

Change in the Goulburn-Murray Irrigation District: 2007 to 2018

Supporting information for the Delivery Share Review

The Goulburn-Murray Irrigation District has undergone extensive change

Changes in how water is managed and used mean that relationships between water use, delivery shares held, infrastructure capacity and service level have shifted since water rights were unbundled in 2007. Change has been driven by complex factors including changing commodity prices, reduced water availability, improved irrigation technology and the Basin Plan. These factors are contributing to ongoing structural adjustment and further changes in water use.

Water ownership and use has changed

The volume of high reliability water shares linked to land in the GMID has decreased from between 1,500 and 1,400 GL at unbundlingⁱ to less than 1,000 GL in 2018. Irrigators sold large volumes of entitlement to both downstream horticultural developers and to the Commonwealth as environmental water under the Basin Plan.

Environmental water holders (EWHs) also hold significant volumes of entitlement recovered through water savings projects. Most of the Victorian EWH's high reliability entitlements were recovered in this way, not purchased from irrigators.

Water use has followed a similar trend to entitlements: use at unbundling was severely restricted due to low allocations with the Millennium Drought and has remained low despite returns to high allocation levels.

Decreases in use and entitlement have been spread across all irrigation areas. Water previously used in the GMID is predominantly now used by the Commonwealth EWH and private diverters.

Infrastructure has been modernised

GMW and its 14,000 gravity irrigators have recognised the need to decrease the infrastructure footprint in response to changing water ownership and use. Since its inception in 2008 to August 2018 the Connections project has:

- Decommissioned 1,186 km of channel

- Remediated 313km of existing channel
- Rationalised 4,293 and replaced 7,592 meter outlets
- Removed 1,069 and updated 2,232 regulators
- Terminated 903 ML per day of delivery shares

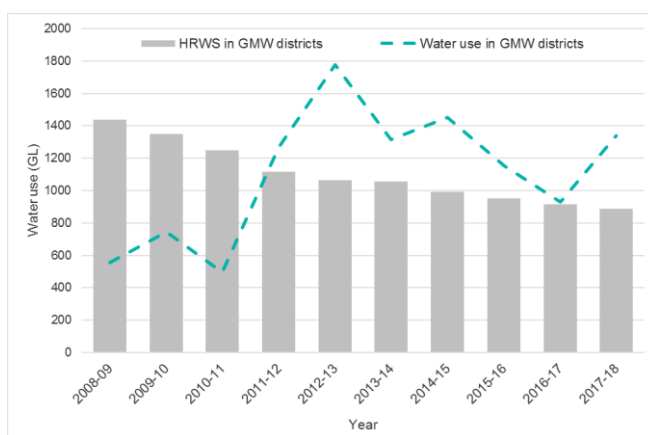


Figure 1: Entitlement (grey bars) has decreased in the GMID from 2007 to 2015, while water use (dashed line) is more variable.

What this means for irrigators

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 that infrastructure being out of step with water use.

In the GMID, these costs are largely recouped through the fixed Infrastructure Access Fee (IAF), levied on the basis of delivery shares. These costs are the focus of much community concern around delivery shares.

Costs are shared across users

All GMW customers pay for the storage and delivery of water. Customers who use delivery infrastructure contribute to the costs of operating and maintaining the delivery network.

Entitlement storage fees and bulk water fees

Entitlement storage fees vary depending on whether or not entitlements are linked to land. Most irrigators have entitlements that are linked, while water corporations, EWHs and some private irrigators hold unlinked entitlements.

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Fees for entitlements linked to land are based on System Pricing, which averages costs across the Goulburn and Murray systems. Entitlement storage fees not linked to land use Basin Pricing; the costs to store and release water associated with each specific catchment basin.

In general, it costs more per ML to store water in the small catchment basins than the large Goulburn and Murray basins.

The headworks payments made by EWHs to water corporations are substantial and reflect the high volume of water entitlements held.

Table 1: Summary of headworks payments made by EWHs (Source: DELWP (2017) Environmental Water Charges Information Paper)

Water Holder	2014-15	2015-16	2016-17
Victorian EWH	\$3,173,826	\$3,343,492	\$3,181,429
Commonwealth EWH	\$5,851,793	\$6,214,788	\$6,318,075
MDBA	\$1,852,173	\$1,906,594	\$1,814,364
TOTAL	\$10,878,173	\$11,464,876	\$11,313,868

Delivery fees

All customers holding delivery shares pay the fixed Infrastructure Access Fee, covering most of the fixed costs associated with the system. Further costs are recovered by the infrastructure use and casual use fees.

This tariff structure is designed to manage the risk of variable revenue associated with increases and decreases in water deliveries.

The EWHs do use district infrastructure to deliver water but cannot hold delivery shares as they do not own land. Instead, the EWHs currently negotiate with GMW about the level of service required and the cost of

delivering water.

EWHs pay substantial charges for delivery of water, in line with the lower levels of service they receive. The

Murray and Goulburn Environmental Entitlements include detailed principles for calculating delivery charges.

Water corporations using the irrigation distribution system to supply water to towns pay the same charges for access to and use of the channel system as irrigators.

Environmental contribution

Environmental contributions are funds collected from water supply authorities to fund initiatives that seek to promote the sustainable management of water or address adverse water-related environmental impacts.

The Environmental Contribution is one of the most important funding tools assisting Victorians to manage water sustainably and account for the environmental costs of water services and use.

GMW are required to pay a 2% contribution on specified revenue streams. The contribution is currently collected through the Infrastructure Access Fee associated with delivery shares.

Urban water corporation customers contribute 68.2% of the total Environmental Contribution for Victoria. In contrast, GMW's rural water customers contribute 1.5%.

This information informs the recommendations of the Delivery Share Review for the GMID.

ⁱ Precise figures for entitlement held as high reliability water shares at 1 July 2008 are not available.



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