

What does the community think?

At a glance

Advisory groups have contributed their knowledge to this report. Overall, there was concern as to the potential impact of large or unmanaged floods, but recognition that smaller overbank flows can have benefits. With smaller flows, mitigation measures can be put in place, but the community needs reassurance that the risks of unintended adverse consequences are being planned for and can be adequately managed.

The river plays an important role in local communities, and community members often have an in-depth knowledge of river behaviour. It is essential that we gather this knowledge so that it can be used in the development of the Constraints Management Strategy (the Strategy).

Minor floods are typically smaller events that people 'manage through'. These floods often don't make the newspapers, they often don't trigger significant emergency management responses and their impacts are often not recorded beyond a brief mention in floodplain studies. Very little detail about who and what is affected by minor floods is available, especially outside of urban areas. Yet flows around minor flood level are the flows that the Murray-Darling Basin Authority (MDBA) is particularly interested in for the benefit of the lower Goulburn floodplain and the River Murray. MDBA needs to understand how people are affected to identify what is possible and what mitigation measures are needed.

In 2013, MDBA formed three advisory groups to help answer the following questions:

- When and how are people and businesses affected by flows along different stretches of the Goulburn River?
- How accurate are the flow footprint maps?
- For different stretches of the river, what range of flow rates may be worth governments investigating further, and what flow rates are considered unacceptable?
- What sort of mitigation measures would be needed before being able to allow a bigger regulated flow range?

The first group is a community leaders group (including local council chief executive officers and senior staff, water service committee members, and irrigator and conservation group representatives) who provide a broad perspective on issues and initiatives influencing the Goulburn catchment.

The other two groups are the mid-Goulburn and lower-Goulburn technical advisory groups, made up of people who live and work on the river, and who understand what the river and its tributaries do at different river flows (farmers, council engineers, tourism businesses, etc.).

For membership of the groups, MDBA sought recommendations from Victorian Government agencies, local councils and community members, and from the advisory group members themselves. Each group had around 15 members.

If the next phase of collecting detailed information for the Strategy proceeds, consultation with more individuals and businesses likely to be affected by river flows will be essential. This reach

report is the first step in this broader consultation, providing information to the community and asking for feedback.

Key Goulburn community messages

Opportunities

Generally, there was recognition that water on river flats can be good for farming, the environment and the productivity of the land:

Once floodwaters drain away, a lot of river silt remains on the floodplain. Following the next rain, this washes away and the nutrients can be as good as a bag of fertiliser.

Farmer near Alexandra

Some long-time residents believe that the river flats are not as good as they used to be when smaller floods used to happen more often:

A lot has been taken out and nothing has been put back in.
Long-time farmer and resident from the mid-Goulburn region

Concerns

However, these sentiments were balanced with concerns about flows happening too often, lasting too long or happening at the wrong time of year:

There are benefits to a flood, but there are issues as well. We may be able to live with a few inconveniences — shifting a few cattle is not too big an issue if we get enough notice. However, although there is a level of inconvenience that we can all tolerate, there are flow events that are just too big and too damaging that should not be considered.

Cattle farmer near Molesworth

Potential effects on farm production include uncertainty in farm planning, loss of access to productive pastures and damage to pastures, interruption to pumping and damage to pumps, and clean up and repair costs after floods.

Other general issues identified that would affect the community included road closures and loss of access; damage to the riparian zone, including erosion and bank slumping; spread of pest species such as carp; and interruption to recreational activities and tourism businesses.

The community identified a number of specific potential issues:

- If unregulated and unpredictable tributary flows and/or rainfall events coincide with environmental releases from Eildon Dam, this may result in higher than planned river flows and unintended adverse consequences. Unregulated tributaries are a significant influence on the regulated Goulburn River and should not be underestimated.

- Inundation of areas of private land around Alexandra and Molesworth is highly likely, as the channel capacity is very limited in this reach and even small increases in water levels downstream of Eildon Dam will start inundating private land.
- A flow of 40,000 megalitres per day (ML/d) at Shepparton is too close to triggering the statutory release formula for opening the Loch Garry flood protection scheme (removing bars and allowing water to enter the Deep Creek floodway to reduce pressure on downstream levees). This is highly undesirable.
- A flow of 40,000 ML/d also presents a risk of overtopping levees in some places.
- Extended environmental water releases from Eildon Dam could affect private properties in tributaries due to backing-up effects, with high river flows in the main Goulburn River preventing tributary flows from draining freely.

What people said about the scales of possible change being considered

‘Small change’

Goulburn River flows can create access issues including road closures. These would start happening in the Lower Goulburn at all scales of change that MDBA is looking at, especially for roads such as Yambuna Bridge Road.

Local council engineer

Increases in water levels don't have to be large to start affecting landholders in the mid-Goulburn, downstream of Eildon Dam. It should be acknowledged that Goulburn–Murray Water specifically constrains releases from Eildon Dam because of the risks of inundating private land in this reach.

Goulburn–Murray Water

25,000 ML/day is almost a minor flood at Shepparton. Environmental flow planning for events this size would have to include key flood agencies in the region such as State Emergency Services, local councils and the Bureau of Meteorology. Around 25,000 ML/day at Shepparton is the level at which flood briefings and agency coordination commences.

Local council engineer

The load on stormwater drainage infrastructure during river flows up to around minor flood level is a concern, especially for towns right on the river like Seymour.

Local council engineer

Changes to water level can damage irrigation pumps and interrupt pumping. This is particularly true around Murchison.

Murchison irrigator

The backing-up effects of Goulburn River flows on tributaries means that it is not just main-stem landholders that could be affected. This could affect a number of landholders in tributaries, including the Yea, Acheron, King Parrot Creek, etc.

Beef farmer near Yea

‘Medium’ change

It doesn't feel like a big flood in Yambuna forest until the flows at Shepparton get past 34 feet (10.36 metres, when they start pulling the bars at Loch Garry). For flows

under 34 feet all the lagoons fill up, which is great. You get a bit of inconvenience, but not a huge flood.

Long-term farmer and resident in the lower Goulburn region

‘Large’ change

40,000 ML/day at the Shepparton gauge won’t flood houses or sheds, but it will create access issues. Some roads could be blocked for longer than a week. This would result in periods with limited communication and the need to support people in the community who may get isolated.

Local council engineer

A 40,000 ML/day flow at Shepparton will be less than 40,000 ML/day at McCoy Bridge as water moves out onto the floodplain.

Long-term farmer and resident in the lower Goulburn

40,000 ML/day is getting up towards a moderate-sized flood at Shepparton.

Environmental flow planning for events this size would have to include key flood agencies in the region such as State Emergency Services, local councils and the Bureau of Meteorology. They would all need to be informed about the process as the flows will trigger the need for emergency agency coordination and response including flood watchers.

Local council engineer

40,000 ML/day at Shepparton may be too risky as if a local rainfall event occurs as well, it could become a damaging flood. There may be a risk of unintended adverse consequences. Can you manage the system with enough confidence when there is that much water moving around and the catchment is likely to be wet?

Long-term farmer and irrigator from near Wakiti Creek

40,000 ML/day at Shepparton (10.31 metres) is too close to the river height that triggers the pulling of bars at Loch Garry (10.36 metres).

Many farmers and residents near McCoy Bridge

The thing about a 40,000ML/day flow — that is a lot of water moving, it’s going to have a lot of energy. There could be quite a bit of power and erosion in a flow that size.

Dairy farmer near Bunbartha

What people said about the time of year, duration and frequency of the flows being considered

Timing

Not all flows of the same size have the same affects. What we experience during a flow of a given size very much depends on whether there has been a flow previously. The state of the catchment is important. A series of flow events can have cumulative effects. How wet or dry the catchment is makes a big difference to how and where the water flows.

Long-term irrigator and resident from near Wakiti Creek

Timing should explicitly consider the gap between watering events (e.g. if there has been a dry sequence and you get a first flush, then from 2010 experience, you have to watch out for a second flush). The second flush is when the ponded blackwater was washed back into the river — that was devastating in the summer of 2010.

Dairy farmer in the lower Goulburn region

Late spring is too late for paddocks to be inundated.

Mixed enterprise farmer in the lower Goulburn region

Concern that environmental water releases in spring is the very time when farmers are trying to put fertiliser on, grow silage and put cattle on the most productive areas.

Beef farmer near Yea

The 'June to November' window is too long. Suggest MDBA consider shortening the window to 'June to early September'. The reason is that the agriculture impacts would be much larger if a managed watering were to occur between September and November. This is the time when crops are sensitive to flow (especially around October when irrigating and November near harvest time). If a managed flow happens earlier than September, then there is still time for crops and paddocks to recover from inundation, and/or farmers can re-sow, etc. (therefore reducing agricultural impact).

Long-term farmer and resident in the lower Goulburn region

Some concern about timing, especially if flows edge into October and November. I worry about the possible increased risk of poor water quality as water temperature rises.

Dairy farmer in the lower Goulburn region

Stock must have high ground to move them onto and farmers need enough advance warning to move them (two to three days).

Beef farmer near Molesworth

Duration

Short flow spikes are not an issue for farmers, it is when water stays on the floodplain for longer that damage occurs.

Beef farmer near Alexandra

Depth and duration is critical. Depth is important early in the growing season — young plants are small and can be easily drowned, but larger plants that have their 'heads out of the water' are okay.

Irrigator from the lower Goulburn region

I welcome floods, but they come up and down quickly and there can be 4 or 5 tributary floods in a year. However, environmental flows in the Goulburn must be careful not to cause extended backing up in the tributaries. This type of thing happened in 2012 because of the long duration of Eildon prereleases (8–9,000 ML/d for several weeks) — the Yea couldn't get away and ran a banker for weeks and flooded out for more than 10 days. Duration is a key issue. The concern for tributary landholders is that extended environmental releases from Lake Eildon could behave like prereleases and cause backing-up flooding in tributaries.

Yea River farmer

Short duration is okay, but anything longer than a week is damaging.

Mixed enterprise farmer in the lower Goulburn region

In the summer of 2010 in the lower Goulburn, the floodwaters (from 8 inches of rainwater) were on one landholder's paddock for about 10 days. Even after only 10 days they lost the crop due to the impact of the high summer temperatures and blackwater.

In contrast, in 1974, the winter floodwater didn't do much damage. The floodwaters were on the property for about two weeks before they were pumped off. But the grass was green already so it was okay and recovered.

Long-term farmer and resident in the lower Goulburn region

Frequency

There are heavy clay soils in some areas — the year or two after a flood are best because of the benefit of extra moisture. The year of the flood can be too wet for sowing.

Mixed enterprise farmer in the lower Goulburn region



Near the river at Shepparton. Regular watering of the floodplain fills billabongs and supports a wide range of species. *Photo: Janet Pritchard, MDBA.*

