

# CARRYOVER

**Carryover is an important water market tool for irrigators. It provides flexibility to manage their water over irrigation seasons to mitigate risk and increase security.**

## BACKGROUND

Based on the 2021/22 irrigation season, irrigators were surveyed to understand property-level decision-making, and build understanding of how the Goulburn Murray Irrigation District (GMID) is changing, and how water users are adapting to changing seasons and water availability.

The project obtained a sample<sup>3</sup> of irrigators for each of the key land use activities (Dairy, Cropping, Horticulture (orchard) and Grazing) against Water Use Licences. This fact sheet presents 2021/22 land and water ownership data and compares it to 2019/20<sup>4</sup>.

## WHAT IS CARRYOVER?

Carryover was introduced in Northern Victoria in 2007. It gives water share holders more flexibility over how they hold, use or trade water between seasons. Carryover allows water entitlement holders to keep their unused water allocations at the end of the season to use it in the next season. Carryover is possible in the regulated water systems of northern Victoria (Murray, Goulburn and Campaspe).<sup>5</sup>

## PLANS TO CARRY OVER WATER

In 2021/22 63% of irrigators said it was part of their business plan to carry over water (Figure 1). Dairy were most likely to be planning to use carryover (84%), followed by Cropping (67%) and Grazing (61%) compared to Horticulture (29%). This was lower than 2019/20 when 71% of irrigators said it was part of their business plan to carry over water. Carryover was not part of the survey pre 2019/20 as it was an emerging water tool that was being used by irrigators and therefore added to this survey. Future surveys will provide greater data to compare results between variable seasons. Data from the last two survey periods indicate that less irrigators planned to use carryover based on a range of factors such as seasonal variability, market conditions, security and risk management.

**Figure 1: Plan to carry over water in 2021/22**



1. The project area is referred to collectively as the Goulburn Murray Irrigation District (GMID), which includes the GMID (including Woorinen), Tresco and Nyah Irrigation Districts.
2. 2021/22 data is reflective of activity of the respondents at the point of survey and based on the 2021/22 irrigation season (August 2021 to May 2022).
3. Sample size is an important marker of the quality of survey research which can influence the validity and generalisability of study results. In this study, care must be exercised in drawing conclusions about subgroups of population when the number of units captured by the sample in the subgroup is very small.
4. GB CMA (2021). Regional Irrigated Land and Water Use Mapping in the Goulburn Murray Irrigation District (Technical Report), 2019/20. Goulburn Broken Catchment Management Authority, Shepparton.
5. Victorian Water Register (2021) <https://waterregister.vic.gov.au/water-entitlements/carryover>.

## HOW MUCH WATER ARE IRRIGATORS PLANNING TO CARRY OVER ANNUALLY?

Water entitlement holders can carry over up to 100% of their full water share volume. Carryover has become an important water market tool for GMID irrigators. In 2021/22 irrigators on average reported planning to carry over 54% of their total High Reliability Water Share (HRWS) allocation, as part of their business strategy. This has increased since 2019/20 when irrigators reported planning to carry over 34.5% HRWS. Actual carryover data shows that 35% of HRWS was carried over in 2021/22.

## WHY ARE IRRIGATORS USING CARRYOVER?

The following responses were provided by irrigators as reasons for using carryover as an irrigation tool in 2021/22. Security had the highest response rate.

Because it hasn't all been used in the irrigation season | Because of our small holding of HRWS | Because we haven't used it | Certainty for water all years | Certainty / assurance | Could be a dry year next | Drought management strategy | Excess on hand, farm irrigation infrastructure not suitable to utilise all our water | Excess water from season and to have something to start next season | Guarantee some for next year | Have not enough permanent | Hedge bets | If I was going to carry over it would be to use more than my allocation | It's like insurance | Limit risk | Low price | Organise for the following year | Manage price and supply risk | Minimise risk | Security and the following season | Security financial gain | Security for the following season | Security from dry years | Some years there is less rainfall | To be sure we have a start to the irrigation season - no balance costs | To guarantee start-up spring irrigation and to bank water for future sales | To help spread to risk and uncertainty of a dry season | To secure the business | Unused

**Security**

## SEASONAL CONDITIONS AND CARRYOVER IN 2021/22

Data from the Victorian Water Register shows that active irrigators in the GMID carried over approximately 35% of their use in 2021/22, which supports the findings in 2019/20, but is less than the 54% indicated by irrigators in 2021/22.

Seasonal conditions and the water market influence how irrigators manage their business. Murray-Darling Basin water storages increased over Winter and Spring of 2021, with above average rainfalls for eastern Victorian catchment areas. Most months in 2022 were very much above average for Victoria, with rainfall 32% above average, the fifth highest on record and the highest since 1974 (for the entire year).<sup>6</sup>

All major water entitlements in the southern Murray-Darling Basin received 100% allocation in 2021/22. The price of water in the southern connected basin (Northern Region) continued to fall from approximately \$180/ML, reaching less than \$20/ML at the end of the season, the lowest the price has been since 2011/12.<sup>7</sup>

Accompanying fact sheets are available at [www.gbcma.vic.gov.au](http://www.gbcma.vic.gov.au)

6. Bureau of Meteorology (2021) <http://www.bom.gov.au/climate/current/annual/vic/summary.shtml#4>

7. Victorian Water Register Report (2021/22) Victorian Water Trading ([waterregister.vic.gov.au](http://waterregister.vic.gov.au))

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