

Goulburn Broken Catchment (GMW)



Goulburn Weir (GMW)

The value of 7-day streamflow forecasts

The Bureau publishes 7-day streamflow forecasts for more than 100 locations around Australia, including a site on the Seven Creeks at Euroa.

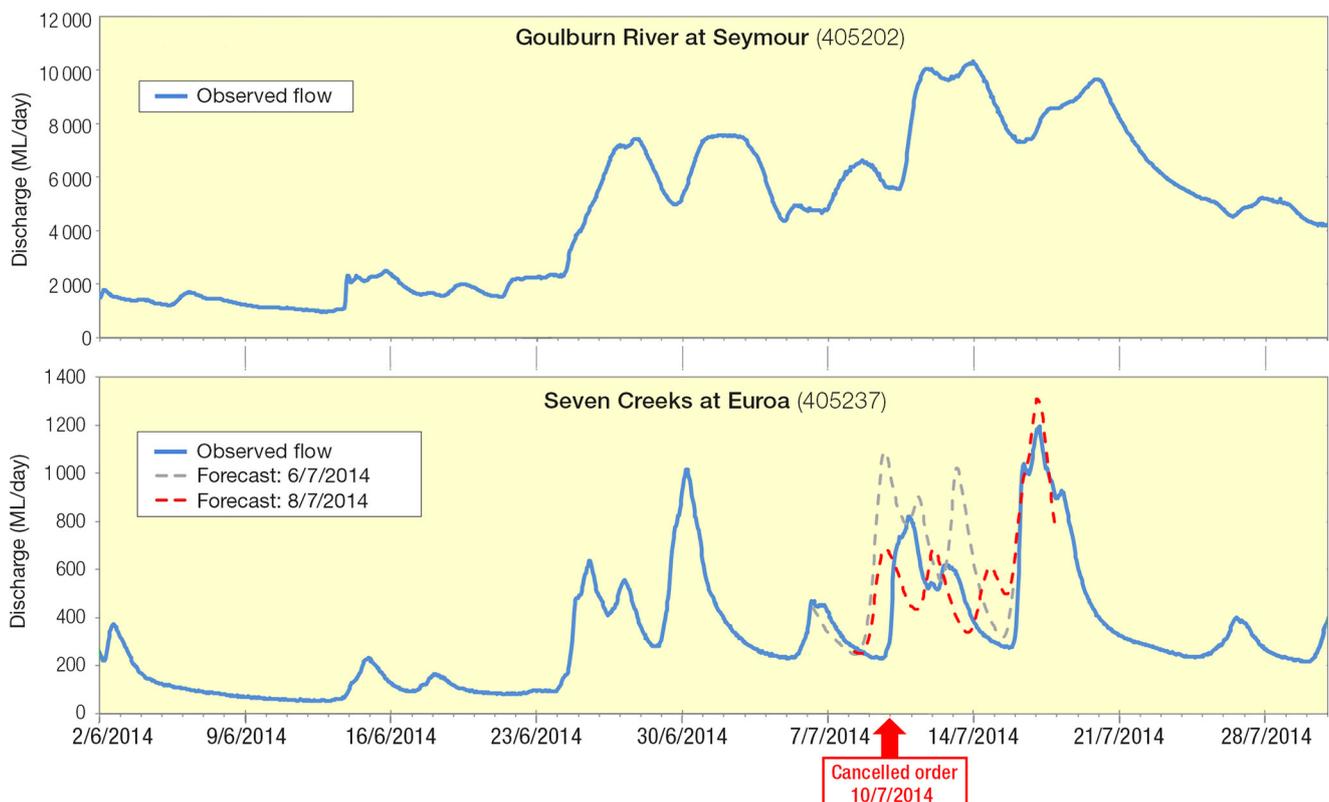
To determine the potential of 7-day streamflow forecasts to provide extra information to support environmental water release planning, a series of forecasts were retrospectively generated to analyse an environmental flow release that was considered during July 2014.

Seven Creeks flows into the Goulburn River upstream of Shepparton and the lower Goulburn River where environmental flows are targeted. Euroa is located upstream of where Seven Creeks enters the Goulburn, and 5-day

forecasts here provide enough lead time to inform decisions on whether to order water releases from Lake Eildon.

Relatively low flows were observed in June 2014, followed by a rise during the last week of June. As this natural flow started to recede, the decision to release environmental flows was considered. Due to a combination of wet catchment conditions, the prediction of significant rainfall, and relatively high flows in the River Murray, the planned release was aborted on 10 July.

The Bureau generated streamflow forecasts for Seven Creeks at Euroa from 2010 to 2015, informed by historical rainfall forecast records. Forecasts for the days leading up to 10 July 2014 indicated that a significant rise in flows was likely for Seven Creeks.



Discharge for Goulburn River at Seymour and Seven Creeks at Euroa with forecasts, for June–July 2014



Goulburn River (iStock)

These retrospective forecasts show that, had they been available to GMW and GB CMA at the time, the 7-day streamflow forecasts would have ‘reinforced the decision to cancel the planned environmental release’ (Andrew Shields, GMW, 25 July 2016).

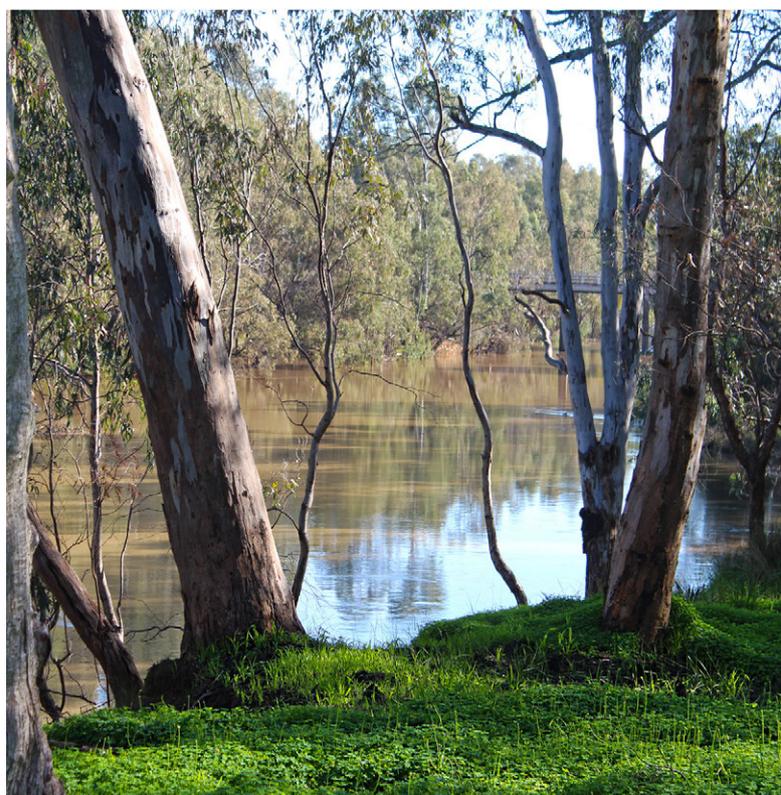
Further work

GMW and GB CMA now use the 7-day streamflow forecasts for Seven Creeks’ flows, along with Bureau rainfall forecasts and other information sources, when making decisions about water releases for the lower Goulburn River.

The Bureau is working on additional forecast locations and improved forecast accuracy, along with probabilistic forecasts that show the likelihood of forecast flows at different lead times. With these improvements the forecasts will play a much larger role in decision-making, particularly in relation to supplementing natural flows for improved health of River Red Gum habitat.

References

1. *Goulburn Constraints Measure Business Case – Phase 2 Investigations*. Victorian Department of Environment, Land, Water and Planning, April 2016
2. *Constraints Management Strategy – Goulburn River*, Goulburn Broken Catchment Authority, 2016



Goulburn River (GB CMA)

FIND OUT MORE

Access the Bureau’s 7-day streamflow forecasts at www.bom.gov.au/water/7daystreamflow

or email water_sdf@bom.gov.au for more information

GB CMA: www.gbcma.vic.gov.au or email reception@gbcma.vic.gov.au

GMW: www.g-mwater.com.au or email info@gmwater.com.au



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