



Australian Government



MURRAY-DARLING
BASIN AUTHORITY

2017 Basin Plan Evaluation

The Murray-Darling Basin is a complex, diverse and dynamic system. It is constantly changing in response to the influences of people, climate and the way water is used for production, communities and the environment.

The Basin Plan aims to find a balance between the water needs of all Basin users, to make sure communities, industries and the environment continue to thrive.

It has been five years since the Basin Plan was established- it's time to check how implementation is going. The 2017 Basin Plan Evaluation covers all elements of implementation, from water planning and management, to recovery and use of water for the environment.

The evaluation also considers environmental, social, cultural and economic outcomes seen so far, and whether these outcomes are in line with what was expected five years ago.

A healthy and productive Basin will take many years to achieve. At this early stage, there are some good signs the Basin Plan is working and on track in many areas. Progress is lagging in a few important areas, including water resource plans and compliance regimes.

Difficult and challenging work lies ahead to realise the benefits of the Basin Plan. The Basin Plan is a shared responsibility. Basin governments need to be fully committed and work together to implement on time and in full.

Due to the necessary data only just becoming available, the MDBA is undertaking further social and economic work to understand the contribution of the Basin Plan on irrigation-dependent communities. This work will be released in April 2018.



Basin Plan
Evaluation

What is being considered?



Is Basin Plan implementation on track?



What are the outcomes so far?



How can implementation be improved?

Social and economic outcomes



TOWNS AND RURAL COMMUNITIES

There have been population, demographic, and employment changes in towns across the Basin. Despite Basin Plan water recovery, the Basin's economy has continued to grow in line with expectations.

Population growth is occurring in larger regional centres, while there is population decline in smaller communities.

At the community level the impacts of water recovery have been different – some have had little impact, some have adapted and grown, and some have found the transition difficult.



IRRIGATION TRENDS

Despite Basin Plan water recovery, irrigated agriculture has remained a significant economic contributor to the Basin, valued at around \$7 billion per year.



WATER AND PEOPLE

In some places, there are early signs that healthy rivers and lakes can provide benefits to tourism and recreation. These benefits are expected to grow as implementation continues.



ON-FARM INFRASTRUCTURE INVESTMENTS

Investments in on-farm water savings have been shared between irrigators and the environment. This has helped minimise the impact of water recovery on irrigated industries and communities, and modernised irrigation networks.



ABORIGINAL OUTCOMES

Traditional Owners are increasingly involved in a range of water planning and management activities to get better social and cultural outcomes from Basin Plan implementation.

Environmental outcomes



ENVIRONMENTAL CHANGE TAKES TIME

A damaged ecosystem takes decades to revive. Where there is available information, early signs indicate the Basin Plan is on track to deliver long-term environmental outcomes.



IMPROVING FISH POPULATIONS

Native fish have responded positively to environmental water. It has been used to support endangered Murray hardyhead populations; ensure golden perch can move to suitable habitats; and has supported an increase in Murray cod breeding.



WATERBIRD NUMBERS

Over several decades, waterbird numbers have declined by 70%. Five years into implementation of the Basin Plan the rate of decline has reduced.



CHANGES TO VEGETATION ECOSYSTEM

There are early signs of positive responses of native vegetation to water delivered under the Basin Plan, such as growth of seedlings and saplings, and improvement in the condition of some river red gum forests.

Implementation outcomes



WATER RECOVERY

Of the original 2,750 GL target 77% has been recovered. Combined with the Sustainable Diversion Limit adjustment outcome, water recovery is nearly complete in most regions. The amount of buybacks has been less than originally expected.



COMPLIANCE

Basin governments must do more to increase the robustness, transparency and consistency of compliance. This will give communities greater confidence in the Basin Plan.

at risk



SUSTAINABLE DIVERSION LIMIT TRANSITION

There is a transition period between the 'Cap' system and 'Sustainable Diversion Limit' system. During the transition, the new water accounting methods are being trialled but substantial work remains.

at risk



REVIEWS AND ADJUSTMENTS

The Basin Plan is adaptive. Reviews have resulted in changes that will deliver better outcomes.



WATER RESOURCE PLANS

Water Resource Plans need to be accredited by 30 June 2019. Resources need to be focused on delivering the remaining plans. There is significant risk these plans will not be accredited on time. This work must further accelerate.

at risk



WATER MARKETS

The operation of the water market has been improved by removing barriers to trade. More information is publicly available to assist trade.



ENVIRONMENTAL WATER

More than 750 watering events across the Basin since 2013-14. Environmental water holders are collaborating to get the best outcomes.



WORKING TOGETHER

A healthy and productive Basin is a shared responsibility. Many agencies are involved in Basin Plan implementation and work together to deliver long-term outcomes. They must all remain committed to this task.



WATER QUALITY

Water quality is being managed across the Basin. Salinity targets have been met in 4 out of 5 locations.

Is implementation on track?

The evaluation has identified elements of future implementation that are key to delivering the best outcomes from the Basin Plan – in particular, the development of water resource plans and stronger compliance regimes – and has recommended ways to improve the delivery of these and other elements.

Outcomes report card and recommendations

The evaluation assesses the outcomes from five years of Basin Plan implementation compared with what was expected at the time of establishing the Basin Plan. This assessment will be supplemented by further work to explore social and economic outcomes at a community level. This work will be released in April 2018.

	Not as expected	Below expected	As expected	Above expected	Recommendations
Environmental outcomes					Basin governments should continue with full implementation of the Basin Plan by 2024, as the management of constraints, implementation of all aspects of the SDL Adjustment Mechanism, and protection of environmental water are critical to getting the best possible environmental outcomes.
Water quality and salinity outcomes					The 2020 review of salinity targets should examine the appropriateness of the target at Burtundy. The overall salt export objective should also be revisited in the context of the Basin’s variable climate.
Basin scale social and economic condition					
Effects of water recovery at the community scale					
Social and economic outcomes from environmental water					
Outcomes for Aboriginal communities					

Implementation report card and recommendations

The evaluation assesses the progress of implementation on the various Basin Plan measures. While listed individually, in practice they are an integrated set of implementation activities that work together to deliver the intended outcomes from the Basin Plan.

	Not started	Started at risk	Started on track	Done	Recommendations
Recovering water for the environment					Basin governments need to urgently complete work to finalise planning assumptions and the associated cap factors in order to clarify the remaining water recovery task and provide certainty for communities.
Managing environmental water					The Basin governments and the MDBA should review Basin Plan reporting to make it more useful for environmental water planning and management.
Maintaining water quality					Basin governments and the MDBA should continue to investigate and analyse data on dissolved oxygen levels and the transfer of organic matter into river systems to develop improved management actions which can help mitigate blackwater events.
Northern Basin and groundwater reviews					
SDL Adjustment Mechanism					Basin governments should more closely involve Basin communities in the design, implementation and delivery of the nominated projects to build community understanding and acceptance of the projects.
Water resource planning					Basin governments and the MDBA must redouble efforts and work closely together to get all water resource plans in place by June 2019. Dedicated resources and more efficient and streamlined processes will be essential to meeting timelines.
Transitioning to SDL accounting and compliance					The MDBA and Basin states must complete the large body of work remaining to develop a robust basis for measuring water take, and transparent reporting on SDL compliance.
Water trading rules					Basin states and the MDBA must give high priority to identifying and removing unreasonable restrictions on allocation trade, especially in the southern Basin.
Compliance					Basin states should adopt the recommendations in the MDBA's Basin-wide Compliance Review, and COAG should commit to a Basin Compliance Compact to be developed and published by 30 June 2018, with regular reporting thereafter.
Monitoring, evaluation and reporting					Basin governments should continue to support the shift to more evaluative Basin Plan reporting, and ensure Basin Plan monitoring, evaluation and reporting is actively used to improve Basin Plan implementation.

State of the Basin in 2017

The Murray-Darling Basin contains Australia's largest river system at 3,780 km in length, extending across 14% of Australia's landmass. The Basin is also one of Australia's most productive agricultural regions, producing more than one third of the nation's food.

Much has happened over the last five years, influencing the outcomes seen in the Basin today.

There are a number of issues the Basin Plan does not directly address. These external factors influence Basin Plan outcomes and will continue to do so.



2.66 million
people live in Basin



30,000+
wetlands



35,000 GLs
water storage



Over 3 million
people use water
from the Basin



77,000 km
of rivers, many are
connected



120
waterbird species
visit the Basin



\$8 billion
of tourism in the Basin



46
native fish species



16
RAMSAR listed sites



40+
Aboriginal nations



9,200
irrigated agricultural
businesses



10 years
the average time
between major droughts



95%
of diversions used
by agriculture



\$22 billion
agriculture, \$7 billion
irrigated agriculture

Roles and responsibilities



SUSTAINABLE DIVERSION LIMIT ADJUSTMENT MECHANISM

Basin states
propose and deliver projects

MDBA
program assessment and monitoring

Department of Agriculture and Water Resources
project funding and implementation



RECOVERING WATER

Department of Agriculture and Water Resources
strategic purchases and efficiency programs

Basin states
implementation of some efficiency programs



WATER RESOURCE PLANS

Basin states
development and implementation

MDBA
assessment and accreditation



COMPLIANCE

Basin states
implementation and enforcement

MDBA
monitoring and Basin-scale compliance



WATER FOR THE ENVIRONMENT

MDBA
Basin-scale planning, coordination and prioritisation

Basin states
local-level planning and implementation

Commonwealth Environmental Water Holder (CEWH)
Planning and implementation across the Basin



MONITORING AND EVALUATION

MDBA
Basin Plan evaluation and monitoring

Department of Agriculture and Water Resources
water recovery program monitoring

Basin states
reporting requirements

CEWH
monitoring results of environmental watering



RIVER MURRAY OPERATIONS

MDBA
operations and management

Basin states
day-to-day management of dams, locks, weirs and barrages



WATER MARKETS AND TRADE

MDBA
information and compliance

Basin states
implement the rules

ACCC
advice on rules and complaints

Basin Plan implementation is a shared responsibility. All agencies and governments involved with implementing the Basin Plan need to remain committed to delivering the Basin Plan on time and in full.

The 2017 Basin Plan Evaluation Report, along with technical reports that support the evaluation, can be found on mdba.gov.au.

