCC in late 2021 to the Environment, Planning and Sustainable Development Directorate (EPSDD), to respond on behalf of the ACT Government.

5. The information requested by the ACCC covers the fees and charges for the 2020-21 financial year. The report provides a reconciliation of the revenue raised from fees and charges with the expenditure undertaken. The report also includes analysis on whether expenditure is consistent with the intended purpose of the charge, as per the water pricing principles under the National Water Initiative (NWI).

6. An Information Brief on the WAC and issues associated with its reported expenditure was noted by Minister Rattenbury on 14 December 2021 (21/65548). The brief proposed criteria to guide future reporting of revenue against the WAC consistent with the original intent of the charge (criteria are provided at Attachment D).

7. The WAC is collected on volume of water abstracted and is increased annually as per other fees and charges under the *Water Resources Act 2007* (ACT). Funds are not hypothecated or allocated to specific water management activities or to Directorates.

8. The coordinated response is provided at Attachment A for your agreement and to transmit to the ACCC. This report consists of: Table 1 - *Regulated Water Planning and Management Charges*; and Table 2 - *Water Expenditure Related to Planning and Management Activities*.

9. The 2019-20 ACCC Water Monitoring Report is provided at Attachment E.

Issues

10. The amount of revenue collected from water charges in 2020-21 was $31.19 million. The expenditure for water management activities is reported as $12.32 million. This provides a difference of $18.87 million between revenue collected for water management activities and expenditure.

11. Applying the criteria for determining eligible water management activities has reduced the reported expenditure in 2020-21 by $33.6 million compared with the ACT's 2019-20 reported expenditure.

[1] The WAC is referred to as the *Licence to take water - abstraction fee* in the determination.

a) The reported expenditure in 2020-21 reflects the water planning and management activities consistent with the purpose of the water charges (see Attachment D criteria).

b) Reported expenditure in 2019-20 included large capital works to provide water supply infrastructure and drainage in new sub-divisions such as Whitlam and Taylor. These expenses are not consistent with the NWI and Water Charge Rules and are an anomaly in comparison with previous years (refer to table below).

12. The annual ACCC Water Monitoring Report publishes its analysis of water management activity expenditure and revenue of the Basin governments. While the ACCC provides commentary on the matter it does not have any powers to take action.

13. In 2003, the Independent Competition and Regulatory Commission (ICRC) undertook a review of the appropriateness of the WAC and the methodology for determining the charge within the ACT. The report recommended the following principles to maintain the constitutionality of the charge:

    a) that the quantum of the charge should reflect discernible and measurable costs to government (and therefore the community);

    b) discernible and measurable costs can include social and environmental as well as economic costs; and

    c) the charge should not be levied for revenue raising purposes.

14. The consistent reporting of significant year-to-year variances between the revenue raised from water charges and expenditure against water management activities brings to question the legitimacy of the charge. The reported revenue and expenditure since 2015 are summarised in the table below.

	2015-16	**2016-17**	**2017-18**	**2018-19**	**2019-20**	**2020-21**
Revenue	$30.6m	$28.4m	$31.3m	$31.45m	$34.06m	$31.19m
Expenditure	$25.3m	$21.5m	$16.4m	$23.8m	$48.80m	$12.32m
Difference	$5.3m	$6.9m	$14.9m	$7.65m	-$14.74m	$18.87m

15. The proposed Office of Water and associated water reform activities aims to improve water planning and management outcomes intended by the application of the WAC. This proposal is included in the 2022-23 Budget process and is scheduled to be presented to Cabinet on 13 July 2022.

16. The ACT response to the ACCC is overdue. The ACCC has been provided an extension to 22 March 2022. Receipt of the ACT's response by this date will allow for its inclusion in the ACCC consolidated report to be published in December 2022.

17. The delay in reporting was due to a lack of clarity on responsibility of the report between Directorates. Responsibility for reporting on the WAC remains a point of contention between Environment, Planning and Sustainable Development Directorate (EPSDD) and Treasury.

18. Your signature is required on the letter to the ACCC at Attachment B and the certification at Attachment C, to be provided to the ACCC with the information at Attachment A.

Financial Implications

19. The 2020-21 report shows a significant reduction in expenditure for water planning and management activities compared to previous years and in contrast to the revenue raised for this purpose. The proposed Office of Water could provide an appropriate mechanism for scrutiny of charges against the WAC.

Consultation

Internal

20. EPSDD Strategic Finance has reviewed and endorsed the financial report.

Cross Directorate

21. Expenditure information was received from ten ACT Government Directorates. The Environment Protection Authority provided information on the fees and charges. Transport Canberra and City Services (TCCS) and the Suburban Land Agency accounted for the majority of the expenditure.

22. Chief Financial Officers from Treasury, TCCS and the EPSDD provided input to the report and have been provided with the proposed response.

Benefits/Sensitivities

23. The ACCC has previously, and is likely to again, highlighted publicly the significant ongoing variance between revenue collected and expenditure on water management activities.

24. EPSDD is leading the Government's response to the Non-potable Water Pricing Review. High intensity water users (sporting clubs) are lobbying for ongoing concessions to reduce water charges. The variance being reported to the ACCC does not support a justification for applying the WAC in full.

25. The Office for the Commissioner of Sustainability and Environment is due to report in May 2022 on its inquiry into the state of lakes and waterways in the ACT. This report is expected to raise criticism on the effectiveness of water planning and policy implementation, and adequacy of resourcing.

Media Implications

26. There may be potentially some interest from the media as the ACCC publishes their consolidated report on the ACCC website.

Signatory Name:	Ian Walker	Phone: 6205 9027
Action Officer:	Nigel Dears	Phone: 6205 8535

Attachments

Attachment	Title
Attachment A	ACT Government Response - spreadsheet
Attachment B	DG Response to ACCC WAC Request
Attachment C	Certification page for your signature
Attachment D	Criteria for expenditure of Water Abstraction Charge Revenue
Attachment E	2019-20 ACCC Water Monitoring Report (82 pages)

2020-21 ACCC WPM Information Request

ACT Environment, Planning and Sustainable Development Directorate

Table 1 - Regulated water planning and management charges

Please note all cells shaded green have been pre-populated by the ACCC with reference to your schedule of charges.
Please confirm the information in ALL green cells. Please provide answers in all cells shaded purple.
If you need to amend / correct any information in the green cells, please add a comment explaining the change made.
For all WPM charges not already listed, please provide details in the empty purple cells in the bottom part of the list below.

1.1	1.1 a. **Charge title**	2019-20	2020-21	1.1 d. **Unit** of charge	Percentage increase from 2019-20 to 2020-21	1.1 e. Please provide information to explain any changes in the amount or application of existing WPM charges between 2019-20 to 2020-21	1.1 f. **Number of units charged**	1.1. g. Revenue from charge ($)	Please provide explanation if the total revenue from charge does not match the charge amount * units charged.	1.1 h. When and where was information regarding your regulated WPM charges for 2020-21 published?	
										Gazette or website	Notices published in newspapers. *including the name of each newspaper*
		$	$					$			
	WAE fees (per ML)										
	s.20 WAE where use is not restricted to a particular location, in all cases except those specifically identified - per megalitre	$809.00	$826.00	per megalitre	2.1%	The increase, as explained in the Water Resources (Fees) Determination 2020 Explanatory Statement, is to reflect indexation of the fee by the change in the Wage Price Index (equal to 2 per cent for 2020-21, subject to rounding), in line with the standard approach adopted by the ACT Government for all legislated fees and charges.	4.5	$ 3,717.00		Website	Not published in newspapers
	s.25 Change of condition of a WAE from one that is restricted in location to one that is not restricted for use at a particular location	$809.00	$826.00	per megalitre	2.1%	The increase, as explained in the Water Resources (Fees) Determination 2020 Explanatory Statement, is to reflect indexation of the fee by the change in the Wage Price Index (equal to 2 per cent for 2020-21, subject to rounding), in line with the standard approach adopted by the ACT Government for all legislated fees and charges.	0			Website	Not published in newspapers
	Application fees										
	s.29 Application fee for a licence to take water	$179.00	$183.00	per application	2.2%	The increase, as explained in the Water Resources (Fees) Determination 2020 Explanatory Statement, is to reflect indexation of the fee by the change in the Wage Price Index (equal to 2 per cent for 2020-21, subject to rounding), in line with the standard approach adopted by the ACT Government for all legislated fees and charges.	3	$ 549.00		Website	Not published in newspapers
	s.43 Application fee for a waterway work licence	$179.00	$183.00	per application	2.2%	The increase, as explained in the Water Resources (Fees) Determination 2020 Explanatory Statement, is to reflect indexation of the fee by the change in the Wage Price Index (equal to 2 per cent for 2020-21, subject to rounding), in line with the standard approach adopted by the ACT Government for all legislated fees and charges.	0			Website	Not published in newspapers
	s.38 Application fee for a bore work licence	$179.00	$183.00	per application	2.2%	The increase, as explained in the Water Resources (Fees) Determination 2020 Explanatory Statement, is to reflect indexation of the fee by the change in the Wage Price Index (equal to 2 per cent for 2020-21, subject to rounding), in line with the standard approach adopted by the ACT Government for all legislated fees and charges.	4	$ 716.00		Website	Not published in newspapers
	s.34 Three year driller licence application fee where the applicant does hold an equivalent licence in a state in Australia	$179.00	$183.00	per application	2.2%	The increase, as explained in the Water Resources (Fees) Determination 2020 Explanatory Statement, is to reflect indexation of the fee by the change in the Wage Price Index (equal to 2 per cent for 2020-21, subject to rounding), in line with the standard approach adopted by the ACT	8	$ 1,464.00		Website	Not published in newspapers
	s.26 Application fee for the transfer of a water access entitlement either permanently or for a period of time	$179.00	$183.00	per application	2.2%	The increase, as explained in the Water Resources (Fees) Determination 2020 Explanatory Statement, is to reflect indexation of the fee by the change in the Wage Price Index (equal to 2 per cent for 2020-21, subject to rounding), in line with the standard approach adopted by the ACT Government for all legislated fees and charges.	1	$ 183.00		Website	Not published in newspapers
	Annual administration fees										
	s.30 Licence to take water administration fee for each licence year relating to a licenced volume of up to 1000 ML per year, except where a licensee has entered into a data collection and sharing agreement with the EPA	$463.00	$473.00	per year	2.2%	The increase, as explained in the Water Resources (Fees) Determination 2020 Explanatory Statement, is to reflect indexation of the fee by the change in the Wage Price Index (equal to 2 per cent for 2020-21, subject to rounding), in line with the standard approach adopted by the ACT Government for all legislated fees and charges.	181	$ 85,613.00		Website	Not published in newspapers
	s.30 Licence to take water administration fee for each licence relating to a licensed volume of more than 1000ML per year	$8,995.00	$9,175.00	per year	2.0%	The increase, as explained in the Water Resources (Fees) Determination 2020 Explanatory Statement, is to reflect indexation of the fee by the change in the Wage Price Index (equal to 2 per cent for 2020-21, subject to rounding), in line with the standard approach adopted by the ACT Government for all legislated fees and charges.	1	$ 9,175.00		Website	Not published in newspapers
	s.50 Recharge licence yearly administration fee	$463.00	$473.00	per year	2.2%	The increase, as explained in the Water Resources (Fees) Determination 2020 Explanatory Statement, is to reflect indexation of the fee by the change in the Wage Price Index (equal to 2 per cent for 2020-21, subject to rounding), in line with the standard approach adopted by the ACT Government for all legislated fees and charges.	1	$ 473.00		Website	Not published in newspapers
	Water Abstraction fees										
	s.30 Licence to take water abstraction fee for water taken for the purposes of urban water supply and calculated on the basis of the water abstracted – per kilolitre.	$0.613	$0.631	per kilolitre	2.9%	Treasury advise they are still referencing the increase that reflects a decision made by the ACT Government, as part of the 2016-17 Budget Review process, to index the Water Abstraction Charge by 3 per cent per annum from 1 July 2017 (see page 44) https://apps.treasury.act.gov.au/__data/assets/pdf_file/0009/1031688/2016-17-Budget-Review .pdf).	48,281,300	$ 30,465,500.30		Website	Not published in newspapers
	Licence to take water – abstraction fee for all water from surface water or groundwater except for that supplied through a water supply network – per kilolitre.					Treasury advise they are still referencing the increase that reflects a decision made by the ACT Government, as part of the 2016-17 Budget Review process, to index the Water Abstraction Charge by 3 per cent per annum from 1 July 2017 (see page 44) https://apps.treasury.act.gov.au/__data/assets/pdf_file/0009/1031688/2016-17-Budget-Review .pdf).	1,962,459	$ 598,550.00		Website	Not published in newspapers
		$0.296	$0.305	per kilolitre	3.0%	Determined by EPSDD in conjunction with Treasury	77,028	$ 23,493.07	$0.32 undercharge due to quarterly billing rounding and system rounding. Backcharge recovered in 2020-21 for water usage under calculated for previous period (2019-20). Backcharge using 2019-20 WAC rate.Not included in figures provided.	https://www.legislation.act.gov.au/di/2020-200/	The charges are oncosting WAC to INRN network end users. Included in Non Potable MoU with end users: "Water Abstraction Charge is per applicable fee determination"
	New regulated WPM charges for 2020-21										
							Total Revenue	$ 31,183,433.07			

1.2	Were any existing WPM regulated charges repealed in 2020-21? If yes, please state which charges were repealed and when	

Operator notes to the ACCC:
Please indicate which question(s) the comment(s) relate to.

We have identified ACT's 2020-21 schedule of WPM charges at the link below
https://www.legislation.act.gov.au/di/2020-200/
Please advise if this schedule of charges is not the most accurate or relevant.

2020-21 ACCC WPM Information Request

ACT Environment, Planning and Sustainable Development Directorate

Table 2 - Water planning and management activities and expenditures

The ACCC has identified WPM activities carried out by your agency in 2020-21 and where possible has pre-filled the following table.
For existing or new WPM activities, please confirm the activity title and the NWI defined category in the green cells. Please enter the 2020-21 cost for each WPM activity under question 2.1 c.
For any new WPM activities not already listed, please provide details in the empty purple cells in the bottom part of the list below
Please provide a breakdown of total capital, operating and corporate costs either:
- by activity under question 2.1 d; OR
- for ALL activities under question 2.2.

2.1	2.1 a. Please list the **WPM Activities** carried out by your agency in 2020-21.	2.1 b. Please select the NWI defined category that this activity primarily relates to	2.1 c. Activity cost		2.1 d. **Breakdown between capital, operating and corporate costs**. *Please answer this question (for individual items), or question 2.2 (totals).*
			2019-20	2020-21	
			$'000	$'000	
	Woden Valley Stormwater Retardation Basins (Design)	Water management	$ -	$ -	
	Water Policy	Water reform strategy and policy	$ 1,765.0	$ 1,475.4	Operating
	Inner North Stormwater Reticulation System	Water management	$ 701.1	$ 70.2	Operating
	Stormwater Maintenance	Water management	$ 9,571.1	$ 6,645.0	Operating
	Stormwater Improvement Program	Water management	$ 1,911.3	$ -	Capital
	Improvement of Pollution Control Measures at Gross Pollutant Traps	Water monitoring & evaluation	$ -	$ -	
	Waterwatch	Water monitoring & evaluation	$ 490.0	$ 82.3	Operating
	Healthy Waterways Project - Isabella Pond rejunervation project	Water management	$ 405.6	$ -	
	Monitoring of water usage throughout the ACT education directorate	Water monitoring & evaluation	$ 94.1	$ 28.1	Operating
	Whitlam water and storm water infrastructure design	Water planning	$ 20,672.0	$ -	
	Taylor water infrastructure	Water management	$ 8,851.0	$ -	
	North Wright water infrastructure	Water management	$ -	$ -	
	North Coombs water infrastructure	Water management	$ -	$ -	
	Gungahlin Town Centre water infrastructure	Water management	$ -	$ -	
	Molonglo 3 Infrastructure - Deep Creek Pond (concept design)	Water management	$ 45.0	$ 1,077.3	Capital
	ACT Healthy Waterways Asset Maintenance (TCCS Assets Only)	Water management	$ 1,131.1	$ 2,940.1	Operating
	Improving stormwater networks - Fyshwick South	Water management	$ 2,682.2	$ -	Capital
	Improving stormwater networks - Page and Weetangera	Water management	$ 109.9	$ -	Capital
	Improving stormwater networks - Waramanga FSP	Water management	$ 76.0	$ -	Capital
	Improving water management infrastructure - Mawson	Water management	$ 191.9	$ -	Capital
	Upgrade Stormwater Infrastructure on Flemington Rd	Water management	$ 366.3	$ -	Capital
	Lake Tuggeranong Water Quality Improvement Stage 2	Water management	$ 405.6	$ -	Capital
	Molonglo 2 Water Qual Cntrl Ponds, Sewer & Cyclepath (Design)	Water management	$ 29.9	$ -	Capital
	Molonglo Valley - Watermain frm Weetangera Reservoir	Water management	$ 585.0	$ -	Capital
	Kingston Foreshore	Water management	$ 102.0	$ -	Capital
	New WPM Activities for 2020-21				
		Total Cost of WPM Activities above	**$ 48,799.4**	**$ 12,318.4**	
2.2	If you have not answered question 2.1 d, please indicate what proportion (either as a percentage or a dollar amount) of WPM activity costs were:	Capital Costs	$ 35,047.0	$ 1,077.3	
		Operating Costs	$ 13,752.4	$ 11,241.1	
		Corporate Costs			
		Total of Cap/Op/Corp categories	**$ 48,799.4**	**$ 12,318.4**	
		Difference between cost totals:	**$ -**	**$ -**	
		Check on cost totals: If there is a discrepancy in cell above between sum of costs of WPM activities and sum of capital, operating and corporate components, please check calculations or explain.			

Operator notes to the ACCC:
Please indicate which question(s) the comment(s) relate to.

Options for 2.1b
Water reform strategy and policy
Water planning
Water management
Water monitoring & evaluation
Information management & reporting
Water administration & regulation
Water industry regulation

2020-21 ACCC WPM Information Request

ACT Environment, Planning and Sustainable Development Directorate

Table 3 - Statement of executive responsibility

Please provide a signed copy to the ACCC (an electronic version is adequate)

I, Geoffrey Rutledge, am an authorised agent in my capacity as Deputy Director-General, Environment, Water and Emissions Reduction of the Environment, Planning & Sustainabile Development Directorate, having the appropriate authority to verify and supply information to the Australian Competition and Consumer Commission in meeting the Australian Competition and Consumer Commission's functions under the *Water Act 2007*.

In my opinion, the information provided to the Australian Competition and Consumer Commission presents an accurate and fair representation of the ACT Government's activities and compliance information concerning the period 1 July 2020 to 30 June 2021.

_____

Signature

_____

Date

ACT Government
Environment, Planning and Sustainable Development

22/25704

personal Information
Assistant Director, Water Section, Infrastructure Regulation Division
Australian Competition & Consumer Commission
water@accc.gov.au

ACCC Water Abstraction Charge Information Request 2020-21

Thank you for your email of 12 November 2021 requesting the provision of information for the preparation of the ACCC Water Abstraction Charge Report 2020-21.

Please find attached the ACT's information for revenue and costs associated with the ACT's Water Abstraction Charge during 2020-21 as per the spreadsheet provided by your office. As you will note, the ACT's permitted expenditure for 2020-21 has reduced considerably as compared to previous years to better reflect specific costs that benefits the environment, over costs related to urban capital construction costs.

I am advised that there has been officer to officer level discussion between the Environment, Planning and Sustainable Development Directorate (EPSDD) and the ACCC, where it was agreed that the provision of the ACT's report by 22 March 2022 will allow for its inclusion in the ACCC consolidated report. I apologise for the delay in providing the required information.

If you require any further information on this matter, please contact Nigel Dears on (02) 6205 8535 or Ian Walker on (02) 6205 9027.

Your sincerely

Geoffrey Rutledge
Deputy Director-General, Environment, Water and Emissions Reduction

17 March 2022

2020-21 ACCC WPM Information Request
ACT Environment, Planning and Sustainable Development Directorate

Table 3 - Statement of executive responsibility

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In my opinion, the information provided to the Australian Competition and Consumer Commission presents an accurate and fair representation of the ACT Government's activities and compliance information concerning the period 1 July 2020 to 30 June 2021.

Signature

22 March 2022.

Date

Criteria for expenditure of Water Abstraction Charge Revenue

Criteria that may be used to support the expenditure of WAC revenue, aligned with its objectives and NWI Pricing Principles:

a. *Water planning and management activities* are based on a defined and consistent set of activities relating to:
    i. Water resource and environmental management planning
    ii. Water management, e.g. water use efficiency, capital works, environmental works, operations and maintenance
    iii. Water monitoring, evaluation and resource assessment
    iv. Information management and reporting
    v. Water administration and regulations, e.g. water sensitive urban design, metering and compliance, administration of water trade
    vi. Water industry regulation.

b. Alignment with ACT Government strategies specifically relating to water and catchment management, including:
    i. ACT Water Strategy
    ii. Living Infrastructure Plan
    iii. Nature Conservation Strategy.

c. *Government administrative activities* should be excluded from the cost of activities levied upon water users, including:
    i. development of intergovernmental agreements
    ii. broad strategy/policy development
    iii. development and/or refinement of overarching statutory instruments
    iv. Ministerial and Parliamentary services.

d. *Cost-effectiveness test* should be applied to activities, periodically reviewed by an independent party and findings of the test publicly reported.

e. *Cost allocation* delineates the assignment of cost between water user and government based on an 'impactor pays' approach.

f. *Community Service Obligations* – shortfalls between revenue required to achieve cost recovery from water users and total costs recovered through the WAC is transparently reported.

AUSTRALIAN COMPETITION & CONSUMER COMMISSION

Water monitoring report

2019–20

December 2021

accc.gov.au

AUSTRALIAN COMPETITION
& CONSUMER COMMISSION

Water monitoring report

2019–20

December 2021

Cover photo: Rice growing within Murrumbidgee Irrigation's network.

Source: Courtesy Murrumbidgee Irrigation.

Australian Competition and Consumer Commission
23 Marcus Clarke Street, Canberra, Australian Capital Territory, 2601

ACCC 12/21_21–33

www.accc.gov.au

Contents

Abbreviations

ACCC	Australian Competition and Consumer Commission
ACL	Australian Consumer Law
ACT	Australian Capital Territory
Basin Plan	Murray–Darling Basin Plan
BOM	Bureau of Meteorology
BRC	Border Rivers Commission
COAG	Council of Australian Governments
CCA	*Competition and Consumer Act 2010* (Cth)
CICL	Coleambally Irrigation Cooperative Limited
CIT	Central Irrigation Trust
CPI	Consumer price index
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DELWP	Victorian Department of Environment, Land, Water and Planning
DNRME	Queensland Department of Natural Resources, Mining and Energy
DoR	Queensland Department of Resources
DPIE	NSW Department of Planning, Industry and Environment
DRDMW	Queensland Department of Regional Development, Manufacturing and Water
ESCV	Essential Services Commission Victoria
GL	gigalitre (one billion litres)
GMW	Goulburn–Murray Water
GS	general security
GST	goods and services tax
HP	high pressure
HRWS	high-reliability water share
HS	high security
IIO	irrigation infrastructure operator
IO	infrastructure operator
IPART	Independent Pricing and Regulatory Tribunal (NSW)
JWSS	joint water supply scheme
LMW	Lower Murray Water
LP	low pressure
LRWS	low-reliability water share

MDB	Murray–Darling Basin
MDBA	Murray–Darling Basin Authority
MI	Murrumbidgee Irrigation Limited
MIL	Murray Irrigation Limited
ML	megalitre (one million litres)
MP	medium pressure
NRM	Natural Resource Management
NWI	National Water Initiative
off-river IO	off-river infrastructure operator
on-river IO	on-river infrastructure operator
PIIOP	Private Irrigation Infrastructure Operators Program (NSW)
RFI	request for information
RIT	Renmark Irrigation Trust
SDL	sustainable diversion limit
WAE	water access entitlement
WAL	water access licence
WAMC	Water Administrative Ministerial Corporation (NSW)
WAR	water access right
Water Act	*Water Act 2007*
WCR	Water Charge Rules 2010
WCIR	Water Charge (Infrastructure) Rules 2010
WCTFR	Water Charge (Termination Fees) Rules 2009
WDR	water delivery right
WMI	Western Murray Irrigation Limited
WMR	Water Market Rules 2009
WPM	water planning and management
WSS	water supply scheme

Glossary

Basin Plan	A high-level framework on which the Australian Government and Basin states agreed, and that sets standards for the management of the Murray–Darling Basin's water resources in a coordinated and sustainable way in collaboration with the community. Officially known as the Basin Plan 2012.
Basin Plan Water Trading Rules (BPWTR)	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 are enforced by the Murray–Darling Basin Authority.
Basin states	States and territories that reside partly or wholly within the Murray–Darling Basin – New South Wales, Victoria, Queensland, South Australia, the Australian Capital Territory (ACT).
Basin state agencies	Basin state departments and water authorities.
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 storages, so it is available in subsequent years.
conveyance water	Water required primarily to operate regulated rivers and utility supply networks to enable the delivery of water.
gravity fed irrigation system	An irrigation system comprising channels and/or pipes that relies on the movement of water due to the force of gravity.
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 (IO)	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.
irrigation infrastructure operator (IIO)	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 2007*. 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.
non-volumetric charge	A charge that does not reference a volume of a water right – for example, a charge that is levied per account, per outlet or per meter.
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 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	An irrigator 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.
regulated water charge	A water charge to which the Water Charge Rules 2010 apply See s 91 of the *Water Act 2007* for a full definition.
southern connected Murray–Darling Basin	Refers to the southern Murray–Darling Basin catchments that are hydrologically connected and 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 IIO's network, typically by terminating a water delivery right.
termination fee	A fee that an IIO may impose when an irrigator terminates.
the Water Act	Water Act 2007 (Cth)
total network access charge	Amount on which the termination fee multiple is applied to calculate a maximum termination fee. It is the sum of all amounts that would have been payable for access to an operator's irrigation network by an irrigator for a full financial year if termination or surrender had not occurred, excluding: ▪ any amount for the amount of water actually delivered to the terminating irrigator (that is, variable irrigation network charges) ▪ any amount for the storage of water ▪ connection/disconnection fees ▪ any amount that exceeds the cost of providing irrigators with access to an operator's irrigation network ▪ fees under ACCC approved contracts.
tradeable water right	One of: (i) water access rights (ii) water delivery rights (iii) irrigation rights.

transformation	Process by which an irrigator permanently transforms their entitlement to water under an irrigation right against an irrigation infrastructure operator (IIO) into a water access entitlement held by the irrigator (or anybody other than the IIO), thereby reducing the volume (for example, the share component) of the operator's water access entitlement.
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 a water right held, while a variable volumetric charge is a charge based on the volume of the right that is used in a particular manner.
water access entitlement	Perpetual or ongoing entitlement, by or under a law of a 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 (including through the establishment of a tagging arrangement).
water access right	Any right conferred by or under a law of a 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 allocation	Specific volume of water allocated to water access entitlements in a given water accounting period
water allocation trade	Change of ownership and/or location of a particular volume of water allocation.
Water Charge Rules 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 2007*. Also included are rules for water planning and management activities and terminating access to an operator's irrigation network.
Water Charge (Infrastructure) Rules 2010 (WCIR)	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 in relation to that access ▪ matters specified in regulations made under s 91(1)(d) of the *Water Act 2007*. The Water Charge Rules replaced the Water Charge (Infrastructure) Rules 2010 on 1 July 2020.
Water Charge (Planning and Management Information) Rules 2010 (WCPMIR)	Rules relating to charges for water planning and water management activities in the Murray–Darling Basin, and requiring the publication of the charge details and the process for determining the charge. The Water Charge Rules 2010 replaced the Water Charge (Planning and Management Information) Rules 2010 on 1 July 2020.

Water Charge (Termination Fees) Rules 2009 (WCTFR)	Rules for fees or charges payable to an irrigation infrastructure operator in relation to terminating access to an operator's irrigation network (or services relating to such termination), or surrendering a right to delivery of water through the operator's irrigation network. The Water Charge Rules 2010 replaced the Water Charge (Termination Fees) Rules 2010 on 1 July 2020.
water delivery right (WDR)	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 2009 (WMR)	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 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 another person.

Highlights from the Water monitoring report 2019–20

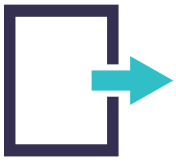
Photo: Autumn vines in the Coomealla irrigation area, New South Wales
Source: Courtesy Western Murray Irrigation, Vision House Photography

2019–20 was a year of contrasts in the Murray–Darling Basin (MDB). Drought continued in most parts of the MDB in the second half of 2019, while parts of southern New South Wales and Victoria received significant rainfall from January to April 2020. Total water delivered to irrigators was down substantially while transformation activity increased, particularly at Murrumbidgee Irrigation. Typical bills showed only moderate increases.

Water delivered to irrigators by irrigation infrastructure operators decreased by 46% and was the lowest amount over the past 5 years.

Typical irrigator bills for 1 ML of water delivered increased by 2% during 2019–20 to $102 in pressurised networks and $58 in gravity fed networks.

The NSW Government continued to waive fixed charges for general security entitlement holders in 2019–20 and also for high security entitlement holders in some northern NSW river systems.



The number of transformations reported in 2019–20 increased by 16%, but the volume decreased by 11%.

Complaints to the ACCC fell slightly, potentially a result of the ACCC water markets inquiry considering stakeholder concerns.

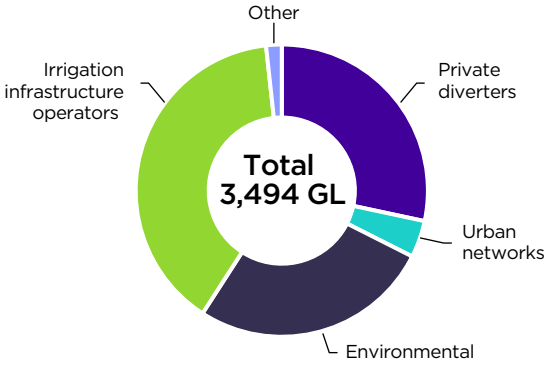
Monitoring makes regulated water charges transparent and helps enforce the Rules. However, monitoring on its own cannot limit the exercise of market power.

Snapshot of findings 2019–20

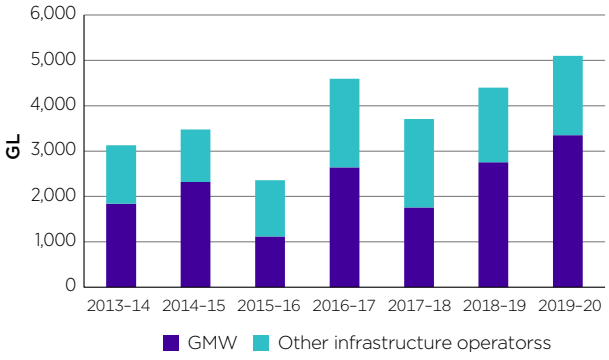
Off-river infrastructure operators' typical bills, average $/ML delivered

	Pressurised networks	Gravity-fed networks
Highest	$219 (Lower Murray Water)	$145 (Lower Murray Water)
Lowest	$66 (Curlwaa)	$14 (Eagle Creek)
Average	**$102**	**$58**

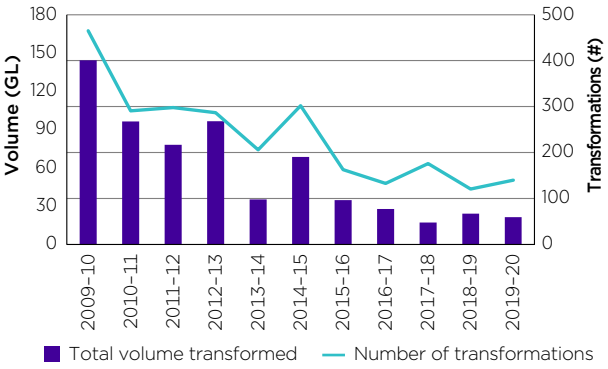
Total water delivered by on-river infrastructure operators was down 31% in 2019–20



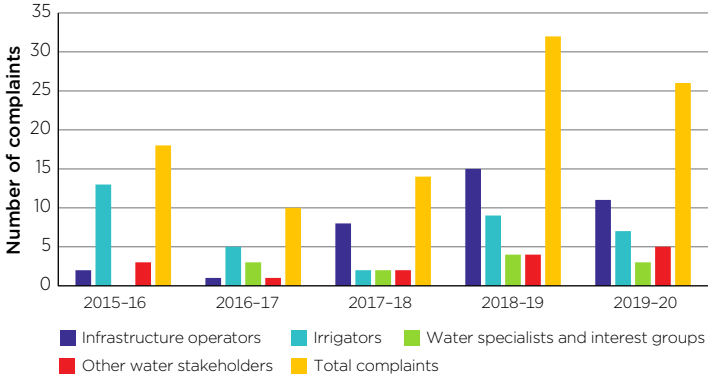
Reported allocation trade increased by 16% in 2019–20 with Goulburn–Murray Water and South Australian networks driving this rise



Number of transformations up 16% in 2019–20 while the total volume transformed decreased by 11%



The number of complaints and enquiries from irrigators and infrastructure operators fell slightly in 2019–20 compared to 2018–19



Summary

This is the 11th annual water monitoring report prepared by the Australian Competition and Consumer Commission (ACCC) for the Australian Minister for Resources, Water and Northern Australia.

We monitor regulated water charges imposed in the Murray–Darling Basin (MDB) by on-river and off-river infrastructure operators (IOs) and Basin states.[1] The ACCC monitors these regulated water charges and related matters because irrigation infrastructure operators (IIOs) operate in geographically exclusive areas for water harvesting, storage and delivery services, making it unlikely that effective competition will develop. A lack of competition may lead to higher prices, lower service quality and less innovation when compared with what could be expected in a competitive market. We also assess trends in terminations, transformations[2] and some trade in water rights (specifically, irrigation rights, water delivery rights and allocation trade into and out of IIOs' networks) within off-river IOs in the MDB. These reports, and the data that the ACCC has collected, improve the transparency of regulated water charges and water markets in the MDB over time.

During 2019–20, the ACCC found only relatively modest increases in most on- and off-river typical bills. Transformation processing times increased by 30% in New South Wales, but decreased by 22% in South Australia. There were no significant increases in transformation charges nor detriment from delays attributable to IIOs' conduct. Termination fees increased in line with changes in IIOs' fixed charges. Our monitoring and enforcement of Water Market Rules 2009 (WMR) and Water Charge Rules 2010 (the Rules) found no significant concerns or detriment arising from the issues raised with, and considered by, the ACCC.[3] Through our compliance work, the ACCC is aware of some complaints from irrigators about alleged unfair conduct. However, none of the conduct was found to be a breach of the Rules, the *Competition and Consumer Act 2010* or the Australian Consumer Law.

The Rules that we enforce do not cover wider water market regulation, nor obligations on water brokers or other water market participants. Laws set by the Basin states establish the legal entitlements to water and determine whether those rights can be traded under state laws. These state trading rules sit alongside the Commonwealth Basin Plan water trading rules which apply a framework for governing the trade of water access rights across the MDB.

Climatic conditions reduced water delivery

2019–20 was a year of contrasts in the MDB. Drought continued in much of the MDB in the second half of 2019, while southern New South Wales and Victoria received significant rainfall from January to April 2020.[4]

The 36 months from February 2017 to January 2020 were the driest period on record for the MDB.[5] The Commonwealth Scientific and Industrial Research Organisation and the Bureau of Meteorology noted the recent drying across the south west and east of Australia as '… the most sustained large scale change in observed rainfall since the late 1880s'.[6] While rainfall in early 2020 helped replenish many parts of the MDB, the Murray–Darling Basin Authority (MDBA) noted in January 2020 that the whole of the Queensland part of the Basin remained drought declared, and northern and far west regions

1 Regulated water charges include fees or charges payable to an irrigation infrastructure operator (IIO) for: access, changing access or terminating access to its irrigation network; bulk water charges; and charges for water planning and management activities. See s 91 of the *Water Act 2007* for a full definition.

2 Transformations are the process by which an irrigator permanently transforms their entitlement to water under an irrigation right against an IIO into a water access entitlement held by the irrigator (or anybody else), thereby reducing the share component of the IIO's water access entitlement.

3 The Water Market Rules 2009 apply to irrigation infrastructure operators. They seek to ensure an IIO's administrative requirements for processing transformations do not represent a barrier to trade.

4 Bureau of Meteorology, *Climate of the 2019–20 financial year*, July 2020, accessed 22 December 2020.

5 Aither, *Water markets report: 2019–20 review and 2020–21 outlook*, 2020, accessed 22 December 2020.

6 Commonwealth Scientific and Industrial Research Organisation and Bureau of Meteorology, *State of the climate 2020*, 2020, p 7, accessed 5 February 2021.

of New South Wales were still waiting for significant rainfall to help replenish their river systems.[7] This scarcity resulted in reduced allocations and reduced water delivered by both on-river IOs and IIOs. The arrival of above average rainfall from January to April 2020 across much of the MDB[8] created the best start to the winter cropping season in 3 years.[9]

Transformation numbers rose in 2019–20, but the volume of water transformed fell

IIOs in New South Wales and South Australia often hold a water access entitlement (WAE) on behalf of their customers, who in turn hold an irrigation right against the IIO. To trade water outside an irrigation area, irrigators holding an irrigation right can convert their right into a separate WAE through a process called transformation.

During 2019–20, IIOs in New South Wales and South Australia reported processing 140 transformation applications, up 16% from 2018–19. The total volume of irrigation rights transformed by irrigators within these IIOs was 22 gigalitres (GL), which was a decrease of 11% from 2018–19, while the average volume transformed decreased by 23% to 154 megalitres (ML). Central Irrigation Trust (CIT) and Murrumbidgee Irrigation (MI) accounted for 69% of the total number of transformations (47 and 49 respectively) during 2019–20. CIT's yearly number of transformations since 2015–16 has averaged around 51 per year. In contrast, MI averaged only 27 transformations per year over the same period. MI's increase in transformations from 22 in 2018–19 to 47 was the largest number recorded since 2010–11. MI could not fully explain this increase because it does not collect irrigators' reasons for transformation. However, MI did advise that around 29% (3.3 GL) of the volume transformed during 2019–20 was related to water entitlements handed back to the Australian Government under the Private Irrigation Infrastructure Operators Program. A further 0.9 GL was transferred to the Gunbar Private Water Supply Board when ownership was transferred to the newly created entity.

While transformations are generally concentrated in New South Wales and South Australia, irrigators in Queensland and Victoria have in the past occasionally transformed irrigation rights. During 2019–20, Goulburn–Murray Water (GMW) reported 4 transformations, totalling 125 ML of high-reliability water share and 63 ML of low-reliability water share. The last time GMW reported transformations was during 2014–15, with one transformation of 22 ML.

The median processing time for transformations in New South Wales during 2019–20 was 57 days, which is an extra 13 days from the 2018–19 median. In contrast, the South Australian median processing time was 13 days in 2019–20, 3 days less than the 2018–19 median. Over the past 5 years, the New South Wales median processing time ranged from 65 days in 2016–17 to 42 days in 2017–18, while the South Australia median processing time ranged from 22 days in 2016–17 to 13 days in 2018–19. The differences in median times between New South Wales and South Australia is partly explained by the differing approaches to processing transformation applications.[10]

During 2019–20, 8 IIOs, ranging from small, member-owned trusts to one of the largest IIOs in the MDB, appeared to report taking longer than permitted under the WMR to process some of the transformation applications they received. The IIOs gave reasons for delays largely related to the Covid-19 pandemic, including difficulties with communication, postponement of Board and annual meetings, inability to train new staff, technological challenges created by remote work and general disruption to their business processes.

On examination, the ACCC identified many of the delays reported did not breach the WMR and, for those that did, there did not appear to be any significant detriment resulting.

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7 Murray–Darling Basin Authority, *Northern Basin enters the new year still in drought*, Media release, 21 January 2021, accessed 1 February 2021.

8 Bureau of Meteorology, *Climate of the 2019–20 financial year*, 2020 July, accessed 22 December 2020.

9 Aither, *Water markets report: 2019–20 review and 2020–21 outlook*, 2020, p 12, accessed 22 December 2020.

10 In New South Wales, 2 government entities are involved in processing applications. Only one agency is involved in South Australia.

Terminations continued to fall in 2019–20

Termination occurs when an irrigator terminates (or surrenders) the whole or part of their right of access to an IIO's irrigation network. The number of terminations for those IIOs that can effect transformation during 2019–20 was 16, down 24% since 2018–19 and the lowest number recorded since monitoring commenced. This result continued the general trend since 2009–10 of declining terminations, which can be attributed to finalising many network rationalisation programs, the dissipation of pent-up demand for those irrigators who initially wanted to exit the industry and increased propensity to trade water delivery rights to avoid termination payments. The total volume transferred in 2019–20 decreased by 49% to 1.9 GL.

Termination activity among IIOs that do not hold WAE on behalf of their customers such as joint water supply schemes remained subdued, although there was considerable activity again in the Victorian networks. GMW again reported substantial numbers of terminations during 2019–20, jumping by 50% to 78. All but one of these terminations was associated with the Connections Project, which was completed in October 2020.

Victoria was again a key driver of increased allocation trade volumes

Allocation trades are trades of water received under a WAE in a given year. Larger IIOs report to the ACCC on allocation trades relating to their WAE (or, in the case of GMW and Lower Murray Water, on the allocation trades conducted by their customers):[11] that is, trade into, out of and within their network. Even with tight supply conditions, total allocation trade[12] volumes increased by 16% from 4.4 GL to 5.1 GL in 2019–20 (which is the largest amount traded over the past 7 years). This increase was directly related to increases in GMW's reported trade which rose by 22%. Allocation trading reported by IIOs in South Australia also increased during 2019–20, up 41%, while trade reported by New South Wales IIOs decreased by 6%.

The IIOs in the New South Wales Murray region were net importers of water, although the volume imported was down 45% from 162 GL in 2018–19 to 90 GL 2019–20. Western Murray Irrigation was the only IIO in the New South Wales Murray region that was a net exporter of allocation water over the past 3 years. Four IIOs had zero trade during 2019–20 including Buddah Lake, Trangie–Nevertire, Tenandra and Marthaguy. Buddah Lake also had zero trade in 2018–19, along with Eagle Creek.

Complaints and inquiries were slightly down

Complaints and enquiries to the ACCC about water-related matters decreased slightly to 26 in 2019–20, with 12 complaints and 14 enquiries. This result is down slightly, from 32 in 2018–19, and may be attributed to some stakeholder concerns being considered instead by the ACCC MDB water markets inquiry.[13] Of the 14 enquiries received, over half were from IOs about their obligations under the new Water Charge Rules 2010 (the new Charge Rules), particularly about the schedule of charges requirements.

The ACCC conducted 10 initial investigations but found no breaches of the Rules or the Australian Consumer Law that resulted in significant detriment. Six of these initial investigations were prompted by a complaint or enquiry from an irrigator or other stakeholder, and 4 were prompted by the operator's response to the ACCC's annual request for information. The ACCC continued to provide guidance to operators by developing and updating an example schedule of charges to help operators understand their schedule of charges obligations.

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11 IIOs holding less than 10GL of WAE are not required to report on allocation trade in, out of and within their network to the ACCC.

12 Total allocation trade is the total of water traded into the network, water traded out of the network and water traded within the network.

13 ACCC, *Murray–Darling water markets inquiry – final report*, February 2021.
Submissions and other concerns raised with the ACCC water market inquiry were not counted in the number of complaints and enquiries included in this report.

Growth in typical bills for most on-river infrastructure operators and private diverters was modest

The ACCC prepares typical bills for on-river IOs in Queensland, New South Wales and Victoria and for private diverters in South Australia. These typical bills illustrate the amount of charges on-river IOs impose on customers and represent how regulated water charges translate into an individual customer bill. They are based on several assumptions including the amount of water entitlement held (1,000 ML), the amount used (either 50% or 100% allocation), as well as the standard charges that are included in these types of bills. Due to the wide range of charge structures used across the MDB, the ACCC's typical bills enable comparison of charge levels across IOs and time. Bills were grouped by whether the IOs are located in the northern or southern MDB, given the different characteristics of these regions (Figure 1).

Figure 1: The northern and southern Murray–Darling Basin

Source: Murray–Darling Basin Authority, Where is the Murray–Darling Basin, viewed 8 October 2021.

In the northern MDB, typical on-river IO bills increased between 1% and 3%. However, high security bills in the Macquarie, Namoi, Peel and Border Valleys decreased between 47% and 79%, because the New South Wales Government extended its $4,000 rebate on fixed charges to high security licence holders in these valleys as part of its drought relief package. During 2019–20, all typical on-river IO bills increased in the southern MDB, apart from GMW's private diverters which decreased by 4.5%. Increases generally ranged from 1% to 3%. However, GMW's Broken and Ovens typical bills increased by 12% and 11% respectively.[14]

The Essential Services Commission Victoria (ESCV) finalised its review of GMW's proposed revenues, expenditures and tariffs for the next regulatory period, 1 July 2020 to 30 June 2024. The ESCV approved a proposal for water users and non-water users to pay the same charge for holding water in storages. The decision will reduce prices for most GMW customers, while 6 gravity fed irrigation districts will pay a common delivery charge.

While most off-river infrastructure operators' typical bills rose, increases were modest

Continued drier conditions and low allocations resulted in the lowest amount of water delivered by IIOs to irrigators for the past 5 years. During 2019–20, irrigators received 1,472 GL, 46% less than the amount delivered in 2018–19.

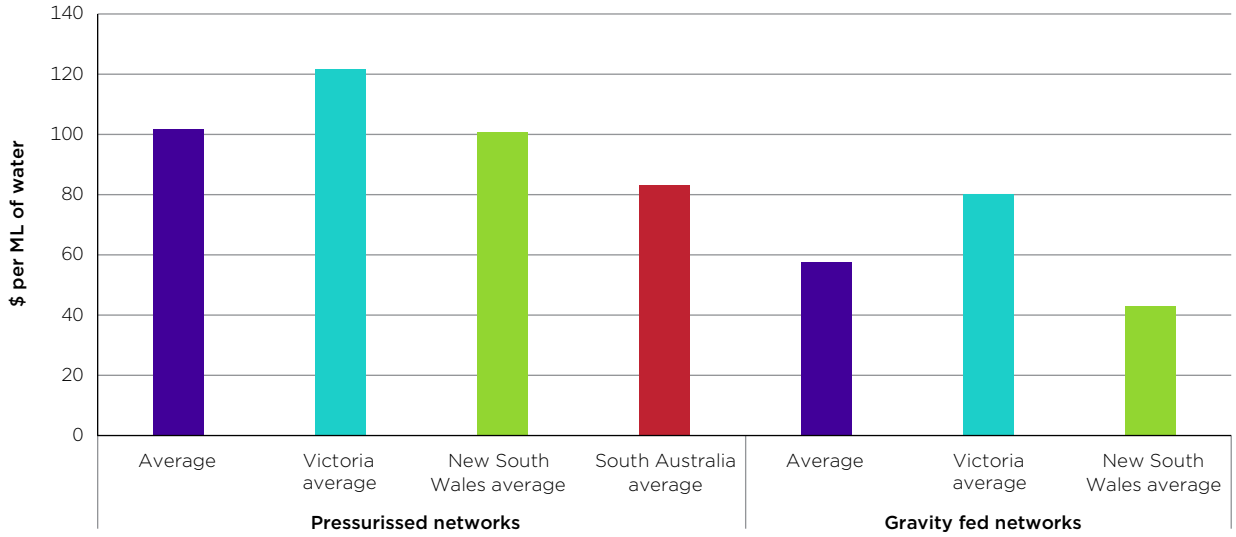
The ACCC calculates typical irrigator bills using assumptions about a customer's charging profile for each reporting IIO that holds over 10 GL of entitlement with either 50% or 100% of allocation used. During 2019–20, around 76% of typical irrigator bills increased, more than in previous years (only 47% increased in 2018–19), though 74% increased by only 1% to 3%. The decrease in 2018–19 was largely attributed to the New South Wales Government waiving fixed fees up to $4,000. Victoria's pressurised and gravity fed networks had the highest prices in the MDB, with average typical irrigator bills of $30,447 and $20,040 respectively for 100% of water delivered in 2019–20.

IIO's typical bills varied significantly across the MDB and over the past 10 years. These differences were largely due to IIOs' differing characteristics, including the size of the network, the number of customers, total entitlements held, the level of cost recovery and level of government subsidies.

The average typical irrigator bill per ML of water delivered in pressurised networks increased by 2% in 2019–20 to $102 for 250 ML of entitlement with 100% of water delivered. In gravity fed networks, the average typical bill was $58 per ML, up 2% from 2019–20. The higher average bill for pressurised networks reflected the higher capital costs associated with pipes and the high energy costs associated with pumping (Chart S1).

14 These systems typically have had the highest typical bill increases in GMW's area of operations since 2009–10. This outcome is due to their small size and their lack of the economies of scale that are evident in larger systems. Since 2017–18, the ESCV's pricing determinations for GMW have approved price increases of 10% plus CPI per year so that these basins can reach full cost recovery.

Chart S.1: Average typical irrigator bills per ML of water delivered from pressurised or gravity fed irrigation networks, 2019–20



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

Notes: Monitored South Australian networks are all pressurised.

Average typical bills for pressurised networks in Victoria were $122/ML while those in New South Wales were 17% lower ($101/ML). South Australian average bills for pressurised networks were $83/ML, around 32% less than those in Victoria. Average typical bills for gravity fed IIOs in Victoria were $80/ML, nearly double those in New South Wales, at $43/ML.

Over the past 11 years, the total aggregate typical irrigator bill across the MDB increased by around 6% in real terms. This change reflects increases and decreases in bills for both 50% and 100% of water delivered and includes pressurised and gravity fed systems. Since 2009–10, around 56% of all typical irrigator bills increased in real terms.

Fees associated with recovering irrigation infrastructure costs make up the majority of bills (as opposed to pass through of bulk water charges and water planning and management charges). A substantial share of these costs were fixed charges.

Basin states and territories' water planning and management expenditure and revenue increased during 2019–20

Both total expenditure and revenue collected by all Basin states and territories for water planning and management (WPM) activities increased by 3% in real terms in 2019–20 to $339 million and $110 million respectively. Total WPM expenditure for New South Wales in 2019–20 increased by 2% in real terms to $104 million, with significant expenditure increases on projects related to developing WPM frameworks and compliance management. Total revenue collected was $34 million, down nearly 4% in real terms from 2018–19, while the estimated cost recovery dropped 2 percentage points to 33%.

Victoria spent nearly $148 million on WPM activities in 2019–20, which represented a decrease of 13% from 2018–19 in real terms and reflected reduced capital expenditure. WPM expenditure by South Australia increased by less than 1% in real terms to $38 million in 2019–20, while total revenue increased by nearly 7% in real terms to $11 million. The Australian Capital Territory's expenditure on WPM projects increased by 102% from 2018–19. Most of this increase related to WPM activities for the suburbs of Taylor and Whitlam. Total revenue increased by 7% while the rate of cost recovery dropped 62 percentage points to 70%.

ACCC's monitoring and role in the Murray–Darling Basin

Under the *Water Act 2007*, the ACCC monitors regulated water charges including irrigation network water charges, termination fees, and transformation arrangements. The ACCC is also responsible for monitoring and enforcing compliance with the Rules.

The ACCC monitors regulated water charges and related matters because IIOs generally operate in geographically exclusive areas for water harvesting, storage and delivery services, meaning effective competition is unlikely to develop. A lack of competition may lead to higher prices, lower service quality and less innovation when compared with what could be expected in a competitive market. Without effective competition or regulation, IIOs may also be able to prevent or unreasonably delay irrigators' attempts to trade water out of an irrigation district. While the ACCC's role does not extend to assessing the efficiency of IIOs' charges or service levels, monitoring can improve transparency and provide oversight of regulated water charges.

Reporting regulated water charges, including typical irrigator bills, and the requirements for IOs to publish their schedule of charges, helps improve charging transparency. The value of water entitlements is estimated to be worth $26.3 billion in the southern MDB and the average annual turnover of the MDB water rights trading market is estimated to be around $1.8 billion. So, a well-functioning market is critical for irrigators and the broader economy. The ACCC's monitoring helps highlight where IOs may potentially exercise their market power over irrigators and other customers. In doing so, it helps policy makers determine the appropriate form of regulation for these monopolies.

The WMR prohibit actions or omissions by off-river IOs that prevent or delay an irrigator from transforming an irrigation right into a water access entitlement. The transformation process allows water available to an IO customer under an irrigation right to be held directly by the customer or traded to another person. The Rules also provide for a termination fee cap and include requirements for IOs to publish their schedules of charges.

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Monitoring makes regulated water charges and compliance with the Rules more transparent

Autumn vines in the Western Murray Irrigation's Coomealla irrigation area.
Source: Courtesy Western Murray Irrigation

1. Monitoring makes regulated water charges and compliance with the Rules more transparent

Key points

- Irrigation infrastructure operators (IIOs) generally operate in geographically exclusive areas, making it unlikely effective competition will develop.
- A lack of competition can lead to higher prices, lower levels of service and reduced innovation. Without effective competition or regulation, IIOs may also be able to prevent or unreasonably delay irrigators' attempts to trade water out of an irrigation district.
- While the ACCC's role does not extend to assessing the efficiency of IIOs' charges or service levels, monitoring can improve transparency and provide oversight of regulated water charges.
- Monitoring also supports compliance with the Water Charge Rules 2010 and Water Market Rules 2009 (the Rules). Monitoring helps reinforce these Rules by reporting on processing times, fees and noncompliance with requirements.

This chapter outlines the ACCC's monitoring objectives and how the ACCC fulfils its monitoring roles under the *Water Act 2007* (the Water Act):

- Section 1.1 provides information about the objectives of our monitoring.
- Section 1.2 describes our process for preparing this report.

1.1 Objectives of monitoring under the Water Act

The Water Act establishes the ACCC's monitoring role in the Murray–Darling Basin (MDB), including the monitoring of regulated water charges[1] and transformations. The Water Act also directs the ACCC to report to the Minister on the findings of its monitoring.[2] This 2019–20 report is the 11th edition.

1.1.1 Monitoring of regulated water charges provides transparency

The ACCC monitors regulated water charges and related matters because irrigation infrastructure operators (IIOs) operate in geographically exclusive areas for water harvesting, storage and delivery services, making it unlikely that effective competition will develop. A lack of competition may lead to higher prices, lower service quality and less innovation when compared with what could be expected in a competitive market.

Reporting regulated water charges (including typical irrigator bills and the requirements for infrastructure operators (IOs) to publish their schedule of charges) helps make these charges more transparent. Some of the information reported might not otherwise be available to water market participants and other interested parties in the MDB. For example, the ACCC's price monitoring improves consumer understanding by providing information about pricing practices and also allows for benchmarking against other networks. The information can promote more efficient allocation of resources among water users and uses.

1 'Regulated water charges' refers to charges defined in s 91 of the *Water Act 2007* and encompasses charges payable to an irrigation infrastructure operator for access to the network. Regulated water charges also include bulk water charges and water planning and management charges.

2 *Water Act 2007*, s 94(2).

Water entitlements are estimated to be worth $26.3 billion in the southern MDB[3] and the average annual turnover of the MDB water rights trading market is estimated to be around $1.8 billion[4]. So, a well-functioning water market is critical for irrigators and the broader economy. The Water Act's objectives include the promotion of the MDB's resources in a way that optimises the efficient use of these resources including water and infrastructure (such as the monopoly irrigation operators). This includes pricing transparency which is supported and validated with the ACCC's monitoring role under the Water Act. As well as promoting pricing transparency and efficient water trading markets, monitoring regulated water charges may also help policymakers assess the impact of regulatory reforms, and identify areas requiring further reform. Pricing transparency also helps irrigators in the MDB to help understand their future costs, liabilities and compare typical bills across operators. However, the ACCC does not collect data to review the efficiency of the charges or service levels of IIOs.

1.1.2 The ACCC's monitoring of termination and transformation arrangements helps us identify where barriers to water trade persist

The ACCC is also required to monitor and enforce the Water Charge Rules 2010 and the Water Market Rules 2009 (the Rules) relating to transformations and termination fees. The transformation process allows water formerly available to a customer under an irrigation right to be held directly by the customer or traded to another person.[5] In this way, transformation can facilitate water trade by providing an individual with greater control over the timing, quantity and location of water trade. Termination allows the customer to reduce their right of access to the water delivery network and their ongoing liability for fixed charges. Together, transformation and termination can mean less water is delivered within a network and IIOs may ultimately end up with fewer customers contributing to the costs of running the network. These outcomes may give IIOs an incentive to prevent or unreasonably delay trade or transformation requests, and increase the fees for terminating.

The Rules and the ACCC's enforcement of these Rules help limit the ability of IIOs to prevent or delay transformations and trade. In particular, the Water Market Rules 2009 limit IIO transformation processing times and the Water Charge Rules 2010 set a maximum for the total level of termination fees that can be imposed. Monitoring termination fees and transformation processing times helps the ACCC enforce these Rules.

1.1.3 The ACCC's compliance monitoring helps us enforce the Rules and assess policy impacts

The ACCC collects information directly from IOs to monitor compliance with the Rules. It also examines complaints and enquiries from irrigators and other stakeholders, and information published by other government agencies.

The data gathering process helps identify instances of noncompliance with the Rules. Publishing instances of noncompliance can also alert readers to potential breaches of the Rules. Publishing compliance outcomes may also act as a deterrent.

The Rules that we enforce do not cover wider water market regulation, nor obligations on water brokers or other water market participants. Laws set by the Basin states establish the legal entitlements to water and determine whether those rights can be traded under state laws. These state trading rules sit alongside the Commonwealth Basin Plan water trading rules which apply a framework for governing the trade of water access rights across the MDB.

The Rules also provide for the publication of information on fees and charges imposed by, or on behalf of, governments relating to water planning and management activities. The ACCC also enforces infrastructure operators and water market intermediaries' compliance with the *Competition and Consumer Act 2010* (CCA), including the Australian Consumer Law (ACL). This includes prohibitions

3 Aither, *Water markets report: 2019–20 review and 2020–21 outlook, 2020*, p 34, viewed 30 April 2021.

4 ACCC, *Murray–Darling Basin water markets inquiry, final report*, February 2021, p 80, viewed 30 April 2021.

5 Transformation essentially involves separating an individual's right to water from the IIO's water access entitlement held on behalf of its members.

against anti-competitive conduct under the CCA, and fair trading requirements as specified in the ACL. Lastly, the Rules set requirements, particularly in relation to the schedule of charges, relating to the fees and charges payable to infrastructure operators for their services.

1.2 Sources of information for this report are extensive

The ACCC uses a number of data sources to prepare this report, including:

- information provided in response to requests for information that are sent to 39 IOs, Basin states and one territory with 37 responding
- IIOs' schedules of charges and transformation policies from their websites (if available)
- enquiries by, complaints about, and contacts with IIOs, irrigators and industry participants, including water brokers and peak associations
- government agencies such the Murray–Darling Basin Authority, the Australian Government Department of Agriculture, Water and the Environment, the Australian Bureau of Agriculture and Resource Economics and Sciences, the Bureau of Meteorology, the Australian Bureau of Statistics, the Australian Government Department of Industry, Science, Energy and Resources, the Victorian Water Register and WaterNSW
- academic literature, independent consultancy reports and media articles.

1.2.1 This report assesses trends and compliance, and presents observations and conclusions

The ACCC uses data collected from Basin state agencies and IOs to build typical bills. In this way, we can identify changes in typical bills over time and the reasons for those changes. Given the considerable differences in IIOs and their approaches to charging, comparing individual charges across IIOs is difficult. Typical irrigation bills allow for more meaningful comparisons among IIOs and across years.

The ACCC also uses information from IIOs to analyse trends in transformations and terminations. More broadly, the full data collection allows us to identify areas of potential concern and compliance with the Rules. The report's accompanying publication, *Water monitoring report 2019–20: monitoring approach and assumptions* (which is available on our website) provides more detail on our methodology and data used to prepare this report.

02

Transformations and terminations increased in 2019–20

Brays Dam Murrumbidgee Irrigation Infrastructure, Griffith New South Wales.
Source: Courtesy Murrumbidgee Irrigation.

2. Transformations and terminations increased in 2019–20

Key points

Our monitoring

- Monitoring of transformations, processing times, terminations and associated fees provides a basis for identifying where barriers to trade persist, because irrigation infrastructure operators (IIOs) may have an incentive to take measures to reduce the amount of trade that occurs.
- This year's monitoring has not identified any measures taken by IIOs to prevent, delay or unreasonably increase the costs to irrigators wanting to trade, transform or terminate.

Transformations

- IIOs can hold a water access entitlement (WAE) on behalf of their customers, who in turn hold an irrigation right against the IIO.[6] This approach is most common in New South Wales and South Australia. To trade water outside the irrigation network, irrigators can convert their irrigation right into a separate WAE through a process called transformation.
- During 2019–20, IIOs processed 140 transformation applications, up 16% from 2018–19, with Goulburn–Murray Water (GMW), which is located in Victoria, reporting transformations for the first time since 2014–15. The total volume of irrigation rights transformed (excluding GMW) was 22 gigalitres (GL), which was a decrease of 11% from 2018–19.
- The median processing time for transformations in New South Wales during 2019–20 was 57 days, an increase of 13 days from 2018–19. In contrast, South Australian median processing times were 13 days in 2019–20, 3 days less than in 2018–19.

Terminations

- Termination occurs when an irrigator terminates (or surrenders) the whole or part of their right of access to an IIO's irrigation network.
- During 2019–20, IIOs in New South Wales and South Australia processed 16 terminations, down 24% since 2018–19 and the lowest number recorded for these operators since monitoring began.
- However, GMW continued to report substantial numbers of terminations during 2019–20, jumping by 50% to 78, with all but one associated with the Connections Project.

IIO allocation trade

- Allocation trades are trades of water received under a WAE in a given year.
- Allocation trade volumes reported by larger IIOs to the ACCC increased by 16% from 4.4 GL to 5.1 GL. This jump in volume was directly related to increases in trade reported by GMW in Victoria.
- Allocation trade decreased by 6% for New South Wales IIOs and increased by 41% for South Australian IIOs.

6 In contrast, in Victoria and Queensland, irrigators typically hold a WAE directly and as such the concept of transformation is usually not relevant in these jurisdictions.

This chapter focuses on changes and trends in transformations, terminations and irrigation infrastructure operators' (IIOs) allocation and water delivery right (WDR) trade activity:

- Section 2.1 shows transformation data reported by IIOs that can effect transformation of irrigation rights into water access entitlements (WAEs), which are typically located in New South Wales and South Australia.
- Section 2.2 reports on termination activity in the irrigation networks of selected IIOs.
- Section 2.3 covers the water allocation trade reported by IIOs (being trade from the WAE held by the IIO), and also assesses WDR trade.

2.1 Irrigators are still transforming, albeit not at the highs of 2009–10

Transformation occurs when an irrigator converts an irrigation right held against an IIO into a separate WAE held by the irrigator or some other person. Transformation reduces the volume of WAE held by the IIO and may result in water moving outside the IIO's irrigation network. The holder of the transformed entitlement can trade the entitlement or the water allocated to it outside the area and membership of the irrigation network, without needing IIO approval. Transformations are generally concentrated in New South Wales and South Australia, since irrigators in Victoria and Queensland typically hold a WAE directly and do not require their IIO's consent to trade water allocation or entitlement. However, in 2019–20, Goulburn–Murray Water (GMW) reported transformations to the ACCC for the first time since 2014–15.

2.1.1 More irrigators transformed in 2019–20 but transformation volumes were lower in New South Wales and South Australia

During 2019–20, IIOs processed 140 transformation applications, up 16% from 2018–19 in New South Wales and South Australia. The total volume of irrigation rights transformed was 22 gigalitres (GL), a decrease of 11% from 2018–19, while the average volume transformed decreased by 23% to 154 megalitres (ML). Chart 2.1 presents the number of transformations, the volume of irrigation rights transformed and the average volume per transformation since 2009–10.

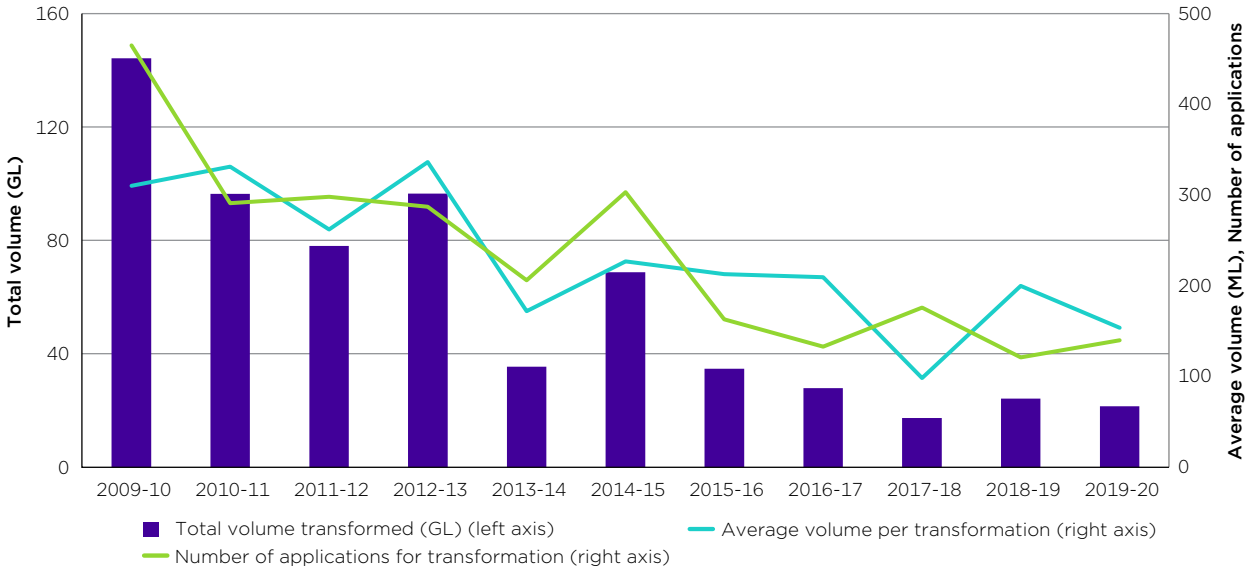
As Chart 2.1 shows, transformation numbers and volumes have declined steadily since 2009–10. This decline reflects several factors including cessation of the Australian Government buybacks of water for the environment, and dissipation of the pent-up demand from irrigators wanting to transform irrigation rights that existed before the Water Market Rules commenced in 2009.

Central Irrigation Trust (CIT) and Murrumbidgee Irrigation (MI) collectively accounted for 69% of the total number of transformations (47 and 49 respectively) during 2019–20. Since 2015–16, CIT has averaged 51 transformations a year and MI has averaged 27 transformations a year. MI's increase in transformations, from 22 in 2018–19 to 49 in 2019–20, was the largest recorded since 2010–11. MI was unable to fully explain the increase because it does not collect information on reasons for transformation from irrigators. However MI did advise that around 29% (3.3 GL) of the volume transformed during 2019–20 related to water entitlements handed back to the Australian Government under the Private Irrigation Infrastructure Operators Program (PIIOP).[7, 8] A further 0.9 GL was transferred to the Gunbar Private Water Supply Board, the newly created entity managing stock and domestic water supply for the Gunbar pipeline.

7 The 3.3 GL that was handed back to the Australian Government was recorded as one transaction in Murrumbidgee Irrigation's request for information.

8 The aim of the Australian and New South Wales governments' Private Irrigation Infrastructure Operators Program was to improve the efficiency and productivity of off-river network infrastructure. The program included upgrading and modernising irrigation channels, installing pressurised pipelines and installing total channel control. Department of Agriculture, Water and the Environment, *Private Irrigation Infrastructure Operators Program in New South Wales*, 2021, accessed 14 April 2021.

Chart 2.1: Number and volume of transformations reported in New South Wales and South Australia, 2009–10 to 2019–20



Source: ACCC from data provided by irrigation infrastructure operators.

Note: Data relates to transformations in New South Wales and South Australia, for all irrigation infrastructure operators that can give effect to transformations. Chart 2.1 does not include Goulburn-Murray Water who reported 4 transformations of licences into statutory water access entitlements.

The combined volumes of transformations in Coleambally, MI and Murray Irrigation represented 82% of the total (6 percentage points less than in 2018–19). Because these 3 IIOs are the largest of the IIOs holding WAEs on behalf of their customers, it is not surprising that they accounted for the majority of transformation volumes since 2009–10.

Goulburn–Murray Water reported transformations for the first time since 2014–15

While transformations are generally concentrated in New South Wales and South Australia, irrigators in Queensland and Victoria have in the past occasionally transformed their irrigation rights. During 2019–20, GMW reported 4 transformations of 125 ML of high-reliability water share and 63 ML of low-reliability water share. The last time GMW reported transformations was during 2014–15 with one transformation of 22 ML. Before that date, GMW reported 254 ML of transformations in 2012–13 and 1,645 ML in 2010–11. GMW's transformations are not included in Chart 2.1.[9]

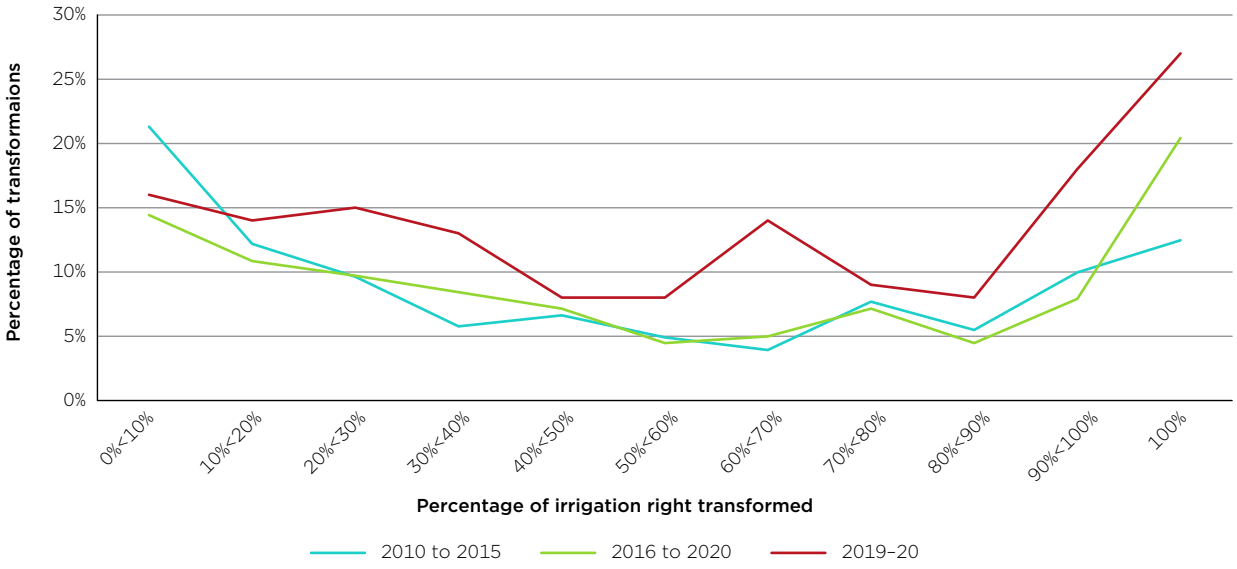
2.1.2 Most irrigators transform either a very small or very large share of their irrigation right, with more transforming a larger share in recent years

While some irrigators transform 100% of their irrigation right, most transform only a portion to give them flexibility around how much they retain for use on their property and how much they trade. Generally, the majority of irrigators in New South Wales and South Australia tend to transform either a very high portion (that is, above 90%) or a very small portion (that is, below 10%) of their irrigation right.

Since 2009–10, 19% of all transformations were for less than 10% of an irrigation right, while 25% transformed over 90% (with 15% transforming 100%). There has been only a small change in this trend over time (Chart 2.2). In particular, between 2010–11 and 2014–15, more irrigators transformed a smaller share of their irrigation right (that is, 0–20%) than a larger share (that is, more than 90%). However, this trend switched for the period 2015–16 to 2019–20.

9 During 2014–15, Sunwater reported 5 transformations which totalled 1,485 ML. These transformations are not included in Chart 2.1.

Chart 2.2: Proportion of irrigation rights transformed in New South Wales and South Australia



Source: ACCC from data provided by irrigation infrastructure operators.

Note: Chart 2.2 does not include Goulburn–Murray Water's transformations.

South Australian irrigators transformed a higher share of their irrigation right during 2019–20

Since 2010–11, South Australian irrigators generally transformed fewer irrigation rights than irrigators in New South Wales. While this trend continued into 2019–20, it was less pronounced than in previous years.

On average, irrigators from New South Wales transformed a smaller share of their irrigation rights during 2019–20, with transformations of 75% or more decreasing by 4 percentage points, to 42% of all transformations. However, transformations of between 50% and 75% of an irrigation right jumped 10 percentage points in 2019–20 to 17%. There was a slight increase in New South Wales irrigators transforming less than 25% of an irrigation right during 2019–20 (up 4 percentage points to 24%).

In contrast to New South Wales, South Australian irrigators chose to transform larger shares of their irrigation rights in 2019–20 than in previous years. Transformations of 75% or more increased by 2 percentage points, to 39% of all transformations, while transformations of between 50% and 75% of irrigation rights increased by 8 percentage points, to 16% in 2019–20. Overall, 55% of South Australian transformations were for 50% or more of the applicant's irrigation right. The last time this occurred was in 2011–12.

2.1.3 Transformation processing times varied in 2019–20

Processing transformations involves multiple steps

The Water Market Rules 2009 (WMR) prevent IIOs from imposing excessive fees or unreasonably delaying the transformation of irrigation rights.[10] The transformation process involves multiple steps, including approval by the relevant state government agencies. The WMR processing timeframes do not apply to government agencies that are not IIOs.

IIOs have 20 business days to complete their part of the transformation process (and a further 5 days to advise the applicant). This allowance does not include the time taken to obtain any third party consent (including financial institutions that have a mortgage over the property) or the time taken by state government agencies.[11] The ACCC monitors IIO compliance with WMR timeframes and also reports

10 ACCC, *Murray-Darling Basin water markets inquiry, final report*, February 2021, Appendix D, p 619, accessed 24 May 2021.

11 The processing times conducted by the New South Wales and South Australian governments for transformation applications are not regulated under the Water Market Rules 2009, unlike those for the IIOs.

on data for total transformation times. Lengthy total transformation times may discourage irrigators from transforming if it means they cannot respond quickly to changing market conditions, including water prices.

Some IIOs struggled to comply with WMR timeframes due to Covid-19

During 2019–20, 8 IIOs – ranging from small, member-owned trusts to one of the largest IIOs in the Murray–Darling Basin (MDB) – appeared to report taking longer than permitted under the WMR to process some of the transformation applications they received. The reasons IIOs gave for delays largely related to the Covid-19 pandemic, including difficulties with communication, postponement of Board and annual meetings, inability to train new staff, technological challenges created by remote work and general disruption to their business processes.

On examination, the ACCC identified many of the delays reported did not breach the WMR, while those that did breach the WMR did not appear to cause any significant detriment.

As well as Covid-19 related issues, long processing times were caused by factors including delays on the part of the other transacting parties, under-staffing, misunderstanding of the stop clock provisions, lack of access to external databases due to temporary technological breakdown, and a lack of urgency from their customers (the transforming irrigators and/or their representatives).

The IIOs informed the ACCC that they expected the delays caused by Covid-19 to decrease with time as business adapted to operating in a Covid-19 affected environment. In the circumstances, the ACCC did not take enforcement action but used the occasion to educate operators on their obligations. Compliance is discussed further in chapter 5.

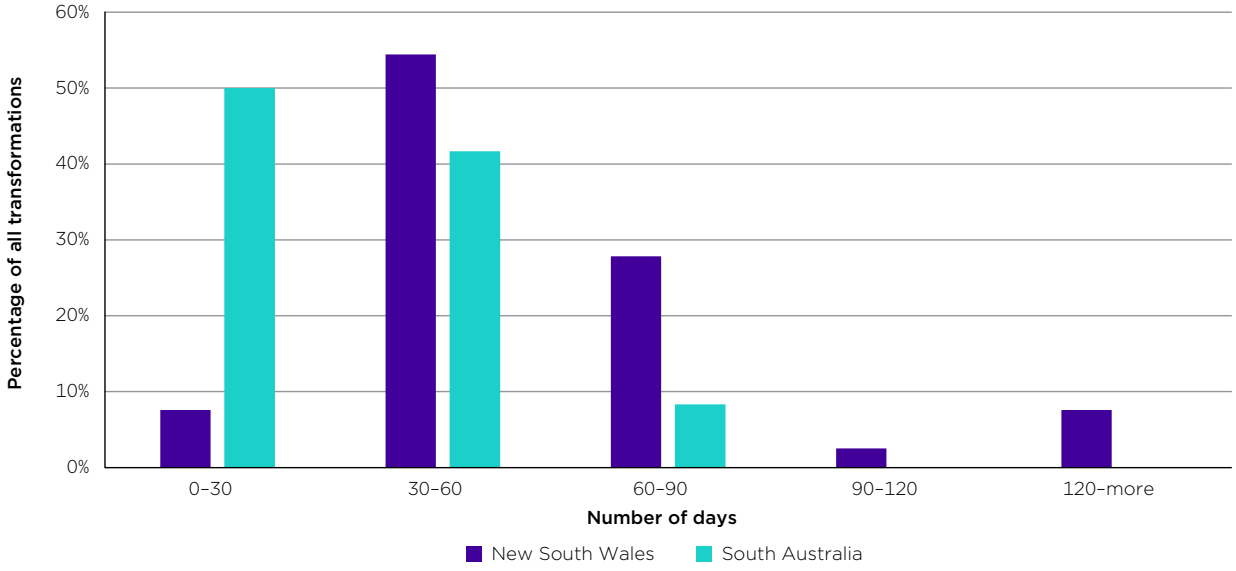
Total processing times rose in New South Wales but fell in South Australia

The median total processing time for transformations in New South Wales during 2019–20 was 57 days, an extra 13 days from the 2018–19 median. In contrast, the South Australian median total processing time was 13 days in 2019–20, 3 days less than the 2018–19 median. Over the past 5 years, the New South Wales median total processing time ranged from 65 days (2016–17) to 42 days (2017–18), while the South Australian median total processing time ranged from 22 days (2016–17) to 13 days (2019–20).

These differences can be explained partly by the different processes in each state. In New South Wales, 2 government entities are involved after the application is approved by the IIO. Initially, the IIO submits the transformation application to WaterNSW which consents to the application and then returns it to the IIO. The approved transformation application is then sent by either the IIO or irrigator to New South Wales Land Registry Services, which registers the transformation, giving it legal effect. In contrast, in South Australia, the Department for Environment, Water and Natural Resources is responsible for both the trade approval and registration of the transformed water right.

Chart 2.3 presents the range of transformation times for New South Wales and South Australia for 2019–20. In South Australia, 92% of transformation applications were processed within 60 days. New South Wales, with its additional procedural steps, processed 90% of transformation applications within 90 days.

Chart 2.3: Range of transformation processing times in New South Wales and South Australia, 2019–20



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

2.1.4 Transformation charges for New South Wales operators generally remained unchanged in 2019–20

State governments and IIOs both impose fees for processing transformation applications and these are presented in Table 2.1. Although New South Wales and South Australia have different application process and methods, the total fees remained similar. The total processing fee (for the trade of a share component) in New South Wales was 4% more than the equivalent fee in South Australia. In 2019–20, these fees increased slightly in New South Wales (up 1%), whereas in South Australia processing fees increased 5%.

IIO charges to irrigators to transform their irrigation rights varied significantly. The most expensive network in which to transform was West Corurgan, with a charge of $550, while Narromine was the cheapest at $70. IIOs in New South Wales did not change their transformation fees from 2018–19, apart from Coleambally which lowered its fees by 6%. In South Australia, CIT and Renmark Irrigation Trust increased their charges by 3% and 2% respectively.

Table 2.1: Transformation processing fees, 2019–20

Basin state	State processing fee ($)	Infrastructure operator	Operator processing fee ($)	Total fee (state and operator) ($) Low[a]	High[a]
New South Wales	Fee for establishing zero share WAL: WaterNSW fee $308.56[b] + Land Registry Services fee $143.50[c] Fee for trade of share component: WaterNSW fee $337.36[b] + Land Registry Services fee $143.50[c]	Coleambally	250	731	1,148
		Hay	350	831	1,283
		Jemalong	400	881	1,333
		Moira	300	781	1,233
		Murray Irrigation Limited	385	866	1,318
		Murrumbidgee Irrigation Limited	225	706	1,158
		Narromine	70	551	1,003
		West Corurgan	550	1,031	1,483
		Western Murray Irrigation	351	832	1,284
South Australia	Fee for transfer of WAE on transformation: $462	Central Irrigation Trust	375	856	815
		Renmark Irrigation Trust	440	811	770

Sources: Schedules of charges and transformation policies of irrigation infrastructure operators; responses from the New South Wales Department of Industry (Water) and the South Australia Department of Environment, Water and Natural Resources to ACCC water planning and management requests for information; New South Wales Land Registry Services' schedule of charges.

Notes: Processing fees are those listed in the operators' documents, although some operators did not report any transformations in 2019–20.

WAL = water access licence; WAE = water access entitlement.

a. Low fee is for applicants with an existing WAL; high fee is for applicants requiring a new WAL.

b. Refers to fee for online applications. Hardcopy applications were $344.64 for zero share while the share component fee was $337.36.

c. Sourced from New South Wales Land Registry, *2019–20 fees update*, June 2019, accessed 25 February 2021.

2.2 Activity by Goulburn–Murray Water increased termination numbers

Termination refers to the process where an irrigator, who may be ceasing irrigation entirely or simply reducing the volume of delivery rights they require, terminates (or surrenders) the whole or part of their right of access to an IIO's irrigation network. A right to access an irrigation network is generally called a water delivery right (WDR). Customers holding WDRs pay ongoing (mostly fixed) charges for using the network and maintaining their access right and terminating WDRs avoids these fees. If an irrigator does terminate their WDR holdings and switches to dry land farming (or retires) they are unable to have water delivered to their properties until WDRs are repurchased.

The following sections report on termination activity in IIOs that can give effect to transformation and joint water supply schemes (JWSSs),[12] GMW and Lower Murray Water (LMW). The supplementary spreadsheet to this report presents the background data on terminations from 2009–10 to 2019–20.

12 Joint water supply schemes (JWSSs) refer to arrangements in New South Wales where the members jointly hold a water access licence – that is, they each own a share of the water access licence – and form and run an organisation to deliver water to irrigators. JWSSs include Marthaguy Irrigation Scheme, Tenandra Irrigation Scheme, Trangie–Nevertire Cooperative Ltd, Eagle Creek Pump Syndicate and Buddah Lake Irrigators' Association.

2.2.1 Termination numbers were down in New South Wales and South Australia

IIOs that can effect transformation reported 16 terminations for 2019–20, down 24% since 2018–19, and the lowest number recorded since monitoring began. This result continued the general trend since 2009–10 of declining numbers of terminations for these operators. The decline in terminations can be attributed to many operators finalising their network rationalisation programs, the dissipation of pent-up demand from those irrigators who wanted to exit irrigation, and increased propensity to trade WDRs within an irrigation network. The total volume terminated in 2019–20 decreased by 49% to 1.9 GL.

On 1 July 2020, the total volume of WDRs for relevant IIOs was 8% lower than the total volume on 1 July 2009, and similar to that reported in 2018–19. This result suggests the affected IIOs have been able to partially offset terminations of WDRs by issuing new WDRs.[13]

Within JWSSs, there was only one termination during 2019–20. This was the same as in 2018–19 and continued the trend of very low termination numbers in JWSSs since 2011–12, when there were 34 terminations as a result of network rationalisations.[14] Over the 8 years since 2011–12, there have been only 17 terminations in JWSSs.

For JWSSs, the total volume of WDRs in 2019–20 was around 28% less than the total reported at 1 July 2009. If terminations resulting from Tenandra and Trangie–Nevertire network rationalisations are excluded, the total volume of WDRs in 2019–20 would be closer to 3%.

2.2.2 The Connections Project drove increases in Victorian terminations

While termination activity remained subdued for operators in New South Wales and South Australia, there was considerable activity again in Victoria.

GMW continued to report substantial numbers of terminations during 2019–20, jumping by 50% to 78, with all but one associated with the Connections Project.[15] This project saw the Victorian and Australian governments fund investment in automating large parts of GMW's irrigation network, improving system efficiency and generating water savings. The project was completed in October 2020.[16] LMW again reported lower numbers of terminations, decreasing from 8 in 2018–29 to 4 in 2019–20.

2.2.3 Most terminations did not attract termination fees in 2019–20

IIOs can impose termination fees to offset future losses of revenue from foregone fixed charges, reducing the extent to which the remaining customers are required to cover an increased share of the operator's fixed costs of running the network. Chart 2.4 details the proportion of terminations that attracted fees for the period and the associated volumes terminated over the period 2012–13 to 2019–20.

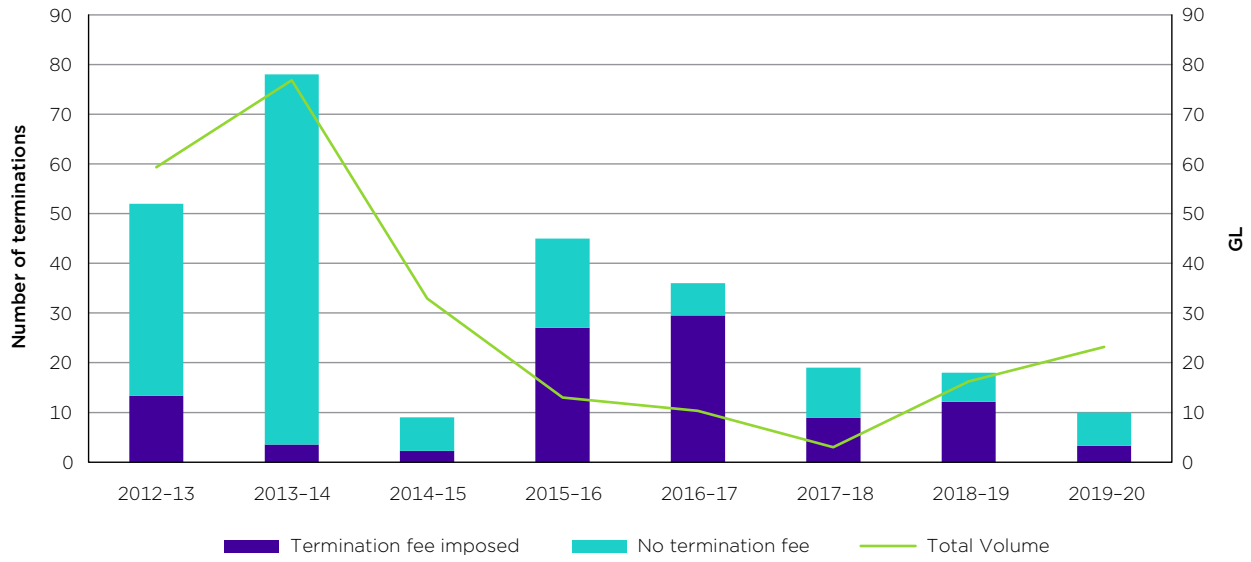
13 A number of IIOs issued new water delivery rights during 2019–20 including Murrumbidgee Irrigation Limited, Murray Irrigation Limited, Central Irrigation Trust and Renmark Irrigation Trust.

14 The high number of terminations among JWSSs during 2011–12 were due to Tenandra and Trangie–Nevertire which accounted for 94% of the total number of terminations and 99% of the total volume for this type of network. The large number of terminations in these networks was due to decommissioning and rationalising their respective channel systems which were funded under the Private Irrigation Infrastructure Operators Program. For further information on thesechanges, see: ACCC, *Water monitoring report 2011–12*, March 2013, p 45, Box 3.

15 The Connections Project is a $2 billion Victorian and Australian government investment for improving water delivery across GMW's networks. Any water savings will be distributed between the governments, networks and irrigators as a defined share. As part of the rationalisation under the project, irrigators could terminate water delivery rights without incurring termination fees.
Goulburn–Murray Water, *Corporate Plan 2019–20 to 2023–24*, 2020, p 41, accessed 9 March 2021.

16 L Neville, *Landmark Connections Project delivered* [media release], Victorian Government, 27 October, 2020, accessed 17 March 2021.

Chart 2.4: Number of terminations, by imposition of termination fee and volume terminated, 2012–13 to 2019–20



Source: ACCC from data provided by irrigation infrastructure operators.

Notes: Data for 2009–10, 2010–11 and 2011–12 are not available. Data includes surrendered water delivery rights. Data for Goulburn–Murray Water and Lower Murray Water are converted from ML/day and ML/14 days respectively to ML.

Around 33% of the termination volume in 2019–20 had termination fees imposed, down 24 percentage points from 2018–19. This result reflects trends in earlier years, where most terminations were coordinated by operators and were mostly associated with the PIIOP scheme in New South Wales[17] and the Victorian Government and GMW's Connections Project.[18] During 2019–20, over 95% of the total volume terminated was within GMW's network and 99% of GMW's terminations were for the Connections Project. Termination fees were waived for terminations associated with the Connections Project to incentivise irrigators to participate in the rationalisation program.

2.2.4 Termination fees moved in line with annual fixed charges

Under the Water Charge (Termination Fees) Rules 2009,[19] the maximum fees that an IIO can charge for a termination was up to 10 times the total network access fee excluding goods and services tax (GST). As expected, since this cap was introduced, average termination fees moved in line with each IIO's annual fixed charges. As noted in past monitoring reports, maximum termination fees reflect the growth in access fees over time. In 2019–20, the ACCC did not identify any instances of an operator charging a termination fee that exceeded the maximum permissible termination fee under the Water Charge Termination Fee Rules.

17 The aim of the New South Wales Government's PIIOP was to improve the efficiency and productivity of water use and management of private irrigation networks to deliver water savings for the environment. It was generally done through infrastructure projects.
Department of Agriculture, Water and Environment, *Private Irrigation Infrastructure Operators Program in New South Wales*, 2020, accessed 27 June 2021.

18 Goulburn–Murray Water, *Connection Project benefits: what and now fact sheet, 2020*, accessed 30 March 2021.

19 The Water Charge (Termination Fees) Rules 2009 were amended in 2019, with changes taking effect on 1 July 2020. Rules governing the calculation of termination fees are now included in the Water Charge Rules 2010. For further information on termination fees, see:
ACCC, *Water Charge Rules*, 2021.

2.3 Tighter demand and supply conditions coupled with high allocation market prices drove IIO trade activity

2.3.1 Dry conditions led to low water allocations during 2019–20

The 2019–20 water year had tight supply conditions, with lower water availability across the southern MDB and particularly in New South Wales.[20] Dry conditions persisted for most of the year and allocation market prices increased significantly. However, the arrival of above average rainfall from January to April 2020 across much of the MDB was a catalyst for prices dropping from the high prices observed from the middle of spring and through to early summer.

General security licence holders in the Murrumbidgee Valley were the only irrigators in New South Wales to receive a general security allocation throughout 2019–20, with allocations opening at 3% and closing at 11% in May 2020. General security licence holders in the New South Wales Murray River did not receive an allocation of water against their licences until they received a 3% allocation in May 2020. Allocations for high reliability water shares in Victoria were considerably less than in 2018–19, while South Australian irrigators had to wait longer than usual to receive a full allocation.[21]

2.3.2 Allocation trading increased in 2019–20

Larger IIOs report to the ACCC on allocation trade volumes into, out of and within their networks.[22] Allocation trades involve a change of ownership and/or location of a particular volume of water allocation received under a WAE in a given year. Larger IIOs report to the ACCC on allocation trades relating to their WAE, including trade of water allocated to irrigation right holders. (For GMW and Lower Murray Water, reported figures relate to the allocation trades conducted by their customers.) Chart 2.5 shows the allocation trade volumes reported by larger IIOs as a proportion of total water delivered.

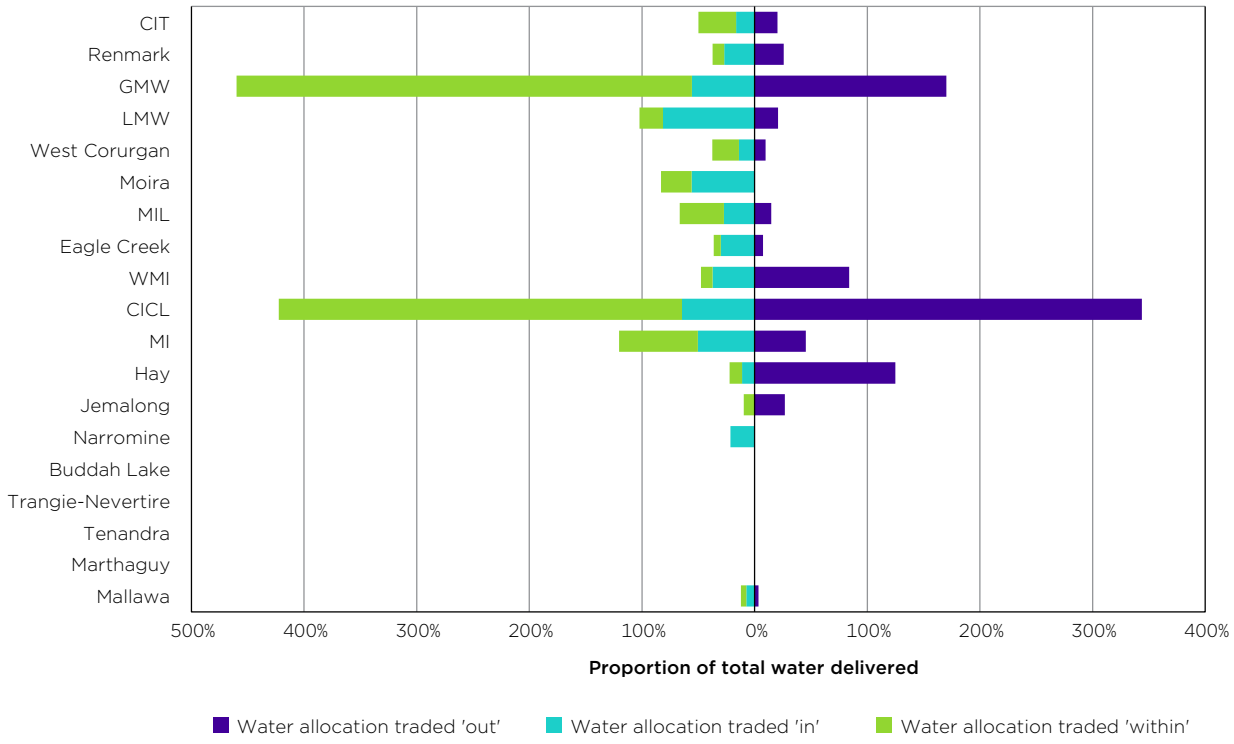
Even with the tight supply conditions, IIOs' reported allocation trade volumes increased by 16% from 4.4 GL in 2018–19 to 5.1 GL in 2019–20 (the largest amount over the period 2013–14 to 2019–20). The increase in IIOs' reported total water allocation trade volumes was directly related to growth in trade into GMW's network in Victoria, which increased by 22%. Allocation trade volumes in South Australian irrigation networks also increased during 2019–20, up 41%, while allocation trade volumes for the New South Wales IIOs decreased by 6%. Allocation trade reported by IIOs to the ACCC showed a net import of water into New South Wales, while South Australian and Victorian IIOs experienced a net export of water in 2019–20.

20 Aither, *Water markets report:-2019–20 review and 2020–21 outlook*, p 5, accessed 3 September 2021.

21 Aither, *Water markets report:-2019–20 review and 2020–21 outlook*, p 15, accessed 3 September 2021.

22 The ACCC requests allocation trade volumes only from IIOs providing services in relation to more than 10 GL of WAE.

Chart 2.5: Water allocation volumes traded into, out of and within networks, as a proportion of total water volume delivered, 2019–20



Source: ACCC from data provided by irrigation infrastructure operators.

Notes: CICL = Coleambally Irrigation Cooperative Limited; CIT = Central Irrigation Trust; GMW = Goulburn–Murray Water; LMW = Lower Murray Water; MI = Murrumbidgee Irrigation Limited; MIL = Murray Irrigation Limited; WMI = Western Murray Irrigation Limited.

The IIOs in the New South Wales Murray River region were net importers of water, however the volume imported was down 45% from 162 GL in 2018–19 to 90 GL 2019–20. Western Murray Irrigation (WMI) was the only IIO in the region that was a net exporter of water allocation during 2019–20. Since 2013–14, WMI has been a net exporter of allocation trade (Table 2.2).

Table 2.2: Western Murray Irrigation allocation trade (ML), 2013–14 to 2019–20

	2013–14	2014–15	2015–16	2016–17	2017–18	2018–19	2019–20
Trade in	3,426	2,566	3,778	5,938	5,507	7,724	9,211
Trade out	19,342	20,998	21,559	23,272	17.598	16,813	20,860
Trade within	2,866	4,013	2,219	4,652	5,796	3,948	2,586
Net trade	–15,916	–18,432	–17,780	–17,334	–12,091	–9,089	–11,650

Source: ACCC from data provided by Western Murray Irrigation.

WMI's network is located below the Barmah Choke, close to the Victorian border and to LMW's irrigation and private diverter areas.[23] The allocation traded out of WMI increased by 24% from 2018–19. There was a net import of water by IIOs in the Murrumbidgee region, mostly due to trade into MI's and Coleambally's networks.

Net trade out by the South Australian operators CIT and Renmark Irrigation Trust increased by 41% from 2018–19, totalling just over 4 GL (all from CIT). Total water delivered by CIT increased by 27%, while total exports of water increased by 77%. In contrast to New South Wales general security WAEs, South Australian Class 3 high security entitlements received full allocation in mid-November, driving increases in trade and delivery.

In 2019–20, Coleambally had the most active trade (when assessing traded volumes against the total volume of water delivered to irrigators), followed by GMW. Coleambally's most active trade category was for 'water traded within' its network which was 96 GL (compared with 27 GL of water delivered by Coleambally to irrigators in 2019–20). In GMW, 'water traded within' its networks was the most active trade category with 2,149 GL, up 19% from 2018–19. Four IIOs reported no trade during 2019–20: Buddah Lake, Trangie–Nevertire, Tenandra and Marthaguy.

2.3.3 Water delivery right trade increased

WDRs are rights to have water delivered by an IIO, and they typically represent the holder's right of access to an irrigation network. The terms and conditions of WDRs are set out in contracts or policies of the infrastructure operator and vary from network to network, and within networks. If an irrigator has surplus WDRs, the irrigator may seek to trade WDRs within its own network instead of terminating its WDR and paying termination fees.

In 2019–20, WDR volumes traded increased by 36% from 2018–19, to 26.7 GL. WDRs traded independently of an associated irrigation right or WAE sale comprised 65% of the total volume traded (17.6 GL). Table 2.3 compares reported WDR trade volumes within IIOs from 2018–19 to 2019–20.

23 As outlined in the 2018–19 report, LMW has been a net importer of allocation water since 2015–16 and most of this demand was from private diverters in its networks. The volume of water allocation traded into LMW's area of operation for use by private diverters and other irrigators can be partly attributed to permanent horticulture's increasing demand for water. The main permanent horticulture for this region includes wine and table grapes, citrus, almonds and dried fruit. These type of crops have increased 40,825 hectares since 1997, with almonds being the most prominent crop. In 2019, horticulture development expanded at the fastest rate in 10 years, with almond plantings comprising 50%.
ACCC, *Water monitoring report 2018–19*, October 2020, Box 2.1, pp 25–26.

Table 2.3: Water delivery right trade volumes, 2018–19 to 2019–20

WDR trade	2018–19	2019–20
Central Irrigation Trust		
WDR traded with WAE	248	207
WDR traded without WAE	718	472
Murray Irrigation		
WDR traded with WAE	1,234	1,430
WDR traded without WAE	3,760	8,328
Western Murray Irrigation		
WDR traded with WAE	871	2,287
WDR traded without WAE	425	177
Coleambally Irrigation Cooperative Limited		
WDR traded with WAE	2,511	1,218
WDR traded without WAE	99	562
Murrumbidgee Irrigation		
WDR traded with WAE	0	0
WDR traded without WAE	1,939	2,699
Jemalong Irrigation		
WDR traded with WAE	1,558	3,691
WDR traded without WAE	4,973	5,049
Moira Irrigation		
WDR traded with WAE	0	281
WDR traded without WAE	0	281
Narromine Irrigation		
WDR traded with WAE	0	30
WDR traded without WAE	0	0
Trangie–Nevertire		
WDR traded with WAE	0	0
WDR traded without WAE	1,240	0
Total	**19,576**	**26,713**

03

On-river infrastructure operator typical bills mostly grew modestly in 2019–20

Berembed Weir on Murrumbidgee River.
Source: Courtesy Murrumbidgee Irrigation Limited.

3. On-river infrastructure operator typical bills mostly grew modestly in 2019–20

Key points

- During 2019–20, all on-river infrastructure operator (IO) typical bills in the southern Murray–Darling Basin (MDB) increased, apart from Goulburn–Murray Water's (GMW) private diverter bills which decreased by 4.5%. Increases generally ranged from 1% to 3% but were as high as 12% for GMW's Ovens basin.
- In the northern MDB, most typical on-river IO bills increased between 1% and 3%. However, bills for high security water rights in the Macquarie, Namoi, Peel and Border valleys decreased between 47% and 79%, because the New South Wales Government extended its $4,000 rebate on fixed charges to high security licence holders in these valleys as part of its drought relief package.
- The Essential Services Commission Victoria (ESCV) finalised its review of GMW's proposed revenues, expenditures and tariffs for the next regulatory period, 1 July 2020 to 30 June 2024. The ESCV approved a proposal for water users and non-water users to pay the same charge for holding water in storages. The decision will result in price reductions for most GMW customers, while 6 gravity fed irrigation districts will pay a common delivery charge.

This chapter covers the charging arrangements for on-river infrastructure operators (IOs) across the Murray–Darling Basin (MDB). These IOs manage water service infrastructure used to store and deliver water to off-river IOs and also private diverters (customers who hold their own water access entitlement and extract water directly from the river). On-river IOs use various charges or tariff structures to recover the costs of providing these services to their customers.

The ACCC's monitoring of on-river IO regulated water charges helps show the impact of state regulators' pricing decisions on customers in these networks. The ACCC uses on-river IO typical bills to analyse the changes in charges from year to year:

- Section 3.1 discusses changes to regulatory arrangements for on-river IOs, which commenced on 1 July 2020. Box 3.1 discusses the Essential Services Commission Victoria's (ESCV) decision for Goulburn–Murray Water's prices for 1 July 2020 to 30 June 2024.
- Section 3.2 reports on the volumes (megalitres, ML) of water access rights (WAE) held by the onriver IOs (or by customers of the on-river IO), and the volumes of water delivered by these operators.
- Section 3.3 discusses typical on-river IOs bills for the southern MDB in 2019–20, and the changes from 2018–19.
- Section 3.4 discusses typical on-river IOs bills for the northern MDB in 2019–20, and the changes from 2018–19.

3.1 Regulatory arrangements for on-river infrastructure operator charges are changing

In 2019–20, Basin state regulators approved the infrastructure charges of large, non-member owned on-river IOs in the MDB under the Water Charge (Infrastructure) Rules 2010 (WCIR) and associated accreditation arrangements. The ESCV regulated the charges for GMW and Lower Murray

Water (LMW),[24] and the Independent Pricing and Regulatory Tribunal (IPART) regulated those for WaterNSW.[25]

On 1 July 2020, new water charge rules commenced, following amendments to revise and consolidate the original 3 sets of water charge rules. The Water Charge Rules 2010 (WCR) modify the arrangements for regulating on-river IOs. The new rules largely move away from a Commonwealth-accredited model to a state-based regulatory model, with regulation by the ACCC in limited circumstances.[26]

Box 3.1: Review of Goulburn–Murray Water charges for 2020–24

In October 2018, the ESCV commenced its review of GMW's proposed revenues, expenditures and water prices for the regulatory period from 1 July 2020 to 30 June 2024.[27] The ESCV's review took place under accredited arrangements and applied the Water Charge (Infrastructure) Rules 2010 (WCIR) regulatory framework. The final decision was released in June 2020.

GMW proposed a revenue requirement of $439.6 million (in 2019–20 dollars) over the period to 2024. The ESCV's final decision decreased the revenue requirement marginally to $439.5 million.

The 2 main types of water access entitlement (WAE) in Victoria are high-reliability water shares (HRWSs) and low-reliability water shares (LRWSs). These entitlements can be associated with land or not.[28]

GMW proposed a change to the pricing structure for its bulk water charges for the new price setting period. GMW proposed to charge one 'system fee' for water users and non-water users depending on whether the water share was held in the Goulburn or Murray system.[29]

Under the ESCV's decision for the 2016–17 to 2019–20 price setting period, GMW charged holders of water shares associated with land a higher 'system' price, while holders of water shares not associated with land paid a lower 'basin' price. For example, water users holding HRWSs in the Goulburn system paid $11.10/ML and non-water users (that is, holders of water shares not associated with land) paid $7.67/ML.

The ESCV approved GMW's proposed change in approach because it provided clear pricing signals that would result in customers making better decisions regarding water usage.[30] The ESCV's final decision also included price reductions for most customers, while 6 gravity fed irrigation districts will pay a common delivery charge.

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24 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 2007* (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 of its customers.

25 Section 1.2.1 of the *Water monitoring report 2017–18: supplementary information* summarises the WCIR as in force in 2019–20. ACCC, *Water monitoring report 2017–18: supplementary information*, May 2019.

26 Water Charge Rules 2010, Rule 23. This rule sets out the test for when an on-river infrastructure operator is a Part 6 operator. Under the new Water Charge Rules, such operators will not be Part 6 operators where their infrastructure charges are determined by a single state agency under the law of the state in a way consistent with the prudency and efficiency requirements of Rule 29(2)(b). If the operator is a Part 6 operator, the ACCC will regulate the operator's infrastructure charges unless it grants the operator an exemption. Rule 81 of the new Water Charge Rules sets out transitional provisions for operators currently regulated under the accredited arrangements of the WCIR who will transition to the new rules. Whether these operators remain Part 6 operators is still determined against the Rule 23 criteria.

27 Essential Services Commission Victoria, *Goulburn-Murray water price review 2020*, September 2021, accessed 9 September 2021.

28 Where a water share is not associated with land, it is not linked to a water use licence or registration. Around 97% of the HRWSs and LRWSs in GMW's irrigation systems are associated with land.
Victorian Water Register, *Water dictionary*, 2021, accessed 8 April 2021.

29 GMW has 2 systems, the Goulburn system and the Murray system. These systems have a number of basins. The system price is a weighted average across the basins in the relevant system. The basin price represented the cost-reflective price within the relevant basin. The Murray system includes the King and Ovens systems and the Goulburn system has the Broken, Campaspe and Loddon systems.
Goulburn–Murray Water, *Goulburn–Murray Water price submission,* November 2019, p 92, accessed 8 April 2021.

30 Essential Services Commission Victoria, *Goulburn–Murray Water draft decision: 2020 water price review*, March 2020, p 48, accessed 8 April 2021.

3.2 Hot dry conditions drove lower water allocations and volumes of water delivered

The 2019–20 year was one of contrasts in the MDB, with drought continuing in most parts of the Basin in the second half of 2019 and through 2020. Areas of southern New South Wales and Victoria received significant rainfall only in January to April 2020.[31] Around 2,953 gigalitres (GL) of water was allocated to holders of water entitlements in the southern MDB for 2019–20. These allocations were the lowest since the Millennium drought, when on-river IOs delivered 1,906 GL in 2008–09 in the southern MDB.[32] Victorian holders of high-reliability water shares (HRWSs) in the Goulburn and the Murray basins received opening allocations of 2%, and closed the water year at 80% and 66% respectively.[33] This was the first year since 2008–09 that holders of HRWSs did not receive a full allocation.[34]

New South Wales general security (GS) entitlement holders in the Murray Basin did not receive an allocation until the New South Wales Department of Planning, Industry and Environment's (DPIE) final allocation announcement of 3% in mid-May 2020. Murrumbidgee GS received a 3% allocation in the mid-August allocation announcement, which increased to 11% for the mid-May allocation announcement.[35] The increased inflows into storages from the substantial rainfall from January to April 2020 drove further late season allocations.

Total water deliveries by on-river IOs decreased by 31% in 2019–20. While on-river IOs reported decreases of bulk water supplies by all customer types, the most significant decrease was to irrigation infrastructure operators (IIOs) during 2019–20, dropping by 1,197 GL. This annual percentage drop in water delivered to on-river IOs was the largest over the period from 2014–15 to 2019–20.

Table 3.1 shows the water access right (WAR) and delivery volumes (in ML) for 2018–19 and 2019–20 for the 5 on-river IOs and LMW in the MDB.

31 Bureau of Meteorology, *Climate of the 2019–20 financial year*, July 2020, accessed 22 December 2020.

32 Aither, *Water markets report: 2019–20 review and 2020–21 outlook*, 2019, p 14, accessed 8 April 2021.

33 Based on fortnightly data collected by the ACCC.
Northern Victoria Resource Manager, *Historical determinations 2021*, accessed February 2021.

34 Aither, *Water markets report: 2019–20 review and 2020–21 outlook*, 2019, p 15, accessed 8 April 2021.

35 Based on fortnightly data collected by the ACCC.
Department of Planning, Industry and Environment, *Water allocation statements*, 2021, accessed January 2021.

Table 3.1: Water access rights and delivery volumes, by on-river infrastructure operators, 2019–20

Operator	Volume of water access rights held/ serviced (ML)	Volume of water delivered (ML)		Volume delivered (ML), by customer type, 2019–20				
		2018–19	2019–20	Private diverters	Irrigation infrastructure operators	Environmental water holders	Urban water suppliers	Other
WaterNSW (NSW)	9,466,075	2,648,453	1,405,105	472,906	633,320	180,110	58,674	60,096
Sunwater (Qld)	90,022	38,084	33,733	30,181	0	0	3,269	283
Department of Resources (Qld)	84,414	34,900	1,650	200	0	0	1,450	0
Goulburn–Murray Water (Victoria)	540,911	1,696,140	1,461,709	52,052	622,341	729,088	58,228	0
Grampians Wimmera Mallee Water (Victoria)	82,980	27,576	22,036	0	0	21,893	143	0
Lower Murray Water (Victoria)	375,002	604,781	569,972	435,253	112,274	1,187	21,258	0
Total	**10,639,405**	**5,049,934**	**3,494,206**	**990,592**	**1,367,935**	**932,278**	**143,022**	**60,379**

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

Note: Figures may not exactly equal the totals, due to rounding. For the Victorian operators (Goulburn–Murray Water and Lower Murray Water), the reported volumes of water access rights held are less than the volumes of water delivered. This difference arises because the bulk entitlements reported by the operators do not include all entitlements for customers to whom they deliver water.

3.3 The ACCC prepared typical bills for on-river infrastructure operators for 2019–20

The ACCC prepares typical bills for customers of on-river IOs in Queensland, New South Wales and Victoria, including private diverters in Victoria and South Australia. The *Water monitoring report 2019–20: monitoring approach and assumptions*[36] background document (which can be found on the ACCC website) outlines how the typical on-river IO bills were constructed and the charges that were included. The bills are grouped and analysed according to whether a system is located in the northern or southern MDB, given the different characteristics of these regions.[37]

Typical on-river IOs bill calculations assume the customer holds a WAE of 1,000 ML and received delivery of 50% or 100% of their entitlement (to demonstrate the effect of variable charges on the total amount payable). Typical on-river IO bills reflect different entitlement reliability classes where applicable.

ACCC analysis showed considerable bill variation across on-river IOs (and for private diverters). This variation partly reflected geographic entitlement characteristics but also other differences, such as the degree of cost recovery and the variation in tariff structures (that is, the mix of variable, fixed and non-volumetric charges imposed). Bills in the northern MDB valleys tended to be higher than the bills for the southern MDB valleys, given the smaller economies of scale arising from the lower volumes of WAE issued in the northern systems.

In New South Wales, bills also varied depending on whether the entitlement held is GS or high security (HS). Also, the fixed and variable charging structure in New South Wales means typical on-river IO bills are affected by the volumes of water delivered. Fixed charges are levied per ML of water held on the irrigator's WAE (GS or HS).

In Victoria, on-river IOs' fixed charge structure (that is, the absence of variable/usage charges) means water delivery volumes do not affect bills, so bills for the 2 levels of water delivered are equal (Chart 3.1). The use of fixed charges also means water users still pay regardless of whether they receive water during the year.

In South Australia, typical on-river IO bills represent the charges paid by licence (WAE) holders under the South Australian Government's water levy for the River Murray All Purposes Consumptive Pool (Class 3 and Class 5) water access entitlements. This levy is set in accordance with the *Natural Resources Management Act 2004.*[38]

3.4 A majority of typical bills increased in the southern Murray–Darling Basin

The ACCC developed 34 typical on-river IO bills for the 17 systems of the southern MDB based on the assumptions outlined above.

In the southern MDB, most 2019–20 typical on-river IO bills increased and generally ranged from 1% to 3% (with most around the same level as the consumer price index (CPI) increase with the exception of 2 basins in Victoria) and only 2 bills decreased. Annual reviews generally drive changes in typical on-river IO bills for charges determined or approved by ESCV and IPART. IPART's 2019–20 annual

36 ACCC, *Water monitoring report 2019–20: monitoring approach and assumptions*, October 2020, Chapter 2, accessed 1 June 2021.

37 Typical on-river infrastructure operators bills tend to be higher in the northern Murray–Darling Basin (MDB) compared with the southern MDB. Further, the volume of water access entitlements on issue and average water use tend to be higher in the southern MDB which allows for fixed costs to be spread over a greater number of users.

38 On 21 November 2019, the South Australian Government repealed the *Natural Resources Management Act 2004* and replaced it with the *Landscape South Australia Act 2019*. This new Act created 8 regional landscape boards. The relevant board for the Water monitoring report is the Murraylands and Riverland Landscape Board. The South Australian Government Gazette published on 6 June 2019 listed the charge for the River Murray and we have maintained the reference to the Natural Resources Management Act because that was the relevant legislation when the charge was announced.

review of WaterNSW charges maintained the charges set in the June 2017 price determination, with an increase in the fixed and variable charges to reflect CPI.[39]

In 2019–20, the New South Wales Government continued its emergency drought relief package which included waiving entitlement charges for GS holders. The typical on-river IO bills in this report incorporate and show the impact of this waiver.

The ESCV undertook its annual review of GMW's proposed charges for 2019–20 (in line with its pricing determination for the 2016 to 2019 regulatory period). The ESCV accepted proposed price increases for bulk water storage services, approving CPI increases for the Goulburn, Murray, Loddon and Campaspe systems, and 10% plus CPI increases for the Broken and Ovens systems. The higher than CPI rises for the Broken and Ovens basins reflected that operating and maintenance costs exceeded revenues collected in these systems.[40] The approved price increases aimed to ensure charges reached full cost recovery over the regulatory period.

Changes to South Australia's typical bill reflected an increase in the water levy for the Murray River prescribed watercourse entitlement Class 3 (irrigation) licences of just under 3% from 2018–19.

In 2019–20, the ACCC observed:

- 12% and 11% increases in GMW's Broken and Ovens Basins respectively. These basins have generally had the highest typical bill increases in GMW's area of operations since 2009–10. This outcome is due to their small size and the lack of economies of scale that are evident in larger basins. The *Water monitoring report 2019–20: supplementary spreadsheet* presents 2 charts that show the annual change for typical on-river IO bills. Since 2017–18, the ESCV's pricing determinations for GMW have approved price increases of 10% plus CPI per year so that these basins can reach full cost recovery.[41]
- A 5% decrease in GMW's 'private diverter – all systems' typical bill. This decrease was due to GMW removing the 'access (regulated waterways) fee' from its 2019–20 schedule of charges and moving to charging based on the number of service points.[42]
- Increases at or just above CPI for New South Wales HS and GS typical on-river IO bills.

Typical on-river IO bills in Victoria ranged from a low of $7,450 in the Goulburn basin to a high of over $461,670 in the Bullarook basin. Typical bills tended to be higher in smaller basins such as Bullarook, which is the smallest of GMW's irrigation districts in terms of water delivered. New South Wales GS typical bills at 100% of water delivered ranged from as low as $4,690 for GS entitlement holders in the Murray system to $22,000 in the Lachlan Valley. For HS entitlement holders at 100% of water delivered, typical bills ranged from $10,960 in the Murrumbidgee system to $39,650 in the Lachlan Valley.

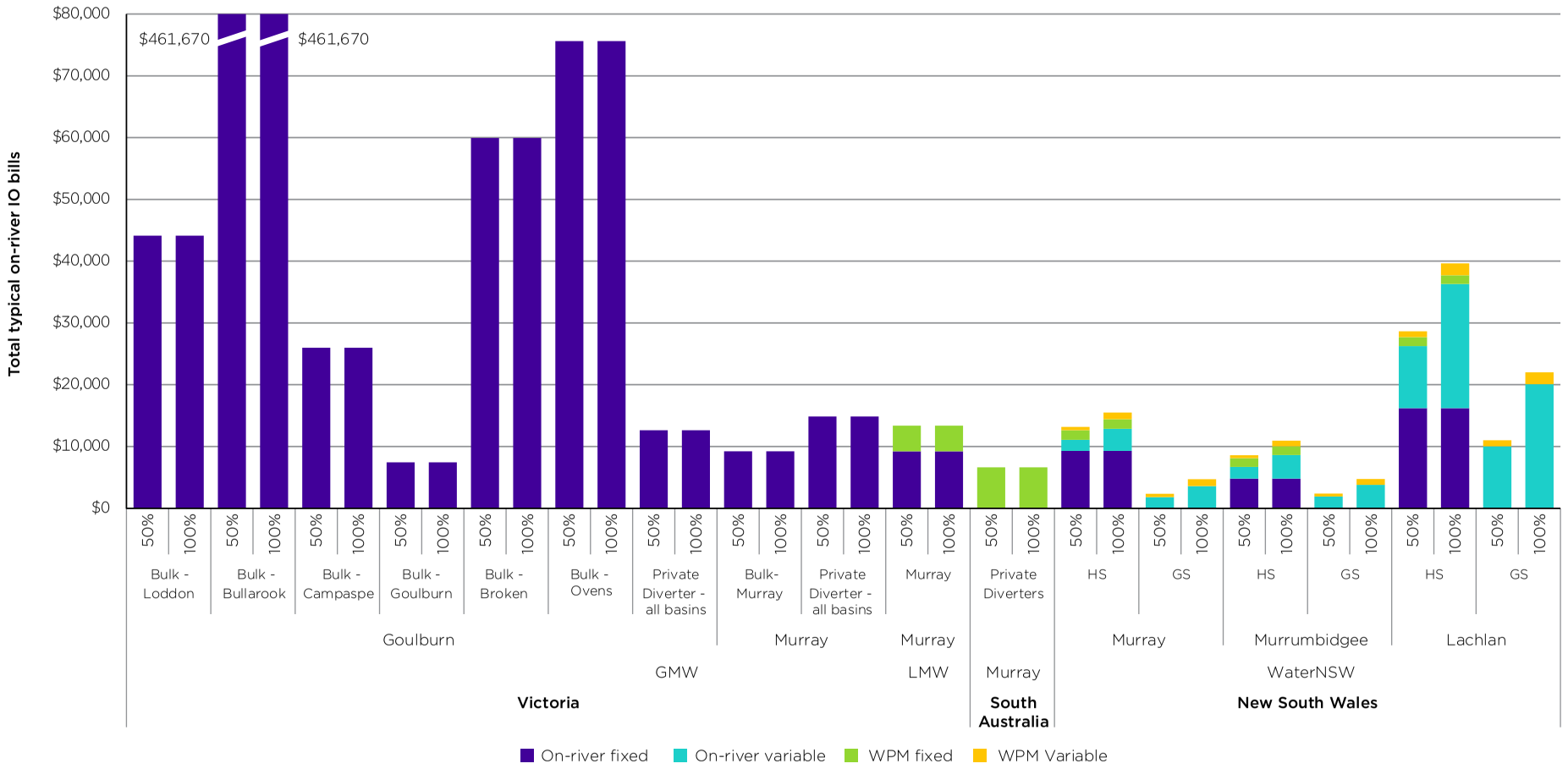
39 IPART, *WaterNSW annual review of rural bulk water charges for 2019–20*, p 2, accessed 8 April 2021.

40 Essential Services Commission Victoria, *Goulburn–Murray Water Corporation: Application for annual price review of fees and charges*, 1 May 2019, p 13, accessed 8 April 2021.

41 Historical pricing decisions and spending on dam safety upgrades meant operation and maintenance costs exceeded the revenues collected. The ESCV's draft decisions and final decisions on GMW's 2016 price review submission approved the annual 10% increase to June 2020.
Essential Services Commission Victoria, *Goulburn–Murray Rural Water Corporation submission to price review 2016 (Water Plan 4),* 2016, p 101, accessed 25 April 2021.

42 Goulburn–Murray Water, *Pricing: diverters' pricing*, April 2021, accessed 8 April 2021.

Chart 3.1: Typical on-river infrastructure operator bills (nominal), southern Murray–Darling Basin, by charge components, 2019–20



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

Notes: Fixed charges include fixed volumetric and non-volumetric charges. The 50% and 100% figures refer to the proportion of water under an entitlement delivered to the water user. HS = high security; GS = general security; WPM = water planning and management (charge).

The columns for the Bullarook system ($461,670 for both 50% and 100% of entitlement delivered) were truncated.

3.5 Typical bills in the northern Murray–Darling Basin mostly increased at or just above inflation

The ACCC developed 38 typical on-river IO bills for the northern MDB for 2019–20 (Chart 3.2). As noted in Section 3.2, the assumptions of 50% and 100% of water delivered used to calculate the typical bills vary from actual allocations for the northern MDB valleys for the year.

For New South Wales northern MDB valleys, the ACCC's typical on-river IO bills reflected CPI or other regulated increases to the 2 or 3 component charges that may be paid by New South Wales entitlement holders.[43] As noted above, IPART's 2019–20 annual review of WaterNSW charges maintained the charges set in the June 2017 price determination,[44] with an increase in the fixed and variable charges to reflect CPI. In the Border Rivers, Water Administration Ministerial Corporation (WAMC) and Border Rivers Commission (BRC) entitlement and usage charges increased by around 1.5%. In other valleys, increases in the WAMC usage charges ranged from around 2% in the Macquarie Valley to 4% for the Gwydir Valley.

HS typical bills in the Namoi and Peel valleys for 50% water delivered showed substantial decreases, ranging from 64% in the Namoi Valley to 79% for the Peel Valley. Decreases for typical bills for 100% of water delivered ranged from 47% in the Namoi Valley to 65% for the Peel Valley. These decreases reflected the New South Wales Government decision, as part of its drought assistance package, to expand the waiver on fixed (entitlement) charges to HS licence holders in these valleys.[45] While there were increases in WAMC and the BRC entitlement charges, the ACCC's typical bill calculations excluded these charges to reflect the waiver (see *Water monitoring report 2019–20: monitoring approach and assumptions*[46] for further explanation). Typical GS on-river IO bills for the northern New South Wales MDB increased at or just above CPI. The *Water monitoring report 2019–20: supplementary spreadsheet* presents 2 charts that show the annual change for typical on-river IO bills.

In Queensland, typical bills generally increased by 2% to 3% in 2019–20. These increases reflected the Queensland Treasurer's announcement in the *Sunwater Rural Water Pricing Direction Notice (No. 1) 2020*, which directed Sunwater to increase prices by 2.5%. The increase was consistent with the Queensland Competition Authority's recommendations in the *Sunwater rural irrigation price review 2012–2017*. The price setting period was extended to June 30 2019.[47] In Queensland, typical on-river bills at 50% of water delivered ranged from $21,035 for Condamine's North Branch Risk A to $85,675 for the Maranoa Water Supply Scheme (WSS). At 100% of water delivered, typical on-river IO bills ranged from $23,290 for the St George WSS to $118,180 for the Maranoa WSS. A lack of economies of scale in the Maranoa WSS has resulted in its typical on-river IO bills consistently being the highest for the northern MDB. The Maranoa WSS has the smallest volume of WAE on issue in the northern MDB (805 ML) and 4 bulk irrigation customers.[48] Sunwater has not charged the 4 bulk irrigation customers for water use since 2014–15, due to unreliable water supply from salinity problems at the main water source.

43 These 3 components include the Water Administration Ministerial Corporation (WAMC) charge, the Borders Rivers Commission charge (applies only to the Border Valley) and the WaterNSW charge. The WAMC charge covers the water planning, management and regulation services that are carried out on behalf of WAMC.

44 IPART, *WaterNSW annual review of rural bulk water charges for 2019–20*, p 2, accessed 8 April 2021.

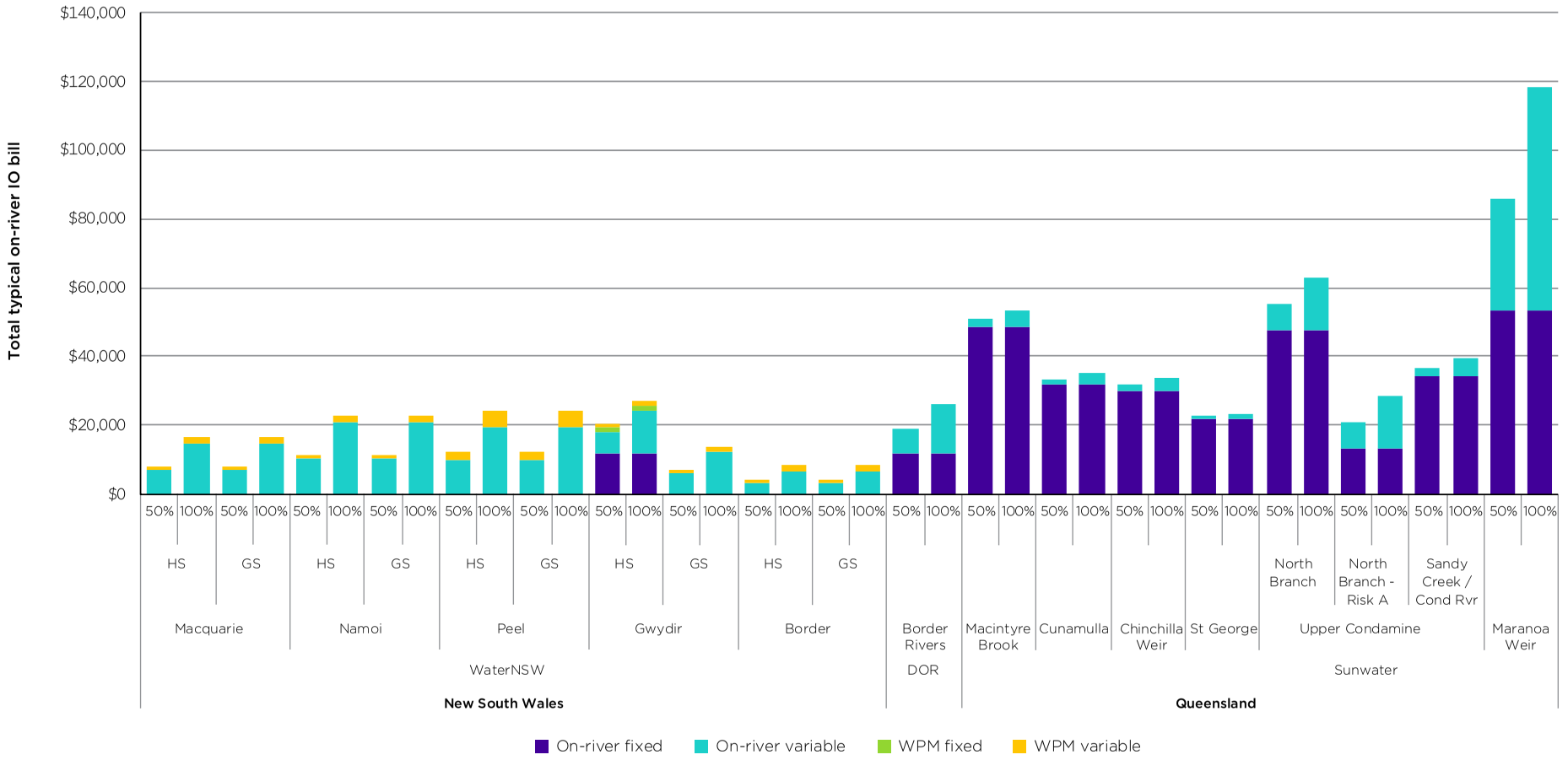
45 Department of Planning, Industry and Environment, *Frequently asked questions*, 2021, accessed 12 April 2021.

46 ACCC, *Water monitoring report 2019–20: monitoring approach and assumptions*, October 2020, Chapter 2, accessed 1 June 2021.

47 Queensland Government, *Gazette 28*, June 2019, p 401.

48 Queensland Competition Authority, *Final report: Sunwater irrigation price review 2012–27: Volume 2 Maranoa River Water Supply Scheme April 2012*, p 1, accessed 8 April 2021.

Chart 3.2: Typical on-river infrastructure operator bills (nominal), northern Murray–Darling Basin, by charge components, 2019–20



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

Notes: Fixed charges include fixed volumetric and non-volumetric charges. The 50% and 100% figures refer to the proportion of water under an entitlement delivered to the water user. HS = high security; GS = general security; DoR = Queensland Department of Resources; WPM = water planning and management.

04

Most typical irrigator bills increased in 2019–20, but the increases were modest

Renmark Irrigation Trust pumps at the main pumping station.
Source: Courtesy Renmark Irrigation Trust

4. Most typical irrigator bills increased in 2019–20, but the increases were modest

Key points

- The ACCC monitors regulated water charges. Monitoring irrigation infrastructure operators' (IIO) charges, including our typical bill analysis, makes these charges more transparent.
- The volume of water delivered by IIOs in 2019–20 was the lowest in 5 years, reflecting low allocations from dry conditions, especially in the first half of the financial year.
- Around 76% of typical irrigator bills increased, more than in previous years (only 47% increased in 2018–19), though 74% of bills increased by only 1% to 3%.
- Average typical irrigator bills increased by 2% in 2019–20. This overall increase partly reflected regulatory determinations (for Goulburn–Murray Water and WaterNSW) and small increases in several IIO charges to cover increased costs.
- On a per megalitre (ML) basis for the whole Murray–Darling Basin (MDB), average typical irrigator bills ranged from $58/ML in gravity fed networks to $102/ML in pressurised networks (assuming 250 ML delivery).
- Victoria's pressurised and gravity fed networks had the highest prices in the MDB, with average typical irrigator bills of $30,447 ($122/ML) and $20,040 ($80/ML) respectively for 2019–20.
- Over the past 11 years, the total aggregate typical irrigator bill for the MDB increased by around 6% in real terms. Around 56% of all typical irrigator bills have increased in real terms.
- Fees associated with recovering irrigation infrastructure costs make up the majority of bills (as opposed to pass through of bulk water charges and water planning and management charges). Of this, a substantial share is fixed charges.

This chapter focuses on the trends and changes to infrastructure irrigation operators' (IIOs) regulated water charges for access to, and use of, their irrigation networks:

- Section 4.1 describes the general characteristics of IIOs and the climatic conditions they faced in 2019–20.
- Section 4.2 presents findings on Murray–Darling Basin (MDB) water storage levels, water delivered by IIOs to irrigators and any changes or upgrades to the 19 IIOs that the ACCC currently monitors and collects data from.
- Section 4.3 discusses the ACCC's findings on IIOs' 2019–20 typical irrigator bills including total bills, components and changes since 2018–19.
- Section 4.4 presents the ACCC's findings on typical irrigator bill changes, including changes in the significance of certain types of charges over the past 11 years.

4.1 Monitoring irrigation infrastructure operators' regulated water charges

An IIO is a person or entity that owns or operates water service infrastructure for delivering water for the primary purpose of irrigation.[49] IIOs extract water from natural watercourses such as a river and deliver it to irrigators through their network of channels and/or pipes. These networks use either gravity or pressurised channels and/or pipes to deliver the irrigation water to end users. Besides delivering water, some IIOs provide other services. For example, a number of networks provide water trading exchanges for selling temporary and permanent entitlement rights.[50] Other services can include plant and equipment hire[51] and drainage. Some IIOs, such as Central Irrigation Trust (CIT), have alternative revenue streams from other (non-irrigation) water users including domestic and industrial users.[52]

4.1.1 IIOs use volumetric charges to recover most costs

Most IIOs rely on volumetric based charges to recover their costs. They generally levy fixed volumetric charges based on an irrigator's water delivery right or water access entitlement (WAE). The irrigator must pay these charges, regardless of the amount of water delivered.[53] Variable volumetric charges are then typically levied according to the amount of water delivered.

Other charges IIOs use include:

- casual use charges, which allow irrigators and other customers to access additional delivery capacity beyond their water delivery rights
- non-volumetric charges, which can be based on landholding size, number or size of irrigation outlets or general administrative fees per account
- drainage fees for removing excess surface or sub-surface water. These charges are either incorporated into other existing infrastructure charges or applied as specific drainage charges
- pass through charges, including bulk water suppliers' infrastructure charges and state government authorities' water planning and management charges.

4.1.2 Climatic conditions reduced water availability and delivery in 2019–20

The 2019–20 year was one of contrasts in the MDB. Drought continued in most parts of the MDB in the second half of 2019, but southern New South Wales and Victoria received significant rainfall from January to April 2020.[54] The 36 months from February 2017 to January 2020 were the driest on record for the MDB.[55] The Commonwealth Scientific and Industrial Research Organisation (CSIRO) and the Bureau of Meteorology (BOM) noted the recent drying across Australia's south west and east '… is the most sustained large scale change in observed rainfall since the late 1880s'.[56] The arrival of above average rainfall from January to April 2020 across much of the MDB[57] created the best start to the winter cropping season in 3 years.[58] While rainfall in early 2020 helped replenish many parts of the MDB, the Murray–Darling Basin Authority (MDBA) noted in January 2021 that the whole of the Queensland

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49 Irrigation infrastructure operator is defined in s 7(4) of the *Water Act 2007*.

50 Murray Irrigation, *Water exchange user guide*, September 2020, accessed 4 February 2021.

51 Narromine Irrigation Board of Management, *2020-21 Plant hire charges*, 2020, accessed 4 February 2021.

52 Central Irrigation Trust, *Annual report 2019-20*, 2020, p 18, accessed 29 July 2021.

53 The *Water monitoring report 2018–19* produced typical irrigator bills for general security water access entitlement holders who received zero (or close to zero) water delivered. These typical irrigator bills included only fixed charges relating to the number of water delivery rights held. These typical irrigator bills differed from the normal outputs where the latter assumes either 50% or 100% of water was delivered. See Section 4.2 in the 2018–19 report.
ACCC, *Water monitoring report 2018–19*, October 2020, pp 62–63, accessed 5 February 2020.

54 Bureau of Meteorology, *Climate of the 2019–20 financial year*, July 2020, accessed 22 December 2020.

55 Aither, *Water markets report:-2019–20 review and 2020–21 outlook*, 2020, accessed 22 December 2020.

56 Commonwealth Scientific and Industrial Research Organisation and Bureau of Meteorology, *State of the climate 2020*, 2020, p 7, accessed 5 February 2021.

57 Bureau of Meteorology, *Climate of the 2019–20 financial year*, July 2020, accessed 22 December 2020.

58 Aither, *Water markets report:-2019–20 review and 2020–21 outlook*, 2020, p 12, accessed 22 December 2020.

part of the Basin remained drought declared, and the northern and far west regions of New South Wales were still waiting for significant rainfall to help replenish their river systems.[59]

Water storages, based on the MDBA's total active storage measure for the MDB, were at 42% of capacity in July 2020,[60] up 3 percentage points from July 2019.[61] The late rain between February and June 2020 that led to good inflows and reduced usage during 2019–20[62] was the catalyst for this increase in storage levels.

The volume of water IIOs delivered during 2019–20 was 46% lower (1,472 gigalitres (GL)) than in the previous year (2,741 GL), reflecting the low allocations (particularly for general security (GS) entitlement holders in New South Wales). This is the lowest amount of water delivered over the past 5 years (as reported by IIOs to the ACCC) reflecting that allocations in the southern MDB were the lowest since the Millennium drought.[63] Tenandra recorded the largest reduction in delivery, and was the only IIO not to deliver any water during 2019–20 (including traded water). Water delivered was also low in Buddah Lake (down 93% from 2018–19). In contrast, CIT and Western Murray Irrigation (WMI) reported only moderate decreases in water delivered, both dropping 10% from 2018–19. Of the larger IIOs (who typically deliver in excess of 500 GL), Goulburn–Murray Water (GMW) reported a decline of 51% (532 GL), Lower Murray Water (LMW) was down 12% (101 GL) and Murrumbidgee Irrigation (MI) was down 42% (285 GL).

4.1.3 Network characteristics drive IIO costs

Network characteristics, for example, the size and type of network, and infrastructure works, are a large driver of costs for IIOs. Table 4.1 summarises all significant changes in the infrastructure characteristics of 19 IIOs during 2019–20. Five IIOs reported upgrades or restructures to their networks during 2019–20, compared with the 6 reported in the previous year. A number of these upgrades have been ongoing for several years including GMW's Connections Project[64] and MI's modernisation works. MI's modernisation works have been progressing for the past 3 years with Commonwealth funding (and also some contributions from irrigators for specific projects). Approximately 70% of its channel system is now automated.[65]

59 Murray–Darling Basin Authority, *Northern Basin enters the new year still in drought,* Media release, 21 January 2021, accessed 1 February 2021.

60 Murray–Darling Basin Authority, *River Murray weekly report,* 1 July 2020, accessed 9 February 2021.

61 Murray–Darling Basin Authority, *River Murray weekly report*, 3 July 2019, accessed 9 February 2021.

62 Aither, *Water markets report:-2019–20 review and 2020–21 outlook,* p 13, accessed 22 December 2020.

63 Aither, *Water markets report:-2019–20 review and 2020–21 outlook,* p 14, accessed 22 December 2020.

64 The Connections Project which was previously called the Northern Victoria Irrigation Project is a project jointly funded by the Victorian and Australian governments to modernise irrigation systems in the Goulburn–Murray Water (GMW) district. It includes automating regulators, changing customer service points, and remediating and decommissioning channels. Connections Project, *About and background*, 2021, accessed 9 February 2021.

65 Murrumbidgee Irrigation, *2020 Annual report,* 2020, p 8, accessed 10 February 2021.

Table 4.1: Irrigation infrastructure operators – changes in characteristics, 2019–20

State	Area[a]	IIO	Network type	Upgrade or restructure	WAE[b] (ML)	% change from 18–19	Conveyance WAE[e] (ML)	% change from 18–19	Volume delivered	% change from 18–19
South Australia	SA Murray[c]	CIT	Pressurised	No	107,727	0%	1,165	5%	105,457	–10%
		RIT	Pressurised	Yes	36,008	-3%	-	–	32,405	–10%
Victoria	Goulburn / Victorian Murray	GMW[b]	Pressurised / gravity fed	Yes	2,949,279	0%	218,031	–40%	532,141	-51%
	Victorian Murray	LMW	Pressurised / gravity fed	Yes	94,565	–13%	15,981	0%	100,674	–12%
New South Wales	NSW Murray	Eagle Creek[b]	Gravity fed	No	13,502	6%	800	–	2,953	–55%
		MIL	Gravity fed	No	1,012,593	0%	279,786	0%	283,142	-49%
		Moira[b]	Gravity fed	No	35,981	2%	5,728	0%	3,911	–77%
		West Corurgan[b]	Gravity fed	No	75,804	3%	–	–	3,766	-81%
		WMI	Pressurised	Yes	36,382	–2%	–	–	24,816	-10%
	Murrumbidgee	Coleambally	Gravity fed	No	361,106	0%	117,342	0%	26,948	–74%
		Hay	Pressurised / gravity fed	Yes	3,881	0%	–	–	456	–38%
		MI	Pressurised / gravity fed	Yes	937,981	3%	183,870	-5%	285,273	–42%
	Lachlan	Jemalong	Gravity fed	No	78,585	1%	17,911	0%	5,357	–87%
	Macquarie	Buddah Lake[b]	Gravity fed	No	4,910	–85%	–	–	915	–93%
		Marthaguy[b]	Gravity fed	No	1,434	–93%	–	–	1,494	–84%
		Narromine[b]	Gravity fed	No	38,590	22%	4,224	0%	2,777	–62%
		Tenandra[b]	Gravity fed	No	12,326	0%	1,390	0%	–	–
		Trangie–Nevertire[b]	Gravity fed	No	34,005	–4%	–	–	5,112	67%
Queensland	Condamine–Balonne	Mallawa	Gravity fed	No	–	–	9,701	0%	54,866	–18%

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; MIL = Murray Irrigation Limited; WMI = Western Murray Irrigation Limited; MI = Murrumbidgee Irrigation Limited.

a Areas are based on the 29 surface water Sustainable Diversion Limit (SDL) areas in the Basin Plan 2012.

b The figures reflect the volume of water access entitlement (WAE) of a particular entitlement class held directly or serviced by the operator, noting:

- For GMW, the WAE volumes reported are those that sit within its bulk entitlements (held on behalf of customers). They include the Ovens system high reliability water share but do not include: spill entitlements. GMW stated that there was no distinction between entitlements used in irrigation areas and by river diverters and therefore these are the total water share entitlement volumes. Excluded from this total are: bulk entitlements; water allowances; supply by agreement licences; take and use licences; and Ovens spill reliability entitlements.
- For joint water supply schemes (Buddah Lake, Eagle Creek, Marthaguy, Tenandra and Trangie–Nevertire), WAEs are jointly held by all customers, not by the IIO on behalf of members.
- Eagle Creek, Moira, West Corurgan, Buddah Lake, Marthaguy, Narromine, Tenandra and Trangie–Nevertire did not report entitlement class for non-conveyance entitlements. The ACCC assumes entitlements for these IIOs are general security. Narromine's reported conveyance entitlements have been recorded under general security because 'conveyance' is not a separate entitlement type in the Macquarie system.

c For South Australia Murray, high security = high reliability entitlement classes 1, 3a and 3b.

e The Macquarie Valley does not have a separate entitlement type for conveyance. The following IIOs reported that they do not hold conveyance WAEs/licences including Eagle Creek, West Corurgan, WMI and Hay Private Irrigation District.

4.2 Typical bills increased in 2019–20

Our monitoring makes IIOs' regulated water charges more transparent. This report calculates typical irrigator bills for 2019–20. These typical bills represent an IIO's regulated water charges for a standard customer and illustrate how individual charges change over time. Typical irrigator bill changes over the past 12 months are presented in nominal terms, while changes over multiple years are presented in real terms.

4.2.1 Our typical irrigator bills are based on several assumptions

Our typical irrigator bills are based on the following key assumptions:

- Typical bills include all standard charges billed to customers.
- Customers hold irrigation rights or WAEs with an equivalent volume of water delivery right.
- Unless otherwise stated, a typical irrigator holds 250 megalitres (ML) of irrigation right or WAE.
- Water delivered to customers is either 50% or 100% of their irrigation right or WAE. Unless otherwise stated, the analysis assumes 100%.

We created 36 typical irrigator bills that relate to a distinct charging network. Smaller IIOs such as Buddah Lake, Tenandra and Eagle Creek usually have only one set of charges for a network. Larger IIOs including GMW, LMW and MI have several charging networks that are split by entitlement type (general or high security), system type (pressurised or gravity fed), or geographical location.

As noted in the past 2 reports, the New South Wales Government again waived the fixed charge component for GS entitlement holders, as part of its drought relief package.[66] The drought subsidy was capped at $4,000 per year and did not apply to most high security (HS) entitlement holders nor government entities. Because of the subsidy, these charges have been excluded from our typical irrigator bills for GS holders for 2018–19 and 2019–20.[67]

66 Department of Planning, Industry and Environment, *DroughtHub – Frequently Asked Questions – What drought assistance has the NSW Government announced?*, June 2019, updated May 2020, accessed 27 July 2021.

67 The New South Wales (NSW) Government's drought relief package was expanded in 2019–20 to include stock and domestic and high security water entitlement holders in the NSW Border River, Lower Namoi, Upper Naomi, Peel, Macquarie and Lower Darling regulated rivers. Because this report does not either construct typical irrigator bills for those rivers or produces only general security ones, these changes do not affect the bills presented.

Further information about how we build our typical irrigator bills and the assumptions behind them can be found on the ACCC website.[68] Further information for each IIO's typical irrigator bill is available in the accompanying publication *Water monitoring report 2019–20: Monitoring approach and assumptions*.

4.2.2 The price of one megalitre of water delivered still varied significantly

Typical irrigator bills per ML for both pressurised and gravity fed IIOs continued to vary significantly during 2019–20 (Tables 4.2 and 4.3). These differences reflect a number of factors, including the network size and potential economies of scale, the location and service and the pricing methodology applied. Other factors include the extent of recovery of capital costs, subsidies offered to irrigators, differing asset ages and conditions, input costs and rebates such as the New South Wales Government's drought relief package.

The average typical irrigator bill in pressurised networks increased by 2% in 2019–20 to $102/ML. In gravity fed networks, the average typical bill was $58/ML, also up 2% from 2018–19. The higher average bill for pressurised networks reflected the higher capital costs associated with pipes and the high energy costs associated with pumping.

Average typical bills for pressurised IIOs in Victoria were $122/ML, 21% higher than those in New South Wales ($101/ML). South Australian average bills for pressurised networks were $83/ML, around 32% less than those in Victoria. Average typical bills for gravity fed IIOs in Victoria were nearly double those in New South Wales: $80/ML compared with $43/ML.

Across pressurised networks, LMW's Robinvale network still had the highest typical bill at $219/ML, while both WMI's Curlwaa and CIT's low pressure network were $66/ML. Within gravity fed networks, the largest typical bill was for LMW's Mildura network at $145/ML, while Eagle Creek continued to deliver the cheapest water at just $14/ML. LMW's higher typical bills reflected its higher cost recovery, falling customer base and higher average costs.[69]

For several gravity fed networks (for example, Murray Irrigation Limited (MIL), Coleambally and MI), typical bills generally decreased per ML (some significantly) as the volume of irrigation right or WAE increases. This outcome reflected the relative significance of non-volumetric charges in these networks.[70]

68 See https://www.accc.gov.au/regulated-infrastructure/water/water-monitoring-reporting.

69 Marsden Jacob Associates, *Lower Murray Water: Independent benchmarking study of rural irrigation services, final report*, June 2015, p 44.

70 For those irrigators, the proportion of non-volumetric charges in typical irrigator bills will decrease as volume increases, so the total bill per ML will decrease.

Table 4.2: Typical irrigator bills per ML of water delivered from irrigation infrastructure operators – customers in pressurised networks, 2019–20

State	IIO	Network/entitlement category	50 ML ($/ML)	250 ML ($/ML)	1,000 ML ($/ML)	Ratio ($/ML for 50 ML: $/ML for 1,000 ML)[a]
South Australia	CIT	High pressure	94	94	94	1.00
		Medium pressure	79	79	79	1.00
		Low pressure	66	66	66	1.00
	RIT		93	93	93	1.00
Victoria	GMW	Tresco	92	88	87	1.05
		Nyah	96	90	89	1.08
		Woorinen	96	91	90	1.08
	LMW	Robinvale	220	219	218	1.01
New South Wales	WMI	Curlwaa	66	66	66	1.00
		Coomealla	91	91	91	1.00
		Buronga	155	155	155	1.00
	MI	IHS–HS	125	92	86	1.47

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; WMI = Western Murray Irrigation Limited; MI = Murrumbidgee Irrigation Limited; IHS = integrated horticulture supply; HS = high security.

a. These ratios compare the dollar value of one ML for 50 ML of water delivered with the dollar value of one ML for 1,000 ML of water delivered. A value of 1 indicates one ML is of the same value for both volumes of water. A value greater than 1 indicates the price decreases as volume increases, and/or reflects the inclusion of outlet, account or other fixed charges that do not vary with volume held/delivered.

Table 4.3: Typical irrigator bills per ML of water delivered from irrigation infrastructure operators – customers in gravity fed networks, 2019–20

State	IIO	Network/ entitlement category	50 ML ($/ML)	250 ML ($/ML)	1,000 ML ($/ML)	Ratio ($/ML for 50 ML: $/ML for 1,000 ML)[a]
Victoria	GMW	Central Goulburn	56	52	51	1.09
		Loddon Valley	56	52	51	1.09
		Murray Valley	58	54	53	1.09
		Rochester	55	51	50	1.09
		Shepparton	76	72	71	1.06
		Torrumbarry	57	53	53	1.09
	LMW	Merbein	119	117	117	1.02
		Mildura	146	145	144	1.01
		Red Cliffs	127	126	125	1.02
New South Wales	West Corurgan		41	41	45	0.91
	Moira		40	40	42	0.95
	Murray	B1 Class C	78	33	28	2.80
	Eagle Creek		14	14	16	0.87
	Coleambally		44	24	20	2.17
	Murrumbidgee	Gravity fed–GS	72	35	29	2.50
		Gravity fed–HS	78	42	35	2.23
	Hay		93	63	57	1.61
	Jemalong		42	42	43	1.00
	Narromine		60	57	57	1.05
	Buddah Lake		40	40	40	0.98
	Trangie–Nevertire		56	56	57	0.99
	Tenandra		86	70	68	1.27
	Marthaguy		48	48	49	0.99
Qld	Mallawa		75	75	75	1.00

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

Notes: The table presents typical irrigator bills from irrigators in gravity fed networks with 50 ML, 250 ML or 1,000 ML of irrigation right or WAE. We assumed 100% water was delivered in 2019–20.

GMW = Goulburn–Murray Water; LMW = Lower Murray Water; HS = high security, GS = general security.

a These ratios compare the dollar value of one ML for 50 ML of water delivered, with the dollar value of one ML for 1,000 ML of water delivered. A value of 1 indicates one ML is of the same value for both volumes of water. A value greater than 1 indicates the price decreases as volume increases, and/or reflects the inclusion of outlet, account or other fixed charges that do not vary with volume held/delivered.

4.2.3 Typical irrigator bills were substantially higher in Victorian irrigation networks

Charts 4.1 and 4.2 present the total typical irrigator bills for 2019–20 for pressurised and gravity fed networks respectively. Typical irrigator bills include a breakdown of the dollar value of each charge type including off-river (that is, IIO access and usage fees), on-river (that is, pass through charges to recover on-river infrastructure costs) and water planning and management (WPM) charges.

Pressurised networks

The average typical irrigator bill for all pressurised networks for 100% of water delivered was $25,489 in 2019–20, just under $102/ML.[71] By state, Victoria's pressurised networks had the highest prices, with an average typical irrigator bill of $30,447 ($122/ML), compared with $25,219 ($101/ML) for New South Wales and $20,799 ($83/ML) for South Australia.

The largest typical irrigator bills by state for pressurised networks were: LMW's Robinvale network in Victoria with $54,631 ($219/ML); WMI's Buronga network in New South Wales with $38,688 ($155/ML); and CIT's high pressure network in South Australia with $23,620 ($94/ML). The least expensive pressurised network was CIT's low pressure network with $16,385 ($66/ML). Variations across networks reflect a range of factors including the degree of cost recovery and subsidies, customer numbers, network size and efficiency, service levels, volumes delivered, energy costs and other revenue streams. Off-river charges remain the major component of typical irrigator bills, comprising 91% of the total aggregate bill in 2019–20 (with no change from 2018–19). The share of off-river charges by state is 94% for New South Wales IIOs, 91% for South Australian IIOs and 88% for Victorian IIOs.

Gravity fed networks

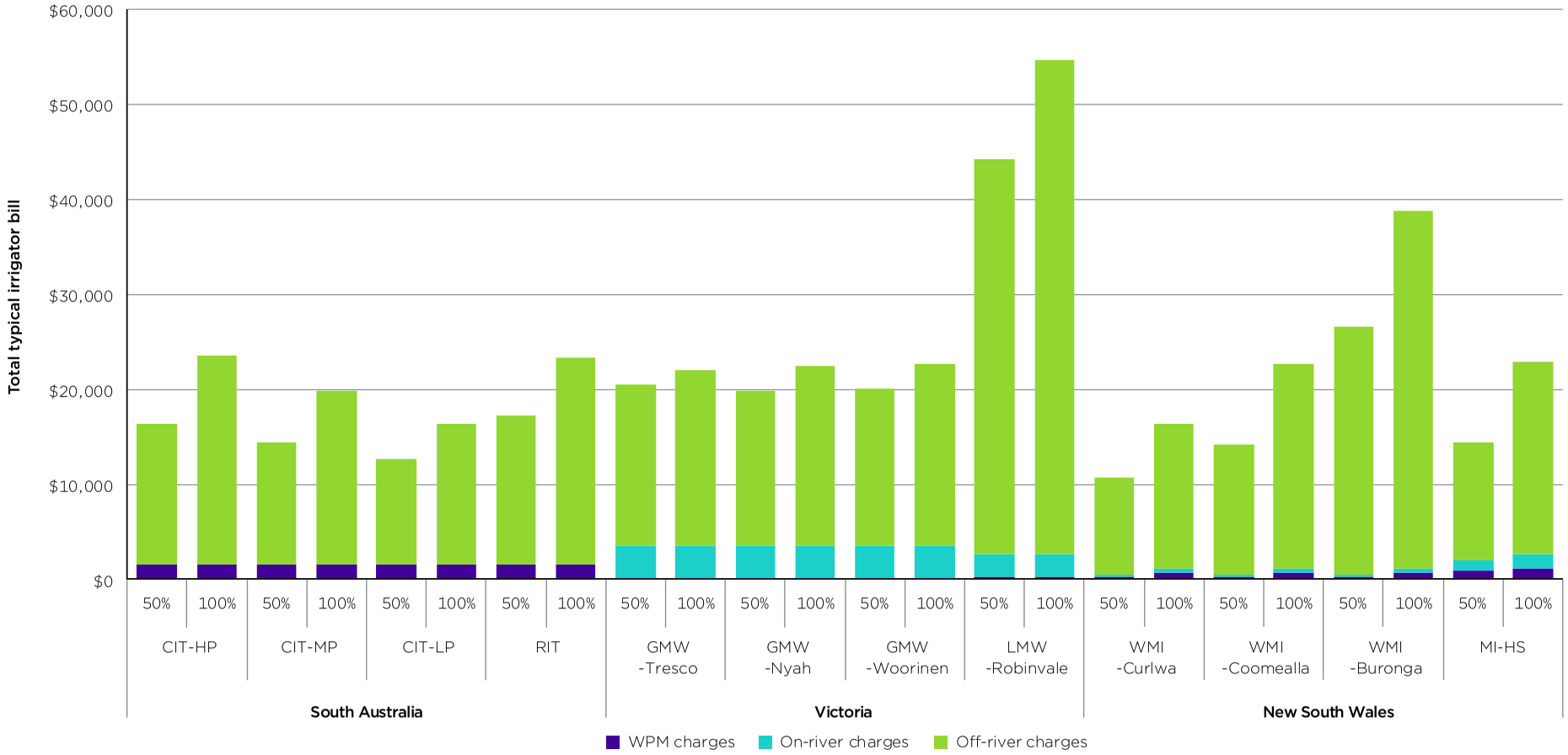
Within gravity fed networks, the average typical irrigator bill for 100% of water delivered was $14,594 in 2019–20 or $58/ML (43% lower than the average typical bill for pressurised networks). Like pressurised networks, Victoria recorded the highest average state typical irrigator bill, with an average bill of $20,040 ($80/ML). In contrast, the average typical irrigator bill for New South Wales was around 60% less at $10,081 ($40/ML) in 2019–20, reflecting in part the drought relief available to NSW GS irrigators.

As in previous years, LMW's gravity fed networks recorded the highest typical irrigator bills. These results reflected higher direct costs due to ageing infrastructure, declining water deliveries, increased underutilisation, a shrinking customer base and higher comparable drainage costs.[72] In contrast, Eagle Creek in New South Wales continues to provide the cheapest water to irrigators, with a typical irrigator bill of $3,479 ($14/ML). Eagle Creek's low price of water is related to a number of factors including its simplified schedule of charges which excludes a number of charges (such as administrative and outlet charges) imposed by other operators. Further, networks in the New South Wales Murray region tend to have lower access charges compared with other networks due to differing approaches on the recovery and extent of capital costs and subsidies, lower input costs and also the New South Wales Government drought relief package (which waived government fixed charges for GS entitlement holders).

71 The analysis in this section refers to 250 ML of irrigation right or WAE held with 100% of water delivered.

72 Marsden Jacob Associates, *Lower Murray Water: Independent benchmarking study of rural irrigation services*, June 2015, pp ii, viii.

Chart 4.1: Typical irrigator bills in pressurised networks for 250 ML entitlement at 50% and 100% water delivery (nominal), by charge category, 2019–20

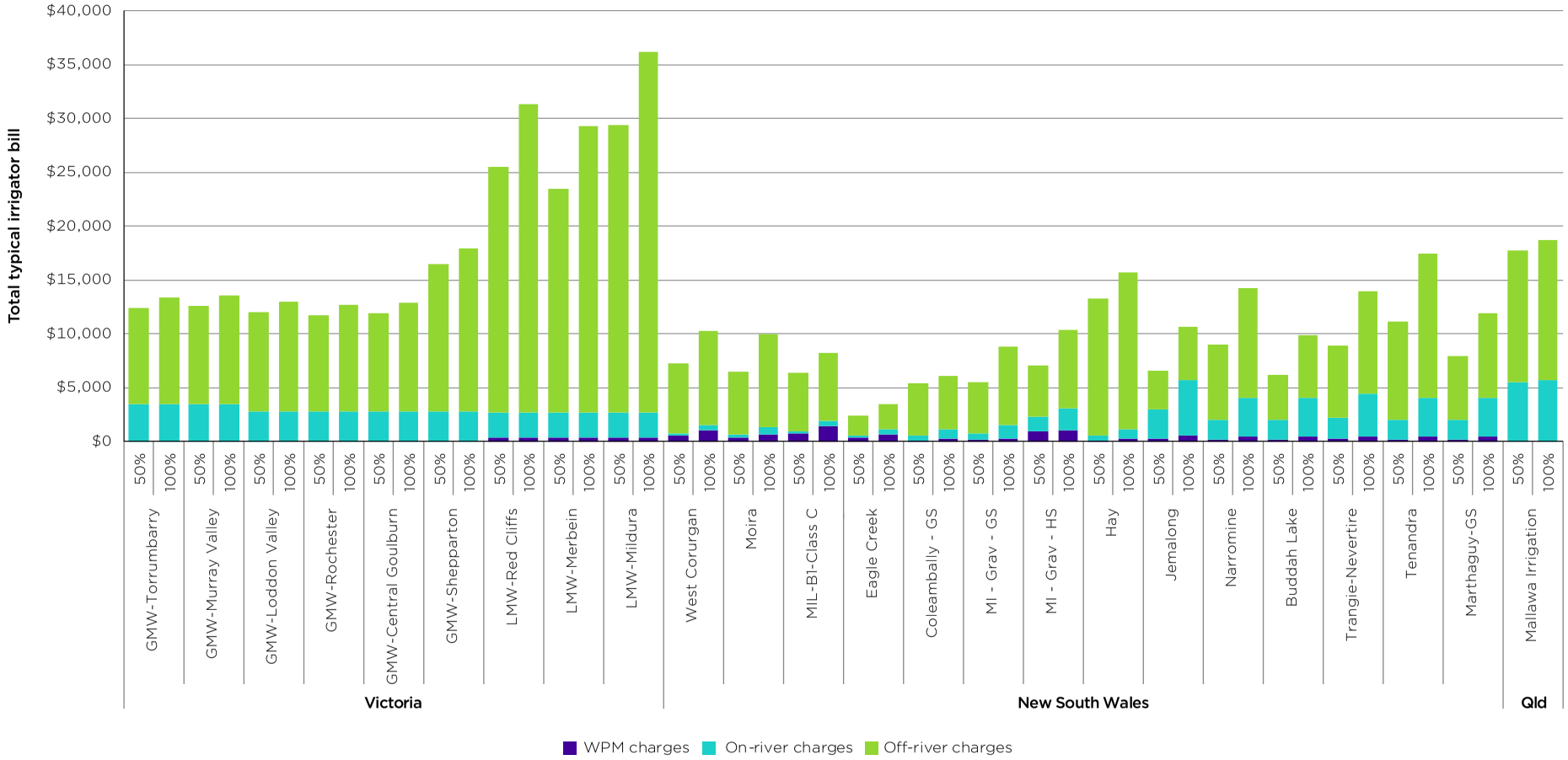


Source: ACCC from data provided and published by irrigation infrastructure operators.

Notes: CIT = Central Irrigation Trust; RIT = Renmark Irrigation Trust; GMW = Goulburn–Murray Water; LMW = Lower Murray Water; WMI = Western Murray Irrigation Limited; MI = Murrumbidgee Irrigation Limited; HP = high pressure; MP = medium pressure; LP = low pressure; HS = high security; WPM = water planning and management.

50% and 100% figures refer to the proportion of water under an entitlement delivered to the water user.

Chart 4.2: Typical irrigator bills in gravity fed networks for 250 ML entitlement at 50% and 100% water delivery (nominal), by charge category, 2019–20



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

Notes: GMW = Goulburn–Murray Water; LMW = Lower Murray Water; MIL = Murray Irrigation Limited; MIL-BI-Class C refers to B1 – Berriquin irrigation district farms with access to surface drainage with capital payment still outstanding. Class C = general security; MI = Murrumbidgee Irrigation Limited; HP = high pressure, MP = medium pressure, LP = low pressure, HS = high security,
GS = general security; WPM = water planning and management; grav = gravity fed.

50% and 100% figures refer to the proportion of water under an entitlement delivered to the water user.

Off-river charges comprise the majority of bills in all IIO networks

IIOs' off-river charges have traditionally formed the most significant component of our typical irrigator bills and this trend continued in 2019–20. Off-river charges usually comprise both usage and fixed charges, to recover costs associated with delivering water from a natural watercourse through channels/and or pipes to an irrigator.

Like the previous year, off-river charges accounted for 91% of typical irrigator bills on average in pressurised networks. The proportion varied across the MDB, ranging from an average of 94% of typical irrigator bills in New South Wales to 91% in South Australia and 88% in Victoria. By network, WMI's Buronga network had the largest share of off-river charges with 98%, while GMW's Nyah network recorded the lowest with 84%.

While off-river charges are also a substantial component of gravity fed systems, their average share of typical bills was 11 percentage points less than that for pressurised systems (80%). Off-river charges accounted for a larger share of typical irrigator bills in Victoria, comprising 84% of average typical irrigator bills compared with 76% in New South Wales. The proportion of off-river charges in gravity fed networks showed considerably more variation than in pressurised networks, ranging from 93% for Hay to 46% for Jemalong.

4.2.4 Many typical irrigator bills increased, but by small amounts

Looking at all typical irrigator bills for pressurised and gravity fed networks (for both 50% and 100% delivery), 76% of bills increased. This result is considerably higher than in 2018–19, when around 47% of bills increased.[73] Of the bills that increased in 2019–20, around 51% rose by more than the consumer price index (CPI) (compared with 77% recording increases above CPI in the previous year). Almost three-quarters (74%) of typical irrigator bills increased by only 1% to 3%. The *Water monitoring report 2019–20: supplementary spreadsheet* presents 2 charts that show the annual change for typical irrigator bills in pressurised and gravity fed networks.

Pressurised networks

Typical irrigator bills increased for 79% of pressurised networks in 2019–20 (up 17 percentage points from 2018–19). All Victorian pressurised networks recorded typical irrigator bill increases, as did around half of New South Wales networks.

The largest increase in typical irrigator bills occurred at GMW's Nyah network, with increases of 4.9% and 4.7% for 50% and 100% of water delivered respectively. Typical bills for GMW's Tresco network increased by 4.3% and 4.2% for 50% and 100% of water delivered respectively. As discussed in the 2018–19 report, these larger increases for GMW's Nyah and Tresco networks reflect Victoria's 2016 pricing determination[74] and the May 2019 annual review of prices, which increased charges for these networks by 3% in real terms.[75] According to GMW, the infrastructure in these districts was largely constructed in the 1960s and 1970s and is now at the end of its useful life. GMW claims the relatively large increase in charges was required to fund replacement infrastructure.

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73 The much smaller percentage of IIOs recording increases in typical irrigator bills in 2018–19 was related to the first year of the New South Wales drought aid, which waived government fixed charges. If these charges were included, around 61% of typical bills increased in 2018–19.

74 Essential Services Commission Victoria, *Goulburn–Murray Water price review 2016 final decision*, June 2016, p 52, accessed 21 January 2021.
Goulburn–Murray Water's submission to the 2016 price review stated that the infrastructure in those networks was constructed in the 1960s and 1970s and needs replacing. Further, much of the production in these networks is perennial based horticulture, which would be significantly affected by any cessation of supply.
Goulburn–Murray Water, *Goulburn-Murray Rural Water Corporation submission to price review 2016 (Water Plan 4)*, 2016, pp 96–97, accessed 28 November 2021.

75 Goulburn–Murray Water, *Goulburn–Murray Water Corporation application for annual price review of fees and charges*, 1 May 2019, p 20, accessed 21 January 2021.

Changes in typical irrigator bills for South Australian pressurised networks was mixed with moderate increases for half, while CIT's medium and low pressure networks experienced falls. The largest CIT decrease was 2% in its medium pressure network for 100% of water delivered. These declines were related to falling electricity costs that reduced CIT's peak and off peak consumption charges.[76]

Gravity fed networks

Within gravity fed networks, around 75% of typical irrigator bills increased in 2019–20 (up 34 percentage points from 2018–19). Of these, 33% were above CPI.

All Victorian networks recorded increases in typical irrigator bills, ranging from less than 1% for Loddon, Rochester, Central and Shepparton to 2% for Red Cliffs. In contrast, results for New South Wales varied, with around 64% increasing. The larger increases occurred at MIL which had an increases of 4% for both 50% and 100% allocation. These increases at MIL were driven by rises in its tiered variable charges and its fixed landholding and outlet charges. Most decreases in NSW gravity fed networks were modest (less than 1%), although Eagle Creek recorded 2% falls for both 50% and 100% water delivered. These falls reflected decreases in the calculated WaterNSW usage charge.[77]

4.2.5 Off-river charges drive changes in typical irrigator bills

Across both pressurised and gravity fed networks, around 80% of typical irrigator bill changes were driven by changes in off-river charges. This was the case in 87% of typical irrigator bills for pressurised networks and 69% for gravity fed networks.

For pressurised networks, movements in off-river charges drove changes in 94% of typical irrigator bills for networks in New South Wales, compared with 90% in South Australia and 82% in Victoria. As in the previous year, GMW's Nyah and Tresco networks had the largest dollar increases in pressurised networks in 2019–20, up $1,005 and $890 respectively. Off-river charges accounted for 85% and 83% of these dollar changes respectively. Changes in off-river charges also had the largest effect on WMI's 3 pressurised networks, contributing between 95% and 98% of changes.

For gravity fed networks, off-river charges drove changes in New South Wales and Victorian typical irrigator bill changes, contributing 64% and 77% to total changes respectively. However, for GMW's gravity fed networks, changes largely reflected on-river charges. Their contribution ranged from 44% of the total change in GMW's Shepparton network to 94% in the Murray Valley.[78]

Charts for pressurised networks and gravity fed networks in the *Water monitoring report 2019–20: supplementary spreadsheet* present the charge type that contributed to the changes described above. These charts are presented in nominal terms.

4.3 Eleven years of monitoring indicates modest increases in typical irrigator bills

The following sections assess changes in typical irrigator bills over the past 11 years. The *Water monitoring report 2019–20: supplementary spreadsheet* contains the background data and charts for these sections.

4.3.1 While changes in typical irrigator bills since 2009–10 varied significantly, the overall change was not substantial

A typical irrigator is assumed to hold 250 ML of irrigation right or WAE, and typical irrigator bills were calculated for both 50% and 100% of water delivered.[79] Over the past 11 years, the average aggregate

76 Central Irrigation Trust, *Annual report 2019–20*, 2020, p 3, accessed 20 January 2021.

77 Refer to the ACCC's *Water monitoring report 2019-20: Monitoring approach and assumptions 2021* for further information.

78 Total dollar changes in Victoria's GMW's networks were relatively low when compared with LMW's networks. In aggregate, GMW's networks contribution to changes in Victorian irrigator bills was 22% compared with LMW's 78%.

79 The ACCC has produced typical irrigator bills for IIOs for the past 11 years and the following sections looks at the change in these bills in real terms.

change in typical bills was an increase of around 6% in real terms (for both 50% and 100% of water delivered). Since 2009–10, around 56% of all typical irrigator bills have increased in real terms.

Pressurised networks

In pressurised networks, the total aggregate bill increased by 9% in real terms since 2009–10, with around 75% of typical irrigator bills in pressurised networks increasing over this period.

More generally, we observed the following in pressurised systems:

- The largest percentage increase in typical irrigator bills occurred at GMW's Nyah network, up 53% and 40% in real terms (for 50% and 100% delivered respectively) since 2009–10.
- Other significant increases over the period include GMW's Tresco network (37% and 33% increases)[80] and all South Australian networks, with increases ranging from 21% for CIT's low pressure network for 50% of water delivered to 14% for Renmark for 100% of water delivered.
- In contrast, WMI's Curlwaa and Coomealla networks had declines in all bills over the period, ranging from a 4% decrease for the Coomealla network for 100% of water delivered to 13% at Curlwaa for 50% of water delivered.

Gravity fed networks

The total aggregate bill change in gravity fed networks since 2009–10 was around 3% in real terms (6 percentage points less than for pressurised networks over the same period). While there was a relatively small average aggregate increase over the period, 54% of typical irrigator bills actually fell. This result partly reflected the New South Wales Government waiving its fixed charges as part of its drought relief package for GS entitlement holders.[81]

Over the past 11 years, changes for typical irrigator bills in Victorian gravity fed networks showed substantially less variation compared with New South Wales, again likely reflecting New South Wales waiving charges in some later years.

More generally, we observed the following in gravity fed systems:

- The largest increase in typical irrigator bills since 2009–10 occurred at Tenandra with increases of 88% and 110% for 50% and 100% of water delivered respectively. Tenandra was one of the early participants in the Private Irrigation Infrastructure Operators Program[82] in New South Wales, receiving $37 million to modernise and rationalise its infrastructure. This work was completed in late 2013. In 2015–16, Tenandra introduced several new charges including outlet usage fees, an outlet fee, and operating and maintenance fees, which contributed to the significant increases in Tenandra's typical irrigator bills since 2009–10.
- Other large increases since 2009–10 were at Hay with increases of 60% and 89% (for 50% and 100% of water delivered respectively) and 54% for Narromine for 100% of water delivered.
- A number of IIOs in New South Wales had substantial decreases in typical irrigator bills, with the largest at Eagle Creek, decreasing between 34% and 38% (for 100% water delivered and 50% water delivered respectively). Both of MI's networks had large reductions over the period ranging from 20% for the GS network (for 100% of water delivered) to 37% in the HS network (with 50% of water

80 These larger increases for GMW's Nyah and Tresco networks are partly related to pricing increases approved by the Essential Services Commission Victoria in its 2016 price review. As discussed in Section 4.2.4, the infrastructure in these districts was largely constructed in the 1960s and 1970s and is now at the end of its useful life. The relatively large increase in charges was to fund replacement infrastructure.
Essential Services Commission Victoria, *Goulburn-Murray Water price review 2016 final decision*, June 2016, p 52, accessed 21 January 2021.
Goulburn–Murray Water, *Goulburn-Murray Rural Water Corporation submission to price review 2016 (Water Plan 4)*, 2016, pp 96–97, accessed 28 November 2020.

81 Department of Planning, Industry and Environment, *Drought hub, Frequently asked questions*, May 2020, accessed 28 January 2021.

82 The Australian and New South Wales governments' Private Irrigation Infrastructure Operators Program aims to improve the efficiency and productivity of the off-river infrastructure operator network infrastructure. It included upgrading and modernising irrigation channels, installing pressurised pipelines and installing total channel control.
Department of Agriculture, Water and the Environment, *Private Irrigation Infrastructure Operators Program in New South Wales*, 2021, accessed 14 April 2021.

delivered). A number of these decreases are directly related to the New South Wales Government's drought relief package, where fixed fees for irrigators were waived in 2018-19 and 2019-20. MI's decrease over the period was partly related to its restructure of charges to reduce complexity and change from a tiered approach to a single flat fee for holding delivery entitlements.[83]

4.3.2 Overall the off-river component of charges has remained relatively constant

The total aggregate contribution of off-river charges has changed little over the past 11 years, constituting around 85% of an average total typical irrigator bill in both 2009–10 and 2019–20. (This result reflected both increases and decreases for all bills for 250 ML of entitlement held with 100% of water delivered.) However, the contribution of off-river charges does vary by type of network and state.

Within pressurised networks, the aggregate average contribution of off-river charges has not changed, remaining at 92%. For pressurised South Australian networks, the off-river contribution decreased 3 percentage points to 92%, while for Victorian networks the decrease was 2 percentage points to 89%. New South Wales' pressurised networks' off-river charge contribution increased by 3 percentage points to 94%. Within pressurised networks, the off-river contribution ranged from 84% at GMW's Tresco network to 97% at WMI's Buronga network in 2019–20.

While off-river charges are less significant for gravity fed systems, their share of the average total typical irrigator bill remained largely unchanged, increasing one percentage point from 2009–10 to 80% in 2019–20. Off-river charges as a share of total bills for Victorian gravity fed networks decreased 2 percentage points to 86% in 2019–20 and increased 4 percentage points to 73% in New South Wales.

4.3.3 Contribution of fixed charges shows little variation

IIOs have to consider a number of factors when weighting the off-river fixed and variable charges that are included in a typical irrigator bill. A greater reliance on fixed charges gives a network more reliable income. The revenue stream from variable charges can decrease or disappear during times of water scarcity, particularly for those networks where all irrigators hold GS entitlements. The level of fixed charges also influences the maximum termination fee that an off-river infrastructure operator can impose on a customer who wants to terminate access to the network.

The total aggregate contribution of fixed charges has changed little over the past 11 years, averaging around 60% of an average total typical irrigator bill in both 2009–10 and 2019–20. (This result reflects both increases and decreases for all bills for 250 ML of entitlement held with 100% of water delivered.)

Off-river fixed charges in pressurised systems changed little since 2009–10, averaging 57% of typical irrigator bills then and in 2019–20. Pressurised networks in Victoria have the largest share of fixed charges at 68% in 2019–20, which is unchanged from 2009–10. New South Wales' pressurised networks' share of fixed charges also remained unchanged at 57% in 2019–20.

Bills in gravity fed networks in Victoria comprised a higher share of fixed charges at around 68%, up 3 percentage points from 2009–10. The total aggregate contribution in gravity fed networks in New South Wales was lower at around 56% in 2019–20, down 4 percentage points from 2009–10.

The *Water monitoring report 2019–20: supplementary spreadsheet* presents 3 charts by offriver infrastructure operator type and provides the fixed charge proportion of typical irrigator bills.

83 For further information on Murrumbidgee Irrigation's changes to its pricing approach, refer to the 2017–18 report ACCC, *Water monitoring report, 2017–18*, May 2019, Section 6.2.2, p 86.

05

Rule changes influenced operator enquiries and ACCC compliance activities

Nuts grown within Murrumbidgee Irrigation's network.
Source: Courtesy Murrumbidgee Irrigation.

5. Rule changes influenced operator enquiries and ACCC compliance activities

Key points

- Complaints and enquiries to the ACCC about water-related matters fell slightly to 26 in 2019–20, with 12 complaints and 14 enquiries. This result is down from 32 in 2018–19.
- Of the 14 enquiries received, over half were from infrastructure operators (IOs) about their obligations under the new Water Charge Rules 2010 (the new Charge Rules). Enquiries particularly related to the schedule of charges requirements.
- The ACCC conducted 10 initial investigations but found no breaches of the water charge rules, Water Market Rules 2009 or the Australian Consumer Law (ACL) that resulted in significant detriment. Six of these initial investigations were prompted by a complaint or enquiry from an irrigator or other stakeholder. Four were prompted by the operator's response to the ACCC's annual request for information (RFI).
- The ACCC updated guidance to help operators understand their obligations under the new Charge Rules, including publishing an example schedule of charges.

This chapter reports on the ACCC's Rules-related compliance and enforcement activities and outcomes in 2019–20:

- Section 5.1 discusses complaints and enquiries received by the ACCC in 2019–20.
- Section 5.2 outlines activities the ACCC undertook in 2019–20 to monitor and enforce the Rules and the Australian Consumer Law (ACL).
- Section 5.3 describes the activities the ACCC has undertaken to support compliance with the new Water Charge Rules 2010 (the new Charge Rules).

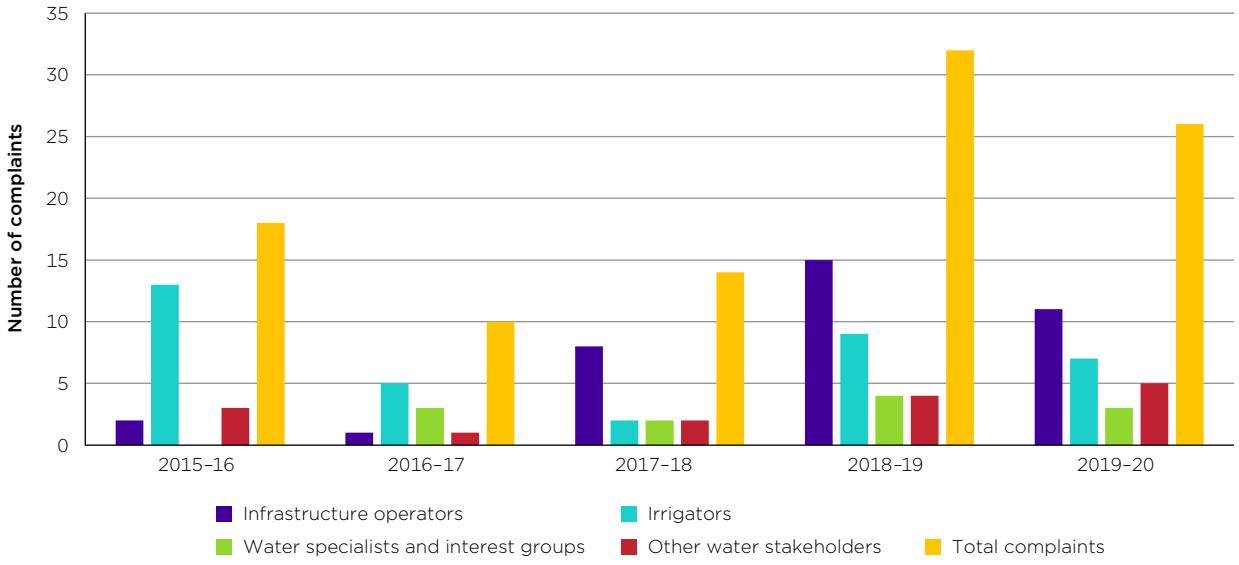
5.1 Complaint and enquiry trends fell slightly when compared with past years

The number of complaints and enquiries from water stakeholders fell slightly in 2019–20 to 26 contacts (12 complaints, 14 enquiries), down from 32 in 2018–19. This result was still higher than in the period from 2015–16 to 2017–18. Of the 26 contacts, 7 were from irrigators and 11 were from infrastructure operators. The slight decrease in contacts may reflect that some stakeholder concerns were instead directed to the ACCC's Murray–Darling Basin water markets inquiry.[84]

The types of water stakeholders who made complaints and enquiries remained relatively steady (Chart 5.1). The proportion of contacts from infrastructure operators, irrigators and other water specialists remained largely consistent over the past 2 years.

84 The final report of the ACCC's Murray–Darling Basin water markets inquiry is available at: https://www.accc.gov.au/focus-areas/inquiries-finalised/murray-darling-basin-water-markets-inquiry/final-report. Submissions to and other concerns raised in the inquiry are not counted in the number of complaints and enquiries included in this report.

Chart 5.1: Complaints and enquiries trends, 2015–16 to 2019–20



Source: Compiled by the ACCC.

5.1.1 A majority of enquiries were about new rule requirements

In 2019–20, as in past years, the ACCC received complaints and enquiries relating to a range of topics, some of which fell outside the scope of the ACCC's role. Table 5.1 shows the nature of the complaints and enquiries received. The following results are of note:

- Almost all of the complaints and enquiries (9) from infrastructure operators were about their obligations under the water charge rules.
- Six of these 9 were about the new schedule of charges requirements. At the time, the new Charge Rules were not yet in effect. The ACCC considers these enquiries reflect a positive compliance culture among operators, with many actively taking steps to understand the new requirements. (Section 5.3 discusses the guidance published by the ACCC on these new requirements.)
- Six of the total 26 contacts related to the ACL, including allegations of misleading, deceptive or unconscionable conduct. The ACCC discontinued its inquiries after careful consideration of these complaints.
- Three of the total 26 contacts related to the coverage of the Rules, including 2 that related to whether the Water Charge (Termination Fee) Rules 2009 applied outside the Murray–Darling Basin.[85]

85 The Water Charge (Termination Fee) Rules 2009 are now part of the Water Charge Rules 2010, which do not apply outside the Murray–Darling Basin.

Table 5.1: Number of complaints and enquiries in 2019–20 by topic

What the complaint or enquiry was about (Rule-related complaints and enquiries)	Complaints	Enquiries
Requirements relating to termination fees	1	1
Requirements relating to the Water Market Rules 2009 (WMR)	2	1
Requirements relating to the new Charge Rules, including new schedule of charges requirements	0	6
Requirements relating to the previous Water Charge (Infrastructure) Rules 2010, including schedule of charges requirements	0	3
Coverage of the Rules, outside of ACCC scope	2	1
Total complaints or enquiries related to the Water Market Rules or the water charge rules (including coverage and the new rule requirements)	**5**	**12**
What was the complaint about (non-Rule related complaints and enquiries)		
Functioning of the water market, including concerns about water brokers and investors in the water market	0	1
Conduct relating to the Australian Consumer Law, including allegations of misleading, deceptive or unconscionable conduct	5	1
Other (including irrigator contractual disputes and water policy queries)	2	0
Total complaints or enquiries from water stakeholders not related to the Water Market Rules or water charge rules	**7**	**2**
Grand total (both Rule and non-Rule related complaints and enquiries)	**12**	**14**

5.2 ACCC investigations did not identify breaches resulting in significant detriment

The ACCC conducted 10 initial investigations related to water matters in 2019–20:

- 6 resulted from stakeholder complaints and enquiries, of which 3 were made by water specialists (including brokers and industry bodies)
- 4 resulted from ACCC-initiated compliance reviews.

In these initial investigations, the ACCC did not identify any significant detriment arising from the alleged rule breaches.

One initial investigation arose from a self-reported breach by an infrastructure operator of its schedule of charges obligations under the Water Charge (Infrastructure) Rules 2010 (Box 5.1). Another related to an obligation under the Water Market Rules (Box 5.2).

Box 5.1: Case study on self-reported breach under the Water Charge (Infrastructure) Rules 2010

An infrastructure operator contacted the ACCC to report it had not included a rent payment relating to a long-term lease on its schedule of charges. Under the lease, the operator received the rental payment relating to a hydroelectricity facility that the lessee operated on a canal. The canal passes through the lessee's property, but is owned by the infrastructure operator.

The operator consulted the ACCC about the nature of the charge and how the Water Charge (Infrastructure) Rules 2010 applied. The ACCC did not take any further action on this matter because the rental charge was levied on only a single customer, the operator reported the possible breach, and the charge was promptly included on the schedule of charges and will be included on future schedules.

Box 5.2: Case study on inaccurate transformation policies

Following 2 complaints from water brokers about an operator's transformation policies, the ACCC conducted an initial investigation into whether the operator had complied with its obligations under the Water Market Rules (WMR). The initial investigation found the operator had not breached the WMR but that some of the information on the operator's website did not accurately reflect Rule 7 of the WMR.

Rule 7 allows an irrigation infrastructure operator (IIO) who does not hold a separate water access entitlement for conveyance water to reduce the number of units or volume of water to which a transforming irrigator is entitled. The reduction of the number of units or volume of water must be:

- calculated in accordance with the formula specified in Rule 7(2)(a), or
- agreed in writing between the holder and the IIO (Rule 7(2)(b)).

The WMR also require IIOs to provide information to the holder of the irrigation right and outline a process for dispute resolution. The ACCC engaged with the IIO and, as a result, the information the IIO now provides to its customers about transformation is up to date and consistent with the WMR.

The ACCC continues to strategically monitor operators' compliance with the Rules by assessing their responses to annual requests for information (RFIs). All of the 4 initial investigations prompted by responses to the RFI related to irrigation infrastructure operators' obligations under the Water Market Rules.

5.2.1 The ACCC is reviewing operators' schedules of charges

In 2019–20, the ACCC began an in-depth review of compliance with the schedule of charges requirements under the new Charge Rules.

Some operators did not initially understand all of the new schedule of charges requirements. Throughout 2019–20 and 2020–21, the ACCC has worked with operators to help them to understand and comply with the new requirements.

5.3 The ACCC published guidance on the new Charge Rules

The Minister announced changes to the water charge rules in February 2019. The new Charge Rules commenced on 1 July 2020, and combined the Water Charge (Infrastructure) Rules 2010, the Water Charge (Termination Fees) Rules 2009 and Water Charge (Planning and Management Information) Rules 2010 into a single set of rules. The new Charge Rules:

- make the schedule of charges requirements clearer and more specific
- simplify the calculation of termination fees
- simplify the regulatory framework by returning the regulation of charges levied by on-river infrastructure operators back to Basin states, subject to meeting certain requirements.

Infrastructure operators' obligations under the previous water charge rules will mostly continue under the new Charge Rules. However, the new Charge Rules include more detailed requirements. In particular, an operator's schedule must include a description of the service to which the charge relates and a statement about how and by whom the operator's charges are decided.[86]

In 2019–20, the ACCC developed an example schedule of charges to help operators understand their obligations under the new Charge Rules (Box 5.3). The example was updated in 2020–21.

Box 5.3: The ACCC published guidance on rule changes

In June and July 2020, the ACCC released guidance to help stakeholders understand the new Charge Rules, including:

- an example schedule of charges
- an example termination information statement
- answers to frequently asked questions.

The guidance was updated for 2021 to clarify some of the schedule of charges requirements. It is available on the ACCC website.[87] Stakeholders can also contact the ACCC to seek guidance by email via the water inbox: water@accc.gov.au.

Importantly, when operators update their schedule of charges, they must provide their new schedule of charges to customers (and publish it on their website if they have one) at least 10 business days before the schedule of charges comes into effect.

This example schedule of charges is intended to demonstrate to infrastructure operators and their customers the content that should be included on a schedule in specified circumstances under the new Charge Rules. However, the requirement for each operator's schedule will vary depending on individual circumstances. It is the operator's responsibility to ensure its schedule complies with the new Charge Rules and any other relevant obligation concerning the display of charges (see Box 5.4).

For more information visit: https://www.accc.gov.au/regulated-infrastructure/water.

86 Water Charge Rules 2010, Rules 13(2)(a), 13(2)(f) and 13(4)(b)(i).

87 Guidance materials are available at: https://www.accc.gov.au/regulated-infrastructure/water/water-charge-rules#guidance-materials.

Box 5.4: ACCC example schedule of charges

This example schedule of charges is intended to demonstrate to infrastructure operators and their customers the content that should be included on a schedule in specified circumstances under the Water Charge Rules 2010 (WCR). However, the requirement for each operator's schedule will vary depending on individual circumstances. It is the responsibility of the operator to ensure that its schedule complies with the WCR and any other relevant obligation concerning the display of charges.

For more information visit: www.accc.gov.au/regulated-infrastructure/water.

DEAKIN IRRIGATION

Schedule of Charges

Valid: 1 July 2020 to 30 June 2021

(This is the date from which each individual charge applies unless otherwise specified)

The charges on this schedule of charges relate to the Deakin River and the Deakin River Resource Plan.

All listed charges are payable by 30 June each year and are charged in two instalments: 1 July and 1 January each year.

Your payment will be due 20 business days after you receive your invoice.

(All charges and fees are due at this time unless otherwise specified)

Item	Price
Infrastructure access fee – District A	$20/ML of general security water delivery right (WDR) $75/ML of high security WDR
Infrastructure access fee – District B	$15/ML of general security WDR $65/ML of high security WDR $2.00/ML of WDR
Outlet charge – irrigation customer	Small meter (11-20 ML/day flow rate) – $2,000 per connection Large meter (>40 ML/day flow rate) – $3,200 per connection
Outlet charge – stock and domestic customer	$600 per connection
Administration fee	$100 per account
Variable charges	
Delivery fee – District A	$27.50/ML
Delivery fee – District B	$23.75/ML
Casual usage charge	1 July 2020 to 31 December 2020 $50/ML 1 January 2021 to 30 June 2021 $55/ML

The date that the schedule of charges comes into effect must be on the schedule of charges. There must also be a statement that this is the date from which each individual charge applies unless otherwise specified. [Rules 11(1)(b) and 13, item 4(a)]

Rule 15 of the WCR sets out when a schedule of charges should be published and given to customers.

A schedule of charges must set out (if applicable) the water resource, catchment or district, and the water resource plan to which the charge relates. [Rule 13, item 1(b)(i)]

For each infrastructure charge or planning and management charge, the schedule of charges must include information on the circumstances in which the charge is payable. [Rule 13, item 1(b)]

If the charge is payable by instalments, the number of instalments and the intervals at which the charge is payable must also be included. [Rule 13, item 1(e)]

The name of each charge must be on the schedule of charges. [Rule 13, item 1(a)]

If applicable, the district to which the charge relates should be included on the schedule of charges. [Rule 13, item 1(b)(i)]

The amount of each charge or the details of rates and all other information needed to determine that amount must be on the schedule of charges. [Rule 13, item 1(c)(i)] There are some exceptions, for example, connection/disconnection fees.

The schedule of charges must set out (if applicable) the class of water access right, irrigation right or water delivery right to which the charge relates. [Rule 13, item 1(b)(iii)]

The schedule of charges must set out (if applicable) the class of water access right, irrigation right or water delivery right to which the charge relates. [Rule 13, item 1(b)(iii)]

Infrastructure operators can still use local terminology for terms on their schedule of charges. For example, operators can continue to label 'water delivery rights' as 'delivery entitlements' and 'water access entitlements' as 'water entitlements' if they wish to do so.

Where it is not possible for an infrastructure operator to put the amount of a charge on its schedule of charges, it should put the details of rates and all other details to enable the customer to determine the amount. [Rule 13, item 1(c)(i)]

Deakin Irrigation Pass-through (Recovery of WaterNSW conveyance licence) charge	$1.40/ML
Deakin Irrigation Pass-through charge – usage (Recovery of WaterNSW bulk water charges)	$14.34/ML
Deakin Irrigation Pass-through charge - usage (Recovery of Water Administration Ministerial Corporation charge)	$1.82/M
Deakin Irrigation Pass-through charge – usage (Recovery of NSW Government contribution to the MDBA)	$1.58/ML
The authority for the Water Administration and Ministerial Corporation (WAMC) charge is s. 11 and schedule 1 of the IPART Act, and IPART's WAMC determination.	
The WAMC charges recover the costs of water management and planning activities and services. These services are currently delivered by DPIE, NRAR and WaterNSW on behalf of WAMC. For more information, please refer to the IPART website.	
Other fees	
Connection/ Disconnection fee	The charge will be determined based on the recovery of reasonable costs at the time of connection or disconnection.
Transformation fee	$200
Description of infrastructure charges	
Administration fee	Covers the cost of account administration (including postage, preparation of invoices and Deakin Irrigation's quarterly newsletter).
Casual usage charge	The delivery of water in a season in excess of the volume of water delivery rights held
Connection/ disconnection fee	Physical connection/ disconnection of the customer to/from the Deakin Irrigation's network
Deakin Irrigation Pass-through charge (Recovery of NSW Government contribution to the MDBA)	Recovers the costs of the NSW Government's contribution to the Murray-Darling Basin Authority for costs related to the Murray-Darling Basin Agreement
Deakin Irrigation Pass-through charge (Recovery of WaterNSW bulk water charges)	Recovers the costs of on-river (bulk) water services provided by WaterNSW

Infrastructure and 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 purposes 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 are defined as network operation charges. [Rule 9A(9)]

Network operation charges may be recovered as separate charge(s) or as a component of general charges levied on customers. However if levied as a separate charge, any separate charges must not recover in total more than the total amount of the network operation charge. [Rule 9A(1)-(2)]

An infrastructure charge or planning and management charge levied on an infrastructure operator (taking account of any discounts), that is not a network operation charge, is an ancillary charge.

Ancillary charges must be recovered through one or more infrastructure charges that:

- are levied separately
- recover the same total amount of the charge being passed through
- are recovered on the same basis as the original charge, and
- are not levied on the basis of the number of units of water delivery right or water drainage right held. [Rule 9A(3)-(6)]

For planning and management charges, the schedule of charges must include information on the legislative, contractual or other authority for the charge. [Rule 13, item 3]

The schedule should also include any other information that is reasonably necessary or desirable to explain the charges to the customer. [Rule 13, item 4(b)(v)]

Where it is not possible for an infrastructure operator to put the amount of a disconnection/connection charge on its schedule of charges, it is required to use words to this effect on its schedule of charges. [Rule 13, item 1(c)(ii)]

A transformation fee is a fee charged by an irrigation infrastructure operator when an irrigator applies to permanently transform their entitlement to water under an irrigation right into a water access entitlement. This fee must not exceed the reasonable and efficient costs likely to be incurred by the irrigation infrastructure operator in processing the application. [Water Market Rules 2009, Rule 13]

Transformation fees are not infrastructure or planning and management charges under the WCR but this has been included for completeness.

For each infrastructure charge set out in the infrastructure operator's schedule of charges, there must be a description of the infrastructure service to which the charge relates. [Rule 13, item 2(a)]

Deakin Irrigation Pass-through (conveyance) charge	A charge to recover the water conveyance licence charge levied by WaterNSW on Deakin Irrigation
Delivery fee	The delivery of water to the customer under a water delivery right
Infrastructure access fee	Provision of off-river water infrastructure to enable the delivery of water to customers
Outlet charge	Recovers the costs of operating and maintaining service point outlets to your property. The charge applies for each service point outlet on your property

Exemptions

The ACCC has granted Deakin Irrigation an exemption to publishing infrastructure charges for particular customers under Rule 9, Water Charge Rules 2010.

Name of customer: Wheatcorp

Time period covered: 1 July 2020 to 31 December 2022

Infrastructure service to which the exemption relates: Infrastructure access fee.

If the ACCC grants an exemption in relation to the requirement on an operator to publish charges under Rule 9 for an application made on or after 1 July 2020, the infrastructure operator must publish on its schedule of charges within 12 months after the exemption is granted: (a) that the ACCC has granted an exemption under this rule; (b) the name of the customer or customers to which the exemption relates; (c) the time period of the contract or contracts; (d) the infrastructure service to which the exemption relates. [Rule 9(13A)]

How our infrastructure charges and planning and management charges are determined

Deakin Irrigation's board approves its infrastructure charges and water planning and management charges for the upcoming financial year in June. This follows a three month informal consultation process with our customers.

If you wish to provide feedback to this consultation process, please call us on 1300 777 888 or email us at: admin@deakinirrigation.com.au.

The schedule of charges must include a statement on how the infrastructure and planning and management charges in the schedule are determined and how a customer can participate in that process. [Rule 13, item 4(b)(i)]

Where the infrastructure or planning and management charge is not set by the operator, the operator must put on its schedule of charges who determined the charge. [Rule 13, item 1(f)]

How our pass-through charges are determined – fixed and variable (to recover the WAMC and WaterNSW bulk water charge – these include conveyance)

Deakin Irrigation sets its pass-through charges to recover the NSW Government's contribution to funding the Murray-Darling Basin Authority to undertake activities under the Murray- Darling Basin Agreement at the amount set by IPART.

The WaterNSW and WAMC charges are set by IPART. IPART sets these charges every four years through a public consultation process. It updates these charges annually if necessary.

The schedule of charges must include a statement setting out how the infrastructure operator has determined or calculated the infrastructure charges it levies to recover any ancillary charges or network operation charges. [Rule 13, item 4(b)(iv)]

It is not compulsory to include this statement for the Water Administration Ministerial Corporation charge, as it is a planning and management charge. It has been included here for completeness.

Dispute resolution

Please refer to our dispute resolution policy available on our internet site: www.deakinirrigation.com.au/hardshippolicy.

If you have any questions or wish to dispute your bill, please call us on: 1300 777 888 or email us at: admin@deakinirrigation.com.au.

The schedule must have a statement setting out how a person can make an enquiry or resolve a dispute in relation to regulated water charges. [Rule 13, item 4(b)(ii)]

Generally available discounts

Administration Fee: Deakin Irrigation will reduce the administration fee from $100 to $80 for those customers who provide us with an email address.

On-time discount: Deakin Irrigation will provide a 1 per cent discount to customers who pay by the due date.

Details of any general discount or surcharge, including the circumstances under which the discount or surcharge applies (for example, a discount for early payment), must be included. [Rule 13, item 1(d)]

Hardship policy

Deakin Irrigation has a hardship policy which may result in qualifying customers being given a discount on their bills. Please see: www.deakinirrigation.com.au/hardship for information on this policy.

The schedule of charges must have a statement setting out any generally available discounts, surcharges or hardship policies. [Rule 13, item 4(b)(iii)]

06

Basin states increased water planning and management expenditure and revenue during 2019–20

Curlwaa Pumping Station.
Source: Courtesy Western Murray Irrigation

6. Basin states increased water planning and management expenditure and revenue during 2019–20

Key points

- Both total expenditure and revenue collected by all Basin states[88] for water planning and management (WPM) activities increased by 3% in real terms[89] in 2019–20, to $339 million and $110 million respectively.
- In 2019–20, total WPM expenditure for New South Wales increased by 2% to $104 million, with significant increases on expenditure for projects to develop WPM frameworks and compliance management. New South Wales collected total revenue of $34 million, down nearly 4% from 2018–19, while estimated cost recovery dropped 2 percentage points to nearly 33%.
- Victoria spent nearly $148 million on WPM activities. This decrease of 13% from 2018–19 reflected lower capital expenditure. Victoria's total revenues collected from WPM charges increased by around 2%, to over $29 million, substantially below the 30% increase experienced in 2018–19.
- WPM expenditure by South Australia increased by less than 1%, to $38 million in 2019–20, while total revenue increased by nearly 7% to $11 million. Revenue related to processing allocation trades increased by 82%. In 2019–20, South Australia's rate of cost recovery was 28%; the highest since 2014–15 when it was above 80%.
- The Australian Capital Territory's expenditure on WPM projects increased by 102% from 2018–19. Most of the increase was for WPM activities for the suburbs of Taylor and Whitlam. Total revenue increased by 7% while the rate of cost recovery dropped 62 percentage points to 70%.
- The ACCC's monitoring of WPM regulated water charges in the Murray–Darling Basin provides for improved transparency and understanding around any pricing changes.

This chapter focuses on Basin states' water planning and management (WPM) activities, and assesses and reports on their WPM charges, revenues, expenditure and rate of cost recovery (if available). WPM activities cover work undertaken by or done on behalf of Basin states to plan for and manage water resources, including to ensure future sustainability.[90] Basin states use a variety of charges to recover the costs of WPM activities from water users. The chapter is structured as follows:

- Section 6.1 presents the aggregate analysis of WPM spending by all Basin states.
- Section 6.2 provides a state-by-state breakdown of WPM spending, the charges imposed, the revenue earned from these charges, expenditure and rates of cost recovery (if available).

88 The *Water Act 2007* defines Basin states to include New South Wales, Victoria, Queensland, South Australia and the Australian Capital Territory.

89 All data presented in this chapter is in real terms with 2019–20 as the base year.

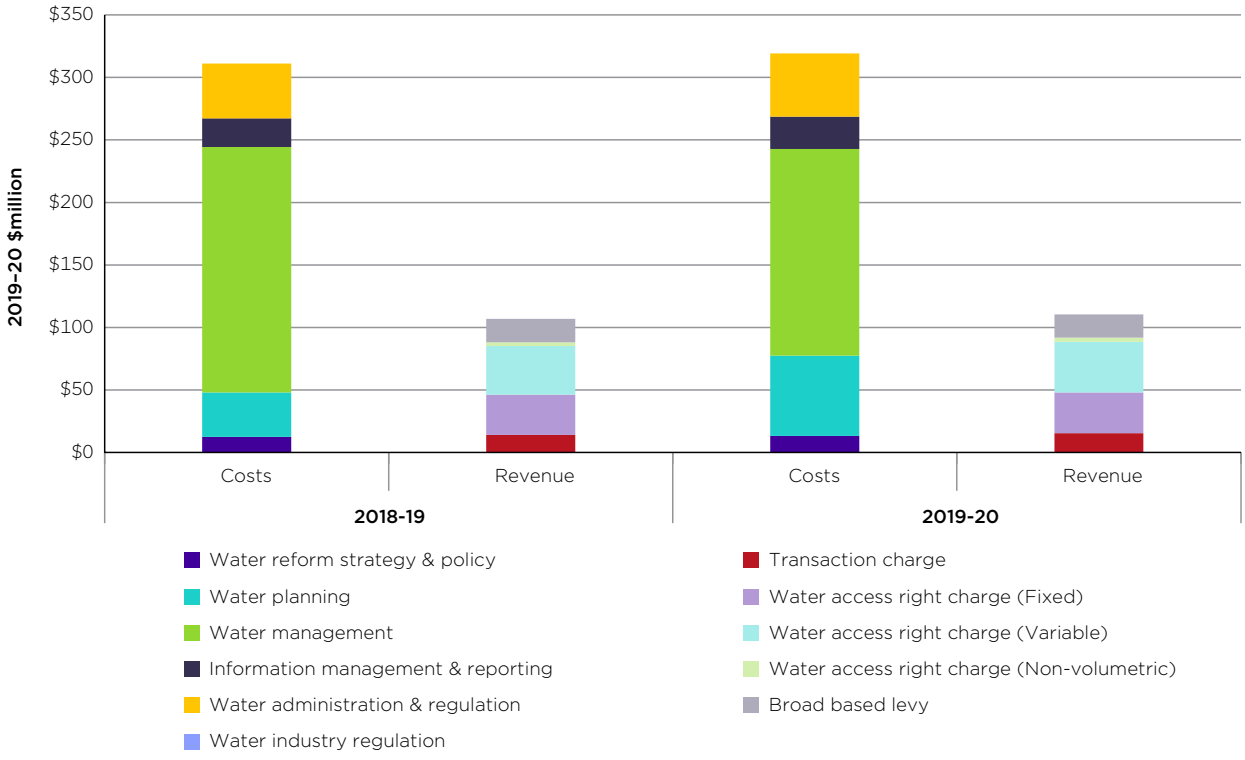
90 For more information on what is considered to be a water planning and management activity see: NRMMC (Natural Resource Management Ministerial Council), 2010, *National Water Initiative Pricing Principles*, accessed 29 July 2021.

6.1 Water planning and management revenue and expenditure saw moderate increases across the Murray–Darling Basin

This section analyses all reported WPM-related revenue and expenditure by Basin states over the past 2 years. This analysis is subject to some limitations, including the lack of expenditure data for some states (Queensland) and the inability to separate Murray–Darling Basin (MDB) data from other state expenditure on WPM activities (this is the case for Victoria's Department Environment, Land, Water and Planning (DELWP) and for WaterNSW). Because of these limitations, the analysis assesses broad trends in spending by WPM expense or revenue activity type.[91] The ACCC adopts the National Water Initiative (NWI) categories for WPM revenue and expenditure activities.[92] These categories include water reform strategy and policy, water planning, water management, water monitoring and evaluation, information management and reporting, water administration and regulation, and water industry regulation.

Total expenditure during 2019–20 increased by 3% to $339 million, the same growth rate that occurred in 2018–19. Expenditure on water planning increased by 82% to $64 million while water management activities fell by 16% to $165 million. Total revenue from WPM charges across Basin states increased by 3% to $110 million during 2019–20.[93]

Chart 6.1: Aggregate water planning and management costs and revenues, by cost and activity type, 2018–19 to 2019–20



Source: ACCC from data provided and published by Basin state agencies.
Note: Real values in 2019–20 dollars.

91 The National Water Initiative (NWI) provides a framework that classifies water planning and management activities. The NWI is a shared commitment by governments to increase the efficiency of Australia's water use and is built on the 1994 Council of Australian Governments (COAG) Water Reform Framework.
National Water Initiative, *Pricing Principles,* 2004, accessed 13 April, 2021.

92 Individual activities by Basin states do not always fit neatly into one category. Therefore, the ACCC asks Basin states to class each activity as only the category that fits best (to avoid duplication and ensure consistency with previous water monitoring reports).

93 The majority of Victoria's water planning and management charge revenue is collected from its broad based levy, the Environmental Contribution.

Revenues from water access right charges (non-volumetric) had the largest increase with a rise of 16% to $3 million (although coming off a relatively small base when compared with other revenue categories). Revenue from water access charges (variable) – typically the largest category – increased by 4% to $41 million in 2019–20. Chart 6.1 presents reported WPM costs and revenues.

6.2 Rates of cost recovery continue to vary for Basin states

One of the commitments Basin states made under the NWI was to implement water pricing and institutional arrangements which achieve cost recovery for their WPM activities. They also agreed to report publicly on the proportion of the total WPM costs paid by water access entitlement holders, and how they determine that proportion. This disclosure allows users and governments to assess whether the mix of WPM activities is appropriate, given the associated costs and the degree to which WPM charges recover costs.

A Basin state's level of cost recovery can have important implications. If revenue from WPM charges does not cover the full costs of WPM activities, then a Basin state must allocate other funds to cover the shortfall. In this case, they most likely have to transfer taxpayer funds from consolidated revenue. On the other hand, if revenue from WPM charges exceeds costs, then this might contribute to consolidated revenue.

The Water Charge (Planning and Management Information) Rules 2009 (now replaced by the Water Charge Rules 2010) required Basin States to disclose the cost of WPM activities where a charge is imposed and the proportion of these costs that are to be recovered from water access entitlement holders. This disclosure allows water users to understand the relationship between WPM charges and WPM costs in Basin States. This comparison is particularly important to assess the degree of cost recovery.

Cost recovery of WPM activities varies across Basin States. It is often not possible to separate the cost of WPM activities, particularly within the MDB, from other government costs. Basin State departments and water authorities have informed the ACCC that they have practical challenges when reporting WPM activities and the costs incurred. These challenges include:

- it may be difficult to separate out WPM costs from other non-WPM costs
- the level of some WPM charges does not have a clear relationship to the costs incurred for WPM activities
- many WPM activities are delivered for the whole of a Basin State and it can be impractical to allocate a portion of these costs to MDB areas.

6.2.1 New South Wales

In New South Wales, responsibility for WPM-related matters (among other water-related matters) is shared by WaterNSW and the Department of Planning, Industry and Environment (DPIE).[94] WaterNSW supplies water from its storages, and operates both surface and groundwater resources and customer transactions. DPIE is responsible for policy, water market regulation and overseeing major government funded water infrastructure projects. While both WaterNSW and DPIE perform WPM-related activities, all WPM-related revenue is collected by WaterNSW.

The expenditure and revenue data provided by WaterNSW are collected for all WPM activities undertaken in New South Wales and cannot be split into MDB and non-MDB activities. Hence, WaterNSW's reported figures overstate its WPM activities in the MDB. In contrast, DPIE's WPM expenditure data is reported for the MDB, but actual expenditure data has not been available at the valley level for the past few years. As in previous years, the data supplied by DPIE was derived

94 Following the 2019 state government elections, a number of machinery-of-government changes came into effect including the Department of Industry combining with Planning and the Environment to form the Department Planning, Industry and Environment on 1 July 2019.
NSW Department of Planning and Environment, *Annual report 2018–19*, 2019, p 6, accessed 13 April 2021.

by using the Independent Pricing and Regulatory Tribunal's (IPART) recommended cost drivers.[95] IPART is responsible for setting some of the charges that recover the costs of WPM activities for both WaterNSW and DPIE.

Total WPM expenditure for New South Wales in 2019–20 increased by 2% to $104 million. This rise reflected increased expenditure by DPIE of 4%, while WaterNSW's expenditure decreased by just over 1%. Expenditure on most WPM activities increased during 2019–20 except for water management works, which fell by 71%. Projects related to developing water planning and management frameworks recorded significant expenditure increases. These projects included developing water planning and regulatory frameworks (up 200%) and floodplain management plan development (up 47%).[96] Floodplain management plans have been prepared as part of the NSW Healthy Floodplains Project. This project started in 2013 to reform water management on floodplains by preparing plans and licensing the take of floodplain harvesting water.[97] Other increases included compliance management expenditure, which rose from just over $8 million to over $10 million (up 38%) and related to operating the Natural Resources Access Regulator. Expenditure on monitoring groundwater quality more than doubled, from $3.4 million to $8 million.

WaterNSW has collected revenue from WPM charges on behalf of the Water Administration Ministerial Corporation (WAMC) since 2016–17.[98] In 2019–20 total revenue was $34 million, down nearly 4% from 2018–19. Revenue decreases from regulated river water management charges, particularly for the Murrumbidgee (down 45%) and Macquarie (down 78%), were the main drivers, and largely related to the drought-like conditions and lower water sales volumes.[99] Decreases in revenue from groundwater management charges (down 15%) and unregulated river water management charges for the Macquarie (down 9%) also contributed. New South Wales' estimated cost recovery was nearly 33%, down almost 2 percentage points from 2018–19. Over the past 5 years, average cost recovery was around 42%.

6.2.2 Victoria

Victoria's DELWP cannot provide MDB-specific data for the Environment Contribution levy, which it collects from Victorian water corporations operating at least partly (or entirely) in the MDB. Because some of these corporations have operations outside the MDB, the MDB-related revenue from this levy may be overstated. Further, the WPM expenditure data presented in this section relates to state-wide activities in Victoria and are inflated when assessed against expenditure in the MDB by the other Basin states. While the majority of WPM-related activities and revenue is collected by DELWP, the Victorian water corporations[100] also carry out these activities and collect WPM revenue.

Victoria spent around $148 million on WPM activities, which represents a decrease of 13% from 2018–19. Because DELWP accounts for 96% of the state's expenditure on WPM activities, the drop largely reflected a decline in its spending of nearly $22 million. In particular, DELWP's capital expenditure fell by just under $17 million, as it completed the fourth tranche of the Environmental Contribution initiatives.[101] However, DELWP did increase expenditure on some of its ongoing activities during 2019–20. These included expenditure on the Water for Aboriginal Culture program, which rose by 76% from $2.4 million to $4.3 million, and a 48% increase in expenditure on the 'Smarter use of water in our cities and towns' project.

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95 As noted in the *Water monitoring report 2017–18*, DPIE expenditure is not the actual expenditure incurred. Rather it is derived by using the Independent Pricing and Regulatory Tribunal (IPART) cost drivers. The costs for each activity are provided to IPART to review and determine the proportion that is be recovered from users through Water Administrative Ministerial Corporation (WAMC) charges. The New South Wales Government funds the remaining proportion.

96 NSW Department of Planning, Industry and Environment, *Industry and environment. Floodplain management plan program,* 2021, accessed 19 August 2021.

97 NSW Department of Planning, Industry and Environment, *Industry and environment. Floodplain management plan program,* 2021, accessed 19 August 2021.

98 Revenue from WPM charges prior to 2016–17 was collected by the Department of Planning, Industry and Environment. WaterNSW, *2020–21 Water pricing – WAMC Determination charges explained*, 2021, accessed 29 July 2021.

99 WaterNSW, *Annual report 2019–20*, 2000, p 5, accessed 4 August 2021.

100 Those Victorian water corporations that carry out WPM activities and collected related revenue include Goulburn–Murray Water, Grampians Wimmera Mallee Water, Lower Murray Water and Coliban Water.

101 Victoria's Environmental Contribution is the main charge used to fund a wide variety of WPM activities. It is collected from water authorities and is a multiple of each authority's revenue.
Victorian Department of Environment, Land, Water and Planning, *Fourth tranche of the Environmental Contribution*, 2021, accessed 4 August 2021.

Victoria's total revenues collected from WPM charges increased by just over 2% to $29 million, substantially below the 30% increase in 2018–19. DELWP had the smallest increase at just below 1%. The Environmental Contribution Levy contributed 75% of DELWP's reported revenue (the same as in 2018–19). DELWP also received $1.1 million in fees from allocation trades and just under $4 million in fees for salinity management. Fees for allocation trade and salinity management contributed around 5% and 16% respectively to DELWP's total revenue.

The larger regional water authorities such as Goulburn–Murray Water (GMW) and Lower Murray Water (LMW) contributed a combined 16% of Victoria's total WPM revenue, down one percentage point from the previous year. GMW had the highest increase in WPM revenue of 17%, from just under $2 million to $2.3 million. Fees to undertake works on properties (such as altering and constructing bores and groundwater licence fees) and fees for other works licences drove this increase.

6.2.3 South Australia

WPM expenditure by South Australia increased by less than 1% to $38 million in 2019–20. Expenditure for most ongoing WPM activities fell (by 66%). However, expenditure for 11 activities did increase, the most significant being just over $1 million directed to Floodplain Infrastructure Operations. Without this project, total WPM expenditure would have fallen by 2%. All WPM-related expenditure and revenue relates to the South Australian Department of Environment and Water.

South Australia's total revenue collected from WPM charges increased by nearly 7% to $11 million in 2019–20. The Natural Resource Management (NRM) levies remain the main source of revenue, accounting for 82% of the total (down 2 percentage points from 2018–19). Revenue from River Murray Class 3a, 4 and 5 NRM levies increased by 1%. Fees related to allocation trade increased by 82% to just over $841,296 due to increased trading volumes.

South Australia's rate of cost recovery was 28% for 2019–20, which is the highest since 2014–15, when it was above 80%. The decrease in the rate of cost recovery was due to the abolition of charges associated with the Save the River Murray Fund in 2015.

As discussed in the *Water monitoring report 2018–19*,[102] the South Australian Government replaced the *Natural Resources Management Act 2001* (SA) with the *Landscape South Australia Act 2019* on 21 November 2019.[103] This new Act (which commenced on 1 July 2020) transferred responsibility for WPM activities and charges from the existing natural resource management boards to 8 new regional landscape boards. These changes will be reflected in the ACCC's next water monitoring report.

6.2.4 Australian Capital Territory

The Australian Capital Territory (ACT) receives most of its WPM revenue from the water abstraction charge for using urban and non-urban water supply. The ACT Government has applied increases to this charge of 3% per year since 2017–18.[104]

In 2019–20, revenue from this charge accounted for over 99% of total revenue and increased by nearly 11%. Total revenue increased by 7%. The Environment, Planning and Sustainable Development Directorate accounts for all WPM expenditure and revenue collection.

Expenditure on WPM projects increased by 102% since 2018–19. Most of the increase was for NWI water management and water planning for the suburbs of Taylor and Whitlam. Indeed, water planning for Whitlam comprised 80% of the increase. Almost $4.3 million went to new WPM projects. The rate of cost recovery dropped 62 percentage points to 70%.

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102 ACCC, *Water monitoring report 2018–19*, October 2020, p 98.

103 Department for Environment and Water (SA), *Natural resources management – Changing NRM in South Australia,* 2020, accessed 13 January 2020.

104 The ACT Government decided to index the water abstraction charge by 3% per year from 1 July 2017 as part of its 2016–17 budget review. The Independent Competition and Regulatory Commission adjusts the prices annually to account for changes in the consumer price index and cost of debt, and to include approved pass throughs. These amounts include changes in the ACT Government's water abstraction charge and Australian Government subvention payments for regulated water.
ACT, *Budget 2016–17 – budget review*, 2017, p 44, accessed 15 April 2021.

6.2.5 Queensland

Since monitoring started, the Queensland Government has been unable to supply WPM expenditure data.[105] The total revenue reported by the Department of Natural Resources, Mining and Energy (DNRME) includes some state-wide charges that have not been separated from MDB-specific charges and, like Victoria, overstates the total. While the DNRME takes a lead role in WPM activities, it collects all revenue associated with these activities.

Queensland's WPM charges are set under the Water Regulations 2016. Most increases were between 2% and 3% in nominal terms, and substantially above the consumer price index (1.6% for 2018–19).[106] Queensland's total WPM revenue increased by 74% to $3.2 million in 2019–20. Revenue from water charges (water harvesting charged as $/ML) increased from $3,263 to $1.6 million, with increases in water delivered to irrigators driving the increase.

105 Following machinery-of-government changes, the regulation of Queensland's water resources transferred from the Department of Natural Resources, Mining and Energy to the Department of Regional Development, Manufacturing and Water on the 12 November 2020.
Department of Regional Development, Manufacturing and Water, *About us*, 2021, accessed 19 August 2021.

106 Australian Bureau of Statistics, *6401.0 – Consumer price index, Australia,* June *2019*, accessed 21 January 2020.


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