

Options for managing trade between the Goulburn system and the Lower Broken Creek

Goulburn to Murray Trade Review



Introduction

Purpose

This document accompanies the [Changes to the Goulburn to Murray trade rule consultation paper](#) which describes the issues and context around proposed changes to the Goulburn to Murray trade rule.

It provides information for customers in the Lower Broken Creek (trading zone 6B) on the possible options for managing trade between the Lower Broken Creek and the Goulburn and Murray systems that are being considered as part of the broader Goulburn to Murray trade review.

This paper outlines three possible options for how to manage water trade and operations for the Lower Broken Creek in the future. These options are being tested with Lower Broken Creek customers to inform the next steps of improving arrangements for inter-valley trade (IVT) in the future.

Scope

The Lower Broken Creek is part of the declared Murray water system, and allocation trade from the Goulburn system to the Lower Broken Creek is subject to the Goulburn to Murray trade limit in the same way as for other parts of the Murray system.

In December 2019, the Minister for Water introduced a new measure to bring tagged water use restrictions into line with allocation trade rules between valleys. This ensures that all types of trade are treated the same under Victorian trading rules and creates a level playing field for inter valley trade. It also allows for better management of environmental impacts on the lower Goulburn River from trade and delivery of traded water.

At the time that the changes to tagged water use were implemented, customers in the Lower Broken Creek trading zone (trading zone 6B) were given a limited opportunity to use water from Goulburn tagged accounts in the Lower Broken Creek without restriction for a period of 12 months. This arrangement will end in December 2020.

The Victorian Government is considering options for a long-term approach for managing trade between the Lower Broken Creek and the Goulburn and Murray systems as part of the broader review of Goulburn to Murray trade arrangements.

Note about the Barmah Choke Trade Rule

The options described in this document do not address the trade rule which manages trade from the Murray system above the Barmah Choke (zone 6) to below the Barmah Choke, including the Lower Broken Creek (zone

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6B). This is a rule set under the Murray-Darling Basin Agreement and managed by the Murray-Darling Basin Authority, Victoria, New South Wales and South Australia together.

Any changes to the Barmah Choke Trade Rule would require agreement between all southern basin states and the Murray-Darling Basin Authority. The Victorian Government is aware of community interest about aspects of how this rule applies to trade between the Murray above the Barmah Choke (zone 6) and the Lower Broken Creek (zone 6B). However, this is not part of the current review of Lower Broken Creek trade arrangements.

Water management arrangements for the Lower Broken Creek

The Lower Broken Creek is the regulated section of Broken Creek between Katamatite and the Murray River. The creek has been highly modified from its natural state and although it receives some unregulated inflows from the upper catchment its main source of water is from the Goulburn system through the East Goulburn Main Channel (see Figure 1). However, it can also receive water from the Murray system via outfalls from the Murray Valley Irrigation Area.

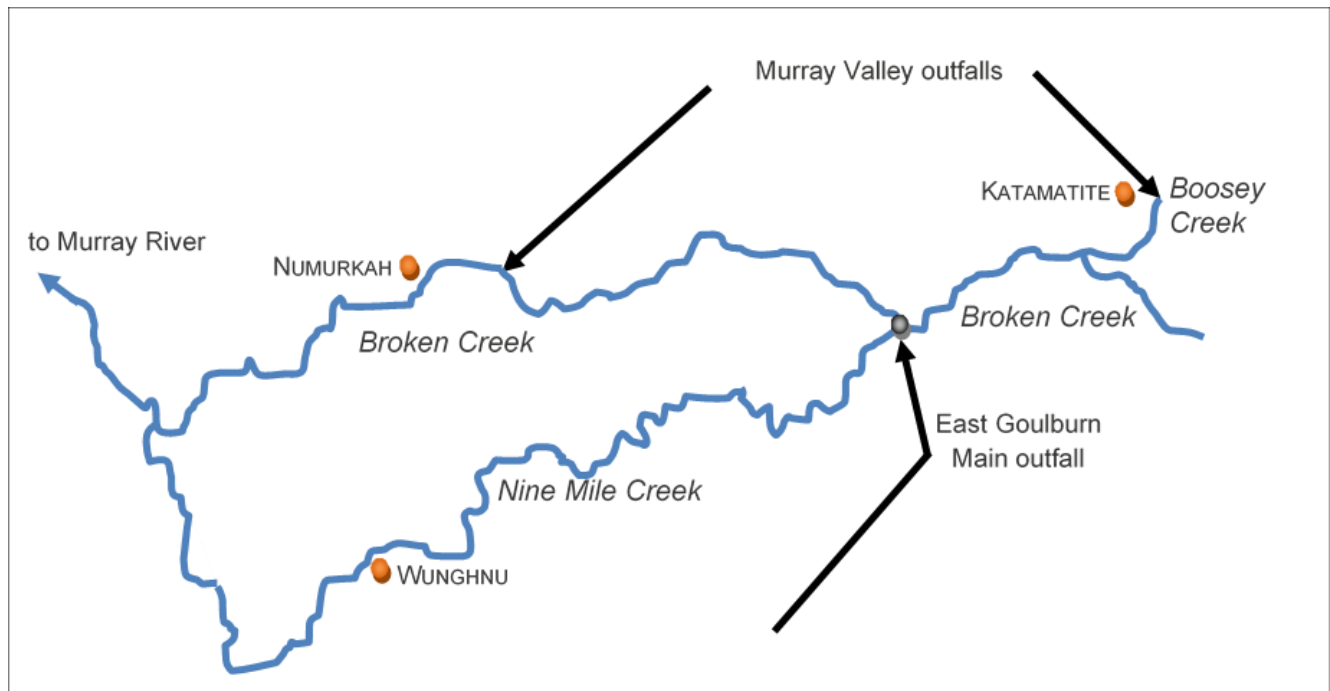


Figure 1: Lower Broken Creek schematic, showing supply points from the Goulburn system and the Murray Valley Irrigation Area

The Lower Broken Creek is in the declared Murray water system and customers are considered part of the Murray Valley Irrigation Area. Most customers along the Lower Broken Creek hold Murray water shares. Due to historical arrangements, a portion of the customers hold Goulburn water shares.

When water entitlements were unbundled from land in 2007, entitlement holders on the Lower Broken Creek were given a choice of whether they wanted their entitlements converted into Murray or Goulburn water shares. The vast majority chose Murray water shares, but some chose Goulburn water shares (Figure 2Figure 3).

Because of its unique location the Lower Broken Creek can be supplied from the Murray system and the Goulburn system and has its own trading zone (zone 6B). Most of the resource requirements for the Lower Broken Creek are met from the Goulburn system through the Goulburn supplement which provides for up to 40 gigalitres (GL) of

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Goulburn water to supply the Murray water shares held by Lower Broken Creek customers. The rules about how the Goulburn supplement is used are outlined in the Goulburn and Murray system bulk entitlements.

Trade Rules for the Lower Broken Creek (Zone 6B)

The Lower Broken Creek trading zone (zone 6B) is on the Murray side of the Goulburn to Murray trade rule. This means that trade opportunities available under the current rules are:

- **Trade to and from the Goulburn** - water users can buy water allocation from the Goulburn system when the Goulburn inter-valley trade (IVT) account is less than 200 GL. Water users can sell water allocation to the Goulburn system if there is a back-trade opportunity.
- **Trade to and from the Murray below the Barmah Choke** - zone 6B is on the downstream side of the Barmah Choke rule which means that water users can sell water allocation to other trading zones downstream of the Barmah Choke. Customers can buy water allocation from other trading zones downstream of the Barmah Choke through back-trade if water has previously traded out to the wider Murray.
- **Trade to and from the Murray above the Barmah Choke** - customers can trade allocation from zone 6 to zone 6B when there is trade opportunity under the Barmah Choke trading rule and can trade from zone 6B to zone 6 all the time.

This is summarised in the tables below.

Table 1: Trade opportunity out of Zone 6B

From	To	Trade Opportunity
Zone 6B	Zones 6, 10 (Murray above Choke)	No limit
Zone 6B	Zones 7, 11, 12, 13, 14 (Murray below Choke)	No limit
Zone 6B	Zones 1A, 1B, 2, 3, 4A, 4C, 5A (Goulburn, Broken, Campaspe & Loddon)	Trade available if back-trade opportunity exists

Table 2: Trade opportunity into Zone 6B

From	To	Trade Opportunity
Zones 6, 10 (Murray above Choke)	Zone 6B	The lesser of the MDBA Barmah Choke limit and the Lower Broken Creek back-trade opportunity
Zones 7, 11, 12, 13, 14 (Murray below Choke)	Zone 6B	Trade available if back-trade opportunity exists
Zones 1A, 1B, 2, 3, 4A, 4C, 5A (Goulburn, Broken, Campaspe & Loddon)	Zone 6B	The Goulburn IVT trade limit (<i>*Current one-year exemption for tagged use in 6B Dec 2019 to Dec 2020</i>)

Tagged water use in the lower Broken Creek

In December 2019, the Minister for Water introduced a new measure to bring tagged water use into line with allocation trade rules between valleys. This ensures that all types of trade are treated the same under Victorian trading rules and creates a level playing field for inter valley trade.



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At the time that the changes to tagged water use were implemented, customers in the Lower Broken Creek trading zone were given a temporary opportunity to continue use water from Goulburn tagged accounts in the Lower Broken Creek without restriction for a period of 12 months. The arrangement was put in place while DELWP reviews the area's unique circumstances and considers and consults with the community on the best long-term approach for how the Lower Broken Creek interacts with the Goulburn to Murray trade rule.

Some Lower Broken Creek customers have held Goulburn entitlements since unbundling, and additional water can be delivered from the Goulburn system to the Lower Broken Creek without increasing the environmental damage to the lower Goulburn River from unseasonal high flows.

The 12-month arrangement for tagged water use in the Lower Broken Creek has meant that during 2019-20 customers in the Lower Broken Creek have been able to continue to use water from the Goulburn system via their tagged accounts, even if the Goulburn to Murray trade rule is closed.

Inter valley trade deliveries down the Lower Broken Creek

The Lower Broken Creek can be used as an alternative pathway to deliver some water from the Goulburn IVT account to the Murray River, instead of the lower Goulburn River. Water delivered through the Lower Broken Creek mitigates some of the damage that can be caused from high summer flows down the lower Goulburn River.

In recent years, Goulburn Murray Water (GMW) has been transferring water where possible through the Lower Broken Creek within the physical capacity of the infrastructure and the environmental constraints and objectives identified by the Goulburn-Broken Catchment Management Authority. On average 200 ML/day can be delivered in this manner. The volume of Goulburn IVT water that can be delivered through the Lower Broken Creek depends on local demands in the Lower Broken Creek and surrounding areas like the Shepparton Irrigation Area.

The use of the Lower Broken Creek has taken some pressure off the lower Goulburn River and has had positive environmental benefits for the lower Goulburn River. In recent years, it has reduced the flow in the lower Goulburn River by approximately 6 GL/month. Transferring water via the Lower Broken Creek is using the spare capacity of the channel system. This is proposed to continue, although the volume of spare capacity will depend on how people use and trade water in the Lower Broken Creek area.

Updating bulk accounting of water for the Lower Broken Creek to support proposed changes

There are some issues associated with how bulk water accounting is done for the Lower Broken Creek that need to be resolved. Changes are needed to ensure that Goulburn and Murray resources are available to meet local water demands in the Lower Broken Creek and that river operators can track deliveries and use of water through the system in the future to support any updated approaches to managing water delivery and trade.

Changes to bulk accounting will be required to make sure that when a trade occurs from the Lower Broken Creek to the Murray River, the equivalent resource is still delivered via Lower Broken Creek to meet the shifted demand.

DELWP will work with Goulburn-Murray Water to bring about changes to bulk accounting required to support improved management of water trade and delivery for the Lower Broken Creek to support proposed changes through the Goulburn to Murray trade review.

Water entitlements, use, and trade trends in the Lower Broken Creek

How people in the Lower Broken Creek hold, use, and trade water is important to inform the consideration of how management arrangements may be best developed for the future.

The Lower Broken Creek, due to its unique characteristics, has a mix of different entitlements that are held by irrigators, environmental water holders and water corporations. How people use and trade water has been changing over time.

Water entitlements in the Lower Broken Creek (Zone 6B)

There are 26.7 GL of high-reliability and 15.4 GL of low-reliability water entitlements held in the Lower Broken Creek, including water shares and bulk entitlements (Figure 2Figure 3). Almost all of these are Murray entitlements.

There is also around 1 GL of high-reliability and 1 GL of low-reliability Goulburn entitlement tagged for use in the Lower Broken Creek. Much of this tagged Goulburn entitlement has been held in the Lower Broken Creek since 2007, although some customers on the Lower Broken Creek have set up new, or amended existing, tagged entitlements over the past 13 years.

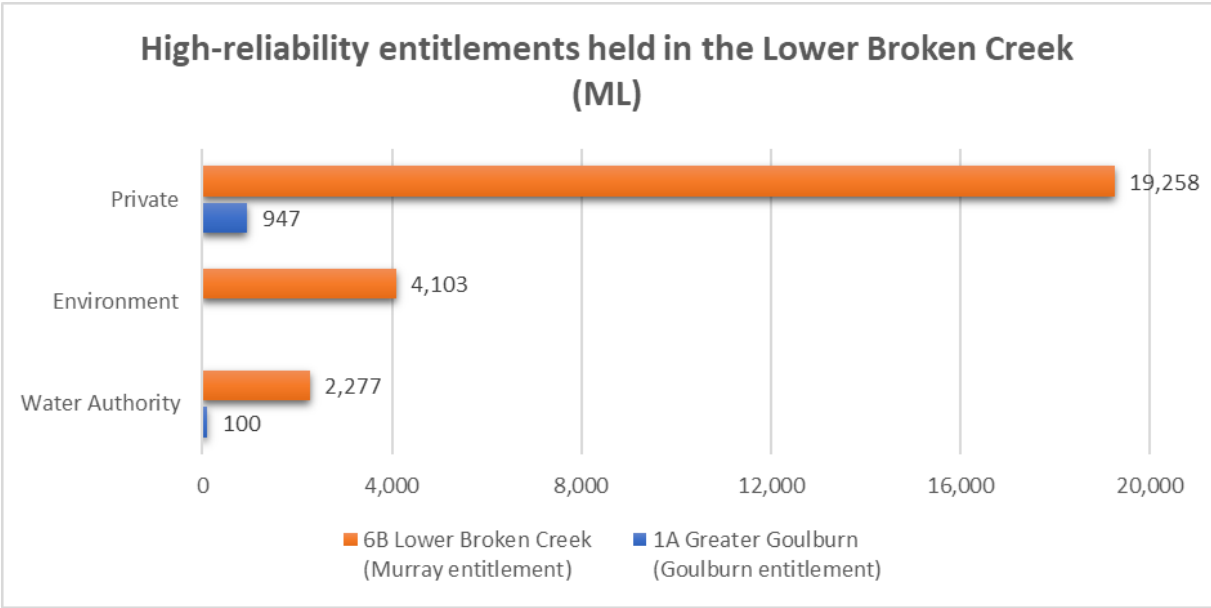


Figure 2: Volume of high-reliability entitlements in the Lower Broken Creek by source and ownership

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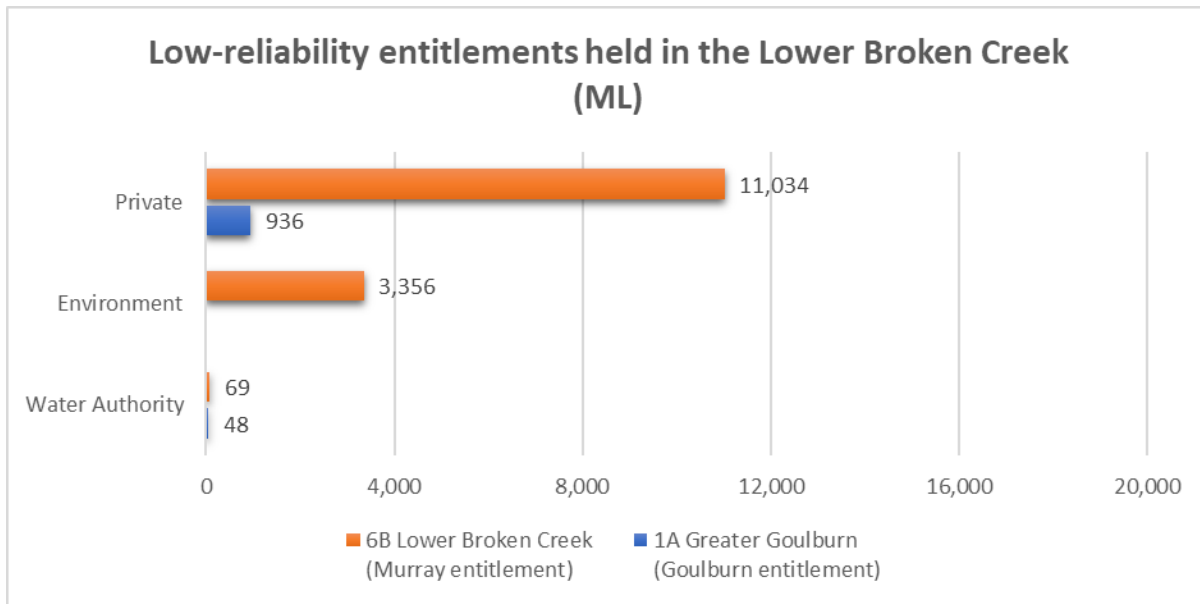


Figure 3: Volume of low-reliability entitlements in Lower Broken Creek by source and ownership

Water use in the Lower Broken Creek (Zone 6B)

Over the last 10 years, there has usually been around 15 - 20 GL of water used in the Lower Broken Creek each year (Figure 4).

Prior to 2016/17, less than 1 GL was used each year from accounts tagged from the Goulburn system – in line with the volumes of Goulburn water shares held in the Lower Broken Creek. In recent years, this amount has grown as water users increasingly used water from tagged Goulburn accounts in the Lower Broken Creek.

More than 2.5 GL was used from tagged accounts in 2017/18 and 2018/19 (Figure 4).

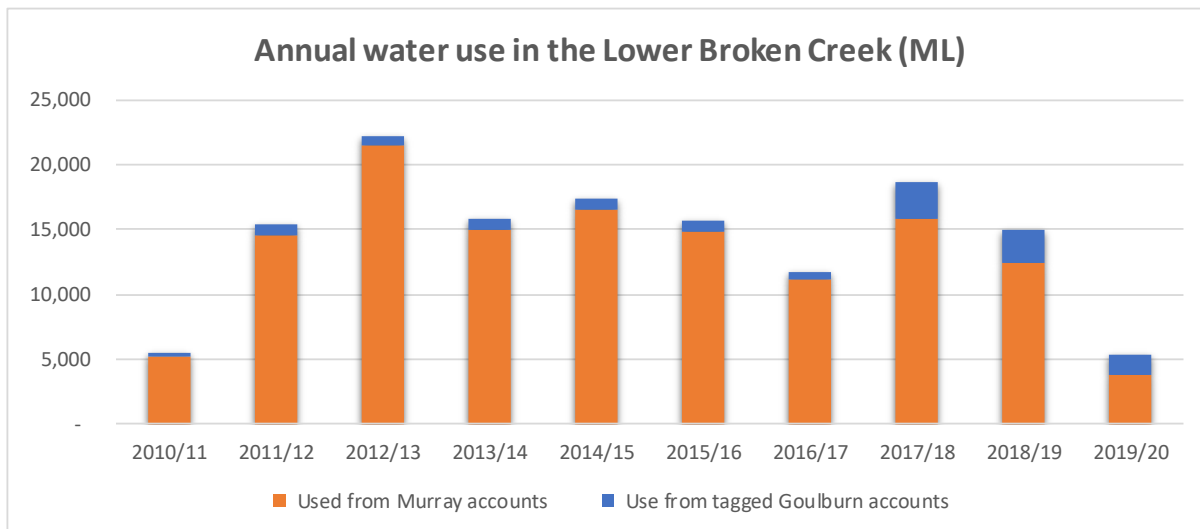


Figure 4: Water used in the Lower Broken Creek since 2010/11 from Murray and Goulburn accounts

The amount of water used in the Lower Broken Creek over the last 10 years has been less than the volume of allocation available to entitlement holders in the zone.

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Water trade in the Lower Broken Creek (Zone 6B)

There has been net trade out of the Lower Broken Creek to other trading zones in the Murray system every year since 2010/11, with between 5 GL and 10 GL generally traded out to the Murray in most years since 2013 (Figure 5).

Some of this water will have been traded to accounts above the Barmah Choke by customers who have dual supply properties that can also have water delivered from channels in the Murray Valley Irrigation Area.

In the last three years, water has traded in from the Goulburn, a change from the trends observed prior to 2017/18.

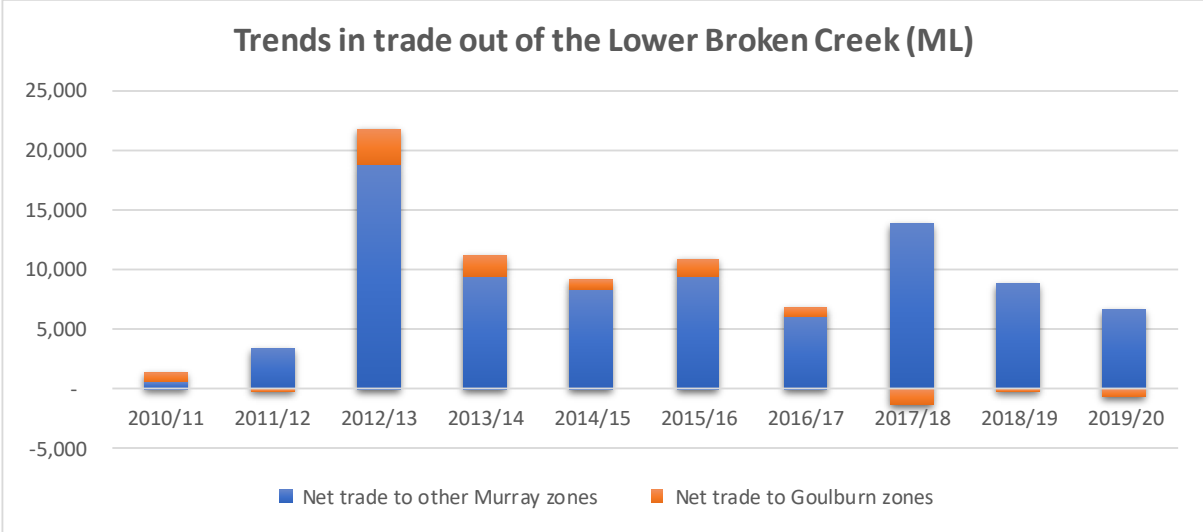


Figure 5: Annual trends in trade out the Lower Broken Creek to the Murray and Goulburn since 2010/11

Future management options for the Lower Broken Creek

Future management options

The proposed changes to the broader Goulburn to Murray trade rule will have implications for customers in the Lower Broken Creek and this reform provides an opportunity to consider how the Lower Broken Creek could be better managed in the future.

Based on feedback from Lower Broken Creek customers, the Victorian Government will further investigate the implications and implementation of specific local options for how the Lower Broken Creek interacts with the Goulburn system in the future as part of the broader Goulburn to Murray trade rule review.

Current (interim) arrangements from December 2019 to December 2020

In December 2019, the Minister for Water introduced a new measure to bring tagged water use restrictions in line with allocation trade rules between valleys.

At the time that the changes to tagged water use were implemented, customers in the Lower Broken Creek trading zone were given a limited opportunity to use water from Goulburn tagged accounts in the Lower Broken Creek without restriction for a period of 12 months while the Victorian Government considers options for a long-term approach.

This means people in the Lower Broken Creek trading zone are currently less restricted than other water users across the Victorian Murray in how they can access water from the Goulburn system.

There are three options that are being considered by the Victorian Government for how the Lower Broken Creek can interact with the Goulburn to Murray trade rule in the future:

Option 1 – Specific arrangements for tagged water use from the Goulburn

- Changes are introduced to trade rules specifically for additional use of water from tagged Goulburn accounts in the Lower Broken Creek.
- This reflects a long-term approach similar to the current interim arrangements described above and in Tables 1 and 2.

Option 2 – Lower Broken Creek treated the same as the wider Murray system

- All allocation trade and tagged water use from the Goulburn system to the Lower Broken Creek is restricted under the Goulburn to Murray trade rule.

Option 3 – Lower Broken Creek moved to the Goulburn side of the Goulburn to Murray trade rule

- The Lower Broken Creek is re-zoned to bring it onto the Goulburn side of the Goulburn to Murray trade rule (i.e. no restrictions on access to trade with the Goulburn system).

The three options are described in greater detail in the next section and evaluated against a set of objectives and principles.

The options for managing trade between the Lower Broken Creek and the Goulburn and Murray systems in the future have been developed and evaluated against the objectives and principles described below. These objectives and principles will guide proposed changes to the water accounting and trade rules for water entitlements in the Lower Broken Creek.

Options for managing trade between the Goulburn system and the Lower Broken Creek

Objectives

The objectives for proposed changes in the Lower Broken Creek are:

- a) Existing entitlements to water in the Lower Broken Creek can be delivered within physical and environmental constraints
- b) Environmental values are managed through sustainable flow rates
- c) Trade rules for the Lower Broken Creek do not unnecessarily constrain trade - within the limits of where water can be delivered
- d) Access to trade opportunity is shared fairly:
 - i. Between customers along the Lower Broken Creek, and
 - ii. Between customers within the southern connected Murray-Darling Basin.

Principles

The principles for how changes in the Lower Broken Creek should proceed are:

- a) Water used under entitlements held in the Lower Broken Creek must be supplied as first priority
- b) Water traded from Lower Broken Creek to the wider Murray system must be supplied without resource impacts on Murray allocations
- c) Trade rules for the Lower Broken Creek should not over complicate proposed changes to the Goulburn to Murray trade rule
- d) The Lower Broken Creek will not be a 'back door' for trade from the Goulburn to the Murray
- e) Trade from the Goulburn system to the Lower Broken Creek should only be allowed within the capacity to supply that water from the Goulburn system
- f) Spare capacity of the channel system in the Shepparton Irrigation Area can be used to deliver water from the Goulburn IVT account.

Option 1 - Specific arrangements for tagged water use from the Goulburn

Under Option 1, specific arrangements would be put in place to allow tagged water use from the Goulburn in the Lower Broken Creek when the Goulburn to Murray trade rule is binding. These arrangements would allow for tagged trade from the Goulburn system to the Lower Broken Creek in a similar way to what has been in place since 2007.

This option recognises the unique setting of the Lower Broken Creek, with water delivered to zone 6B customers being supplied through GMW channels, rather than flowing down the lower Goulburn River.

This means that the trade and delivery of water for use in the Lower Broken Creek does not contribute to environmental damage on the lower Goulburn River from high summer flows, and trade to zone 6B can occur without negative third party impacts that can occur from high volumes of inter-valley trade to other parts of the Murray system.

Implications for water trade and use in the Lower Broken Creek

This option would require a change of the Victorian Trading Rules to allow for specific arrangements for tagged water use from the Goulburn in the Lower Broken Creek. This would be required once the current interim arrangements put in place for 12 months from December 2019 have expired.

This option would mean that:

- Trade from the Lower Broken Creek to the wider Murray would be unrestricted,
- Trade from the Goulburn to the Lower Broken Creek would be restricted under the Goulburn to Murray trade rule,
- Lower Broken Creek customers could use additional water from a tagged Goulburn account on their properties.

Additional trade into the Lower Broken Creek would only be permissible through use from tagged Goulburn accounts. This is required to prevent the water being traded from a Lower Broken Creek customer to another water user in the Murray system and thereby creating a 'backdoor' around the Goulburn to Murray trade rule. This also means that additional trade opportunity from the Goulburn to the Lower Broken Creek would be constrained to what is physically used each year.

Until now, the largest volume that has been used from Goulburn accounts tagged to the Lower Broken Creek in any year has been 2.8 GL in 2017/18. If more people chose to sell allocation water from their Murray entitlements on the market, and replace this with water from tagged Goulburn accounts to use on their properties, then there may be capacity constraints in supplying both the water traded out from local entitlements to downstream users, and water traded in to the Lower Broken Creek from the Goulburn system.

How water can be delivered to the Lower Broken Creek is also affected by demand patterns in the Shepparton Irrigation Area.

These interactions mean that some limits may need to be placed on use from tagged Goulburn accounts in the Lower Broken Creek to ensure that any water that is traded between systems under the rules can be delivered. DELWP will work with GMW to investigate the need for limits under this option.

DELWP and GMW would need to monitor how water is traded and used in the Lower Broken Creek in the future to ensure that any proposed changes do not have unintended consequences or cause negative third-party impacts.

Table 3 shows the trade opportunities for Zone 6B for this option.

Options for managing trade between the Goulburn system and the Lower Broken Creek

Table 3: Trade opportunities for Zone 6B under Option 1

From:	To:	Trade Opportunity
Zone 6B	Zones 6, 7, 10-14	No limit – allocation trade and 6B/7 tagged trade allowed
Zone 6B	Zones 1A, 1B, 2, 3, 4A,4C, 5A	Allocation trade available if back-trade opportunity exists
Zones 6, 10	Zone 6B	Allocation trade limited to the lesser of the MDBA Barmah Choke limit and the Lower Broken Creek back trade opportunity
Zones 7, 11-14	Zone 6B	Trade available if back-trade opportunity exists
Zones 1A, 1B, 2, 3, 4A, 4C, 5A	Zone 6B	Allocation trade available in line with the Goulburn to Murray trade rule, and additional tagged use available for users that hold land and use water

Implications for delivering water from the Goulburn IVT account

Under this option the opportunity to deliver water from the Goulburn IVT account through the Lower Broken Creek is likely to be more limited than it has been in recent years. This is because when there is a price differential between the Goulburn and Murray systems, water users in the Lower Broken Creek may find it beneficial to trade allocations against their local entitlements downstream and replace this by purchasing allocations from the Goulburn system with a tagged account for use on their properties.

In this situation, more of the channel capacity of the East Goulburn Main Channel and the Lower Broken Creek would be required to deliver Goulburn tagged water for use in the Lower Broken Creek, rather than being available for delivery water from the Goulburn IVT account to the wider Murray system.

Under this option, the delivery of water for use in the Lower Broken Creek, or to support trade out from the Lower Broken Creek to the wider Murray, would need to be given priority channel capacity to ensure that water that is traded into and out of the area can be effectively delivered.

Assessment of Option 1 against objectives

Table 4 demonstrates how Option 1 meets the objectives for the proposed changes.

Options for managing trade between the Goulburn system and the Lower Broken Creek

Table 4: Assessment of Option 1 against objectives

Objective	Impact of the option
a) Existing entitlements to water in the Lower Broken Creek can be delivered within physical and environmental constraints	All existing entitlements to water in the Lower Broken Creek will continue to be delivered within physical and environmental constraints. All Murray 6B/6B entitlement will continue to be able to be used or traded to the Murray and all Goulburn 1A/6B entitlements will continue to be able to be used in the Lower Broken Creek. Further, additional 1A/6B tagged entitlements can be set up.
b) Environmental values are managed through sustainable flow rates	Flows in the Lower Broken Creek should be monitored for impacts to environmental values.
c) Trade rules for the Lower Broken Creek do not unnecessarily constrain trade - within the limits of where water can be delivered	<p>Total trade opportunity is maintained. However, individuals' access to it will depend on where they are, and what type of entitlement they hold:</p> <p>Trade 6B to wider Murray – unconstrained</p> <p>Trade 1A to 6B – additional opportunities if accessed through a tagged account</p> <p>Trade 1A to wider Murray - constrained in line with the Goulburn to Murray trade rule, but likely to be more limited than Option 2 due to greater volumes of tagged use in the Lower Broken Creek.</p>
d) Access to trade opportunity is shared fairly: <ul style="list-style-type: none"> i. Between customers along the Lower Broken Creek, and ii. Between customers within the southern connected Murray-Darling Basin 	<p>Trade opportunity is maintained for all Lower Broken Creek customers. All customers will have the same ability to trade water into the Lower Broken Creek through a tagged account.</p> <p>All Lower Broken Creek customers with a Murray 6B entitlement will continue to be able to sell allocation to the wider Murray system.</p> <p>Lower Broken Creek customers are given priority trade opportunity to trade between the Goulburn and Murray systems up to the amount that can be used in the Lower Broken Creek through tagged accounts.</p> <p>This will slightly constrain trade opportunity for Goulburn customers to trade to the wider Murray.</p>

Option 2 – Lower Broken Creek treated the same as the wider Murray system

Under Option 2, all of the current trade rule characteristics of the Lower Broken Creek outlined in Table 1 and Table 2 would be retained. Unlike Option 1, there would no specific arrangements for tagged water use in the Lower Broken Creek.

This means that the Lower Broken Creek would be treated the same as the wider Murray system, with all allocation trade and tagged water use from the Goulburn to the Murray to occur according to the inter-valley trade rules.

Implications for water trade and use in the Lower Broken Creek

This means that all trading (both allocation trade and use from a tagged account) to the Lower Broken Creek from the Goulburn system would be restricted in line with the Goulburn to Murray trade rule. Trade from the Goulburn to the Murray is likely to be restricted more often in the future than it has been in the last few years – when record volumes have been traded from the Goulburn to the Murray - as a result of the proposed changes Goulburn to Murray trade and operating arrangements.

Customers with Murray 6B entitlements would still be able to trade without restrictions to the wider Murray system. This option would mean that:

- Trade from the Lower Broken Creek to the wider Murray would be unrestricted,
- Trade from the Goulburn to the Lower Broken Creek (including use of Goulburn tagged accounts in the Lower Broken Creek) would be restricted under the Goulburn to Murray trade rule.

The Basin Plan Trading Rules (12.23) allow for tagged water entitlements set up before 22 October 2010 to be exempt from trade rule restrictions (described as ‘grandfathering’). Under the Basin Plan Trading Rules, customers in the Lower Broken Creek with a ‘grandfathered’ tagged Goulburn account could continue to be exempt from inter-valley trade rules.

However, some tagged account holders in the Lower Broken Creek may not meet the criteria for grandfathered accounts in Victoria. In addition, the Minister for Water has indicated that Victoria will seek to remove exemptions from trading rules, like grandfathered tagged accounts, in the future.

This option would match the trade opportunities for the Lower Broken Creek to the Murray trading zones below the Barmah Choke. Table 5 outlines the trade opportunities for Zone 6B under Option 2.

Table 5: Trade opportunities for Zone 6B under Option 2

From	To	Trade Opportunity
Zone 6B	Zones 6, 7, 10-14	No limit – allocation trade and 6B/7 tagged trade allowed
Zone 6B	Zones 1A, 1B, 2, 3, 4A, 4C, 5A	Allocation trade available if back-trade opportunity exists
Zones 6, 10	Zone 6B	Allocation trade limited to the lesser of the MDBA Barmah Choke limit and the Lower Broken Creek back-trade opportunity
Zones 7, 11-14	Zone 6B	Allocation trade available if back-trade opportunity exists
Zones 1A, 1B, 2, 3, 4A, 4C, 5A	Zone 6B	All trade limited by the Goulburn to Murray trade rule. <i>Tagged use restricted – except for those tagged entitlements which are grandfathered</i>



Options for managing trade between the Goulburn system and the Lower Broken Creek

Implications for delivering water from the Goulburn IVT account

Under this option the volume of water which must be delivered to, and through, the Lower Broken Creek will be to the water required to service existing entitlements, and any additional water that can trade into the Lower Broken Creek from the Goulburn system in line with the Goulburn to Murray trade rule.

Spare delivery capacity that became available in the Lower Broken Creek would be able to be used by river operators to deliver water from the Goulburn IVT account to the Murray River as an alternative pathway to the lower Goulburn River.

Compared to the current situation this would maximise the use of the Lower Broken Creek as a bypass for the lower Goulburn River.

Assessment of Option 2 against objectives

Table 6 demonstrates how Option 2 meets the objectives for the proposed changes.

Options for managing trade between the Goulburn system and the Lower Broken Creek

Table 6: Assessment of Option 2 against objectives

Objective	Impact of the option
a) Existing entitlements to water in the Lower Broken Creek can be delivered within physical and environmental constraints	<p>The majority of existing entitlements to water in the Lower Broken Creek will continue to be delivered within physical and environmental constraints. This includes all 6B entitlements which will be able to continue to be used in the Lower Broken Creek or traded to the Murray.</p> <p>However, existing Goulburn entitlements which have been able to be used through a tagged account may no longer be utilised in the same manner. This will be any customers that have a 1A/6B tagged entitlement that was not established before October 2010 and does not meet the grandfathering criteria under the Basin Plan trading rules.</p>
b) Environmental values are managed through sustainable flow rates	<p>Flows in the Lower Broken Creek should be monitored for impacts to environmental values.</p>
c) Trade rules for the Lower Broken Creek do not unnecessarily constrain trade - within the limits of where water can be delivered	<p>Trade into the Lower Broken Creek will be restricted in the same way as all trade from the Goulburn to the Murray in line with the Goulburn to Murray trade rule. The amount of trade from the Goulburn to the Murray will depend on the available capacity in the Lower Broken Creek. Individuals' access to trade opportunity will depend on what type of entitlement they hold:</p> <p>Trade 1A to 6B – trade and tagged use for all customers constrained in line with the Goulburn to Murray trade rule</p> <p>Trade 6B to wider Murray – unconstrained</p> <p>Trade 1A to wider Murray - constrained by the Goulburn to Murray trade rule.</p>
<p>d) Access to trade opportunity is shared fairly</p> <ul style="list-style-type: none"> i. Between customers along the Lower Broken Creek, and ii. Between customers within the southern connected Murray-Darling Basin 	<ul style="list-style-type: none"> i. Customers in the Lower Broken Creek will be restricted in using water from tagged Goulburn accounts, including those who hold Goulburn entitlements. Less tagged use may mean more trade opportunity for customers in the wider Murray system. ii. Trade opportunities will be equally available to all in the Lower Broken Creek and the wider Murray system. There is likely to be slightly more trade opportunity for all other Murray customers as more water from the Goulburn IVT account can be delivered through the Lower Broken Creek bypass.

Option 3 - Lower Broken Creek moved to the Goulburn side of the Goulburn to Murray trade rule

This option would bring the Lower Broken Creek on to the Goulburn side of the Goulburn to Murray trade rule. This would reflect the physical source for how most of the water used under entitlements in the Lower Broken Creek is supplied – from the Goulburn system.

This option would significantly change customers' ability to trade from 2019-20 arrangements (as per Option 1), or the ability to trade under Option 2, due to the re-zoning of the Lower Broken Creek relative to key trade rules.

Implications for water trade and use in the Lower Broken Creek

This option would mean that:

- Trade from the Lower Broken Creek to the wider Murray would be more constrained than under current arrangements,
- Trade from the Goulburn to the Lower Broken Creek would be unrestricted.

Under this option all trade from the Lower Broken Creek to the wider Murray system would be accounted for in the Goulburn IVT account.

This would mean that Lower Broken Creek customers that wish to trade water to the Murray downstream of the Barmah Choke would only be able to do so when the Goulburn to Murray trade rule is open. Lower Broken Creek water market prices would align more closely to prices in the Goulburn system.

This option would restrict the opportunities for the holders of zone 6B Murray entitlements to trade water to the wider Murray¹ but would increase the opportunity for all Goulburn system customers to trade to the Murray. This is because this approach differs from current arrangements (and Options 1 and 2), where trade from zone 6B in the Lower Broken Creek to the Murray takes precedence over trade from the Goulburn system.

This option would also reduce the pool of entitlement that could always be traded within the Murray downstream of the Barmah Choke.

Accounting for the Lower Broken Creek on the Goulburn side of the Goulburn to Murray trade rule would mean that Murray entitlements held in zone 6B would be restricted from trading to the wider Murray in line with the Goulburn to Murray trade rule.

Table 7 outlines the trade opportunities for zone 6B under Option 3.

¹ Under this option, zone 6B entitlements would remain Murray entitlements, subject to seasonal determinations and carryover rules in the Murray system. Under existing trade rules, customers can choose to convert Murray entitlements in zone 6B into Goulburn entitlements under rules to unwind the legacy of permanent exchange rate trades that occurred prior to 2007.

Options for managing trade between the Goulburn system and the Lower Broken Creek

Table 7: Trade opportunities for Zone 6B under Option 3

From:	To:	Trade Opportunity
Zone 6B	Zones 6, 7, 10-14	Limited by the Goulburn to Murray trade rule
Zone 6B	Zones 1A, 1B, 2, 3, 4A,4C, 5A	Unlimited
Zones 6, 10	Zone 6B	The lesser of the MDBA Barmah Choke limit and the Goulburn back-trade opportunity
Zones 7, 11-14	Zone 6B	Generally allowed by the Goulburn back-trade opportunity
Zones 1A, 1B, 2, 3, 4A,4C, 5A	Zone 6B	Unlimited

Implications for delivering water from the Goulburn IVT account

Under this option the opportunity to deliver water from the Goulburn IVT account through the Lower Broken Creek is likely to be greater than it has been in recent years.

Trade from the Goulburn to the Lower Broken Creek would be unlimited under this option, however trade to the wider Murray would be limited by the Goulburn to Murray trade rule. The level of trade out of the Lower Broken Creek in recent years to the wider Murray (Figure 5) would be unlikely to occur as regularly in the future.

In this situation, more of the channel capacity of the East Goulburn Main Channel and the Lower Broken Creek is likely to be available to deliver water from the Goulburn inter-valley trade account to the wider Murray system.

Assessment of Option 3 against objectives

Table 8 demonstrates how Option 3 meets the objectives for the proposed changes.

Options for managing trade between the Goulburn system and the Lower Broken Creek

Table 8: Assessment of Option 3 against objectives

Objective	Impact of the option
a) Existing entitlements to water in the Lower Broken Creek can be delivered within physical and environmental constraints	<p>All existing entitlements to water in the Lower Broken Creek will continue to be able to be delivered to the Lower Broken Creek, but will no longer be able to be delivered to the wider Murray downstream of the Barmah Choke without first being traded within the rules specified in the Goulburn to Murray trade rule.</p> <p>This effectively treats the pre-existing Murray entitlements as though they are a Goulburn entitlement for the purpose of trade to the Murray.</p> <p>It would also restrict trade to zone 6 upstream of the Barmah Choke which some Lower Broken Creek customers with dual supply use to access water from the gravity fed channels of the Murray Valley Irrigation Area rather than pumping directly from the creek.</p>
b) Environmental values are managed through sustainable flow rates	<p>Flows in the Lower Broken Creek should be monitored for impacts to environmental values.</p>
c) Trade rules for the Lower Broken Creek do not unnecessarily constrain trade - within the limits of where water can be delivered	<p>Total trade opportunity is maintained. However, individuals' access to it will depend on where they are, and what type of entitlement they hold:</p> <p>Trade 6B to wider Murray – constrained in line with the Goulburn to Murray trade rule</p> <p>Trade 1A – 6B unconstrained</p> <p>Trade 1A to wider Murray – constrained in line with the Goulburn to Murray trade rule.</p>
d) Access to trade opportunity is shared fairly: <ul style="list-style-type: none"> i. Between customers along the Lower Broken Creek, and ii. Between customers within the southern connected Murray-Darling Basin 	<p>All Lower Broken Creek customers would have access to the same trade opportunities, but their ability to trade to the wider Murray system will be constrained by the Goulburn to Murray trade rule.</p> <hr/> <p>The opportunity for customers in the Goulburn system to trade to the Murray system will be slightly increased.</p> <p>Total trade opportunities for customers in the Murray downstream of the Barmah Choke are likely to be the same, with the current opportunity to trade with customers in 6B effectively replaced by opportunity to trade with customers from the wider Goulburn system.</p>

Options for managing trade between the Goulburn system and the Lower Broken Creek

Comparing the options

Each of the proposed options will have different outcomes for how Lower Broken Creek customers can use and/or trade their water and run their businesses in the future.

Table 9 summarises and compares what the options would mean for water market participants in the Lower Broken Creek and wider Murray system.

Table 9: Comparing the options for entitlement holders and water market participants

	Trade from 6B to Murray below the choke	Use of Goulburn water in 6B	Trade and use for all Lower Broken Creek customers
Option 1 (2019-20 arrangements)	Murray 6B unrestricted trade to Murray below the choke	Goulburn 1A/6B water shares or Goulburn allocation water can be used when accessed via a tagged account	Trade behaviours may change with Lower Broken Creek customers using more Goulburn water from tagged accounts when allocation prices are lower in the Goulburn than in the Murray
Option 2	Murray 6B unrestricted trade to Murray below the choke	Use of Goulburn 1A/6B water shares or Goulburn allocation water restricted in Lower Broken Creek by Goulburn to Murray trade rule <i>*Note that grandfathered tagged entitlements may not be restricted</i>	Trade and use likely to be similar to recent years There may be a reduction in the volume of trade and use of water from the Goulburn in the Lower Broken Creek
Option 3	Murray 6B trade to Murray below the choke restricted under the Goulburn to Murray trade rule	Goulburn 1A/6B water shares or Goulburn allocation water can be used when accessed via a tagged account or allocation trade	Trade behaviours likely to change with less trade from the Lower Broken Creek to the wider Murray

Options for managing trade between the Goulburn system and the Lower Broken Creek

Have your say

As part of the review of Goulburn to Murray trade arrangements, long-term arrangements for how trade between the Lower Broken Creek and the Goulburn system is managed are being considered by the Victorian Government.

The Department of Environment, Land, Water and Planning (DELWP) is engaging with customers in the Lower Broken Creek to understand their perspectives on possible changes to Victorian trade rules which would affect them.

Key Questions for water users in the Lower Broken Creek are:

- Which of the options discussed in this paper suits you best and why?
- For that option do you see any other issues which might arise and should be further thought through?
- Should Murray entitlements in trading zone 6B continue to be able to be traded without restriction to the Murray system?
- Should the use of water from Goulburn tagged accounts remain unrestricted when allocation trade is limited?
- Do you see an environmental with water which has traded from the Goulburn system to the Murray being delivered via the Lower Broken Creek?

You can make a submission through Engage Victoria at <https://engage.vic.gov.au/goulburn-murray-trade-rule-review> or by sending an email to water.markets@delwp.vic.gov.au. Feedback from the community on trade rule options closes on **1 June 2020** and feedback on options for managing trade from the Goulburn system to the Lower Broken Creek closes on **15 June 2020**.

Your views are important and will be considered in refining and developing a preferred option for managing trade from the Goulburn to the Murray in the future, including trade to the Lower Broken Creek.

The proposed changes to Goulburn to Murray trade arrangements, including arrangements for the Lower Broken Creek, will be further considered and analysis through a Regulatory Impact Statement. The Regulatory Impact Statement is a document to be produced by the Victorian Government to describe proposed changes to trade rules, and expected impacts on environment, economic and social factors.

There will be public consultation on the Regulatory Impact Statement later in 2020. More information about the review process is available in the [Changes to the Goulburn to Murray trade rule consultation paper](#).

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