

# Delivery Share Review

Outcomes and actions for the Goulburn-Murray  
Irrigation Districts



### **Acknowledgements**

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### **Photo credit**

Modernised regulator gates in the Goulburn-Murray Irrigation District, Goulburn-Murray Water.

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# Share Review outcomes and actions: Goulburn-Murray Irrigation Districts

## Executive summary

The Victorian Government has reviewed delivery share arrangements in northern Victoria and identified opportunities to strengthen these arrangements to better support irrigation communities and districts as they adjust to rapid, continuing changes in land and water use.

Delivery shares are used in the Goulburn-Murray and Sunraysia districts as a way of providing rights to irrigators to access water delivery infrastructure. Part of the fixed charges paid by irrigators, delivery share guarantees the holder access to the irrigation system and helps to share the costs of operation and maintenance across all people in the system who are able to use water.

The Delivery Share Review has identified **six outcomes** for delivery shares in the Goulburn-Murray irrigation districts that directly address the concerns raised by irrigators, supported by **21 actions** to be developed in collaboration with Goulburn-Murray irrigators.

These outcomes were developed in consultation with irrigation communities following the release of the Preliminary Findings Report and Community Discussion Paper. Details on the consultation held in Goulburn-Murray districts and the feedback received are provided in the Community Response Report that accompanies these outcomes.

The Review found that most community concerns around delivery shares were linked to broader issues around how water ownership and use have changed since delivery shares were introduced. Relationships between the volume of water delivered, delivery infrastructure and delivery shares held have changed, creating concerns around tariffs and prices including the Infrastructure Access Fee. The Review has identified significant opportunities for delivery share arrangements to support Goulburn-Murray Water and its customers adapt to the significant changes that have occurred.

The outcomes and actions in this report propose changes to delivery share arrangements that help the Goulburn-Murray districts respond to changing conditions and support the long-term productivity and profitability of our largest irrigation area. The first three outcomes provide clearer signals around water demand and infrastructure requirements, helping to adjust the infrastructure footprint to more closely match water use. The remaining outcome set out the principles and frameworks that underpin delivery share tariffs and prices.

While delivery shares have a role to play, it is important to understand that the issues facing the Goulburn-Murray irrigation districts are complex and cannot be resolved through delivery shares alone. The proposed actions identify critical links with work underway to address other aspects of district viability, including the transformation of Goulburn-Murray Water, and processes for tariff reform.

## Outcomes for Goulburn-Murray districts

1. Help irrigators to adjust the delivery shares they hold through new and existing pathways, providing clearer signals for infrastructure management. This includes new tools and options to trade or terminate delivery shares, including facilitated markets, limited term contract arrangements, and termination fee discounts linked to rationalisation opportunities.
2. Set tariff and pricing principles that help to adjust the infrastructure footprint, including exploring major reforms for alternative pricing models, ensuring tariffs reflect the costs of service, and that effective price signals are set to that inform how infrastructure is managed.
3. Provide clear benefits for irrigators to holding delivery shares, in the level of service received and in how the system operates and ensuring that benefits flow to those who contribute to maintaining the irrigation system.

4. Improve the quality, transparency and timeliness of information and communication on delivery shares, making sure that irrigators have access to the information they need to make decisions and manage business risks. This includes pulling apart costs and prices, providing spatial data on system operation and asset condition, and setting out processes for making decisions around infrastructure use and configuration.
5. Ensure the clarity and transparency of Goulburn-Murray Water's costs and pricing, including setting overarching governance and pricing principles so that changes in water ownership and use are taking into consideration, prices reflect actual cost and service received, and infrastructure management reflects changing water use. Pricing and infrastructure management decisions will be supported by high quality and transparent information on water trade and use.
6. Capture delivery shares up front in property transactions, making sure that people purchasing properties in irrigation districts have a clear understanding the obligations, costs and options involved with the delivery shares tied to the property.

## Acting on the outcomes

The Department of Environment, Land, Water and Planning (DELWP) has worked closely with Goulburn-Murray Water and Lower Murray Water and consulted with irrigation communities to develop the options and actions proposed in this report.

Further consultation and collaboration is planned, working with irrigators to consider these actions and determine what will be done in the Goulburn-Murray districts. This work includes confirming the actions, setting out the processes and timeframes for making changes, aligning actions with existing reforms and transformation processes, and developing plans for how and when the agreed changes will be put in place.

Data and information-based actions have been identified that can be undertaken immediately as the information they provide will support irrigators to make business decisions. This information will also help to inform the design and adoptions of proposed actions that would expand how delivery shares are used to manage water delivery risks and share system capacity.

Goulburn-Murray Water will work closely with its customers to lead this phase of the Delivery Share Review, working with the irrigation community and coordinating engagement processes to ensure that irrigators have a range of opportunities to be involved. This includes working through existing arrangements such as Water Services Committees and Strategic Working Groups.

# Introduction

DELWP commenced a review of delivery share arrangements in northern Victoria in 2017, delivering on a commitment to irrigators set out in Action 4.3 of Water for Victoria. The Delivery Share Review has been undertaken in collaboration with Goulburn-Murray Water (GMW) and Lower Murray Water (LMW), and in consultation with irrigators, industry groups and customer committees in the Goulburn-Murray and Sunraysia districts.

The first three phases of the Review have been completed:

- Phase 1: understanding community concerns and issues around delivery shares across northern Victoria
- Phase 2: developing and evaluating options for potential changes to delivery shares, as presented in the Preliminary Findings Report.
- Phase 3: proposing policy outcomes and actions to update delivery share arrangements supported by community feedback on the preliminary findings, as presented for Goulburn-Murray districts in this report

Phase 4 of the project will involve working closely with irrigators and GMW to review the proposed actions and work out how the outcomes will be put in place in Goulburn-Murray districts.

The Delivery Share Review examined how well delivery shares are currently performing against the five purposes that they were designed for and considered a range of options to alter or replace delivery shares. The options were assessed to identify any that performed better than current delivery share arrangements against the design purposes of delivery shares, as well as asking if there were other purposes that were important to irrigators.

The Delivery Share Review released the Preliminary Findings Report and Community Discussion Paper in July 2018. These reports set out the purpose of the Delivery Share Review, explained how delivery shares are currently used across northern Victoria, and presented the 21 options for delivery shares that have been explored through the Review.

Clear differences between how delivery shares function in the Goulburn-Murray and Sunraysia irrigation districts were identified through the review process. These differences have been highlighted in feedback from irrigators through the community consultation period. For clarity, proposed outcomes and actions for the two regions are presented in separate reports.

The outcomes and actions outlined in this report address the specific concerns of Goulburn-Murray irrigators, providing pathways for updating delivery share arrangements to adjust district infrastructure and pricing principles to better reflect changes in water use. There are also some actions to strengthen policy frameworks and principles that apply across northern Victoria.

The proposed actions will be shaped further by Goulburn-Murray irrigators, with GMW working in collaboration with their customers to design and finalise the actions to ensure that any changes will be implemented in ways that meet customer needs and expectations. The Department of Environment, Land, Water and Planning (DELWP) will continue to work closely with GMW and to listen to irrigators as we further develop and implement the agreed actions.

## Community consultation

Input from irrigators has been essential in shaping the outcomes and actions. We sought feedback on the options and analysis presented in the Preliminary Findings Report and Community Discussion Paper over the period 12 July to 31 August 2018. Opportunities for the community to have input included:

- In discussions with GMW's Water Services Committees
- Presentations and workshops with GMW's working groups
- Public meetings in Shepparton and Kerang



- Through completing a standard feedback form
- By making a written submission to the review.

The feedback received is captured and summarised in the **Delivery Share Review Community Response Report**, available through [Engage Victoria](#).

## Developing outcomes and actions for Goulburn-Murray districts

The outcomes and actions proposed in this report were developed through further analysis of the options classified as “recommended” or “investigate further” in the Preliminary Findings Report. Of the 21 options presented, fourteen were considered relevant specifically to irrigators in the Goulburn-Murray districts (Table 1). These fourteen options were the focus for assessment to test if they address community concerns around irrigation management that were raised through consultation with irrigators from the GMW districts, particularly the Goulburn-Murray Irrigation District (GMID) and provide valued improvements on current delivery share arrangements.

The criteria applied to the preliminary findings to reach the outcomes and actions were:

1. The outcome solves a clearly identified issue with delivery share arrangements
2. The benefits of the actions are greater than the costs
3. The mechanisms and pathway to implement the actions are understood and can be made
4. The impacts of the actions on different stakeholders and customer groups are understood and can be managed
5. Water corporation and DELWP systems (e.g. Water Register, planning, ordering and scheduling) have the capabilities to implement the actions and regulatory compliance can be managed
6. Risks are understood and can be effectively managed.

The options that met these criteria were then considered in combination to understand the relationships between options. This approach identified (i) which options were dependent on other options to work, and (ii) if any options were incompatible with each other. This helped us to identify the strongest overall combinations of options and develop the actions as suites that work together to address the issues raised by Goulburn-Murray irrigators and develop delivery share arrangements to help irrigation districts adapt to reduced water availability and changing irrigator needs.

Real data was used to test the options to understand the effects on infrastructure costs, irrigator prices and operation of the irrigation system. Feedback from irrigators informed this work, with detailed modelling completed for the options that were strongly supported in consultation, as well as one alternative that was put forward in submissions: discounting or waiving termination fees for irrigators who have not used water for 10 years and have paid all infrastructure access fees.

A summary of these assessments is presented in the appendix of this report.

## Understanding the Goulburn-Murray Irrigation Districts

We heard that the major concerns in the Goulburn-Murray districts relate to perceived “gold-plating” of infrastructure, system capacity and delivery shares, the associated costs and a lack of clarity about who is paying for what. Some irrigators are worried about the risk of stranded assets as water continues to be sold out of the GMID.

Changes in the ownership and use of water in the GMID are a major factor driving these concerns. Irrigators have expressed that the outcomes of the Delivery Share Review take these changes into account and work to support the long-term future of the Goulburn-Murray districts. Delivery shares themselves are a tool for

**Table 1: The Preliminary Findings Report presented 14 options for delivery shares in the Goulburn-Murray districts that aim to help manage irrigator concerns around infrastructure costs and pricing principles.**

Delivery Share Review options proposed for Goulburn-Murray irrigation districts		Preliminary finding
1	Reducing the Annual Delivery Allowance (ADA)	Investigate further
5	Seasonal delivery shares	Recommended
6	Different delivery service level products	Investigate further
7	Limited term contracts	Recommended
8	Priority ordering lead times	Investigate further
9	Priority volumetric access	Investigate further
10	Implement flow rates linked to delivery shares	Investigate further
11	Delivery share markets	Recommended
16	Alter the recovery basis for the Infrastructure Access Fee	Investigate further
17	Alter the level and application of the usage fee	Investigate further
18	Alter the level and application of the Termination Fee	Investigate further
19	Distribution of water efficiency dividends	Recommended
20	Spatial decision-making processes	Recommended
21	Information, communication and transparency	Recommended

helping to manage adjustment to these changes, and the actions proposed through this Review take these ongoing changes into account.

The first step is to understand the changes that have occurred and how they relate to delivery shares. This makes sure that policy decisions are based on what the data tells us and work to change the underlying causes and support the long-term future of irrigation, rather than short-term approaches that don't address the real challenges facing the districts.

### Changes in water ownership and use

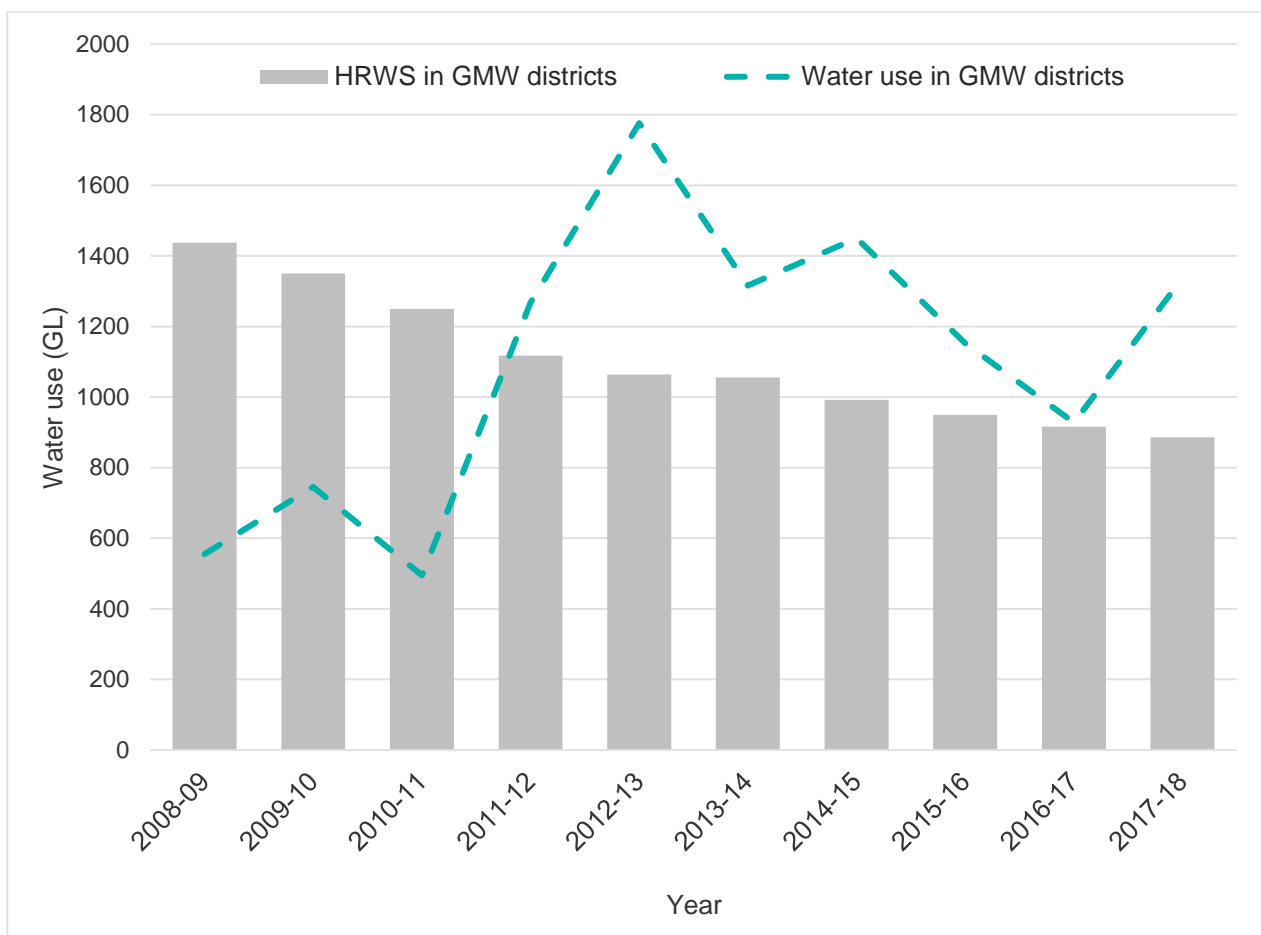
The volume of high reliability water shares (HRWSs) linked to land in the GMID decreased by about 40% from 2000 to 2018. GMID irrigators sold large volumes of entitlement to horticultural developments, followed by significant purchases by the Commonwealth for the Basin Plan. These purchases weren't strategically coordinated, leaving underutilised infrastructure spread across the GMID.

Water use in the GMID has followed a similar trend to entitlement holdings. Use declined rapidly with record low allocations in the Millennium Drought and has not returned to pre-drought norms. Annual water use has

generally been between 900 and 1,400 GL, with decreases in use seen across all irrigation areas. Despite this, the GMID remains a net importer of water, with more water traded in for use within the districts than is traded out.

GMW and its 14,000 customers have recognised the need to decrease the infrastructure footprint of the GMID in response to changing water ownership and use. The reconfiguration program of the early 2000s and then the Connections Project have reconfigured and rationalised significant infrastructure. To date Connections has rationalised over 1,100 km of channel, 4,200 outlets (meters) and 1,000 regulators across the project area and terminated over 900 ML per day of delivery shares. Opportunities remain to reduce surplus infrastructure and delivery shares: on average 76 per cent of the available delivery share rate (ML per day) was used over the last five years.

More detailed information on how district infrastructure, water ownership and use have changed is provided in the Fact Sheet accompanying this report.



**Figure 1: High reliability water shares (HRWS) tied to land and water use in the Goulburn-Murray Irrigation District since 2008: while entitlement held as HRWS has declined, use is more variable, reflecting changes in water allocation prices and commodity markets.**



## Impacts on tariff and pricing principles

The changes in water ownership, use and delivery infrastructure have been accompanied by changes in tariffs and pricing, including new types of customers like the Environmental Water Holders (EWHs). All GMW customers who have access to have water delivered pay for delivery. All GMW customers who hold water entitlement pay for storage. Entitlement storage fees vary depending on whether entitlements are linked to land (most irrigators) or not (water corporations, EWHs and some irrigators optimising their delivery and storage arrangements). All customers holding delivery shares pay the fixed Infrastructure Access Fee which covers most costs associated with maintaining and delivering water through the system. Delivery shares are tied to land, so can't be held by EWHs. Instead, EWHs pay charges for delivery of water through specific charging structures and supply agreements.

Revenue to pay the Government's Environmental Contribution Levy is collected through the Infrastructure Access Fee associated with delivery shares. The Environmental Contribution Levy is used to fund initiatives that promote the sustainable management of water or address the environmental impacts of human water uses, including programs for irrigators such as whole farm planning.

As water ownership and use change it affects the relationships between tariff structures, services received and system costs. Tariff and pricing principles must ensure that pricing is cost-reflective for the service provided and that all users pay for the services they receive. Tariff structures also need to send effective signals on when and where irrigators need water delivered so that the infrastructure footprint can be adjusted to better match water use. This helps to manage ongoing costs and set up infrastructure for the long-term future of the Goulburn-Murray districts.

Further information on irrigation system costs and charges is provided in the Fact Sheets accompanying this report.

## What this means for the Delivery Share Review

These broad-ranging changes in how water is managed and used mean that the relationships between delivery shares held, infrastructure capacity, service level and water use have shifted over time. The picture is further complicated by the range of other complex factors facing GMW and its customers, including ongoing structural adjustment, changing commodity prices, reduced water availability, improved irrigation technology and the Basin Plan. All these factors are contributing to further changes in water use.

Changes in infrastructure will lag behind water use as it takes time to rationalise and reconfigure delivery networks. This leads to the costs of managing infrastructure potentially being out of step with water use. These costs are largely recouped through the fixed Infrastructure Access Fee, currently levied on the basis of delivery shares. These costs are the focus of much community concern around delivery shares, rather than how delivery shares themselves are performing.

Delivery share alone is not the cause or cure for all the challenges facing irrigators in northern Victoria. There is no single option or simple approach that resolves the difficult, interconnected issues that contribute to irrigators' concerns about delivery shares. However, the outcomes of this review, together with other initiatives, are responding to change in the GMID and creating a strong future for irrigation in the region.

# Outcomes and actions for the Goulburn-Murray Irrigation Districts

## Getting clear signals for irrigator needs and infrastructure design

In the GMID, water use and area of land under irrigation have decreased by 40 percent since the early 2000s. When delivery shares were allocated in 2007, water use was anticipated to return to average levels experienced before the Millennium Drought. Instead, delivery volumes have remained lower than pre-drought levels. As a result, the irrigation infrastructure operates most of the time at a much lower capacity than it has been designed for, although short term high demand events still occur that use the full capacity of the system.

Delivery shares were designed to provide signals for rationalising infrastructure as water was traded out of districts through payment of the Infrastructure Access Fee. To avoid price shocks to other users as people exit irrigation, termination fees were introduced, capped at ten times the IAF. Many GMW customers opted not to pay the termination fee when selling high reliability water shares. As a result, there have not been the clear signals for rationalising or reconfiguring infrastructure needed to adjust the infrastructure footprint to better reflect changing customer needs.

By improving tools for managing delivery shares and setting clearer price signals we can help irrigators adjust the delivery shares held in ways that facilitate rationalisation and reconfiguration, working to adjust the infrastructure footprint in response to changing water use.

More flexible approaches for adjusting delivery shares will help irrigators modify their holdings as their water needs change. This will provide clearer signals to GMW on irrigator intentions and infrastructure requirements, informing opportunities to reconfigure and rationalise infrastructure to serve customer needs and keep downward pressure on system costs.

Trading provides an alternative to termination fees for irrigators to adjust their delivery shares: **facilitated markets** link willing sellers to those seeking delivery shares. Using markets to determine the most effective distribution of delivery shares provides signals to GMW that inform the rationalisation of its network. GMW has supported trade in delivery shares since 2007/08, although markets have not been formally structured and facilitated.

Due to the current surplus of delivery shares in the GMID (averaging over 3,000 GL of excess annual delivery allowance), delivery shares currently attract a negative price, which provides a significant financial incentive for those in need of delivery shares to seek a trade. This can help to attract new investment into the GMID.

The significant spare capacity in most GMW infrastructure and large amount of under-used delivery share already issued provide challenges in establishing an effective market. An **embargo on issuing new delivery shares** is therefore proposed, with any applications for new delivery shares to be fulfilled through trading or transferring of existing delivery share holdings. Where there are not enough willing sellers, or there is not the hydrological capacity for trade, new delivery shares may be issued.

Better signals can also be generated by providing **discounts on termination fees** where the termination (to full exit) allows infrastructure to be rationalised or reconfigured to the benefit of remaining irrigators.

GMW may also facilitate **limited term contracts** for delivery on channels or spurs that can be rationalised, working with customers to set a fixed term to provide an agreed level of service, with the ability to rationalise the infrastructure at the end of the contract period. Under these contracts termination fees would be waived or discounted when the service is discontinued and infrastructure rationalised. The level of discount would depend on cost savings associated with reduced infrastructure.

## Outcome 1: Help irrigators adjust delivery shares to better signal infrastructure requirements

Proposed action	Pathway to change	Key dates
<p><b>1.1 Facilitated market in delivery shares to support asset rationalisation</b></p> <p>GMW will actively facilitate markets in delivery shares, collating information on willing sellers, system capacity, opportunities for trade, and price.</p>	GMW to develop capacity to manage and report on delivery share trades	Support systems in place from July 2019
<p><b>1.2 Embargo on issue of new delivery shares to promote trade</b></p> <p>GMW will be restricted from issuing new delivery shares through the next regulatory period, where there are willing sellers and capacity in the market. This embargo would be reviewed in 2024 as part of the price submission for the 2025-2029 regulatory period.</p>	<p>Ministerial Directive to GMW</p> <p>GMW price submission processes in 2019 (develop) and 2024 (review)</p>	<p>1 July 2019 proposed start</p> <p>2020-2024 regulatory period</p> <p>2024 price submission</p> <p>2025-2029 regulatory period</p>
<p><b>1.3 Support for delivery share market approaches</b></p> <p>DELWP will support delivery share markets and products, including assisting with product specification, disseminating product information, and supporting the product in the Victorian water register</p>	<p>Ministerial Directive to GMW to facilitate delivery share markets</p> <p>Develop information and tools for managing delivery share trade</p>	From January 2019, as required to meet market development
<p><b>1.4 Termination fee discounts to reduce system costs</b></p> <p>GMW will develop clear, repeatable and transparent guidelines for determining if, when, and by how much to discount termination fees, including associated costs to decommission and remove infrastructure as part of termination. These guidelines must incorporate the following principles:</p> <ul style="list-style-type: none"> <li>Termination fee discounts will apply where the full termination of delivery shares allows rationalisation or reconfiguration of infrastructure.</li> <li>The magnitude of the discount, including waiving fees, reflects the cost savings made through rationalising/reconfiguring infrastructure.</li> <li>The resulting termination has a cost-neutral or positive impact on the prices for remaining irrigation customers.</li> </ul>	<p>GMW customer consultative processes</p> <p>GMW operational systems</p>	<p>2019-2020 financial year</p> <p>2019 price submission</p> <p>2020-2024 regulatory period</p>

<p><b>1.5 Limited term contracts for delivery service</b></p> <p>GMW will develop limited-term contract arrangements for channels where opportunities are identified to rationalise, reconfigure or remove infrastructure, including clear and transparent contract terms and principles.</p> <p>Fixed costs are to be recovered through contractual agreement rather than through Infrastructure Access Fees attached to delivery shares.</p> <p>Where a contract results in rationalisation or reconfiguration of infrastructure, principles for termination costs (see 1.4) would apply in place of standard termination fees.</p>	<p>Ministerial Directive GMW processes to develop contract approach, terms and pricing structures, in consultation with customers GMW 2019 price submission</p> <p>Requires development of termination discount principles (1.4) as well as the information and decision-making processes required to identify where contracts could be offered (actions 5.2 and 5.3)</p>	<p>Linked to delivery of underpinning information and systems (1.4, 5.2 and 5.3)</p> <p>2019 price submission</p> <p>2020-2024 regulatory period</p>
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The design of irrigation tariffs and implementation of cost-sharing principles can set price signals that help irrigators and the water corporations make more informed and financially sustainable decisions about district infrastructure. This provides clearer signals for where infrastructure should be removed, reconfigured or maintained to most effectively manage and share costs.

Through analysis of real data on water and infrastructure use, the delivery share review has identified three alternative pricing models that may provide more effective signals for managing infrastructure (action 2.1). Further information on these three pricing models is provided in the appendix to this report. These models are not exclusive or final, as the detailed analysis required is beyond the scope of the Delivery Share Review.

These models would cause major changes to the way GMW determines tariffs, and thus to the charges irrigators face. Extensive work would be required to develop effective pricing structure and understand the impacts of alternative pricing models on costs to irrigators, water corporation revenue and infrastructure management (including signals for sensible rationalisation). All three models all have significant distributional impacts that would need to be addressed, providing unequal benefits and costs to different customers.

As these models all involve major change and impact customers differently, GMW must work closely with its customers to decide if – and how – to implement alternative pricing models. GMW will need to engage thoroughly with its customers to:

- build understanding of the proposed models, the issues with distribution of impacts, and potential benefits at a system scale,
- test customer support for these models and make a joint decision on which, if any, to pursue, and
- work out how to implement the changed pricing model to manage the distributional impacts and put in place a pathway that allows gradual transition to the new pricing structure, allowing customers to prepare and adjust their operations to align with new pricing approaches.

Due to the extent of work required it is not considered reasonable to complete investigation of changes to GMW's pricing models as part of the 2019 price submission. Work will commence through the current GMW Tariff and Pricing Strategy Review, with transitional steps implemented as agreed with customers, ahead of proposed implementation through the 2024 price submission to the ESC for the 2025-2029 regulatory period.

Principles to improve the transparency, accuracy and efficiency of GMW's tariffs and pricing are set out in **Outcome 5**. These principles would apply when designing and implementing the actions proposed below.

## Outcome 2: Set tariff and pricing principles that help adjust the infrastructure footprint

Proposed action	Pathway to change	Key dates
<p><b>2.1 Use cost-reflective tariffs that send strong signals</b></p> <p>GMW will seek to consolidate and improve the cost-reflectivity of tariffs, including understanding and managing distributional impacts. GMW will work with customers to thoroughly investigate options and develop transitional pathways to manage change in pricing models as part of ongoing tariff reform, including the following:</p> <ul style="list-style-type: none"> <li>• Considering charging based on distance along network</li> <li>• Considering charging based on outlet size</li> <li>• Considering reducing the Annual Delivery Allowance to 100 times the delivery share rate, over time</li> </ul>	<p>GMW Transformation to set principles and determine processes</p> <p>GMW Tariff and Pricing Strategy Review</p> <p>GMW customer engagement processes</p> <p>GMW 2024 price submission</p>	<p>This is long term reform requiring extensive development and transition management over time.</p> <p>2024 price submission</p> <p>2025-2029 regulatory period</p>
<p><b>2.2 Align tariffs more closely with use</b></p> <p>GMW will work with customers to explore options to reduce the fixed component of charges, looking at approaches and products that help to manage the risks associated with a greater proportion of variable revenue.</p>	<p>GMW Tariff and Pricing Strategy Review</p> <p>GMW customer engagement processes</p> <p>GMW 2019 price submission</p>	<p>2019 price submission</p> <p>2020-2024 regulatory period</p>

Relationships between delivery shares, channel capacity, system design and service provision have changed since unbundling and may not be optimised for current water use. Due to the infrequency of significant rationing events, many GMID irrigators do not see a clear relationship between the delivery shares they hold and way the system operates.

This situation provides opportunities to increase the value of holding delivery shares by providing clear benefits based on the contribution made toward system costs. By **improving the links between delivery shares and system operations**, irrigators will receive clear benefits from holding delivery shares.

These benefits include the **distribution of water efficiency dividends**, including the “irrigator’s share” of water savings through the Connections project. While the final model of distribution will be worked out through negotiations between DELWP, GMW and its customers, delivery shares will form the basis of distribution. Both irrigators and the water corporation are encouraged to consider how efficiency dividends can best be used to support the long-term future of the GMID when discussing approaches to efficiency dividends. The distribution of savings will occur at the end of the GMW Connections project.

## Outcome 3: Provide clear benefits to delivery shares in service and system operation

Proposed action	Pathway to change	Key dates
<p><b>3.1 Improve links between delivery shares and system operation</b></p> <p>GMW will work with its customers explore options to improve links between</p>	<p>GMW customer consultation processes</p> <p>GMW operational</p>	<p>2019 price submission</p> <p>2020-2024 regulatory period Ongoing</p>

<p>delivery shares, channel capacity, system operation and service received, including:</p> <ul style="list-style-type: none"> <li>• priority ordering lead times</li> <li>• priority volumetric access</li> <li>• flow rates linked to delivery shares</li> </ul>	<p>systems GMW 2019 price submission</p>	<p>consideration as customer needs evolve</p>
<p><b>3.2 Distribute water efficiency dividends based on delivery shares</b></p> <p>The benefits of water efficiency dividends generated within irrigation districts are to be distributed on the basis of delivery shares, so that those paying for the system receive the benefit.</p> <p>With respect to the Connections Project dividends, DELWP will establish a consultative committee, involving GMW and their customers to develop an approach that supports the future of the GMID.</p>	<p>Ministerial Directive Method determined through DELWP and GMW customer engagement processes</p>	<p>Connections dividend realised in 2020</p>

## Setting principles for delivery share tariffs and prices

There are opportunities to revise and strengthen the over-arching principles and policy frameworks for delivery shares that apply to both the Goulburn-Murray and Sunraysia districts. These frameworks will help to set tariffs and prices that are cost-reflective for the services provided and ensure that delivery share and infrastructure access fees are reinvested into the Goulburn-Murray and Sunraysia districts in ways that support the long-term needs of the districts.

The actions below set clear expectations and requirements at the State level for how tariffs and prices associated with delivery shares will be determined by water corporations, who will inform and engage with their customers to develop price submissions. These submissions are provided to the Essential Services Commission, which reviews them against regulatory requirements for rural water supply services.

Irrigators need reliable access to clear, up-to-date and understandable information to make business decisions. Goulburn-Murray irrigators have called on the Delivery Share Review to help provide greater clarity, and transparency around the costs of irrigation systems and the charges to recover costs, principally the Infrastructure Access Fee charged based on delivery shares.

There are clear opportunities to improve the information we provide on delivery shares, including:

- Making sure that transparent information on tariffs and charges linked to delivery shares, what they pay for, and how they are determined is provided to irrigators
- Providing spatial information on channel operation, asset condition and deliverability constraints, to inform decisions on how much delivery share irrigators need and how water corporations manage their infrastructure
- Setting out fair processes for irrigators and water corporations to work together to make decisions about shared infrastructure
- Making information available on what delivery shares are, the benefits they provide, and how they are used to help manage irrigation districts



## Outcome 4: Improve information, communication and transparency on delivery shares

Proposed action	Pathway to change	Key dates
<p><b>4.1 Transparent information on costs and prices</b></p> <p>Water corporations will provide clear and transparent information on tariffs and price determination for costs recovered on the basis of delivery shares.</p> <p>GMW will engage with its customers to provide greater detail on all tariffs and charges and adjust prices accordingly where savings or cross-subsidisations are identified. The information provided will include:</p> <ul style="list-style-type: none"> <li>• clear descriptions of the services associated with each charge</li> <li>• break-downs on individual costs and allocations, commencing with the Infrastructure Access Fee, to customer working groups.</li> </ul>	<p>Ministerial Directive</p> <p>GMW Tariff and Pricing Strategy, including customer engagement</p> <p>GMW 2019 price submission</p>	<p>Data provided by December 2018</p> <p>Adjustments to tariffs and pricing in 2019 price submission</p>
<p><b>4.2 Spatial decision-making processes and toolbox</b></p> <p>GMW will develop and document processes and frameworks to provide data and facilitate decision-making at the channel or spur scale. These processes and frameworks will set out clear roles, responsibilities and obligations for making informed decisions, with both customer groups and the water corporation able to instigate decision-making processes including decisions around infrastructure reconfiguration and delivery share trades.</p>	<p>Ongoing development and management through GMW Transformation and business processes</p> <p>This action requires the provision of system information by the water corporation as described in 5.3 below.</p>	<p>Framework complete by 30 June 2019</p> <p>Data provision is ongoing, building on channel capacity assessments already underway</p>
<p><b>4.3 Spatial information</b></p> <p>GMW will provide up-to-date spatial information on channel capacity, use, asset condition, and opportunities to trade delivery shares to their customers.</p> <p>This information supports trade in delivery shares (1.1), termination fee discounts (1.2) and limited term contracts (1.5).</p>	<p>GMW operational systems and web portal</p> <p>This information supports spatial decision-making processes described in 5.2 above</p>	<p>Information portals to operating by December 2019</p>
<p><b>4.4 General information</b></p> <p>DELWP, GMW and LMW will consult with irrigators and other water corporation customer groups to identify requirements for information and tools to</p>	<p>GMW and LMW customer consultation processes</p> <p>DELWP Water Information Systems</p>	<p>Commencing with this Review and ongoing</p>

understand and manage delivery shares, including support for new products as they are developed.

We will ensure that the latest **information on water ownership, use, delivery and pricing** is made available and used to inform water policy. This information provides **data-based principles for irrigation charges**, which will inform GMW in setting tariffs and prices that reflect water trading and consider changes in water ownership and use.

Infrastructure access fees and termination fees must be invested back into the irrigation districts in ways that maximise the long-term benefits to remaining irrigators. By making this information public to customers we can build confidence that the Goulburn-Murray districts are being managed to support active irrigators and provide infrastructure that meets customer needs.

#### Outcome 5: Ensure the clarity and transparency of GMW pricing

Proposed action	Pathway to change	Key dates
<p><b>5.1 Real information on water market trends, pricing and use</b></p> <p>DELWP, GMW and LMW will work together to provide up-to-date and transparent information on changes in water use and ownership, and on current pricing in Northern Victoria. This information will be used to inform tariff and pricing processes as well as to review policy settings and frameworks.</p>	<p>DELWP Water Market Trends report</p> <p>DELWP Environmental Water Charges report</p> <p>Water corporation tariff and pricing processes</p>	<p>DELWP Water Market Trends report released in December 2018</p> <p>DELWP Environmental Water Charges report (February 2019)</p> <p>2019 price submission and ongoing</p>
<p><b>5.2 Transparent and data-based pricing principles that reflect changes in water ownership and use</b></p> <p>GMW to use up-to-date data in tariff and pricing process to ensure pricing structures are cost reflective for the service received and facilitate adjustment to changed water use. This includes examining:</p> <ul style="list-style-type: none"> <li>• A return to system pricing for storage services</li> <li>• Tariff differential between accounts linked to land and those that have been disassociated</li> <li>• The distribution of Environmental Contribution levy charges</li> <li>• Charges for the use of district infrastructure to deliver environmental water</li> </ul>	<p>DELWP Water Market Trends report (December 2018)</p> <p>DELWP Environmental Water Charges report (February 2019)</p> <p>GMW Tariff and Pricing Strategy, including customer engagement.</p> <p>GMW 2019 price submission</p>	<p>2019 price submission</p> <p>2020-2024 regulatory period</p>
<p><b>5.3 Billing systems built on real costs</b></p> <p>GMW to ensure bills are generated based on accurate and up-to-date information on system costs and use.</p>	<p>GMW operational systems</p> <p>GMW Tariff and Pricing Strategy, including</p>	

customer engagement.

**5.4 Termination fees used to manage system costs**

GMW must ensure that all money collected through termination fees are used to the manage costs of the system and put downward pressure on prices for remaining irrigators. GMW will provide clear and transparent information on how termination fees are used to their customers.

GMW financial reporting processes  
Published online in the Customer Information section of GMW's website

2018-19 financial reporting, and subsequent years  
2019 price submission

Delivery shares are linked to land in irrigation districts. Conveyancing processes in property sales should capture and explain the delivery shares attached to a property, however this has not been consistently occurring, particularly in expanding peri-urban regions where purchasers are not familiar with water entitlements and irrigation system rules. People are purchasing properties without understanding what the delivery shares attached to their land mean, including the fixed charges associated with holding and terminating delivery shares.

This will be addressed by setting clear requirements to provide delivery share information, with an immediate action to set out expectations for Victoria's water corporations, backed by legislative review to set obligations for property conveyancing processes.

**Outcome 6: Capture delivery shares up front in property transactions**

Proposed action	Pathway to change	Key dates
<p><b>6.1 Information in property sales – water corporations</b></p> <p>Water corporations will provide information on the delivery shares attached to a property, nature of charges (ongoing, fixed) and associated fees as part of the Information Statement required in property transactions.</p>	<p>Ministerial Directive Water register forms and processes</p>	<p>Commencing with this Review</p>
<p><b>6.2 Information in property sales – Government</b></p> <p>DELWP will update regulatory requirements, advice to water corporations and information systems to confirm the requirements to disclose delivery shares and associated charges in conveyancing checks for property sales.</p>	<p>Potential changes to the Water Act (Section 158 – Information Statements), and Sale of Land Act (Section 32 – Vendor Statements)</p>	<p>Commencing with this Review</p>

## Acting on the outcomes

DELWP and GMW will work closely with irrigators to discuss the outcomes of this report and review and confirm the actions for the Goulburn-Murray districts. We will then consult with the community to plan how and when the agreed actions will be implemented. This work must take into account the pathways and key dates identified in this report that capture how the proposed actions link in with established processes and regulatory requirements. GMW will lead consultation with linking with and building on existing processes around tariff reform, asset management and customer engagement.

Goulburn-Murray irrigators and LMW have already identified several of the proposed actions as being important for their business through submissions to this Review and through GMW's existing customer engagement and business improvement processes. For some, work on designing and implementing the actions had already begun.

More detailed information on GMW tariffs and pricing (action 5.1) has been made publicly available than ever before, with further work in breaking down cost structure to be done through GMW's tariff working groups. GMW will continue to work closely with irrigators to build trust and understanding in price-setting through its 2019 price submission development, to set tariffs for the 2020-2024 regulatory period.

The 2019 price submission for GMW is a key date for many of the actions proposed in this report. The price submission process provides a critical window to lock in changes to GMW's tariff and pricing structures, including making decisions around infrastructure management. The price submission process in 2019 will set out the price structures that will underpin tariffs and charges throughout the 2020 to 2024 regulatory period. The next opportunity to examine tariffs and prices will be through the next pricing submission in 2024 for the 2025 to 2029 regulatory period.

The window for change presented by the 2019 price submission and associated processes mean that there are already set time frames to complete a number of proposed actions. These actions provide the information and analysis of data required to make well-informed decisions around pricing and tariffs, including a full breakdown of the Infrastructure Access Fee, up-to-date information on water use and ownership, and transparent information on charges levied on environmental water holders. To meet these time frames, DELWP and GMW will need to carry out work while consultation is ongoing to confirm the actions with irrigators and plan how they will be implemented. For this reason, data and information-based actions are flagged to start immediately, with delivery for critical information set for December 2018 and January 2019.

Actions proposed through this review that help to drive rationalisation and reconfiguration of the irrigation footprint will build on what has been learnt through the roll-out of the GMW Connections Project and will align with work currently underway through the GMW Transformation process. Transformation is providing a solid foundation of data to support proposed actions such as spatial decision-making information and processes (actions 5.2 and 5.3), including evaluating asset condition and use to help identify where in the irrigation network termination fee discounts (1.4) and limited term contracts (1.5) would provide the greatest benefit.

Many of these actions work together to support the outcomes and will be developed as integrated packages.

### Supporting the long-term future of Goulburn-Murray districts

As outlined in this report, irrigators and GMW need to manage and adapt to significant change. Delivery shares are just one component of a complex puzzle of changing water use, shifts in commodity prices, reduced water availability and modernisation of ageing infrastructure. Delivery share reforms alone cannot address the root causes of irrigator concerns around water availability, price and infrastructure costs.

Through consultation and further planning, DELWP and GMW will identify where the outcomes and actions proposed in this review link in with other processes and projects that are also addressing these concerns. These include reform within GMW currently underway through the Transformation process, as well as activities around the Murray Darling Basin Plan, water deliverability and extraction management, land use planning, environmental water management and the maturation of water markets and trade.

The outcomes of the Review will also inform policy directions for drought response. Submissions to this review highlight the powerful community support for infrastructure rationalisation and reforms that prioritise long-term sustainability. Relief measures must align with actions that support this structural adjustment, working to adjust the irrigation footprint and assist with pathways to exit.



*Irrigators in the GMID are adapting to a range of changes, including connecting to modernised irrigation infrastructure gifted by the GMW Connections Project. The future maintenance and replacement costs of this infrastructure are being recouped through the Infrastructure Access Fee currently charged on the basis of delivery shares.*



# Appendix

## Further investigations undertaken to support the outcomes

The actions to support Outcome 2 of this report include GMW working with customers to consider whether to implement alternative pricing and service models and developing transitional pathways to manage the impacts of these options on different customers and on how the system is managed.

Based on feedback received in response to the Preliminary Findings Report of this review, the following options were modelled to understand how they would change the costs of the system and the prices faced by GMW customers:

1. Reduce the annual delivery allowance (ADA)
2. Alter basis of the infrastructure access fee (IAF)
3. Waive termination fees for customers who have not used water in at least 10 years but have paid all GMW fees over that period.

## Reducing the annual delivery allowance

The Annual Delivery Allowance (ADA) in the GMID is currently set at 270 times the delivery shares held. Feedback shows strong customer interest in this option, with a range of potential new values for the ADA suggested. Three different scenarios were compared to the current scenario (270) – 200, 150 and 100.

In undertaking the analysis, it is assumed that any user that has exceeded their revised ADA in three out of the last five years would choose to purchase more delivery shares to avoid casual usage charges. Customer impacts were estimated by setting the assessment to be revenue-neutral, meaning that GMW's total income through the IAF, Infrastructure Use Fees and Casual Use Fees remains unchanged. This means that increases in the number of delivery shares held by users would reduce the charge applied to each delivery share.

The largest reduction – 100 – has the most significant customer impacts (both positive and negative) and has the most impact on supply and demand forces for delivery shares. The following provides a summary of the impacts from the different scenarios.

### Supply versus demand

One of the key drivers for reducing the ADA is to provide greater incentives for users to trade delivery shares. Data from the last five years of water use in the GMID was used to identify the excess demand (i.e. where users have exceeded their ADA on average over the last five years) and excess supply (i.e. where users have used less than their ADA on average over the last five years) (Table 2).

This analysis demonstrates that under the current 270 ADA approach, there is a considerable amount of spare capacity within the network (over 3 million ML of ADA).

Only the reduction to 100 ADA has a material impact on the volume of spare capacity in the network by reducing it down to approximately 560,000, however there is a limited increase in the potential demand – to only 180,000. This still creates a disconnect of supply and demand forces for delivery shares.

Further analysis was conducted to understand the distributional impacts of reducing the ADA to 100 times the delivery share rate.

### Analysis of impact by geography

As can be seen from Table 3 below, the reduction in the ADA (based on the 100 scenario) results in a small reduction in delivery share charges for a large number of customers, which is funded by some large reductions for a smaller number of customers. This is fairly consistent across the regions. The larger regions



tend to vary between 10-18% of customers receiving an increase in their bills, with Loddon Valley having the highest proportion (18%).

**Table 2: estimates of the excess demand for and supply of delivery shares under four scenarios for the ADA: the current 270 multiple, and proposed multiples of 200, 150 and 100/**

	<b>270</b>	<b>200</b>	<b>150</b>	<b>100</b>
<b>Excess Demand</b>	4,693	8,029	39,483	181,811
<b>Excess Supply</b>	3,074,349	1,969,858	1,210,006	561,029

**Table 3: Customer numbers and percentage magnitude of resulting change in price for each region (ADA – 100).**

<b>GMW District</b>	<b>Percentage change in customer price for customers in each district</b>								
	<b>-20%+</b>	<b>-15%</b>	<b>-10%</b>	<b>-5%</b>	<b>No Change</b>	<b>5%</b>	<b>10%</b>	<b>15%</b>	<b>20%+</b>
<b>Campaspe</b>	0	4	1	0	16	0	0	0	0
<b>Central Goulburn</b>	40	899	2379	83	49	70	66	52	307
<b>Loddon Valley</b>	10	165	439	25	13	18	26	19	84
<b>Murray Valley</b>	19	449	1142	60	32	48	44	31	159
<b>Nyah</b>	1	121	138	0	0	0	0	0	4
<b>Rochester</b>	16	303	1108	30	52	33	21	33	165
<b>Shepparton</b>	19	655	1495	56	43	44	23	32	139
<b>Torrumbarry</b>	28	468	1453	60	12	64	44	46	273
<b>Tresco</b>	0	27	128	3	0	3	3	0	3
<b>Woorinen</b>	1	65	164	0	0	0	0	0	3

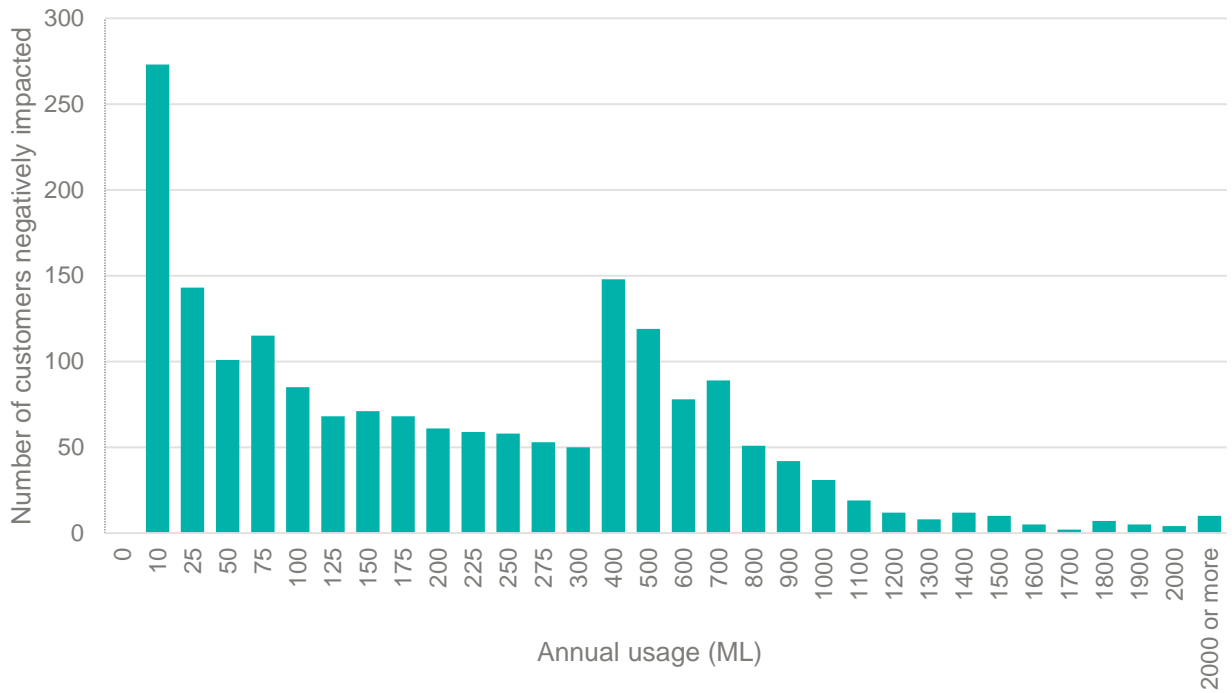


Figure 2: The irrigators negatively impacted by a reduction in the ADA from 270 to 100 include the majority of GMWs higher use customers.

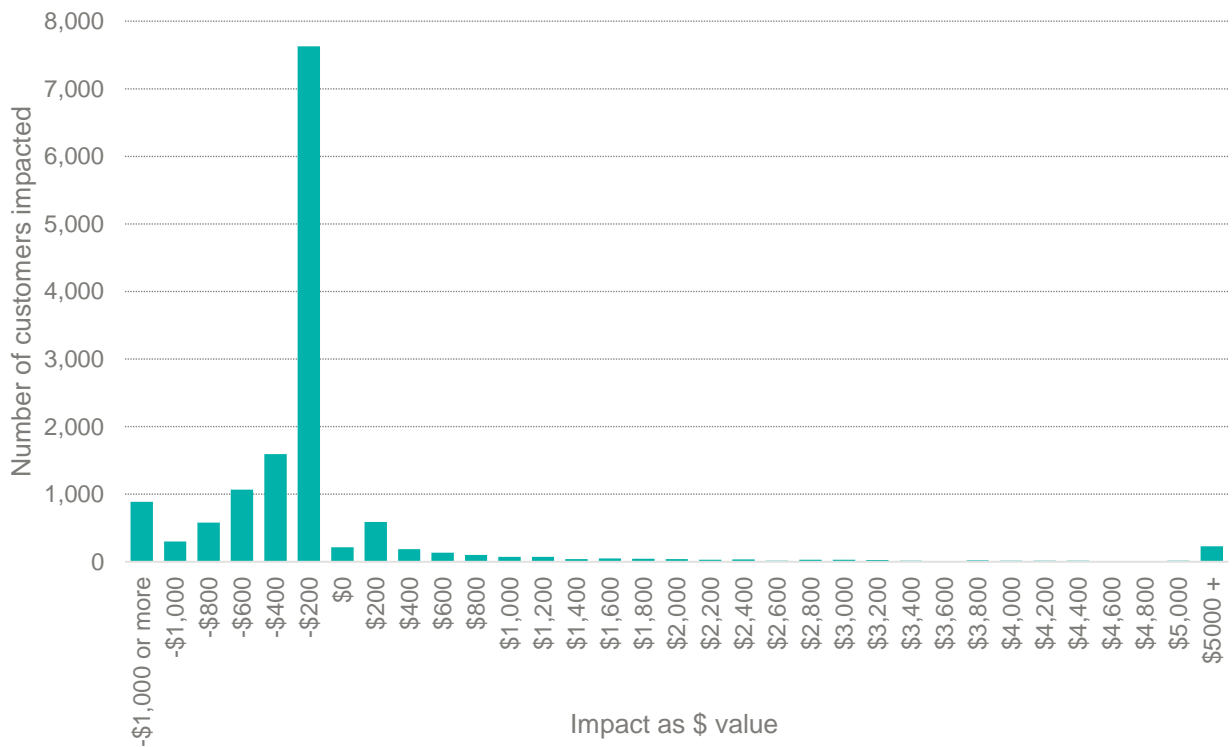


Figure 3: While most irrigators would save around \$200 a year on their bills as a result of reducing the ADA to 100, a significant number would face large increases, including a number with more than \$5000 added to their bills.

## Analysis of impact by user

A high proportion of the customers that are impacted through the reduced ADA are those customers that use more than 100 ML. The analysis shows that 1,140 customers that use over 100 ML per annum (on average) will be negatively impacted (Figure 2).

This is through these customers either increasing the delivery shares that they hold or incurring more casual use fees.

While there are more customers that receive a bill reduction than a bill increase, generally those customers that receive a bill reduction will see a relatively minor reduction however those customers that receive a bill increase will generally have a greater individual impact (Figure 3). There are two reasons for this:

- Those customers that receive a bill increase are required to fund the bill reductions to ensure continued revenue neutrality, and
- The change will not result in a reduction in the underlying cost base for GMW and therefore there is no overall benefit to the customer base.

## Conclusion

Reducing the ADA will not reduce the costs of operating and maintaining the system. Rather, it redistributes those costs across the existing customer base.

To have a material impact on prices, any reduction in the ADA must create enough demand for delivery shares to stimulate trade. A reduction to the 100 times multiple is sufficient to generate demand to begin to transfer delivery shares to match current use patterns. This multiple is also the most useful for system operation.

A reduction in the ADA to 100 has significant and disproportionate impacts on high use customers, effectively penalising those who have optimised their delivery shares under the current 270 multiple. Any move to thus reduce the ADA would need to impose the change over time, providing a transitional pathway to allow customers to plan and adjust their operations over time. Going forward, the changing environment, including use patterns and future rationalisation may make changes to the ADA necessary.

## Alternative basis for the infrastructure access fee

One of the options considered within the Review is to change the basis for applying the IAF. The current approach to charging the IAF is to apply it to the number of delivery shares held by customers. The volume of delivery shares held by customers was determined using an approach that was based on the historical levels of usage for that property.

Three options have been considered:

1. Area-based charging
2. Distance-based charging, and
3. Outlet size-based charging.

In considering these options, it is important to consider the pricing signals that these options provide to customers and how this may impact on the cost base for the network. If there is no change to the underlying cost base going forward, then this would simply result in a change in how costs are recovered, rather than also impacting on the costs to be incurred.

### Area-based charging

This option would apply a charge to customers based on the area of land for the property – i.e. a larger landholding would result in a higher IAF. This would result in a unit rate per hectare (or acre).

While this would be a relatively simple approach to implement, the key downside to this option is that the size of a property (in land area) is not reflective of the costs involved in servicing that property. That is, the size of a property does not have a meaningful correlation with water use and therefore does not provide an appropriate pricing signal to customers that would eventually result in changes in customer behaviour. Therefore, it will not provide an incentive to the water corporation to rationalise the network and thereby not reduce cost base.

In addition to this, there is likely to be implementation issues such as:

- Information on landholding sizes may not be currently captured within the water corporation's systems – this would likely require time and resources to collect
- Likely to involve considerable distributional impacts for customers given that it is a significant change from the existing charging approach

### **Distance-based charging**

This option would apply a charge based on the distance a property is from the source of water: the offtake from the bulk water system. Individual pricing based on a specific property's distance from the source is unlikely to be viable from an administrative perspective, therefore this option would require the use of specific boundaries to be adopted – for example, 5km from source, 10km from source, etc.

By sending this pricing signal, it provides an incentive for customers to be located closer to the source of water and therefore potentially reducing length of the network required to service the customer base (and therefore reducing the underlying cost base).

The key issue for this option is in relation to the implementation:

- Likely to be considerable distributional impacts for customers given that it is a significant change from the existing charging approach
- The use of a distance boundary requires the identification of the boundary – this will result in customer issues where properties are located just outside these boundaries

### **Outlet size-based charging**

This option would apply a charge based on the number and size of outlets that are installed to service a particular property. Charges would be set based on different sizes of outlets, with the charge being applied to each customer based on how many outlets of each size were installed at the property.

There are two signals that are provided through this approach:

- The number of outlets: the water corporation is required to undertake maintenance on each outlet and therefore more outlets results in more maintenance expenditure. The service point fees currently charged by GMW are designed to provide price signals for outlets.
- The size of the outlet: this can be used as a reflection of the capacity required in the upstream infrastructure network.

As with the distance-based option, the key issues for this option is in relation to the implementation:

- At present, delivery system capacity is not correlated with outlet capacity for the majority of the system.
- While there will be information on outlet sizes for each customer, this information will need to be audited and verified prior to charging on this basis
- Likely to be considerable distributional impacts for customers given that it is a significant change from the existing charging approach
- There is the potential for legacy issues where the corporation may have installed a larger outlet than required based on other factors (e.g. outlets that were in stock at the time)

- Transitional arrangements may be required to account for legacy issues, however the corporation would need to ensure that the ongoing cost reductions from the approach outweigh any foregoing of revenue through the transitional arrangements.

## Conclusion

The area-based charging is unlikely to achieve a reduction in the underlying cost base for the network and therefore should not be pursued. The distance-based and outlet size-based approaches have the potential to reduce the cost base for the network, however they are likely to involve transitional impacts that would need to be considered.

Given this, it is recommended that the distance-based and outlet size-based approaches be further investigated as potential methods for applying the IAF to determine whether the benefits outweigh the costs.

## Termination waivers with 10 years without water use

One consideration raised in feedback on the Preliminary Findings Report was to consider waiving the termination fee for those customers that have been paying the IAF but have had no water usage over the past 10 years.

The concept behind this option is based on the view customers that have been paying their charges without using any water have essentially paid for the termination fee over that time. Counter to this argument, a key purpose of the termination fee is to provide the water corporation with sufficient time to consider rationalisation options based on clear signals of customer intent. Payment of termination fees provides the information that the property will disconnect from the network, giving the water corporation time to adjust their operations to ensure that the remaining customer base was able to manage the change in revenue.

The analysis undertaken demonstrates the revenue impacts from waiving the termination fee to those customers that fall within this category. In undertaking this analysis, there are two key conditions that have been applied:

- No aged debt is against the property (i.e. all bills have been paid)
- The property has not been sold in the last 10 years.

The reason for excluding when property has been sold is that it is not possible to know whether the ongoing Infrastructure Access Fee was considered as part of the sale price for the property.

## No usage scenario

Under this scenario, the properties must have:

- No usage over the past 10 years
- No change in ownership within the last 10 years
- No aged debt against the property
- Hold delivery shares greater than 0.2 (this is to exclude stock and domestic customers)

Based on these criteria, there are 84 customers with a combined holding of 63.25 delivery shares. The potential termination fee revenue from these customers that would be foregone is between \$1,865,875 - \$2,684,963. Figure 4 shows the number of customers meeting the criteria, based on their delivery share holdings. It can be seen from this that most of these customers hold between 0.2 and 1.0 delivery shares.

GMW customers by delivery shares held - no usage

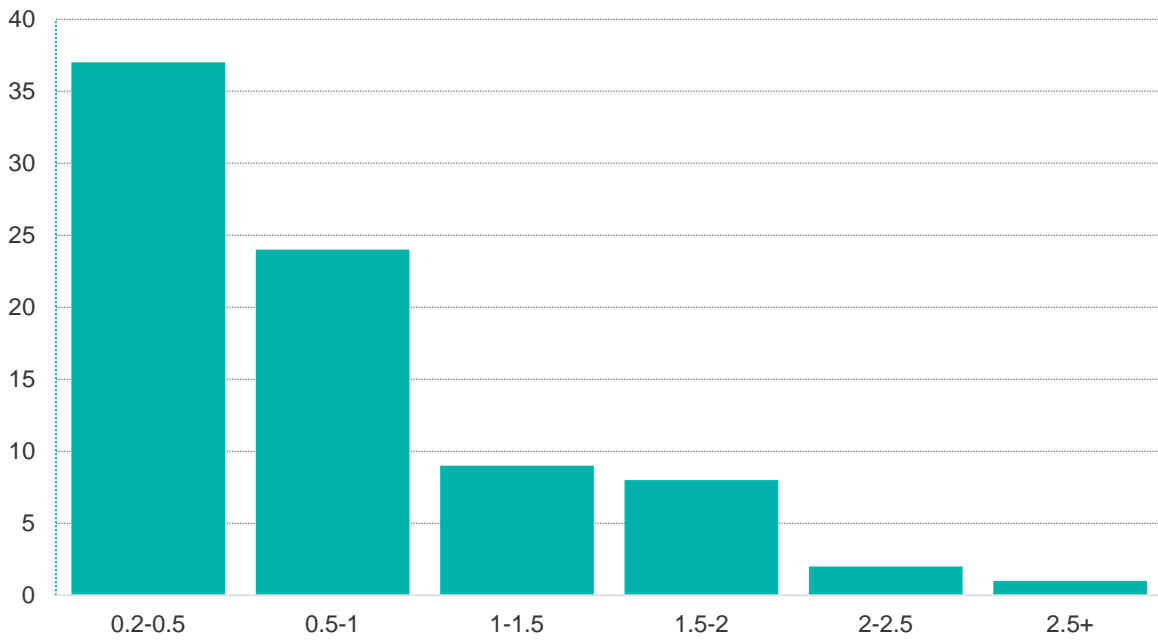


Figure 4: Customers meeting criteria for no water use with full payment of fees over the last ten years are mostly those with small amounts of delivery shares.

GMW customers by delivery shares held - low usage

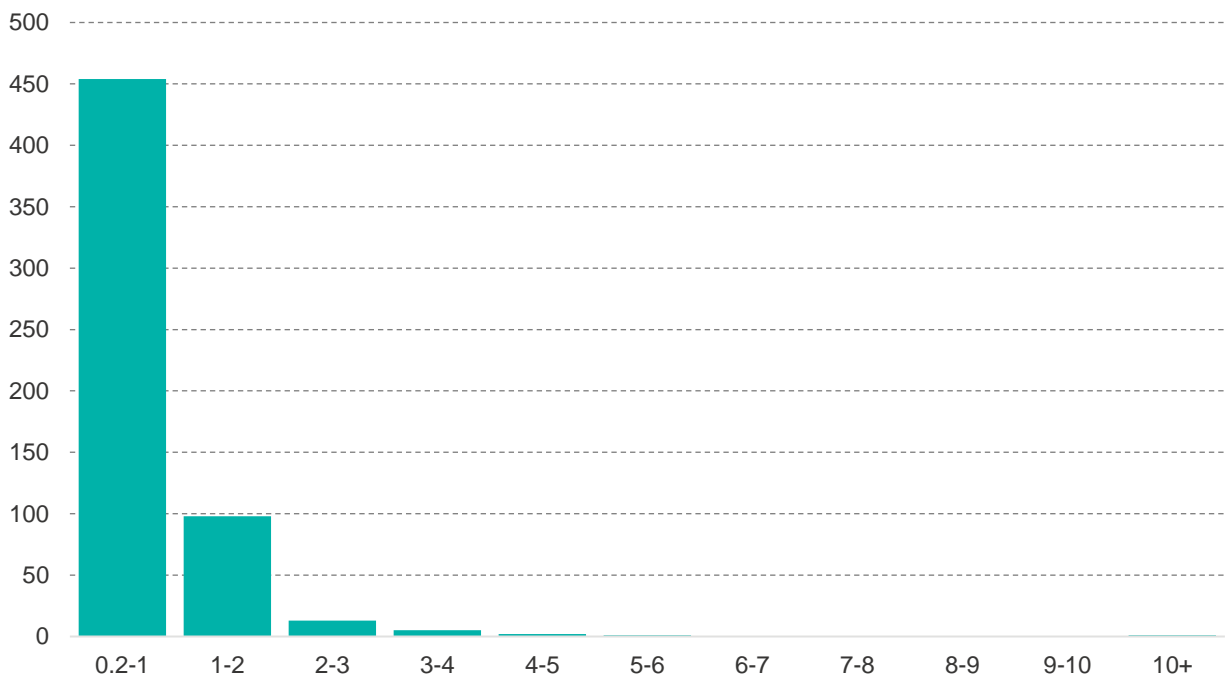


Figure 5: Customers with very low water use but who have paid fees in full over the last ten years are also mostly those with small amounts of delivery shares.



## Low usage scenario

Under this scenario, the properties must have:

- Less than 5ML per annum usage over the past 10 years
- No change in ownership within the last 10 years
- No aged debt against the property
- Hold delivery shares greater than 0.2 (this is to exclude stock and domestic customers)

Based on these criteria, there are 566 customers with a combined holding of 421.89 delivery shares. The potential termination fee revenue from these customers that would be foregone is between \$12,445,755 – \$17,909,231. Figure 5 highlights the number of conforming customers based on their delivery share holdings. It can be seen from this (as with the other scenario) that the majority of these customers hold between 0.2 and 1.0 delivery shares.

## Conclusion

As with the option of an amnesty on delivery shares explored in the Preliminary Findings Report, termination fee waivers would require the foregone revenue to be recouped. GMW customers who comply with the criteria are spread across the irrigation districts, which means that it is not possible to reconfigure or rationalise enough infrastructure to absorb the revenue loss. These proposed termination waivers also raise issues of fairness and equity for those who have already paid termination fees, as well as for those who do not quite meet the qualifying criteria and would not receive the same opportunity.

It is more effective and equitable to seek nominations for termination for those who wish to exit irrigation, and to apply discounts (up to and including waivers of all fees) based on the cost savings to remaining irrigators. Developing and applying fair and transparent processes for calculating and applying termination fee discounts to facilitate exits linked to reducing infrastructure costs is a key outcome of the Review.

