



**MDA Submission
Recommendations for the
Murray-Darling Basin Plan**

**Murray Darling Association Inc.
Contact: Mark Lamb
Chief Executive Officer**



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Executive Summary

Thank you for the opportunity to provide feedback to the Department of Climate Change, Energy, the Environment, and Water, and the Federal Minister for the Environment and Water, Hon Tanya Plibersek MP, on the Murray-Darling Basin Plan.

We acknowledge that the Murray-Darling Basin Plan (the Basin Plan), at its heart, sets the amount of water that can be taken from the Basin each year, while leaving enough for our rivers, lakes and wetlands and the plants and animals that depend on them.

Following consultation with its members across the Murray-Darling Basin, the Murray Darling Association has provided 21 recommendations within this submission, addressing the following:

- Menindee Lakes – Ramsar Site Listing
- Effects of Sea-Level Rise
- Greater First Nations Involvement
- Progress reporting on the 450GL Recovery Program
- NSW Water Resource Plans
- Removal of “Benefit Cost Ratio” Requirements
- Ownership and access to Water for Cultural and Economic Purposes for the Basin’s First Nations
- Exploring the Potential for Managed Aquifer Recharge
- Lake Mejum/Lake Coolah Feasibility Study
- Measurement of Flows and Extractions
- First Nations Representation in Local Government
- Circular Economic Project Funding
- Clarification of Annual Water Allocation Methodology
- Pumping of Overland Flows during Floods
- Extraction vs Growth in the Murray-Darling Basin
- Agriculture and Agribusiness Plan for the Murray-Darling Basin
- Drought Management Plan
- Investment in the Barrages
- Water Infrastructure Plan
- Responsible Water Trading System
- SDLAM Project deadlines



Introduction

The [Murray Darling Association](#) is the peak body representing Local Government across the Murray-Darling Basin, with our membership base divided into 12 separate regions in which Councils have common interests.

- Regions 1, 2, 3, and 4 represent councils in Victoria and New South Wales,
- Regions 5, 6, 7, and 8 represent councils in South Australia,
- Regions 9, 10, and 11 represent councils in New South Wales,
- Region 12 represents councils in Queensland.

As the management, and the success of the Murray-Darling Basin Plan is a matter of concern to our members, the Murray Darling Association has written the following submission relating to the Murray-Darling Basin Plan.

Context

- The Australian Government wants to consider all innovative ideas to deliver the Murray-Darling Basin Plan in full.
- The Basin Plan sets the amount of water that can be taken from rivers for industry, agriculture, and community use, while leaving enough to restore and maintain a healthy environment and river system. In the face of an increasingly harsh climate, full delivery of the Basin Plan is more important than ever.
- The Basin Plan includes two different water recovery targets; one that bridges the gap between historic overuse and a sustainable level of use, and one that enhances environmental outcomes. Efforts to return water for the environment are behind schedule and may result in shortfalls.
- The Department of Climate Change, Energy, the Environment and Water has engaged with key stakeholders over five targeted workshops to review community ideas to deliver the Murray-Darling Basin Plan. The workshops engaged with:
 - Environment NGOs,
 - Irrigators and Agriculture,
 - Local Government and Communities, as well as
 - Academia, and
 - First Nations
- Public Consultations to hear ideas on the Murray-Darling Basin Plan opened 29 May 2023
- Public Consultations to hear ideas on the Murray-Darling Basin Plan close 3 July 2023.
- Further information on submissions can be found [here](#).



Recommendations

1. Menindee Lakes – Ramsar Site Listing

Objective:

To preserve the environmental and ecological integrity of the Menindee Lakes system and the Lower Darling Barka for communities and First Peoples.

To ensure there are unregulated lengths of wild river to enhance native fish breeding through floods big medium and small.

To ensure that Menindee Lakes operations maintain their availability to assist in mitigating pressures on the Barmah Choke during high risks of shortfalls.

Key Arguments:

The benefit would be on many levels. To community, first peoples, the environment, removing the stress of dry Lakes and Lower Darling Barka Fish kills. To reverse system decline, and address the decline in native fish numbers, less than 10% of native fish inhabit Basin rivers.

Context:

With Menindee Lakes full the positives are easily seen and recorded. Now is the time to ensure protection of this unique site and its central link between the Northern and Southern Connected Basins.

There is a risk that after the wet period the pressure on the Menindee Lakes and Lower Darling Barka will return with even greater ecological damage.

Benefit of the Menindee Lakes Ramsar Site listing is to guarantee flow and connectivity along the Barwon/Darling Barka Rivers, and to support First Peoples and Communities.

With the recognition of the Menindee Lakes as a Ramsar Site, due consideration should be made to the impact on the broader system and that other risks are considered and managed. In particular, the key risk of delivery shortfalls and ensuring that the Menindee Lakes operations maintain their availability to assist in mitigating pressures on the Barmah Choke during high risks of shortfalls, which have significant impact on all users and communities, especially with the increase in permanent plantings and reliance on more frequent watering.

Recommendation 1:

That the Federal Minister for the Environment and Water, the Hon Tanya Plibersek MP support prioritising the Menindee Lakes as a Ramsar site, while ensuring that Menindee operations maintain their availability to assist in mitigating pressures on the Barmah Choke during high risks of shortfalls.



2. Effects of Sea-Level Rise

Objective:

Since the Millennium drought and the creation of the Murray Darling Basin Plan, many academic studies and reports have been published on the Basin, including the effects of Climate Change. The studies on the lower Murray River, its lakes, the Coorong and the Murray Mouth have referenced separate academic studies on climate change and the resultant sea-level rise. They also acknowledge the flooding of the barrier islands at the Murray Mouth with seawater that bypasses the present barrage system and permeates the lakes.

However, these reports have always been restricted by their Terms of Reference to being centric to their point of interest, generally environmental and RAMSAR. As such, although they recognise the likelihood of the Barrage system no-longer being effective in preventing seawater entering the lakes, the reports do not address the socio-economic effects on South Australia of seawater travelling upriver, as down river flows are reduced due to climate change.

Further unlimited research needs to be undertaken. It is crucial this is acknowledged, and all research is included in the next Outlook report because of its importance, particularly for the Lower Murray Communities.

The CSIRO acknowledged that by 2050-60, the average annual stream flows in the Basin could be reduced by 20 to 30% due to climate change. In fact, we are experiencing worse than this in recent drought years with record low inflows. Reduced rainfall, higher evaporation and plant transpiration are addressed; however, there appears to be no acknowledgment of the consequential effects of Sea-Level Rise as the river flow to the sea diminishes. If the rising sea level is encompassed by increasing drought the consequences for saline inflow into the basin are enormous.

This recommendation intends to get the MDBA and Governments to acknowledge the consequence of allowing seawater to penetrate the Murray River and the domino, socio-economic effects this would bring to riparian communities and communities of South Australia, reliant on waters below Blanchetown.

e.g. Domestic water for SA Mid-north and Yorke Peninsula (Figure 1)- Swan Reach pipeline; greater Adelaide dependent on the Mannum & Murray Bridge pipelines; SA Upper South-East, dependent on the Tailum Bend to Keith pipeline; the Wine Districts of the Barossa, Clare and Langhorne Creek.



Key Arguments:

The MDBA collects data from a number of sources for inclusion in the Outlook Report and various other Reports. Sources of data include:

- river operators
- the science community
- independent advisors
- various reviews, which included significant community, First Nations, and other stakeholder input.
- Australian Government and Basin state and territory governments.

The MDBA has built in several independent check points to validate results and ensure that the Evaluation is a comprehensive assessment of implementation progress and outcomes at the Basin scale. The Evaluation examines and publishes available environmental, social, and economic research to provide practical actions to guide the journey of continuous improvement.

However there appears to be no scientific study available that specifically has addressed the socio-economic effects on the larger portion of South Australia's population caused by the lower River Murray being inundated by seawater.

The Government scientifically acknowledges climate Change and rising sea levels.

In 2016, the National Climate Change Adaptation Research Facility modelled that by 2050, sea-level rise at the Murray Mouth would reach 1.2 m above mean sea level or AHD. At this level, seawater will flood across the low-lying islands at the Murray Mouth, bypassing the barrage system unabated and entering the Lower Lakes and the River Murray. It is further predicted that this inundation would achieve 1.62 m AHD by 2100, not only threatening the local ecology in the Coorong and Lower Lakes, the salinity level of the river below Blanchetown and the consequential impact on those communities reliant upon that water supply but in some areas, isolating road access. Dr Chiew et.al. confirm similar rises by 2100 in his team's 2020 review of the Lower Lakes science.

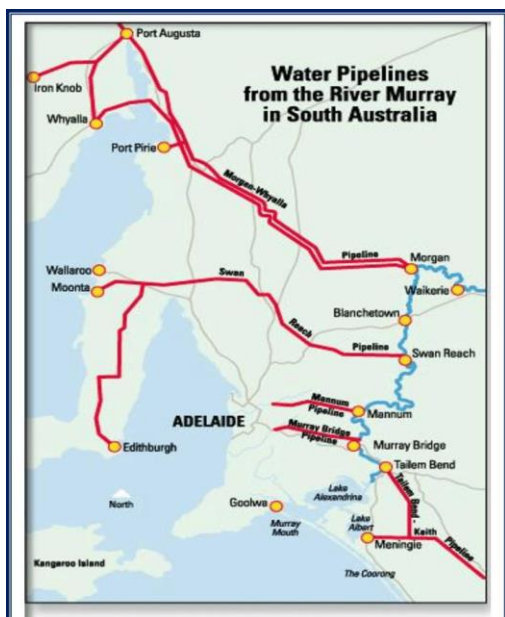


Context:

All communities that are reliant upon the freshwaters of the Murray River below Blanchetown would be decimated by the inundation of seawater into the river system.

If the Government, its Basin States, and the Murray-Darling Basin Authority do not acknowledge and work towards the mitigation of Sea-Level Rise by 2030 the pool level of saline water below Blanchetown, weir 1, could reach 1.62m by 2100 and continue to rise. The Blanchetown weir holds the river at a maximum of 3.3m AHD Pool height.

The Federal Government needs to recognise and respond to the threats posed by rising sea levels v. reduced downriver flows (drought) due to climate change and mitigate those threats.



REFERENCE:

- Effect of Sea-Level Rise on Alexandrina Council, Murray Mouth and its barrier Islands 2050 -2100 - https://coastadapt.com.au/sea-level-rise-information-all-australian-coastal-councils#SA_ALEXANDRINA
- History and Review of Lower Lakes Science (p.10) - Dr Chiew et.al. 2020 <https://www.mdba.gov.au/sites/>
- Murray Darling Water and Environment Research <https://getinvolved.mdba.gov.au/murray-darling-water-and-environment-research-program>

Figure 1: South Australia Murray River Pipelines.
Source: Discover Murray River, 2014

Recommendation 2:

That the Murray-Darling Basin Authority encompass the effects of sea-level rise on the lower Murray River, Lakes, and Coorong in their Climate Change research for inclusion in the 2026 Murray Darling Basin Review Report and the updated MDB Plan.



3. Greater First Nations Involvement

Objective:

The greater involvement of First Nations into the management of the Murray-Darling Basin would demonstrate reconciliation towards First Nations across the Basin, acknowledging their lands, waters, environment, and communities.

Key Arguments:

Indigenous cultures have over 60,000 years of connection to country and understanding of the importance of responsible water use.

Greater cultural integration will allow indigenous nations to teach the connection to country to all people, therefore supporting our nations to all be more responsible for water use.

Context:

Less cultural integration may risk a decrease of responsible water use.

Enhanced reconciliation and communities jointly working together for the benefit of our shared lands and waters.

This recommendation has been developed from a Motion raised and reviewed at the Murray Darling Association 2022 Annual General Meeting supported by the Ngarrindjeri Regional Authority (NRA).

Recommendation 3:

That the Federal Minister for the Environment and Water, the Hon Tanya Plibersek MP ensure greater awareness of Traditional Culture is offered in regional school curriculum.



4. Progress reporting on the 450GL Recovery Program

Objective:

To provide current, accurate, clear, precise, and simple to follow, updates from all jurisdictions to show the progress in Water Efficiency Measures projects.

The Basin Plan includes a provision for up to 450 GL/y additional water recovery separate from the gap-bridging target. This is for enhanced environmental outcomes on the condition that there are neutral or positive socio-economic impacts from the water recovery.

There is currently no certainty on when, where, or how the remaining water in the 450GL water recovery target will be achieved.

Key Arguments:

This recommendation intends to find and report on the progress of the Water Efficiency Measures projects to meet the target of 450 GL/y.

There are numerous pages on both websites describing efficiency measures generally, with no links to state plans and the efficiency projects and how much water is planned to be recovered or recovered to date. Both sites refer to each other for more information as well as to State Government websites, which also do not provide detailed plans or results. A comprehensive report is, however, available on the completion of the savings from South Australia.

The lack of progress in meeting the 450 GL/y is compounded by the limited information available about the plans and progress.

Context:

This would benefit Basin Communities and the Environment. Upfront and verified data on the progress of these projects gives all Regions confidence in the Basin Plan, the regional and State Plans and the ability to meet the targets set.

Increased confidence in the reporting mechanism of the Murray Darling Basin Authority and Department of Climate Change, Energy, the Environment and Water to deliver on the Basin Plan.

Recommendation 4:

That the Department of Climate Change, the Environment, Energy, and Water publish clear, simple, timely, and accurate reporting to show progress on the delivery of the 450 GL Recovery Programs.



5. NSW Water Resource Plans

Objective:

For the Federal Minister for the Environment and Water to request the MDBA to prepare all outstanding NSW Water Resource Plans for approval by the Federal Minister for the Environment and Water to deliver the outcomes of the Murray-Darling Basin Plan.

This will ensure that the environment, human needs, industrial, agricultural, cultural, native title, town water supply and stock and domestic needs of riparian landowners along the length of the river are provided for, as a priority, during extended dry periods.

NSW is three years behind the second deadline set by the Australian Government for the completion and approval of the Water Resource Plans required to deliver the agreed outcomes of the Murray Darling Basin Plan. Without these plans, the promised water cannot be delivered, and the industrial, human, and environmental components of the Murray-Darling Basin Plan will suffer further. These plans are legislated to be implemented by 2024.

The Australian Government Water Minister is empowered within the Water Act 2007, Section 68 to request the MDBA to prepare Water Resource Plans upon meeting particular conditions, such as where no current or temporary Water Resource Plan exists.

Key Arguments:

Queensland, Victoria, South Australia, and the Australian Capital Territory completed their Water Recovery Plans according to the timeline established in the Murray Darling Basin Plan, however, NSW is progressing very slowly, putting the MDB Plan in jeopardy.

Context:

Only four of New South Wales's Water Resource Plans (WRP) are operational across NSW since legislated to be completed 10 years ago. Every state, and the territory, had seven years to build these plans. They were due to start in 2019 and already, they are three years overdue from being finalised.

The Basin Plan requires a WRP to set out the method for determining the maximum quantity of water permitted to be taken for consumptive use in each accounting period. The WRP also establishes the method for determining the annual actual take.

Accredited WRPs are required to enable compliance and enforcement, and those plans also ensure the following:

1. The limits on how much water can be taken from the system and that water takes are maintained,
2. That water will be made available to the environment,
3. Consideration for cultural values and uses; and finally,
4. Water quality targets are managed.

There is a risk that the Murray-Darling Basin Plan will fail to provide water to all communities, particularly in drought years and increasing threats under the influence of Climate Change. By failing to produce the required plans, NSW cannot be audited or can be taking more water than entitled without consequences.

The implementation of this recommendation would ensure fairness and equity across the Basin, an equal playing field between states and territories, more water for all, and a resilient River system.



Recommendation 5:

That the Federal Minister for the Environment and Water, the Hon Tanya Plibersek MP set final submission dates and apply Section 68 of the Water Act 2007 for the Murray Darling Basin Authority to prepare and approve the New South Wales Water Resource Plans as required by the Murray Darling Basin Plan, in line with all other Basin States and Territories.

6. Removal of “Benefit Cost Ratio” Requirements

Objective:

That the Federal Government remove the requirements for a “Benefit Cost Ratio” (BCR) greater than one to be applied to funding applications for water storage projects such as, but not limited to; New dam construction and raising the height of existing dam walls.

Context:

Members of the Murray Darling Association have noted that many projects across the Basin have been knocked back due to the Benefit Cost Ratio requirements, with large beneficial projects such as the Hume and Dartmouth Dams likely to not have been constructed if they had been held up to the Benefit Cost Ratio requirements.

Members of the Murray Darling Association have acknowledged that the removal of the Benefit Cost Ratio requirements could introduce a level of risk to the construction of large projects, however they have indicated that operating through the lens of the Benefit Cost Ratio requirement, the social benefits of a project are often missed.

Recommendation 6:

That the Federal Government remove the requirements for a “Benefit Cost Ratio” (BCR) greater than one to be applied to funding applications for water storage projects such as, but not limited to; New dam construction and raising the height of existing dam walls.



7. Ownership and access to Water for Cultural and Economic Purposes for the Basin's First Nations

Objective:

Ensuring restorative water justice for Indigenous Nations within the Basin via the provision of cultural flows, first articulated in the Echuca Declaration (2007). Cultural flows are water entitlements that are legally and beneficially owned by First Nations.

Key Arguments:

Since colonisation, First Nations across the Murray-Darling Basin have endured multiple waves of water dispossession. More recently, dispossession has been exacerbated by the separation of land and water and the subsequent creation of tradable water rights. Put simply, First Nations are at a profound disadvantage in a market-based system that requires considerable capital to purchase even a modest quantity of water.

First Nations own 0.022% of available groundwater resources across the MDB and 0.2% of available surface water in the NSW part of the Basin. Commitments by the Australian and Basin State governments to progress First Nations' objectives for water are supported by international declarations and conventions. Australia has endorsed UNDRIP and is a signatory to the Ramsar Convention on Wetlands.

The UNDRIP states that First Nations people have rights to own, use and develop waters that they traditionally owned. Australia currently has 66 Wetlands of International Importance listed under the Ramsar Convention, and 16 of these are in the Murray-Darling Basin. The Ramsar Convention has long promoted the recognition and strengthening of First Nations peoples as key participants in conservation and integrated wetland management (see Target 10 of Goal 3: Wisely Using All Wetlands, of the Ramsar Strategic Plan 2016-2024).

Context:

Failing to achieve this risks the maintenance of the status quo i.e., Indigenous Nations within the Basin without cultural flows, ongoing criticism of Federal and State governments in failing to deliver water (justice) to indigenous Nations, and damage to Australia's good international standing in consideration of UNDRIP.

Indigenous Nations as well as the environment and communities across the Murray-Darling Basin, as well as Recreation, Indigenous-agriculture, and tourism-related sectors are likely to grow as a result of this proposed initiative. Australia would also be upholding the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP)(endorsed in 2009).

Achieving this would bring resolution to a long-standing social, political, and economic injustice and, as a result of empowered Basin Indigenous Nations. This would be a watershed moment in realising significantly improved environmental, economic, and social outcomes.

This recommendation has been developed from a Motion raised and reviewed at the Murray Darling Association 2022 Annual General Meeting supported by MILDRN and the Ngarrindjeri Regional Authority (NRA).

Recommendation 7:

That the Federal Government:

- 1. Work collaboratively with First Nations to waive annual entitlement holding and use fees for ground water and surface water shares, and***
- 2. Commit to appropriately resourcing the Basin's First nations (either directly or via a Nation's preferred body) to enable relevant First Nations led research including, but not limited to, legislative and policy reform to achieve cultural flows to First Nations within the Murray-Darling Basin.***



8. Exploring the Potential for Managed Aquifer Recharge

Objective:

1. Quantify the savings through efficiencies and increases to water security that could be realised through strategic Managed Aquifer Recharge (MAR) for drought resilience.
2. Develop appropriate policy, accounting and regulatory frameworks that enable MAR to be implemented fairly and transparently.
3. Establish well documented demonstration MAR sites in the Murray-Darling Basin.
4. Review State, and Federal governance to jointly manage risks associated with MAR.

Key Arguments:

Managed aquifer recharge, or MAR, refers to the intentional recharge of water to aquifers for subsequent use or environmental benefit.

Managed aquifer recharge is an internationally proven, low-cost solution that could improve drought resilience across the Murray Darling Basin. While significant potential for managed aquifer recharge (MAR) and conjunctive use of surface and groundwater resources has been identified in the Murray Darlin Basin, there is a need to improve the quantification of benefits and establish clear policy and institutional foundations to incentivise uptake.

Harmonised approaches between jurisdictions may promote confidence and uptake however different frameworks require further consultation and testing in the context of different water resources and regulatory systems.

The current Basin Plan supports MAR and would be complementary with objectives and outcomes sought by future Basin Plans. Existing water accounting systems would need to accommodate this new capacity.

Institutional arrangements and financial structures of water banking in the USA provide guidance for Australia. Demonstration sites would enable concurrent policy development and institutional set-up and provide critical experience to serve as models for wider adoption as part of future Murray Darling Basin plans.

Without the joint management of the associated risks of MAR, there is a risk that underground water supplies could be contaminated, with the potential to affect the water source permanently.

Context:

A failure of to explore the potential for Managed Aquifer Recharge (MAR) would result in a missed opportunity to raise the profile and priority of a technology that offers the potential to make tangible differences to water management in Australia. Support is needed at all levels of government for the full potential benefits of MAR to be realised.

MAR plays an important role in integrating the management of surface and groundwater resources for security of water supply while ensuring public health and environmental protection. Water storage is essential to improve the sustainability and resilience of water supply, both of which contribute to town water security, supporting agriculture and reducing pressure on the environment. In addition, natural treatment in the aquifer offers a low-cost, low-energy water treatment option.



New South Wales, the NSW DPE is the natural water resource manager, however the return of water into the aquifers may fall under the NSW EPA ie. Returning 'process water.' To ensure that there is a joint management of the associated risks of MAR to underground water supplies, the NSW EPA and NSW DPE would need to work more closely with one another.

Recommendation 8.1:

That the Federal Government consider and explore the potential for Managed Aquifer Recharge to contribute to efficient water management and increase regional water security throughout the Basin.

Recommendation 8.2:

That the Federal Government review State, and Federal governance to jointly manage risks associated with Managed Aquifer Recharge.



9. Lake Mejum/Lake Coolah Feasibility Study

Objective:

The Lake Mejum/Lake Coolah project proposes to improve and optimise the water logistics in the Murrumbidgee Valley for both the Environmental Water Holder and Irrigators.

Beneficial improvements and outcomes would assist the Environmental water holder to achieve their outcomes, through better timing and positioning of water during the winter months, as well as introduce a reduction on logistics pressure on the Murrumbidgee River when environmental flows and irrigator flows are competing for flow space.

The Lake Mejum/Lake Coolah project could assist in flood mitigation around North Wagga Wagga and between Berembred Weir and Yanco Weir, and permit greater optimisation of the Snowy Mountain network of water storages in managing carry over inter seasonal irrigation and environmental water.

The Lake Mejum/Lake Coolah project offers the opportunity to allow greater confidence to communities and industries within the Murrumbidgee Valley to forward plan and establish security around their commercial ventures.

Key Arguments:

- Capable of being managed into and complementary to the NSW sustainable diversion plan.
- Murrumbidgee Valley irrigated agriculture has moved to a more permanent cropping regime requiring the management of carry over inter-seasonal water.
- The Environmental Water holder in a new user of both water storage and water logistic assets that competes irrigators and agribusiness across both assets' classes.
- Water management practices need to be developed to manage the needs of the current and future environmental and agribusiness requirements.
- Opportunity to build a large efficient winter month (April – October) operated off river storage for both the management of environmental flows and outcomes, plus service the carryover water requirements for permanent crops, allowing greater airspace in the Snowy Mountain storages to capture more of the Spring and Summer inflows
- Water storage for inflows to the Murrumbidgee Valley below the major Snowy Mountain storages
- LIDAR survey and solar pumping of water will allow better engineering using current and contemporary design of water storages at Lake Coolah and Lake Mejum than what was previously perceived, the lakes could become a series of smaller lakes pumping from the lowest to highest to ensure surface area is limited to evaporation.
- Low cost per megalitre water storage asset that can be shared equitably amongst all stakeholders.
- Attractive development asset for private – public investment
- Sustainable future refinement and development of the Murrumbidgee Valley will stall and halt.



Context:

- The Lake Coolah – Lake Mejum development opportunity should be viewed through the lenses of current and future day agribusiness and environmental requirements; much has changed over the past two decades.
- New surveying technologies are available to refine the design storage concepts and solar (with battery backup) pumping large volumes of water is now a proven resource.
- Environmental flows competing with summer irrigation demand will eventually kill the river system.
- Lake Coolah – Lake Mejum development offers a low per megalitre cost water storage asset to sustain and potentially optimise both environmental outcomes along with community and commercial pursuits.

Recommendation 9:

That the Federal Government inquire into the merits and feasibility of the Lake Mejum/Lake Coolah project.



10. Measurement of Flows and Extractions

Objective:

This recommendation aims to build confidence, ensure connected accountable and consistent river management rules for all valleys and water users that will in turn support more achievable end-of-system flows for all rivers in the Basin.

Key Arguments and Context:

- Environmental flow rules in the water sharing plans for the regulated rivers vary from valley to valley, depending on which objectives were considered most important for that valley. Management rules in regulated river systems have a lot of flexibility because of the ability of the major storages to provide for environmental flow management. Therefore, rules may include controls on extractions under certain conditions as well as management of dam releases. This creates uncertainty for irrigators and downstream users alike.
- End-of-system flow requires a flow to be retained at the end of the river system. This ensures that flow is maintained below the areas of major extraction.
- Currently, Environmental flow rules in the regulated rivers in NSW apply only to the valleys of Belubula, Namoi, Murrumbidgee, Hunter, Paterson.
- Changes to the rules for regulated valleys may occur as part of the revision of Water Sharing Plans for 2019, many of which are currently still under review or yet to be adopted.
- Advanced technology and systems are available in the monitoring, metering and telemetry of large-scale flows and extraction, and are currently used by agricultural industries in the Queensland Northern Basin.
- The Bureau of Meteorology currently aggregates flow measures from various sources including the CSIRO through the Water Information Research and Development Alliance, the eWater CRC, and with Asia Pacific FRIEND to push boundaries for existing water science and information technology. (see <http://www.bom.gov.au/water/about/index.shtml>)

Recommendation 10:

That the Federal, and Basin Governments collaborate with industry to adopt consistent systems for monitoring, metering, and telemetry of overland and floodplain flows and unregulated take, mitigating the cost and data sharing between users, agencies and regulators, minimising data duplications and inefficiencies.



11. First Nations Representation in Local Government

Objective:

This recommendation aims to support improved social, economic, environmental, and cultural outcomes in the Murray Darling Basin by supporting First Nations people to have a greater role in the decision-making process.

The recommendation seeks to ensure local knowledge informs our national priorities.

Key Arguments and Context:

There are 40 Aboriginal nations in the Murray Darling Basin. The value and values of diversity of representation on local government is essential to ensuring better outcomes for a more sustainable Murray-Darling Basin.

Calls for an Indigenous voice have been made for a long time, and local government has a key role in supporting that process.

In 2017 the [Uluru Statement from the Heart](#) and, consequent Final Report of the Joint Select Committee on Constitutional Recognition relating to Aboriginal and Torres Strait Islander Peoples in November 2018 considered existing and proposed advisory structures that might inform the design, and that a co-design process should consider national, regional and local elements of The Voice and how they interconnect.⁵ The values and vision for local government outlined in MDA's Strategic Plan [Vision 2025](#) aligns with these considerations.

Local government is the level of government closest to the communities we serve and plays a key role in ensuring local leadership informs our national priorities.

The Murray Darling Association Strategic Plan 2020-25 ([Vision 2025](#)): commits to "First Nations culture is reflected in and supported by MDA policy and position statements." (Pillar 3, Ref 3.5.3, Vision 2025).

Recommendation 11.1:

That the Federal, and Basin Governments support a process to promote greater representation of First Nations people in Local Government and in water policy.

Recommendation 11.2:

That Local Government have greater recognition at Federal Government level together with strengthening relationships with State agencies, without the risk of an increasing cost burden to Local Government.



12. Circular Economic Project Funding

Objective:

Supporting regional local governments to have access to information and technology that will allow circular economic projects that encompass waste to energy, increased economic improvement in towns, carbon drawdown, renewable energy, and water savings and hence enhanced economic viability to the region.

Key Arguments and Context:

The MDA is currently working with the CSIRO on the opportunities and barriers to circular economic projects in regional towns, including the potential for recycling water, and its position in the Circular Economy. There are many opportunities for circular economic projects in regional towns.

Regional towns need education on the benefits of the circular economic project. Elected members and administration of councils should be briefed on their potential and implement resources to research possible projects for each Murray-Darling Basin council region.

Some projects may invariably improve soil water holding capacity an opportunity that could be considered by governments in water-saving plans.

Regional communities may also be able to claim carbon credits if they are doing projects that draw down carbon.

Regional communities will benefit economically from implementing these projects in regional towns.

Circular Economic projects would benefit the economic viability of towns and may include strategies that support drought resilience, and adaptation and mitigation of climate change.

There are actions that farmers and rural communities can implement now that would both adapt to and mitigate climate change while improving economic opportunities, agricultural productivity, soil health, and water security; however, the uptake is slow. We ask the Federal Government to provide increased incentives that encourage these opportunities to be taken up that, in turn, will improve the economic viability of the Basin, enhance river health and water security, and mitigate climate change. Incentives should include:

Investing in community-centric climate mitigation and adaptation planning at regional and local levels by:

1. Increasing the rebate per tonne of carbon sequestered through the Emission Reduction Fund for carbon sequestration.
2. Investing in greater promotion and use of the technologies that address soil, land and water degradation by encouraging increased soil carbon sequestration, land and water management practices and techniques that improve agricultural productivity, stored soil water, and economic output while mitigating climate change.
3. Enhancing water security and quality in a drying climate by recognising soil carbon increases and other techniques such as greening landscapes as water saving measures that both improve water infiltration, reduce run off.
4. Development and implementation of a carbon neutral plan for the Murray Darling Basin incorporating these ideas and suggestions from *[Figure 1]*.



As early as the 1800s, scientists realised that increased carbon dioxide (CO₂) levels in the atmosphere would increase global surface temperatures. This is because when shortwave sunlight hits the earth's surface it is converted into longwave radiant heat that is absorbed by CO₂ and other greenhouse gasses that act like a blanket and prevent heat escaping into space.

Over the past 100 years humanity has burned approximately 1,800 billion barrels of oil, 377 billion tonnes of coal, 150,000 billion m³ of gas¹ and cut down 46% of all trees on earth². As a result 1.5 trillion tonnes of CO₂ have been released into the atmosphere since 1751³ and levels are now higher than at any other time in the past 800,000 years - and rising rapidly. Added to the CO₂ are the emissions of other greenhouse gasses including methane and nitrous oxide.

We now know that higher atmospheric greenhouse gas levels not only increase average and extreme temperatures. Carbon dioxide is absorbed by the oceans where it forms carbonic acid and reduces the pH of the water. A warmer ocean expands, land based ice caps and glaciers melt and so sea levels rise. More heat increases cyclone intensity, humidity and rainfall (especially in the tropical regions). The drier mid-latitude climate is forced poleward where the frequency and severity of drought and bushfire are increased.

These changes will put thousands of human settlements and immense areas of agricultural land and natural environments at risk.

The Australian Government's Bureau of Meteorology's *State of the Climate 2018 Report* (<http://www.bom.gov.au/state-of-the-climate/>) found that for Australia:

- the median temperature has increased by just over 1 °C since 1910 [Figure 2];
- there has been an increase in the frequency of extreme heat events;
- the April to October rainfall has decreased in southwest of Australia;
- the May–July rainfall across southwest Australia has decreased by around 20% since 1970 [Figure 3];
- the April–October rainfall in the southeast of Australia has declined by about 11% since the late 1990s
- streamflow across southern Australia has decreased.

In response to these findings the United Nations Environment Program (UNEP) and the World Meteorological Organisation (WMO) formed the Intergovernmental Panel on Climate Change (IPCC) in 1988. In 2015 the Paris Agreement set out an internationally agreed global framework to avoid dangerous climate change by limiting “global temperature rise this century well below 2°C above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 °C”⁴. To achieve the goal, global net anthropogenic CO₂ emissions must fall to about 45% of 2010 levels by 2030, and reach net zero by 2050.

As a result of these policies 120 countries, 449 cities, 21 regions, 995 companies, 505 organisations and 38 investors have committed to reach carbon neutrality by 2050 as part of the Climate Ambition Alliance (June 2020). There is now an expectation that regions and entities worldwide will develop and implement carbon neutral plans as soon as possible. This will include tracking emissions, converting to renewable energy, switching to electric transport options, purchasing carbon neutral products, constructing solar passive buildings and if necessary investing in carbon offsets.



The potentially devastating impacts of climate change in the Murray-Darling Basin region may be offset by urgent action to reduce greenhouse gases and embrace opportunities that will empower our communities, build our economy, protect our rivers, and provide a win-win situation for all.

The Murray-Darling Basin has a significant opportunity to generate carbon credits by enhancing soil carbon via biodiverse pasture establishment, tree plantings, biochar incorporation, and regenerative farming. Many of these actions also have the potential to increase the economic viability of agriculture in the region while improving soil water holding capacity and reducing the need for water extraction from the river. In addition, the region has opportunities to reduce greenhouse gas emissions via an increase in solar energy generation, conversion of waste to energy, marine permaculture, development of rural community gardens and other opportunities as outlined in [Figure 1].

Recommendation 12.1:

That the Federal Government explore and support funding for circular economic projects that include, but are not limited to, water recycling, drawing down carbon, and mitigating and adapting to Climate Change.

Recommendation 12.2:

That the Federal Government provide increased incentives for farmers and communities to implement carbon neutral strategies and on ground actions that improve economic viability and enhance water Security while adapting to, and mitigating the impacts of Climate Change.



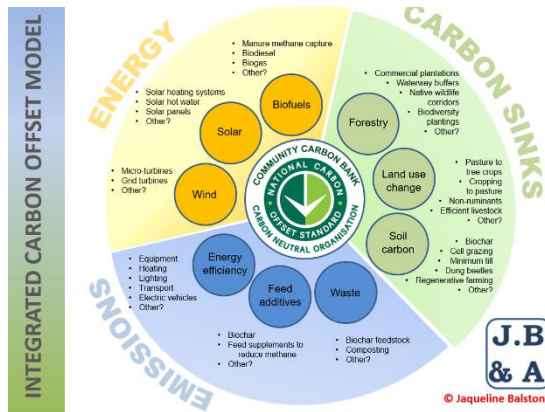


Figure 1: Economic opportunities for MDB farmers and their communities to adapt and mitigate to climate change.

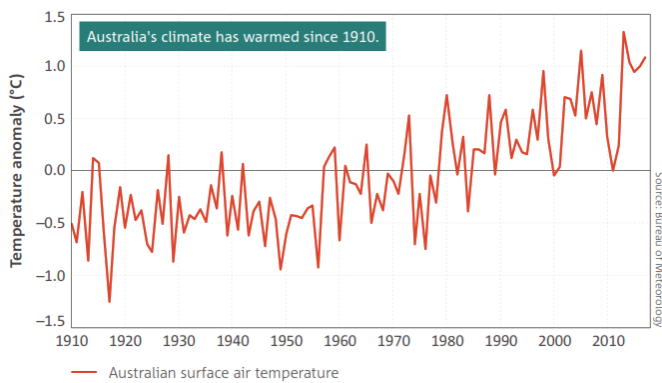


Figure 2: Increase of Australia's land temperatures since 1910 (Source: Australian Bureau of Meteorology, State of the Climate 2018; available from <http://www.bom.gov.au/state-of-the-climate/australias-changing-climate.shtml>).

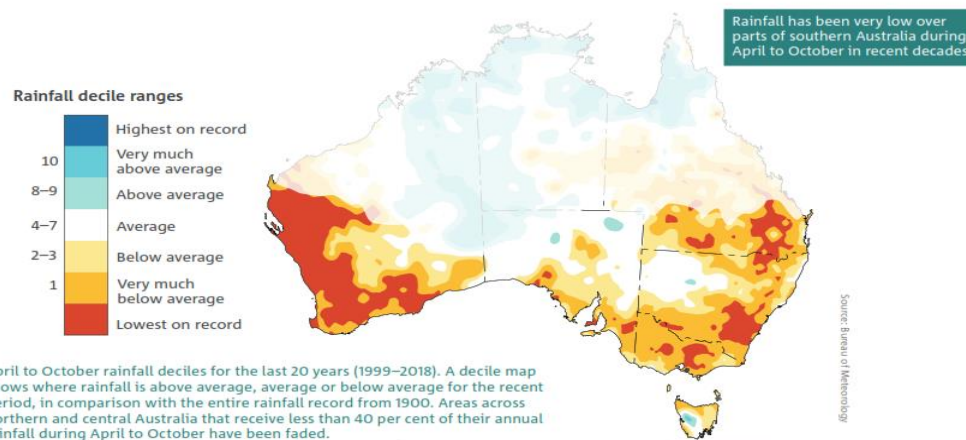


Figure 3: April to October rainfall reductions across southern Australia from 1999-2018 (Source: Australian Bureau of Meteorology, State of the Climate 2018; available from <http://www.bom.gov.au/state-of-the-climate/australias-changing-climate.shtml>).

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- 1 The Guardian (2020), Keep it in the Ground. Accessed 23 June 2020. <https://www.theguardian.com/environment/ng-interactive/2015/apr/10/how-much-fossil-fuel-are-we-using-right-now>
- 2 Crowther, T.W., Glick, H.B., Bradford, A.A. (2015), Mapping tree density at a global scale. Nature, 525, 201-205. Accessed 23 June 2020. <https://www.nature.com/articles/nature14967>
- 3 Ritchie, H., Roser, M. (2019), CO₂ and Greenhouse Gas Emissions. Our World in Data. Accessed 23 June 2020. <https://ourworldindata.org/co2-and-other-greenhouse-gas-emissions>
- 4 United Nations Climate Change (2020), United Nations Climate Change. Accessed 9 June 2020. <https://cop23.unfccc.int/>



13. Clarification of Annual Water Allocation Methodology

Objective:

This clarification would achieve transparency and an understanding in water allocations and gauge some surety for agricultural investment decisions. This would benefit whole regions, including the triple bottom line framework of economic, social, and environmental considerations.

Key Arguments and Context:

Local Government Areas across the Murray-Darling Basin are concerned about their annual water allocations. Many of the Local Government Areas have indicated, that an ongoing lack of transparency in terms of water allocation decisions would perpetuate negative impacts on communities.

Recommendation 13.1:

That the Federal, and State Governments clarify the methodology used to determine annual water allocations in NSW, VIC, QLD, and SA and variations to these allocations during the year. The timing of these water allocation decisions and adjustments are not currently aligned with critical business investment decisions made by the diverse agricultural sector.

Recommendation 13.2:

That the Federal Government review operational governance, ensuring that high priority water allocated for a town is not consumed (released) to irrigators, but is maintained in storage until called upon by the town water supplier.



14. Pumping of Overland Flows during Floods

Objective:

To consider the implementation of legislation allowing the pumping of overland flows during flood events.

Key Arguments and Context:

Enabling the pumping of overland flows during flood events in the Murray-Darling Basin could provide the benefit of utilising water that is destructive and costly, producing a win-win outcome for communities without the risk of having the water debited against an allocation, knowing that supplementary water is limited to 7.1% of a licence holders allocation.

During the recent floods along the Macquarie, Councils and communities saw some 5,000,000 ML of water leave the Macquarie and cause significant flooding with ensuing damage to roads, crops, housing, and infrastructure over 100,000's hectares on either side of the river.

Many members of the Murray Darling Association have expressed concern that this water was not allowed to be pumped into storage to help mitigate flooding issues.

Enabling the pumping of overland flows by Licence holders during flooding events could assist in alleviating flood heights and would be beneficial along the entire Murray-Darling River systems, whilst allowing a sensible and productive capture of the water during flood times.

Murray Darling Association Members acknowledge that trigger points would need to be reached and followed during this period, and that flood waters can have positive outcomes, with a balance needed between horticulture and Agriculture, the protection of property, and the river systems of the Murray-Darling Basin.

Recommendation 14:

That the Federal Government explore and consider the implementation of legislation enabling the pumping of overland flows during flood events in the Murray-Darling Basin.



15. Extraction vs Growth in the Murray-Darling Basin

Objective:

To consider Extraction versus Growth of perennial or permanent plantings and access to water through drought.

Key Arguments and Context:

Within Region 4 of the Murray Darling Association (MDA), situated near the border connection of South Australia, Victoria, and New South Wales, Local Government Areas saw a 1300% growth in Almonds from 2006 to 2018 (increased from 1,745 hectares in 1997 to 26,405 hectares in 2021).

This volume of plantings is unsustainable in a below average intake year, particularly when, even without a drought event to affect water delivery, irrigators and the CEWH are unable to extract 100% of their allocation.

The MDA acknowledges the efficiency in water use by all involved in the industry, with note that Local Government, and communities would not be benefitting from unbundling financially if vastly improved water conservation did not occur.

MDA members have raised concern that current belief and practice of stretching water in the Murray-Darling Basin can be continued in a drought year, with the only controls available to the water industry and Government being the consideration of the volume of horticulture and agriculture needing water in the worst recorded year throughout the entire Murray-Darling Basin. This tool is only a base guide to protect industries from the natural ephemerality of the Murray-Darling Basin.

The consideration of extraction vs growth of perennial and permanent plantings and their access to water throughout a drought event offers an opportunity to consider capped plantings to protect horticulture and agriculture from over development and commodity price fluctuations.

There needs to be a considered and planned approach to the future of horticulture and agriculture, rather than a market dictating the direction of development resulting in periodic and devastating droughts and turmoil for all communities in the Basin.

Recommendation 15:

That the Federal Government consider extraction vs. growth requirements of perennial and permanent plantings in the Murray-Darling Basin and their access to water throughout drought events.



16. Agriculture and Agribusiness Plan for the Murray-Darling Basin

Objective:

- To ensure the development of an Agricultural & Agribusiness Plan is underpinned by the foundation principles of environmental, economic, social and cultural sustainability, integrated land use, water use and infrastructure optimisation, and product and employment diversity. An Agricultural & Agribusiness Plan also needs to include dedicated sections on purpose-built irrigated agriculture within the Basin and climate change.
- To ensure agricultural and agribusiness endeavours in the Murray Darling Basin are truly sustainable and do not work at cross purposes with the Murray Darling Basin Plan.
- To ensure agricultural and agribusiness endeavours in the Murray Darling Basin are geared to deal with climate change while also contributing to reducing their own environmental footprint.

Key Arguments and Context:

The Murray Darling Basin Plan is primarily an environmental plan. There is no 'sister' plan ensuring that the remaining water available for productive use is used optimally. This is a gap.

The \$100B RoadMap will only be properly realised if supported by a suite of subplans on how this ambitious goal can be sustainably delivered, including a Plan for Australia's food bowl (the Murray Darling Basin).

agricultural endeavours in the Murray Darling Basin are best placed to contribute at an optimal level to the NFF 2030 \$100B Agricultural Roadmap while continuing to support thriving agribusiness in the Basin. Success will be enduring and sustainable profitability, not pursuing farm-gate value at any cost.

An Agricultural Plan should have regard to optimising land-use, water-use and existing infrastructure and should ensure an integrated approach.

Optimal use of water requires an appropriate balance between permanent and annual plantings, and a sector that can 'dial up' during wet years and 'dial down' during dry years. There should be no scope for permanent plantings to cannibalise annual crops that are a vital component of a diverse and resilient agricultural sector.

Diversity is a key strength in any economy and protects against market crashes, pests and droughts while fostering job creating process industries and generating wealth for Australia.

Economic success should not only be measured at the farm gate. True economic sustainability needs to consider the value adding component of the agribusiness sector and export earnings for the nation. Success needs to be enduring and sustained profitability.

Strong regional communities support a thriving agricultural sector. Regional communities are strengthened by a thriving agribusiness sector that supports jobs with a variety of skillsets that, in turn, contribute to sports clubs, schools, health services and retail in local towns etc.

All the evidence suggests the climate is changing and Basin communities should expect hotter summers, colder winters and altered rainfall patterns, including more extreme weather events. Adaptation and innovation is key.



Less cultural integration may risk a decrease of responsible water use.

Enhanced reconciliation and communities jointly working together for the benefit of our shared lands and waters.

Recommendation 16:

That the Federal Minister for Agriculture, and the National Farmers Federation collaborate with strategic partners in the development of an integrated Agricultural and Agribusiness Plan for the Murray-Darling Basin.

17. Drought Management Plan

Objective:



- To ensure the development of a National Adverse Events Management Plan, in collaboration with the States and Local Government, which aims to anticipate, mitigate, and appropriately manage impacts to the food bowl.
- To ensure Basin communities are cushioned from unexpected negative events in the short term,
- To ensure Basin communities are supported to adapt and innovate in preparation for a changing climate and increased droughts in the medium to long term,
- To ensure national food security is assured and both jobs in and export earnings from the Agri-sector are sustained and enabled to grow.

Key Arguments and Context:

The climate is changing, and Basin communities should expect increased drought events, hotter summers, colder winters, and less water available for irrigation. This is further supported by the CSIRO's prediction of an up to 30% decrease in flow in the Murray-Darling Basin by 2050-60.

The drought impacts, further compounded by the recent Covid-19 pandemic, has exposed some vulnerabilities with food security, such as rice, after stocks were depleted in stores due to panic buying.

Farming sectors in the Basin need coordinated strategies and plans in place to support adaptation and innovation.

Recommendation 17.1:

That the Federal Government lead the development of a comprehensive National Adverse Events Management Plan, incorporating a Drought Management Plan for the Murray-Darling Basin.

Recommendation 17.2:

That the Federal Government provide ongoing economic support to cushion Basin communities from unexpected, short-term emergencies and, for the medium to long term, support the establishment and operation of Innovation Hubs across the Basin as cooperative models of research and innovation to secure the future sustainability of Australian agriculture.



18. Investment in the Barrages

Objective:

To formally acknowledge the results of the Lower Lakes Independent Science Review, including the freshwater ecological values of the Lower Lakes; to reaffirm the importance of addressing knowledge gaps with respect to future adaptation and mitigation options for the Coorong, Lower Lakes and Murray Mouth (CLLMM) region; and to acknowledge the contribution of the barrages to the effective management of the entire Murray Darling Basin system.

Key Arguments and Context:

The Lower Lakes were largely fresh prior to European settlement:

- The pre-development long-term average annual inflow from the Murray River is more than 13,000 gigalitres (GLs). This volume would fill the lakes on average more than eight times a year.
- Upstream development reduced the river inflow by about half, resulting in more frequent incursion of seawater into the Lower Lakes.
- The barrages were built in 1940 in response to these changes, isolating the Coorong and the sea from the Lower Lakes.
- Current allocations are 5966 GLs of environmental water per year. However, in the past 5 years, during dry conditions, the average environmental water flow reduced to less than 700 GL per year.
- Environmental water has been critical in sustaining the CLLMM through the dry period and help the system bounce back when the drought ends.

Removing the barrages would have significant ecological and socio-economic impacts and that removing them would not result in any water savings upstream:

- Without the barrages, the freshwater values in the Lower Lakes cannot be maintained.
- This will significantly change the ecological character of the Ramsar-listed site; and also impact traditional owner values and other socio-economic values that are reliant on a healthy CLLMM system.
- If the barrage were to be removed: more water would need to be used to keep the CLLMM healthy, which will have impacts on the water availability for upstream users.
- There would be no water savings if there are no water flows across the basin, not only in the CLLMM system.

Under climate change, the management of the CLLMM will become increasingly challenging:

- Sea level rise would alter the hydrodynamics of the Coorong and Murray Mouth, and cause more seawater to flow into the Lower Lakes.
- Evaporation from the Lakes would be higher. Therefore, more Murray River inflow would be needed to achieve CLLMM outcomes.
- However, catchment runoff in the southern Murray Darling Basin is projected to decline under climate change.
- There are gaps in the knowledge of the biophysical impact under climate change, and the social, environmental and economic vulnerabilities.
- There is a need to develop adaptation options, not just for the CLLMM, but as part of the whole Murray Darling Basin system.



The [Lower Lakes Science Review](#) (page 10) identifies the key knowledge needs required to plan for CLLMM outcomes in a changing climate include:

- predicting changes in Murray River inflow characteristics, and the impact on, and adaptation options for, the CLLMM;
- predicting the impacts of sea level rise on the hydrodynamic and geomorphology of the CLLMM; and
- predicting social, environmental, and economic vulnerabilities under climate change to inform better management and identify values that can be maintained, those that can transition to some new state and those that cannot be sustained.

Recommendation 18.1:

That the Federal Government support national investment to upgrade the Barrages to enhance efficient water management of the Murray-Darling Basin.

Recommendation 18.2:

That the Federal Government support a detailed climate change vulnerability assessment and adaptation plan for the Coorong, the Lower Lakes, and Murray Mouth Region.



19. Water Infrastructure Plan

Objective:

To ensure that our national investment in water infrastructure is cohesive and coordinated, delivering value for money and sustainable water management solutions that align with and support the objectives of the Murray Darling Basin Plan.

Key Arguments and Context:

The Federal Government should consider, when developing Regional assets and infrastructure investment strategies, such infrastructure plans including but not limited to the NSW 20-year Water Infrastructure Investment Plan, Queensland Bulk Water Opportunities Statement, regional development strategies and local needs.

The Federal Government should look to deliver on the needs of community both now and into the future as well as looking to how it can contribute to the goals of the Ag Plan 2030.

All work should also be done with consideration given to the Future Drought Fund, how it may be incorporated or utilised to benefit and assist the development of these strategies and programs.

A coordinated strategy in the context of the post Covid-19 recovery represents a once in a century opportunity to invest in our national water infrastructure grid to maximum effect.

Recommendation 19:

That the Federal Government prepare and publish a short, medium, and long-term water infrastructure plan in collaboration with all Basin Governments to sustain our nation across all environmental, social, and economic sectors for generations to come.



20. Responsible Water Trading System

Objective:

To ensure

- the value of water trading is measured at the community level (inclusive of the value adding sector) and not only at the farm gate.
- purpose built irrigation schemes are appropriately optimised and their original purpose (drought proofing the nation and delivering domestic food security) is understood, acknowledged, and recognised in any policy frameworks.
- the achievement of enduring and sustainable profitability underpinned by an environmentally healthy river system and economically and socially sustainable Basin communities.

Key Arguments and Context:

Prices at the farm gate are only one element of success. The economic impacts of water trading need to be measured at the community, regional and national level. Value adding agribusiness can have greater returns and contribute more to GDP and export earnings than primary produce alone. In irrigation communities there are many more jobs created and sustained through manufacturing than farming itself. This contributes sustainable communities and services whose value needs to be properly recognised in any economic assessment. The value of water trading needs to be measured holistically, not only at the farm gate.

Agricultural and agribusiness performance needs to be optimised with an appropriate balance of permanent and annual crops that can flexibly respond to seasonal variations in water without jeopardising diversity of primary produce and total economic wellbeing (at the community, regional and national level, not only at the farm gate). A trading environment that sees annual cropping cannibalised by permanent plantings that rely on temporary trade is both unsustainable and irresponsible. It will implode. Water trading needs to support a sustainable system that can 'dial up' when water is in abundance and 'dial down' in dry years but without being allowed to erode diversity and agribusiness built and successfully sustained for many decades around annual crops.

Water is applied most efficiently close to the source. Any policy environment, including water trading, should support purpose-built irrigation farmers first to sustain the upkeep of the systems which are nation building infrastructure. The optimal use of the whole system needs to be ensured through a policy framework that sees water traded within areas where it will be used most efficiently to contribute to a diverse array of primary products.

The value of an irrigation system is worth more than the sum of the individual parts and must be subject to policy frameworks that see the whole optimised and kept sustainable, including associated service and value adding communities.

With water now separated from land, Governments have an even greater responsibility to ensure purpose-built irrigation schemes are not systematically eroded through poor policy settings.

The ACCC has in its interim report released in July 2020 that "water markets in the Murray Darling Basin need major changes to allow for open, fair and efficient water trading that benefits water users, communities and the economy."



The water trading issues identified by the ACCC are summarised below:

- *water market intermediaries such as brokers and water-exchange platforms operate in a mostly unregulated environment, allowing conflicts of interest to arise, and opportunities for transactions to be reported improperly.*
- *there are scant rules to guard against the emergence of conduct aimed at manipulating market prices, and no particular body to monitor the trading activities of market participants.*
- *there are information failures which limit the openness of markets and favour better resourced and professional traders who can take advantage of opportunities such as inter-valley trade/transfer openings.*
- *differences in trade processes and water registries between the Basin States prevent participants from gaining a full, timely and accurate picture of water trade, including price, supply, and demand.*
- *important information, such as allocation policies and river operations policy, which can significantly impact water pricing, are inadequately communicated to the irrigators and traders who rely on these to make business decisions.*
- *there is a disconnect between the rules of the trading system and the physical characteristics of the river system. For example, on-river delivery capacity scarcity, conveyance losses and adverse environmental impacts are not considered in the processing of trades that change the location of water use, except through some blunt and imprecise rules, such as limits on inter-valley trade/transfers.*
- *overarching governance arrangements, which result in regulatory fragmentation and overlapping of roles of different governing bodies, contribute to many of these problems, or prevent them from being addressed in an effective and timely way.*

Recommendation 20:

That the Federal Government and the ACCC establish a water trading system that responsibly optimises the economic performance of irrigated agricultural communities.



21. SDLAM Project Deadlines

Objective:

To ensure

- the integrated management of SDLAM projects can be successfully achieved,
- the prudent use of taxpayer funds by delivering genuine value for money, and
- multi-sector confidence in the SDLAM projects that are selected for implementation.

Key Arguments and Context:

- Done right, the SDLAM projects will contribute to improved long term health of the Basin through additional delivery capacity, greater flexibility of river operations and increased outcomes for key environmental assets.
- Some key NSW projects are highly complex and need more realistic implementation timeframes. Six are interdependent and require more detailed planning and assessment, as well as greater stakeholder engagement. The current approach to implementation does not enable interdependencies to be managed effectively.
- Strictly enforcing the 2024 deadline could lead to the abandonment of worthwhile projects. Governments should be open to the possibility of extending the 30 June 2024 deadline.

Recommendation 21:

That the Murray-Darling Basin Ministerial Council extend the deadline dates for the more complex and integrated Sustainable Diversion Limited Adjustment Mechanism (SDLAM) projects.

