

The Murray-Darling Basin



Management of the Murray Darling Basin

Position paper - October 2019



Executive summary

There are many competing interests for the water resources of the Murray Darling Basin. As in all complex matters where trade-offs occur, it's all a matter of balance.

The Murray Darling Basin Plan was developed through significant political negotiation between the states, the Commonwealth and various interest groups, including agricultural and environmental. The plan was seen as the basin communities' best attempt at striking a balance between the competing demands on the basin's water resources.

At Swan Hill Rural City Council, we want to see a system that is operated at its optimum level to maximise benefits to our communities, to the agricultural sector, to those whom consume our food both locally and across the globe, and to the ecosystems of our region and the basin in general.

This position paper has been developed to help us advocate on behalf of our community for improved Murray Darling Basin management. This paper explains Council's position, based on three key areas.

1. Swan Hill Rural City Council wants the Murray Darling Basin managed in a way that:

- Provides water for agricultural production;
- Supports a healthy ecosystem;
- Allows for a range of recreational pursuits; and
- Supports the many urban communities within the basin.

2. Swan Hill Rural City Council wants to ensure the Basin Plan implementation contributes to the health, prosperity and strength of our communities. We believe:

- There is insufficient consideration of the socio-economic impacts of the plan on basin communities, both at the community-wide and enterprise level.
- Buyback practices are threatening communities and the Goulburn-Murray Irrigation District's (GMID) financial viability.
- The accumulation of environmental water is disrupting irrigation delivery, leading to an inefficient system.
- Environmental flows cannot be delivered because physical constraints in the system have not been dealt with.
- The effectiveness of environmental water use is questionable.

3. Swan Hill Rural City Council wants equity for all basin communities. We want:

- Greater transparency in the water market.
- COAG to ensure that all states and their agencies do their fair share of reform and that this reform is done in a timely fashion.
- Our community to be informed on the use of environmental water and the effectiveness of environmental watering programs.
- Regulation to guard investment in high value horticulture against the indiscriminant issuing of licenses within an already strained system.

Introduction

Local Government plays a critical role in advocating for the interests of its community. It is clear that communities in the Swan Hill Rural City Council municipality are concerned about the management of the Murray Darling Basin.

Council is aware of the many competing interests in relation to the Murray Darling Basin's management. We are aware that the basin's management will be about compromise.

In developing this position paper, Council is also trying to strike a balance that best represents the views of its community.

Council understands that it is unrealistic to expect a return to a natural system within the Murray Darling Basin.

The basin now operates in a highly modified environment.

Since the time of European settlement the Murray Darling Basin has been drastically modified and developed. The arrival of agriculture has seen significant landscape change, including mass vegetation clearing, land forming and the development of drainage and irrigation systems. The basin is dotted with heavily settled urban communities and the system has numerous storage dams, flood mitigation dams, irrigation systems and highly modified stream channels.

There are many dependencies on our river systems.

The Murray Darling Basin provides water for human consumption that sustains the large population of the Murray Darling Basin.

The basin produces enormous quantities of food for the people of Australia and for export markets across the world. The waters that are shed from the basin and its fertile soils have previously been used for agricultural production very successfully.

The rivers of the basin also provide important active and passive recreation for local communities, and create tourism opportunities. The many reservoirs and dams constructed on our rivers and the natural lakes and wetlands provide numerous recreation opportunities.

With all this in mind, a return to a natural system could never be achieved.

Instead, our communities are calling for equitable outcomes for all competing interests.

Background

The management of water resources in the Murray Darling Basin is extraordinarily complex, involving different regimes in the four states through which the Murray and Darling rivers flow.

In times of plenty, all water entitlements can be taken up to sustain human life and for agricultural production, and enough water remains to keep our rivers and streams flowing and delivering a healthy environment for the Murray Darling Basin.

However, it is generally accepted that water resources of the Murray Darling Basin have been over allocated, and this becomes most obvious during times of low rainfall and drought.

This was evident during the millennium drought, which generally extended for the first decade of this century. At this time, different allocation practices in different states meant different economic and social outcomes for communities. Over allocation combined with drought also resulted in environmental stress in almost all of the Murray Darling Basin.

Prior to the implementation of the Murray Darling Basin Plan, in times of scarcity, it was the entitlement holders who took first rights to the water, and the environment only received any water left over. This meant that ecosystems that depend on our rivers and streams suffered greatly.

It is widely recognised among communities and water resource managers that the basin had been over allocated well before the millennium drought took hold. Work to develop a basin wide approach to managing water resources started in the 1990s. The Commonwealth's Water Act was passed in 2007, in the middle of the millennium drought, and its objectives were to optimise social, economic and environmental outcomes. The Murray Darling Basin Plan was developed to advance those objectives.

The Basin Plan and its operation are extremely complex. By way of summary though, the Murray Darling Basin Authority measured environmental values throughout the basin and identified just over 100 icon sites, chosen as representative of the ecosystems throughout the basin and on the basis of their ability to be studied and measured. An environmental plan was established to ensure the health of these icon sites and, ultimately, the health of the entire basin.

The plan identified that 2,750GL needed to be taken from productive consumption and returned to the environment. Many mechanisms have been used to obtain this water, including significant on-farm efficiency programs and irrigation system modernisation to reduce system losses, and an extensive campaign of entitlement buybacks by the Commonwealth and State governments.

The target for the return of water to the environment has been carved up between various sub-catchments and on a state-by-state basis. Returned water is used in line with environmental watering plans that are being, or have been, developed by each state.

In Victoria, Catchment Management Authorities and public land managers have significant input into the way in which environmental water is allocated.

Council's position

1. Swan Hill Rural City Council wants the basin managed in a way that:

- Provides water for agricultural production;
- Supports a healthy ecosystem;
- Allows for a range of recreational pursuits; and
- Supports the many urban communities within the basin.

Providing water for agricultural production

Agricultural production supported by water from the Murray Darling Basin is enormous. Australians have been very innovative and successful in harnessing water resources from the basin to produce food and fibre for the world on a global scale.

Victoria's water allocation policies have been more conservative than some others in the Murray Darling Basin, leading to a system that delivers high reliability in the supply of water to irrigators and urban communities. This has resulted in the growth of irrigated agriculture that is highly dependent on this water supply, and it has allowed permanent plantings to flourish.

This responsible approach to water allocation could now be seen as sowing the seeds of our own demise. When the Commonwealth Environmental Water Holder (CEWH) enters the market looking to buy water for the environment from the consumptive pool, it is only natural that it would go to a market where reliability of supply is high.

For this reason, we have seen the CEWH target the GMID and extract large quantities of water from the consumptive pool. The CEWH ceased water buybacks in December 2012 as a condition of the Murray Darling Basin Plan being approved. Water transfer since December 2012 has been from agriculture to agriculture.

Goulburn-Murray Water (G-MW) now delivers approximately 1000GL of water per annum. This is down from about 1700GL that it delivered a decade ago. While G-MW has undertaken significant work to reduce its footprint and attempted to reduce its operating costs, G-MW has not been able to halve operating costs. This means that the cost of irrigation water and the cost of running the GMID continues to increase on a per megalitre basis. Ultimately, this reduces the viability of irrigation farms that still operate in the GMID.

We should all be concerned when the viability of our economy is threatened.

The loss of water from the GMID cannot be attributed solely to the purchase of water for the environment. The high reliability of GMID water delivery has also been targeted by irrigators outside of the GMID as a good value proposition. Large quantities of water have been purchased and transferred to irrigators outside GMID. This has typically been the practice of high-value horticulturalists who can afford the premium for high reliability water out of the GMID.

Council calls for:

- Water buyback from the consumptive pool should not be resumed.
- An inquiry into the contribution made to environmental flows from water buybacks on a valley-by-valley basis, with the aim of equalising the amount taken from each catchment.
- *A statewide approach to addressing the issues caused by dewatered land (regardless of the cause of the dewatering).*

Supporting a healthy ecosystem

Substantial irrigation developments and increasing urbanisation of the Murray Darling Basin has meant that the water available for environmental use has been reduced substantially.

Construction of dams on many of the rivers and streams to capture water for irrigation purposes, and the release of that water timed to meet irrigation demands has seen a significant upheaval of the rivers' flow regimes, leading to significant environmental degradation in parts of the basin.

It should be said that flow regimes, even within the natural ecosystems, are continually changing. Throughout northern Victoria there are many examples of wetlands where change can be seen over the course of the past 200 years. The vegetation within and surrounding wetlands has changed from box trees to river red gum, which require significantly different wetting and drying regimes to box trees. This demonstrates that the ecosystem is not static.

That said, the impact of the regulation of rivers and streams within the Murray Darling Basin has had a significant impact on environmental values within the basin. The development of environmental watering plans is key to ensuring that the water that has been made available to the environment as part of the Murray Darling Basin Plan is used in a way that is most effective for the environment throughout the whole of the basin.

Council calls for:

- A public information campaign to educate the basin community on all aspects of Environmental Watering Plans.
- An inquiry into the effect of the delivery of environmental water on other entitlement holders.

Allowing for a range of recreational pursuits

The waters of the Murray Darling Basin provide recreational and tourism opportunities that are vital to local communities. Many communities along the banks of the rivers and their tributaries depend upon fishing, camping, canoeing, walking, riding and various other leisure pursuits that people enjoy on the water.

A number of these communities are also geared up for tourism, which is invariably seasonal and which depends on the river system being healthy. For example, tourism experienced along the Murray River during holiday periods like Easter and during summer depend on strong river flows. In recent times, poor stream management has seen blackwater events (and in the Darling system this has led to mass fish kill). This damages river health and the supported ecosystem, as well as tourism and, in turn, the health and wellbeing of communities along the streams.

The release of water for irrigation purposes can and does deliver environmental benefits as it makes its way downstream, and it can also deliver benefits for recreational pursuits and tourism.

There needs to be more local consultation in relation to the use of our rivers and streams for recreational pursuits and tourism, and this needs to be factored into the management of water delivery.

Council calls for:

- A mechanism to allow the needs of tourism operators to be heard and considered by water system managers and regulators.

Supporting the many urban communities within the basin

Urban communities depend heavily on plentiful supplies of water for human consumption, and to support parks and gardens, playing surfaces and privately owned residential gardens, all of which contribute to the health and wellbeing of our communities.

In recent years we have observed stressed river systems suffering from declining environmental health and water quality, water rationing and a reduction in water quality. This has had significant impacts on the desirability of some urban locations within the basin. It is imperative that the Murray Darling Basin is managed in a way that never jeopardises the availability and the quality of water that supports our urban communities.

Urban communities within the basin are integral. Most people living within the Murray Darling Basin live in urban environments. Much of the debate on how to manage the basin is focused on irrigation and the environment, often to the exclusion of the importance of the urban communities that also depend on the basin's resources.

Within the hierarchy of water resource allocation in all states there are precedents for the supply of water for human consumption. In times of scarcity, rationing is applied to ensure that urban communities minimise their water consumption and that this consumption is pulled down to human needs above recreational and amenity values. This should be supported and maintained.

Council calls for:

- The implementation of environmental watering plans that also ensure that water quality is protected for urban communities.

2. Swan Hill Rural City Council wants to ensure that Basin Plan implementation contributes to the health, prosperity and strength of our communities. We believe:

There is insufficient consideration of the socio-economic impacts of the plan on basin communities

The removal of water from irrigation inevitably leads to a reduction in the region's irrigated agricultural outputs and reduces overall wealth of communities. As discussed earlier, the CEWH has targeted the GMID, removing a large volume of water from the district. It is predicted that, if buybacks are allowed to resume, this will eventually lead to the collapse of more vulnerable communities within the GMID, and perhaps to the collapse of some agricultural sectors such as dairying. These communities will undergo significant restructure and hardship as populations decline and the viability of services like health, education and police is jeopardised. Decreasing populations also negatively impact on a community's capacity for volunteerism and recreational pursuits.

In the past year, both sides of Federal politics have threatened to re-enter the water market. But there is a feeling that decision-makers are far removed from the basin and fail to fully grasp the impact on individual communities.

The recent Royal Commission by the South Australian Government called on more water to be provided to the environment, equal to the entire remaining consumption of the GMID. Such findings demonstrate a lack of understanding by decision-makers and some commentators.

This position paper started out discussing the need for balanced outcomes and no one doubts that prior to the implementation of the Murray Darling Basin plan, additional water was required for the environment. But, obtaining this water needs to be done in such a way so as to not jeopardise the communities still living in the Murray Darling Basin.

The Basin Plan has been in its implementation phase for five years, and communities are still calling for an improved understanding of the socio-economic impacts of the removal of water for environmental purposes. There is little evidence that enough work has been done in this area and without an adequate understanding of the socio-economic impacts, it is unlikely that government policy will be developed to assist these communities. This must occur if we are to see an equitable implementation of the Murray Darling Basin Plan.

Water becoming a tradable commodity has caused hardship to some communities and benefit to others. The economics of the free market system have driven water from use on lower value crops to higher value crops. Communities like Swan Hill, Woorinen and Robinvale are flourishing as a result. While some choose to blame the Basin Plan, this is not entirely accurate. The unbundling of water from land, which occurred prior to the Basin Plan, has allowed this trade to occur.

Council calls for:

- The Commonwealth Government to research and report on the socio-economic impacts of the Basin Plan's implementation on basin communities.
- Policy to be developed and implemented to assist communities that are negatively impacted by the Basin Plan's implementation and the unbundling of water.
- Financial support for communities negatively impacted by the implementation of the Murray Darling Basin Plan.

Buyback practices are threatening communities and the GMID's financial viability

The indiscriminate purchase of water and targeting irrigation systems to obtain water from the consumptive pool for the environment will continue to have significant negative impact on communities unless there is change.

The GMID has been significantly reduced and now delivers only 1000GL per annum compared to 1700GL only 10 years ago. GMID's operating costs have not reduced in line with this, and so the per megalitre cost of water is now significantly higher in real terms than it was 10 years ago. This threatens the viability of lower value crops and will in time threaten the viability of individual farming enterprises, whole industries and the entire GMID system.

Only a small part of the Swan Hill Rural City Council community is supplied by the GMID but there will no doubt be a knock-on effect to our community.

The indiscriminate buyback of water has also drastically reduced populations in a number of small communities in northern Victoria. The buyback program started on the back of the millennium drought. Individual farming operations were carrying higher debt due to drought, and a number chose (or were forced to) to sell their water entitlements. Those enterprises now rely on temporary water on an annual basis to grow their crops and feed. This water comes at a substantially higher price and reduces overall viability to the point where many in the lamb, beef and dairy sector have exited.

Those who have exited are typically family farming operations and so our community is losing families as well. We have seen in some smaller communities a general winding down of the population, community activity and viability.

While the CEWH's practice of purchasing water from the consumptive pool is the most price efficient method for the Federal Government, it has caused significant damage to many communities in northern Victoria. Council does not support a return of buybacks in any form.

Council calls for:

- Water buyback from the consumptive pool should not be resumed.

The accumulation of environmental water is disrupting irrigation delivery.

Environmental water is held within the dams and storages across the Murray Darling Basin in the same way that any other entitlement holder stores water. Concerns have been expressed about the inequity of storing environmental water in the system storages, but these are largely based on an incorrect premise that the Federal Government has the right to store its environmental water free of charge.

Water purchased from the consumptive pool but held in storage is subject to the same rules and costs as irrigators - the same spill rules apply, the same storage fees are charged.

When environmental water is not delivered through the irrigation channel system, delivery shares and delivery charges are not born by the environmental water holder. If they were to use irrigation systems for any component of their water delivery, they too would pay, in turn supporting the irrigation system's financial viability.

The real impact of storing environmental water in the system storages is that it generally reduces the amount of water available to be stored for irrigation, increasing the likelihood of a spill, and decreasing the ability of individual irrigators to carry over water for future years.

Environmental water holders typically wish to build up large volumes of water and release them when they will have the most environmental benefit.

When they occur, spills do contribute to environmental outcomes. There is an argument that environmental water allocations should be reduced following a spill event as the environment has had its benefit. This would allow for additional storage volumes for irrigation in the year following a spill, ie. a wet year.

Council calls for:

- An inquiry into the effect of the delivery of environmental water on other entitlements holders

Environmental flows cannot be delivered because physical constraints in the system have not been dealt with

The environmental water holder now holds so much water in the Murray system that it is not possible to deliver all that water without causing significant man-made flooding.

The Barmah choke restricts the amount of water that can be delivered downstream of Barmah forest to a flow of 8600 ML per day. River operators report that with the water demands of high-value horticulture in the Riverland and Sunraysia, plus the demand for environmental flows to South Australia, the river system is operating at its limit.

There are concerns that in times of high demand (like extended periods of hot weather) that it will not be possible to deliver adequate water beyond the Barmah choke.

The Murray Darling Basin Plan was predicated on the assumption that significant environmental water would come to South Australia from the Darling system, but in practice, we are seeing the Murray doing all the heavy lifting. This, if not remedied, will cause environmental degradation to the banks and waterways of the Murray River. It will also cause significant economic losses to some of our high-value horticulture businesses, who will not be able to have water delivered during times of high demand.

Council calls for:

- Constraints management to be implemented as a matter of urgency.
- Water held for environmental purposes that cannot be delivered due to system constraints to be put on the market for irrigation.
- Revenues from the sale of environmental water to be used for implementing constraints solutions and improving river health.
- The mandating of environmental flows in the Murrumbidgee, Darling, Wakool and other tributaries to deliver environmental benefits where constraints cannot be effectively dealt with.

The effectiveness of environmental water use is questionable

There has been little reporting available to the public about environmental benefits being achieved through the use of environmental flows. Our community is demanding detail on the environmental benefits derived from the Murray Darling Basin Plan.

We have seen some high profile, disastrous environmental outcomes with blackwater events and fish kills, and reports of extended high river levels causing bank erosion, loss of vegetation and disruption to fish habitat.

There does not appear to be great transparency in how decisions are made for the provision of environmental flows. Council believes that much could be gained by providing localised input into the decision-making on the use of environmental flows.

Council accepts that decision-making in relation to environmental flows is particularly complicated and community consultation would be a difficult exercise, but that doesn't mean it is not necessary.

Our community wishes to have input into and get an understanding of how environmental water is used and would like to see reporting on the benefits that are coming from these environmental flows.

Council calls for:

- An inquiry into the effect of the delivery of environmental water on other entitlements holders
- A public information campaign to educate the basin community on all aspects of the Environmental Watering Plans.

3. Swan Hill Rural City Council wants equity for all basin communities. We want:

Greater transparency in the water market

Water has been scarce in the southern basin in recent times. This has resulted in higher temporary and permanent water prices, with significant trading activity. Irrigators feel at a disadvantage due to a significant lack of information regarding the market and an inability to find out whether individuals own water and how much.

There are suspicions around so-called water barons purchasing and hoarding water, and driving up the price.

Water and land were unbundled in 2007. This unbundling was intended to allow water to be traded as a commodity and to go to its highest value and best use. Many irrigators have taken advantage of this, and many entrepreneurial and horticultural developments have been made possible only through the trading of water.

Council calls for:

- All State and Federal politicians to publicly declare their water holdings.
- A published list of the top 20 water holders in each irrigation system.
- An inquiry into transparency in the water market.

The Council of Australian Governments (COAG) to ensure that all states and their agencies do their fair share of reform

There is plenty of evidence that Victoria has led the way in implementing the reform measures necessary to see the Murray Darling Basin Plan implemented. Victoria has contributed far more water to the environmental pool through buybacks than any other state.

Victoria has achieved significant savings by piping the previously channelised domestic and stock systems.

Victoria has modernised the GMID channel system through the Northern Victoria Irrigation Renewal Project (NVIRP).

Victoria has implemented a very broad scale on-farm modernisation system aimed at saving water and returning the savings to the environment.

Our community should be concerned that Victoria appears to do the heavy lifting. While other states lag behind, the heavy lifting comes at significant economic cost and a loss of prosperity for our communities.

It's incumbent upon COAG to ensure that all states do their fair share of reform and that they do it in a timely way, so that those who are trying to do the right thing aren't unfairly disadvantaged.

Council calls for:

- A basin-wide audit of each state's compliance with its obligations under the Murray Darling Basin Plan, and this would be publicly reported. Its recommendations should be implemented by COAG.

Our community to be informed on the use of environmental water and the effectiveness of environmental watering programs

There is very little information about the decision-making processes that lead to the release of environmental flows. There is also very little reporting on the effectiveness of these environmental watering programs.

While much of the debate during the plan's development focussed on the Lower Lakes, including Lake Alexandrina, the Coorong and the Murray mouth, it is important that the whole of the basin receives benefits from environmental watering.

There appears to be a focus on ensuring that the Murray flows to the sea at all times, despite there being evidence that historically this was not the case.

What's important is that all communities, all ecosystems and all regions of the Murray Darling Basin receive a fair slice of the environmental benefits that come from the implementation of the plan, and that the community is informed at all times.

Council calls for:

- A public information campaign to educate the basin community on all aspects of the Environmental Watering Plans.

Regulation in the Murray delivery system to guard investment in high value horticulture against the indiscriminant issuing of licenses within an already strained system

The past 20 years have seen significant investment in permanent horticultural plantings. These plantings are high value crops and can afford the cost of water, even when the price is high. Permanent plantings must have water to survive and thrive. If water is not available upon demand, yields can be severely reduced and plants can die, resulting in economic loss.

With a significant increase in proposed plantings along the Murray from Swan Hill to Mildura on both sides of the river, there is a real fear among established horticulturalists that the Murray River delivery system will be strained beyond its capacity. Constraints in delivery might mean that water rationing is necessary. It is unreasonable to issue additional extraction licenses if it could jeopardise the health of existing investments.

The Victorian Water Minister recently called in all new water extraction licenses on the Murray system downstream of the Barmah Choke. Council supports this and calls on the NSW Water Minister to take similar action.

We seek a mechanism to ensure that all three states that abut the Murray downstream of the Barmah Choke act responsibly and in a way that promotes further development but not at the cost of existing horticulture.

Council calls for:

- Regulation of the Murray delivery system to guard against the indiscriminate issuing of licenses that could damage existing horticultural developments (until delivery constraints are dealt with).
- Compliance, metering and regulation to be uniformly implemented throughout the Murray Darling Basin.

Summary

Swan Hill Rural City Council calls for:

- Water buyback from the consumptive pool should not be resumed.
- An inquiry into the contribution made to environmental flows from water buybacks on a valley-by-valley basis, with the aim of equalising the amount taken from each catchment.
- A state-wide approach to addressing the issues caused by dewatered land (regardless of the cause of the dewatering).
- A public information campaign to educate the basin community on all aspects of Environmental Watering Plans.
- An inquiry into the effect of the delivery of environmental water on other entitlement holders.
- A mechanism to allow the needs of tourism operators to be heard and considered by water system managers and regulators.
- The implementation of environmental watering plans that also ensure that water quality is protected for urban communities.
- The Commonwealth Government to research and report on the socio-economic impacts of the Basin Plan's implementation on basin communities.
- Policy to be developed and implemented to assist communities that are negatively impacted by the Basin Plan's implementation and the unbundling of water.
- Financial support for communities negatively impacted by the implementation of the Murray Darling Basin Plan.
- Constraints management to be implemented as a matter of urgency.
- Water held for environmental purposes that cannot be delivered due to system constraints to be put on the market for irrigation.
- Revenues from the sale of environmental water to be used for implementing constraints solutions and improving river health.
- The mandating of environmental flows in the Murrumbidgee, Darling, Wakool and other tributaries to deliver environmental benefits where constraints on the Murray cannot be effectively dealt with.
- All State and Federal politicians to publicly declare their water holdings.
- A published list of the top 20 water holders in each irrigation system.
- An inquiry into transparency in the water market.
- A basin-wide audit of each state's compliance with its obligations under the Murray Darling Basin Plan, and this would be publicly reported. Its findings should be implemented by COAG.
- Regulation of the Murray delivery system to guard against the indiscriminate issuing of licenses that could damage existing horticultural developments (until delivery constraints are dealt with).
- Compliance, metering and regulation to be uniformly implemented throughout the Murray Darling Basin.