

Murray-Darling Basin Water Market Reform – Development of Implementation Roadmap

December advice

Daryl Quinlivan AO, Principal Adviser

Letter to Minister

The Hon. Keith Pitt MP
Minister for Resources, Water and Northern Australia
PO Box 6022
House of Representatives
Parliament House
Canberra ACT 2600

Dear Minister

MURRAY-DARLING BASIN WATER MARKET REFORM – DEVELOPMENT OF IMPLEMENTATION ROADMAP: DECEMBER ADVICE

Attached is my initial advice on a plan for implementing measures in response to findings set out in the Australian Competition and Consumer Commission (ACCC) report on water market reform.

As per the scope of work (set out at Appendix A), this advice sets out actions supported by Basin states that can be implemented quickly to help restore confidence in water markets. It also documents improvements already made or underway by Basin governments in this area and some observations about the planning for final advice to be provided in mid-2022. It has been prepared having regard to advice from the Advisory Group, initial engagement with industry, communities and other stakeholders, and working closely with Basin states.

The Basin states have responded positively to the ACCC inquiry, and the feedback to this roadmap process from all parties so far has supported the Commission's analysis and its proposed reforms generally. The concern this process will need to address is whether the Commission's recommended reforms are the most cost-effective policy responses to the generally accepted problem analyses when resources are limited and the agreement of all Basin governments is required.

Yours sincerely

A handwritten signature in purple ink, consisting of a stylized 'D' followed by a long, sweeping horizontal line.

Daryl Quinlivan
Independent Principal Adviser
16 December 2021

Contents

1	Introduction.....	1
1.1	Preamble	1
1.2	Context for the ACCC Inquiry.....	2
1.3	Why Basin water markets matter.....	2
1.4	What we learnt from the ACCC’s inquiry	3
1.5	The key task of developing the roadmap.....	4
2	Developing the roadmap: work completed to date	6
2.1	A collaborative approach to developing the roadmap.....	6
2.2	Enhancing the evidence base for a water market reform roadmap.....	6
3	Progress towards reform that is already in train.....	7
3.1	Improving transparency and enabling effective participation in water markets	7
3.2	Improving data and systems for water trading	7
3.3	Improving administration of interzone trade	7
3.4	Improving metering and monitoring of water take	8
3.5	Improving river operations and interactions with water markets	8
3.6	Improving integration of environmental water delivery and trade.....	9
3.7	Improving the evidence base for water market policy: research and development....	9
4	New commitments: in-principle support to new water market reform measures.....	10
4.1	Introduce Commonwealth legislation to establish a Basin-wide mandatory water market intermediaries’ code	10
4.2	Introduce Commonwealth legislation to prohibit insider trading and market manipulation across the Murray Darling Basin.....	11
4.3	Collect and publish further trade data, such as reasons for trade and ‘strike-date’ information	12
4.4	Develop and deliver a Commonwealth led Basin-wide water markets education program.....	13
4.5	Amend the Basin Plan to remove grandfathered tags exemption at the next available opportunity.....	14
5	Further development of the roadmap	15
	Appendix A: Scope of Work.....	17
	Appendix B: Actions underway to improve water markets and address issues identified by the ACCC	19

1 Introduction

1.1 Preamble

The Murray–Darling Basin (the Basin) is Australia’s largest river system, home to 2.2 million people and producing around 40% of our national food and fibre.¹ But water in the Basin is scarce, becoming more so over time, and where it is valued most changes over time.

Despite current La Nina conditions being experienced in many parts of the Basin, there is inescapable evidence of a very large reduction in the Basin’s water ‘yield’ over the last 20 years, 50% by some estimates.² Governments have also reduced the volume of water available for consumption within the Basin, with 2,100 GL/y of surface water and 35.2 GL/y of groundwater recovered for the environment³ to date, targeting a total of 2750 GL by 2024 under the Basin Plan.

We are also seeing strong demand for Australia’s food products, and therefore critical inputs such as water, and the highest levels of profitability in agriculture for many years. Together, these trends have seen substantial increases in water and rural land values.

There is good reason to believe these trends will be sustained for some time. Therefore, an efficient market for trading and accessing Basin water is a high priority, to ensure that Australia makes the most of this frequently scarce asset, and that the water market remains robust and resilient to support water users and communities throughout all stages of climatic cycles.

This advice is largely a progress update on work completed to date to develop a water market reform roadmap for the Murray–Darling Basin since the appointment of the Principal Adviser on 25 October 2021. It also includes an outline of progress outside of this process, which has been pursued by Basin governments, to address the findings of the Australian Competition and Consumer Commission (ACCC) Inquiry since the release of its report in March 2021. It also includes new measures, supported by Basin states, that can be implemented quickly as evidence of Governments’ commitment to improving the functioning of our water markets and to increase confidence in Basin water markets.

Final advice in the form of a roadmap will be provided in accordance with the Principal Adviser’s scope of work (see Appendix A) in June 2022. It will then be up to Basin governments to confirm and support these initiatives and continue to work closely with stakeholders and communities to implement the reforms.

Water market reform process



¹ This includes including 100% of Australia’s rice production, 80% of Australia’s grape production and 28% of Australia’s dairy production. Source: <https://www.mdba.gov.au/importance-murray-darling-basin>

² Interim Inspector-General of Murray–Darling Basin Water Resources 2020, *Impact of lower inflows on state shares under the Murray–Darling Basin Agreement*, p. 7.

³ As at 30 September 2021. Source: <https://www.mdba.gov.au/progress-water-recovery>

Timeline:

1. ACCC delivered inquiry final report in 2021
2. Appointment of principal adviser and advisory group

We are here in the process.

3. December advice
4. Final Roadmap June 2022
5. Government budget processes
6. Implementation of reform across the Basin

1.2 Context for the ACCC Inquiry

There have been long standing concerns about the performance of Basin water markets, the conduct of its participants and the systems that support it, despite little tangible evidence to support these concerns on the first two issues. This reflects similar concerns about the efficacy of the Basin reforms generally, and the difficulty that many have had distinguishing between the impacts and efficacy of water reforms, the operation of the water market, reduced water supplies and significantly higher entitlement and allocation prices.

Water markets are still relatively new, with uptake of allocation and entitlement trade only becoming significant during and since the millennium drought. The regulatory system to facilitate trading is similarly new. It is therefore not surprising that there was a perceived need to review that system with the benefit of some experience with its operation in practice.

The regulatory system's development was in part a response to the pressures of the millennium drought, and it has been further tested by more recent supply stresses. The three years from January 2017 to December 2019 were the driest on record for any 36-month period.⁴ During this time, the price of water across the Basin reflected limited supplies and raised concerns about the performance of Basin water markets.

In recognition of these concerns and the importance of a well-functioning water market, the Treasurer, the Hon Josh Frydenberg MP, directed the ACCC to investigate these issues and recommend improvements.

1.3 Why Basin water markets matter

The ability to trade water helps to ensure people can put it to its best use, among the many alternative agricultural, environmental, urban and cultural water uses. Water in the Basin is critical to the efficiency and productivity of Australian agriculture, which is a major contributor to our regional economies.

Over the past decade, Basin water trading activity has grown considerably. The Basin-wide set of markets now have an average annual value of more than \$1.8 billion, with the underpinning value of entitlements in the southern Basin alone estimated to be around \$26.5 billion⁵ and rising.

⁴ When averaged over the Murray–Darling Basin and New South Wales. Average rainfall for the Murray–Darling Basin was more than 100 mm lower than the second driest period (January 1965 to December 1967). Source: Bureau of Meteorology, at <http://www.bom.gov.au/climate/drought/knowledge-centre/previous-droughts.shtml>

⁵ Aither, *Water Markets Report 2020-21*, p.5.

Other than economic value, there are several reasons why water markets have rapidly grown from infancy to be increasingly important:

- Irrigated agricultural production in the Basin is changing in response to climatic and regulatory factors (such as land use and planning controls) and strong international food and fibre markets. This has increased the desire to move water between locations and between agricultural sectors for commercial reasons
- New entrants, such as environmental water holders and cultural users, bring different demand and operating needs to water markets
- Governments have invested in better mechanisms for water trading and reduced restrictions on the movement of water access, reducing the costs of trading and increasing the returns from water use
- Water trade service providers such as brokers, exchange platforms and irrigation infrastructure operators have created new products such as leases, forward contracts and carryover parking, which provide increased flexibility for water traders and users
- In response to decreasing long-term water availability and reduced consumptive water shares, water users increasingly rely on water markets to manage their water needs and risks more effectively.

1.4 What we learnt from the ACCC's inquiry

While Basin markets have generally brought strong benefits to water users across the Basin, it is not surprising that there is scope for improvements in many areas. This market has mostly developed over the last 20 years⁶ and with minimal formal regulation of the kind that has developed in other trading markets over many decades.

The ACCC conducted a thorough research process. It received over 221 submissions, consulted widely, and tested hypotheses about market manipulation against over 8 million water market and water use transactions.⁷

The Commission's general conclusions were:

- there is a lack of quality, timely and accessible information for water market participants
- there are inadequate rules governing the conduct of market participants, and no particular body to oversee trading activities
- trading behaviours that can undermine the integrity of markets (such as market manipulation) are not prohibited, insider trading prohibitions are insufficient, and information gaps make these types of detrimental conduct difficult to detect
- 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
- irrigators and traders would benefit from governments providing better information on key policies and river operations

⁶ ACCC 2021, *Murray–Darling Basin water markets inquiry – final report*, p. 1.

⁷ During the course of its inquiry into Murray–Darling Basin water markets, the ACCC compiled a database of over 8 million water market and water use transactions from 2012–2019. Water market transactions were collected from a variety of public and private trade service providers, and a trade may have been represented multiple times in the database depending on its source and destination zones and whether intermediaries were used to facilitate the trade.

- the complex nature of the Basin’s market settings means the trading systems and opportunities favour professional traders and large agribusinesses with greater capacity to understand and participate in water markets
- the way the Southern Basin’s market architecture manages the hydrological characteristics of storages and river systems does not always adequately reflect scarce storage and delivery capacity or signal the cost of trading decisions
- changing conditions, such as reduced inflows, shifts in water use, declining channel capacity and increasingly binding trade restrictions are challenging key assumptions that underpin trade arrangements.

Basin water markets are continually evolving and the ACCC found that they have outgrown their regulatory framework and the infrastructure that supports trading. It found that the regulatory and digital infrastructure supporting water markets is not consistently delivering the information needed – to decision-makers, current and potential market participants, and the community more broadly. And as outlined by the ACCC, transparency, and good quality and timely water information, is essential to improving market confidence and enabling better-informed trading decisions.

To ensure water markets can deliver for all users into the future, governments need to improve the frameworks underpinning water markets and invest in the systems and infrastructure that support them. Doing so will support goals for Australian agriculture growth, ensure environmental water can be moved to where it’s needed, and enable new participants to make informed decisions as they enter water markets.

The early feedback during this process is that the Commission’s analysis and findings are widely supported, with queries about the most cost effective ways to implement the proposed improvements.

1.5 The key task of developing the roadmap

The Commonwealth Minister for Resources and Water, on behalf of the Murray–Darling Basin Ministers, has asked the Principal Adviser to develop a “roadmap” for implementing water market reforms, having regard to the ACCC report and recommendations. This task is being assisted by the active engagement of the Basin States, evidenced by the significant progress these governments have already made in improving Basin water markets in recent years and documented in this report. The Adviser has also been assisted by market participants and an Advisory Panel appointed by the minister.

The process of developing the roadmap will involve examination of all of the ACCC’s water market advice – spanning 29 recommendations and 70 individual reform actions. In considering this expansive body of work with the Basin states, the Advisory Group, stakeholders and communities, we are keeping front of mind the following policy principles or goals, based on the ACCC’s final report, for water market reform:

- Improving **data quality, transparency and system integration** between trade service providers
- Ensuring **integrity** of the market - improving trust & accountability
- Improving **market architecture** to mitigate third party impacts and better integrate trading with water management

- Enabling **effective participation** by reducing barriers to entry and enabling informed decision-making (improving information resources and transparency of policy).

Each of these policy priorities is important to the roadmap – and the Principal Adviser will be seeking to strike the right balance across them to ensure that the roadmap is cost-effective and can be implemented in practice.

Developing the roadmap does not involve repeating the ACCC inquiry process. Given the ACCC's extensive analysis and the limited scope of this roadmap, governments will need to undertake further implementation and policy development to implement this set of water market reforms. Decisions on resourcing and the allocation of responsibilities based on this roadmap will be critical elements of this implementation process.

The roadmap will also not involve revisiting the policy decisions that provide the foundations of today's water markets (such as re-bundling land and water rights or making the ability to trade water conditional on its use) and the investments in increased agricultural production that have resulted.

The roadmap does involve working with Basin states and engaging with stakeholders and communities to develop a phased and practical plan for water market reform based on the ACCC's advice, and where relevant, alternative options. We will be focusing on:

- **What** actions should be undertaken as a collective of Basin governments and why – whether that be an action the ACCC recommended, or another, having regard to both costs and benefits of actions
- **When** the actions should be undertaken (both in terms of sequencing and timeframes), having regard to the key steps involved in implementing actions and the anticipated impacts
- **Who** should be responsible or involved in taking the action
- **What** are the likely costs and **how** should the costs of implementation be funded.

The ACCC proposed wide-ranging and comprehensive reforms to support the future growth of water markets in the Murray–Darling Basin. And while it produced strong and innovative solutions to multi-faceted and complex problems, it did not have the opportunity to really test the practicality of implementing these reforms with government or non-government parties, nor to account for resourcing constraints.

Therefore, the ACCC's recommendations need to be carefully considered with Basin governments, having regard to those implementation constraints and in the context of an established (if very complex) water management regulatory framework. This is an opportunity for reforms that will help shape the future of the agricultural sector, the communities and natural assets in the Murray–Darling Basin.

2 Developing the roadmap: work completed to date

2.1 A collaborative approach to developing the roadmap

Since being appointed in late October, the Principal Adviser has worked with Basin government officials to understand reform priorities and has seen strong engagement and commitment from all governments. This has allowed this advice to include in-principle support for five initial reform actions, outlined below. These are additional to the work that has already been progressed independently by Basin governments since the ACCC's inquiry that address its findings, also outlined below.

The Principal Adviser has met with the advisory group since their appointment on 11 November 2021, and commenced discussions with irrigation infrastructure operators, water market brokers and community members generally, including to discuss areas of potential reform that could directly affect business models and impose compliance costs.

It is also apparent that the community's continued access to this roadmap process and ability to provide advice will be important. The Principal Adviser has also reached out to Traditional Owner and environmental groups in respect of this roadmap project and hopes to have the opportunity to hear their views and concerns early next year.

These discussions will continue as the roadmap is developed, with the aim that affected parties understand the impact of proposed reforms, that those impacts are proportionate, and that water reforms deliver benefits to Basin communities.

2.2 Enhancing the evidence base for a water market reform roadmap

In addition to the significant evidence gathered by the ACCC, the following actions have been undertaken to help ensure that the roadmap's reform actions are sound and adequately consider benefits and costs for affected parties:

- Engaging with the ACCC to ensure the ACCC's recommendations are well-understood.
- CSIRO is consulting with trade service providers (including those administering state water registers) to understand what changes would be required to their systems to improve data flows between trade service providers and enable them to provide government with the necessary information to improve water market data and regulation.
- Work to assess potential costs and benefits has begun. This will provide a basis for comparing proposed and alternative reform measures and assist in guiding judgements about resourcing requirements and minimising complexity.

3 Progress towards reform that is already in train

Basin governments have already made substantial progress in addressing the ACCC's findings. This work is described below and outlined in further detail in Appendix B to this advice.

3.1 Improving transparency and enabling effective participation in water markets

The ACCC recommended several actions to improve the accessibility of meaningful water management and market information, to improve the effectiveness of stakeholder participation in water markets, increase trust and confidence, and encourage new entrant participation. In this regard, Basin states have improved the transparency of how water is managed. Currently, all Basin states and the MDBA publish information on water markets and relevant policy, and regulation within their jurisdictions.

There are also a range of digital resources available, such as online information portals, webinars held by the MDBA and Basin state agencies, and the Waterflow platform developed with funding from the Commonwealth Government.

3.2 Improving data and systems for water trading

The ACCC recommended both making incremental improvements and significant new investments to improve the data and systems for water trading. These recommendations underpin a number of benefits, including enabling effective oversight of water market activity, better and more timely data and information for traders, reducing transaction costs of trade and improving competition in trade service provision.

The ACCC's report acknowledged that significant improvements in water trade data and systems were already underway during the timeframe of the Inquiry. These improvements have carried on into 2021. Most jurisdictions have now launched new or improved online platforms or mobile apps to allow better access to data and information in their jurisdictions, and some states have started collecting and/or publishing new data to respond to traders' and water users' information needs. The Commonwealth government is also continuing to invest in the Bureau of Meteorology's broader water information functions.

3.3 Improving administration of interzone trade

Trade between zones, including interstate trade, is subject to a range of restrictions that reflect underlying hydrological limits and water supply and environmental considerations. Trade restrictions are managed by the states and the MDBA. The ACCC found that, generally speaking, Basin water trading systems and opportunities are best understood and leveraged by professional traders and large agribusinesses with the time and knowledge to analyse and navigate them. Further, the ACCC identified that a key area where significant imbalances exist is in relation to inter-zone trade, where trade is restricted by volumetric limits (in particular, the Goulburn and Murrumbidgee IVT limits, and the Barmah Choke downstream trade restriction).

Basin states and the MDBA are continually working to improve the administration of interzone trade within the existing rules framework, both jointly and within their respective jurisdictions. Recent actions include providing greater transparency of how trade limits work and when interzone trade opportunities are anticipated to open. Southern jurisdictions have also been working together to improve the efficient and effective operation of administrative procedures for interstate trade and water orders.

ACCC recommendations to improve the digital infrastructure supporting interzone trade (and trade more generally) and consider more fundamental changes to the way interzone trade works (to consider whether rules themselves can be improved) will be further considered in the next phase of the roadmap's development.

3.4 Improving metering and monitoring of water take

Robust and consistent metering and measurement requirements provide communities and water users with confidence that rules are being applied equally to all water users and can be enforced appropriately. Inconsistent metering standards and telemetry capabilities across states can lead to actual or perceived unfair advantages in water markets and is a concern for some jurisdictions requiring further analysis.

Nevertheless, Basin states are on the trajectory of continuous improvement and harmonisation of metering standards and technology, and the roll out and monitoring to measure overland flow. All states are in various stages of developing and implementing new metering standards (such as Australian Standard 4747 and Metrological Assurance Framework 2) and telemetry requirements, which are essential steps toward harmonisation and reducing inequities across the Basin. In addition to reporting and other commitments under the [Murray Darling Basin Compliance Compact](#) (compliance compact), Basin states are now subject to increased oversight by the Inspector-General of Water Compliance (Inspector General), who can also issue metering standards that must be considered by Basin governments.

Although approaches vary across jurisdictions, Basin states have been improving their processes for enforcing take rules and metering requirements, including to prevent water users being able to go into negative balance. An identified focus of the newly established Inspector General includes addressing barriers that inhibit Basin state compliance and enforcement functions of this nature. These actions go some way towards eliminating the inequity for market participants arising from differing requirements across jurisdictions.

3.5 Improving river operations and interactions with water markets

The ACCC identified that delivery issues affect water market outcomes and are influenced by trading activity. Market mechanisms could form part of a suite of solutions to address delivery risk.⁸

The MDBA and southern Basin states are already progressing work to address delivery risks under the 'Capacity and Delivery Shortfall' project. Southern Basin states have emphasised the importance of this work and the opportunity it presents to meaningfully address delivery risk.

⁸ Delivery risk is the risk that water cannot be delivered according to demand. It can arise from a delivery shortfall (occurring when water cannot be delivered according to demand due to the long travel time between storages and the point of extraction) or a system shortfall (where there is insufficient water available to meet total system demand).

Further development of the roadmap will consider how that process can be best supported to ensure it considers the relevant issues raised by the ACCC Inquiry.

3.6 Improving integration of environmental water delivery and trade

Although environmental water holders are not significant participants in water markets (despite being large entitlement holders), delivery of environmental water can affect trading frameworks.

In response to advice provided by the ACCC, the MDBA has assessed possible options for the operation of Section 12.02 of the Basin Plan Water Trading Rules as it relates to the movement of environmental water. Some Basin states have also made progress to better clarify delivery rights for environmental water and are joint proponents on programs for enhanced environmental water delivery in the southern Basin.

3.7 Improving the evidence base for water market policy: research and development

Water management and policy is an increasingly complex area which relies heavily on the use of models of both hydrological systems (catchments, rivers, dams etc.) and economic systems (water markets, irrigation farms etc). The ACCC recommended that Basin governments collaborate on research to better inform policy decisions and continued improvement and development of modelling tools.

In this regard, the Australian Government's 2021-22 Budget included new funding to improve the MDBA's hydrological modelling capacity, and other Basin governments are also continuing efforts to progress and improve hydrological modelling. This work, in combination with hydro-economic modelling capabilities, will be crucial to establishing a common modelling framework for assessing the effects of policy changes, climate impacts and other developments on Basin water markets and water management across the Basin more broadly. This will be important as the Basin's physical systems experience more stress and a need for more effective risk management in policy, operational and commercial decision making.

4 New commitments: in-principle support to new water market reform measures

Basin states have provided in-principle support to include the actions outlined in sections 4.1 to 4.4 below in the first tranche of implementation measures, with further implementation details to be included in the final roadmap. The action outlined in section 4.5 could be implemented by amending the Basin Plan at the next available opportunity.

4.1 Introduce Commonwealth legislation to establish a Basin-wide mandatory water market intermediaries' code

Water market intermediaries, including brokers, play an important role in water markets. They help potential buyers and sellers assess the market, form price expectations, make decisions and provide exchange platforms that facilitate direct trading between buyers and sellers.

However, water market intermediaries are also currently subject to limited regulation to define the acceptable terms of the relationship between intermediaries and their clients. Regulatory safeguards that apply to intermediaries in other markets (e.g. real estate agents, stock brokers and stock and station agents) do not apply to water market intermediaries. A voluntary code introduced by the Australian Water Brokers Association (AWBA) has not been broadly adopted by the industry and is generally viewed by stakeholders as ineffective.⁹

Throughout its investigations, the ACCC found the potential for, but little evidence of actual, misconduct by water market intermediaries. However, the lack of oversight has fuelled concerns about intermediary conduct and contributes to the lack of confidence in water markets often expressed by stakeholders. The ACCC therefore recommended an intermediary code be established as a proportionate response to ensure traders can have confidence in intermediaries, without undue regulatory burden for intermediaries.¹⁰ This would bring the disciplines existing in other trading markets to water market intermediaries.

The AWBA now considers that enhanced regulation of this kind is a priority to support the reputation and professional standards of intermediaries. Regardless of the actual current extent of unconscionable conduct by intermediaries, increased regulation and clarity of the obligations of those providing these services is seen as a priority by Basin states, irrigator organisations and businesses.

⁹ While Victoria has a well-established annual audit of water brokers' use of the Victorian Water Register's Broker Portal, its scope is limited to the preparation and submission of documents for approval of trade within Victoria.

¹⁰ Note that this differs from the licencing option which was the subject of a 2014 COAG consultation RIS on options for regulation of water market intermediaries. At that time, governments opted to trial an industry-led voluntary code of conduct approach (i.e. the AWBA Voluntary Code of Conduct), due to concerns about regulatory burden and an absence of evidence that a lack of regulation was causing significant concerns for traders. The ACCC considered whether a licensing scheme (with the ability to revoke a licence) would be an appropriate regulatory tool, however it found that licensing would impose a disproportionate regulatory burden on intermediaries, and therefore didn't recommend this option.

As a result, Basin states have provided in-principle support for Commonwealth legislation to be introduced as part of the first tranche of implementation measures to implement an intermediaries code, applicable at least across the Basin. Imposing a new code of conduct on water market intermediaries will improve the integrity of and trust in water market intermediaries, giving users of those services greater protection and confidence, helping to increase participation in water markets. A Commonwealth implemented code will minimise the duplication of administrative costs and provide a consistent level of protection to water users using intermediary services across the Basin.

Basin state support for this action is subject to resolving implementation mechanisms and details being worked out in developing the roadmap. These include:

- the extent to which irrigation infrastructure operators provide water market intermediary services, and how these operators should be subject to the mandatory code
- responsibility for regulating compliance with the intermediaries' code, and what (if any) additional powers or regulatory tools are required to achieve effective compliance and enforcement
- whether the mandatory Commonwealth water market intermediaries' code should have broader applicability beyond the Basin, and if so, on what basis, and
- resourcing arrangements.

As with a number of ACCC recommendations, implementation of this commitment raises questions about the ACCC's recommendation to establish a new central water markets agency to, among other functions, regulate compliance with an intermediary code.

We will also work with Basin states to consider the value of promoting uptake of the voluntary intermediaries' code, while a mandatory code is developed.

4.2 Introduce Commonwealth legislation to prohibit insider trading and market manipulation across the Murray Darling Basin.

There are significant disparities in the capacity of commercial entities to participate in Basin water markets. This has always been the case between larger and smaller agribusiness firms (as in other markets) but has increased with the entry of investors over the last decade. This has led to a lack of trust in their role and conduct, in part because of the inadequate rules governing the conduct of market participants generally.

The ACCC conducted an extensive analysis of trade transactions and did not find evidence that market manipulation, insider trading or collusion had occurred. However, it did conclude that opportunities for market misconduct existed, and that there were insufficient regulatory tools for addressing misconduct if it arose.

As a result, Basin states have provided in-principle support for Commonwealth legislation to be introduced to prohibit insider trading and market manipulation across the Murray–Darling Basin as part of the first tranche of implementation measures. Due to water trading activity crossing state boundaries, a state-based approach to regulating water market conduct would be unwieldy and would likely be insufficient to enable effective compliance and enforcement of all

trading activity. This would address an anomaly as these conduct rules do apply to equivalent service providers in other trading markets.

Basin state support for this action is subject to settling implementation details in developing the roadmap. These include:

- whether the regulation should extend beyond the Basin, and if so how
- responsibility for regulating compliance with the conduct offences
- what other reforms should be pursued to ensure the regulator has sufficient powers to ensure compliance and enforcement of water market conduct regulation
- how the regulator will be resourced to carry out its compliance and enforcement functions.

4.3 Collect and publish further trade data, such as reasons for trade and ‘strike-date’ information

Strike date information (being information on when a trade was agreed upon) enables market participants to have an understanding of market price and depth, a regulator to monitor market activity (enabling it to match trade data between water registers and trade service providers’ systems) and market analysts and policy makers to understand water market supply and demand fluctuations. Strike date information is particularly important for temporary markets, where in some circumstances, prices can change rapidly. It helps water market participants have a clearer understanding of how much water was traded in different trading zones and to accurately calculate the average/median market price on any given date.

Further, there is generally no clear compliance and monitoring role assigned to state agencies to ensure price reporting by sellers is accurate.¹¹ However, requiring traders to disclose a ‘reason for trade’ on trade forms will enable price reporting to be monitored. For example, it can help understand \$0 trades. Capturing ‘reason for trade’ data can also enable more precise price calculations (e.g. filtering out of certain types of trades such as transfers between related parties, forward contracts, carryover parking, etc. when calculating average or median prices for ‘spot’ allocation markets).

Currently, all southern connected Basin states (NSW, Victoria and South Australia) require price data to be reported and only accept \$0 trades under limited circumstances, in which case, a reason for trade must be provided. This also applies in Queensland in respect of permanent trades. NSW and Victoria (in relation to its online form) also require all of their allocation trades to be accompanied by ‘strike date’ and a ‘reason for trade’. Both states have recently commenced publishing this data.

To improve the collection and availability of this information, South Australia has also agreed to start collecting strike date and reasons for trade data as part of its upgrades to its soon to be launched Water Management Solutions program, and this will occur in the next 1-3 years.

Further, as part of the first tranche of implementation measures, South Australia, NSW and Victoria have provided their support to making legislative changes to enable the Bureau of Meteorology to collect and publish strike date and reasons for trade information, so that in

¹¹ An exception is in respect of permanent water trades, including water trades associated with property transactions in Queensland. In that circumstance, this role is assigned to Titles Queensland and the Office of State Revenue.

addition to state-based publication, this information can be made available consistent with other Basin-wide water and water market information published by the Bureau of Meteorology.

4.4 Develop and deliver a Commonwealth led Basin-wide water markets education program

Australian water markets have expanded significantly since the 1990s and become increasingly complex. More than ever, stakeholders need quality, timely and readily accessible information to navigate water markets and operate effectively. A lack of readily accessible (rather than just available) information affects users' confidence in markets and their willingness to participate.

More broadly, with increasing pressures on water availability and the need to manage supply and price risks, there is a keen interest in understanding how allocation decisions are made by governments and influences on water supply. The current labyrinth of information is an additional and significant barrier to improving water market literacy (and water literacy more broadly) within communities, hindering confidence and trust in water markets. To that end, education and water market literacy will assist stakeholders to make best use of the right information for their circumstances.

The ACCC found that greater transparency around decisions, education and access to meaningful information on water markets would improve confidence in market participation, support better decision making and encourage greater engagement by irrigators and other water users.

Basin states have made progress towards promoting transparency of how water is managed. Currently, all Basin states and the MDBA publish information on water markets and relevant policy and regulation within their jurisdiction. There are also digital resources available containing Basin-wide information such as the Waterflow platform, developed with funding from the Commonwealth Government.

In addition to these recommendations on improving information availability, the ACCC also recommended establishing a Basin-wide education program. This recognises that improving information availability is insufficient – water market participants also need to be enabled to make better use of available information.

Basin states currently publish educational material on water markets individually (except the ACT, given the infancy of its water market). The MDBA produces webinars focused on different aspects of water management and river operations across the Basin.

But while each jurisdiction individually provides information on water trading rule reviews and other decisions affecting water markets, it is difficult for water users and the community more broadly to find information across multiple jurisdictions, and each jurisdiction differs in the level and method of information provided. This can undermine stakeholder confidence that they understand the full framework of rules applying in their context or trust in water management and water markets more generally. The difficulty to engage with different processes can also create barriers to entry to meaningful and individual participation in water markets.

Increasing education, including to ensure accessibility to clear and relevant information, will assist current and potential market participants to better understand water products and

trading rules, and to engage confidently in water trading. It will also assist the development of water markets in jurisdictions where those markets are less mature.

Accordingly, all Basin states have provided in-principle support to implement a Basin-wide Water Market Education Program in this first tranche of implementation measures. The details of this initiative will be worked out in developing the roadmap.

4.5 Amend the Basin Plan to remove grandfathered tags exemption at the next available opportunity

Rule 12.23 of the Basin Plan generally provides that orders placed under a ‘tagged water access entitlement’ (to allow water arising from a right in one location to be extracted from a different location) are subject to the same restrictions applying to any allocation trade between those two locations. However, clause 12.23(2) exempts water access entitlements established before 22 October 2010 from this restriction – ‘grandfathering’ those entitlements.

Under current arrangements in some states,¹² the owners of grandfathered tags may be able to order water for delivery from one zone to another, at times when trade restrictions prevent others from similarly moving their water between these same locations by allocation trade. This:

- creates an advantage for the grandfathered tag holder, who can access their water in the destination zone when others can’t, and
- influences inter-zone trade opportunities by affecting the relevant inter-valley or interstate account balances, which are credited or debited (depending on the direction of the tag) when water is ordered under a tag (as well as when water is traded).

The ACCC inquiry found the exemption in the Basin Plan water trading rules to be inequitable and that there was broad scale support for its removal. Basin states have agreed with the ACCC recommendation that it should be repealed and support the removal of this exemption at the next available opportunity via an amendment to the Basin Plan.

¹² Note that Victoria implemented interim restrictions on tagged use in line with trade restrictions, and on November 20201 announced that these restrictions would become long-term. See [Restrictions on tagged use to become long-term from 30 November 2021 - Water Register](#), accessed November 2021.

5 Further development of the roadmap

This roadmap development project formally commenced on 25 October and there has been substantial progress, with strong engagement and commitment to reform from Basin states in developing this initial advice. This augurs well for the remainder of the project and so too does the positive early engagement with service providers and broader community in the Basin, noting however the more difficult issues are ahead of us.

It seems likely that the most significant measures to be considered will be improving the systems and supporting infrastructure for recording and reporting trade transactions and related market information. Improving both public and private digital infrastructure and the collection of water market data could improve decision making by all market participants and regulators, provide better access to information and improve confidence and participation of water users. Greater transparency will, to some extent, offset the unavoidable complexity in the Basin arrangements, and suspicions about the conduct of others that has affected water management for many years.

However, these improvements will require investment, probably by both governments and water industry participants. The Basin water market remains a small sector and these measures will need to be designed with that in mind, focussing on affordable, cost-effective options. The same considerations will apply in other areas, including new professional services regulation, where care will be required to avoid creating unnecessary barriers to entry. Our engagement with communities, water users and trade service providers will be central in navigating these issues.

On those matters proposed for in-principle agreement in this advice, implementation details still need to be worked out, including responsibility for policy and enforcement.

The ACCC has proposed the creation of a new central Water Markets Agency which undoubtedly has the potential to benefit the operation of Basin water markets and provide much needed clarity to the responsibility for the performance of the water market. Early feedback to this process has highlighted the already congested governance of the Murray–Darling Basin, a desire for less agencies operating in a simplified governance structure where it is clear who is responsible for what functions, and concerns about additional overhead costs on a small industry.

The allocation of existing and new responsibilities, and the resulting accountabilities, is a crucial question for this project, and these considerations will need to be weighed carefully in developing advice for ministers.

As this program develops, the secretariat will update the website on opportunities to participate (see www.awe.gov.au/water/policy/markets/reform).

I look forward to providing a practical plan for implementing water market reform in mid-2022.

Daryl Quinlivan

Principal Adviser

Water market reform

16/12/2021

Appendix A

SCOPE OF WORK

Murray-Darling Basin Water Market Reform – Development of Implementation Roadmap

Overview

The Australian Competition and Consumer Commission (ACCC) released its final inquiry report on Murray-Darling Basin water markets on 26 March 2021 (ACCC report). The ACCC recommended significant and wide-ranging water market reforms.

The Minister for Resources and Water has engaged an Independent Principal Adviser supported by an advisory group to work with the Australian Government, Basin states, industry, communities and other stakeholders to develop a phased, practical and cost-effective plan for water market reform having regard to the ACCC's findings and recommendations.

Role of the Principal Adviser

Having regard to the ACCC report, the Principal Adviser is required to:

- 1) Provide advice by December 2021 on actions supported by Basin states that can be implemented quickly to help restore confidence in water markets.
- 2) Develop a phased implementation plan ('roadmap') for water market reform that is practical, cost-effective and supported by Basin states, by June 2022.

The roadmap must include an outline of the rationale for the design of the roadmap.

Note: In providing the two key deliverables, the Principal Adviser must include any dissenting or divergent views of the advisory group to ensure full transparency.

Role of the advisory group

The advisory group, consisting of technical experts and water market stakeholder representatives, is to provide advice to the Principal Adviser on economics, water markets, and anticipated impacts of proposed reforms on water users.

Development of the Implementation Roadmap

In preparing the roadmap, the Principal Adviser is to:

- work closely with the Australian Government and Murray-Darling Basin states, including via the Basin Officials Committee and the Ministerial Council
- seek advice from the advisory group on the proposed roadmap and process for developing it
- consider appropriate cost-sharing arrangements between the Australian Government and Basin states and (if appropriate) cost recovery arrangements for water users and other beneficiaries

- engage with industry, communities, and other stakeholders
- have regard to
 - opportunities to build on relevant water market initiatives being progressed by Basin states
 - the water trading commitments under the 2004 National Water Initiative, the Productivity Commission inquiry into the National Water Initiative, National Water Reform 2020, the Murray–Darling Basin Compliance Compact and other relevant Commonwealth legislation such as the Water Act 2007, the Basin Plan and the Murray–Darling Basin Agreement
 - the potential for unintended consequences of implementing new regulatory arrangements and administrative processes.

The Principal Adviser is to provide advice on initial actions agreed to by Basin states to the Minister for Resources and Water by December 2021, and a final roadmap by June 2022.

The Australian Government Department of Agriculture, Water and the Environment will provide secretariat support to the Principal Adviser and advisory group.

Background to Murray-Darling Basin Water Markets Implementation Roadmap

On 26 March 2021, the ACCC released its final report on markets for tradeable water rights within the Murray-Darling Basin. The Australian Government announced the inquiry in August 2019. The ACCC consulted with a wide range of water market participants across the Murray-Darling Basin. The ACCC report concluded that the market had outgrown the underlying governance, regulatory, and information framework, and that these issues are undermining market confidence and diminish the economic output derived from the Basin's scarce water resources. The ACCC put forward 29 integrated recommendations aimed at enhancing markets for tradeable water rights, restoring confidence in water markets, and improving market operation and efficiency so they work better for participants and the Australian economy.

To enable a clear pathway to be identified for progressing water market reforms it is important that there is consultation and coordination with Basin states and other water market stakeholders. This will ensure that the reforms that are needed meet the expectations of water market participants.

The Australian and state governments share responsibility for the Murray-Darling Basin. Basin state governments are responsible for water licencing arrangements and have regulatory and operational responsibility for water markets under state legislation. Agreement with Basin states and cost sharing will be critical to water market reform, and it will be important that, to the extent appropriate, reforms apply uniformly across the Basin.

The roadmap should clearly identify the initiatives that should be progressed to improve water markets across the Basin and address the findings of the ACCC Inquiry.

Appendix B: Actions underway to improve water markets and address issues identified by the ACCC

The table below sets out actions Basin governments are already undertaking to improve water markets and transparency for water traders and water users more generally and respond to the issues identified in the ACCC inquiry. Note that the listed actions may not fully address the ACCC's recommendations; further considerations of the full suite of actions by government to improve water markets will be set out in the final June 2022 roadmap.

Jurisdiction	Actions already underway	Relevant ACCC recommendation(s)
Improving metering and monitoring of water take		
Cth	Creation of the Inspector-General of Water Compliance (IGWC) to increase oversight. The Inspector General also has the power to issue metering standards that must be considered by Basin governments. Water metering and measurement is a current compliance priority for the IGWC.	R17–Strengthen metering and monitoring
NSW, VIC, SA	Compliance and enforcement efforts to identify and prevent water users being able to go into negative balances are led at the state level and balanced against other compliance and enforcement priorities within each state. While current approaches vary, NSW, Victoria and South Australia are continuing compliance and enforcement efforts to prevent water being taken when accounts are in negative balance. For example, Victoria has a zero-tolerance policy for unauthorised take, but compliance and enforcement of the policy is the responsibility of each water corporation and different approaches may be taken. In NSW, the Natural Resources Access Regulator (NRAR), with support from WaterNSW, has detected and investigated breaches of overdrawn accounts. Metering and overdrawn accounts are two of NRAR’s four regulatory priorities for 2021–22. South Australia’s recent increase in the frequency of meter compliance accounting (from annually to quarterly, with the application of mandatory financial penalties for any unauthorised use) has also gone some way to improve these matters.	
All	All Basin states continue efforts to harmonise metering standards and NSW and QLD efforts to regulate and measure overland flows. The Commonwealth has committed \$25 million to support the delivery of stronger compliance in the northern Basin. The program will provide better access to accurate, near-real water information in both NSW and Queensland. Victoria is prioritising telemetry in high-risk areas, and those with the most active markets as part of this roll-out. The NSW Government has also committed \$23.6m to accelerate the implementation of telemetry in the southern Basin in NSW as well as in coastal areas outside of the Basin. This includes \$9m of rebates for water users and \$14.6m to upgrade government owned meters.	
Improving administration of interzone trade		
NSW	WaterNSW has sought feedback from water market participants on issues and options relating to the current application process and administration of the Murrumbidgee IVT.	R5–Implement technical and procedural solutions to

Water Market Reform Roadmap—December Advice

Jurisdiction	Actions already underway	Relevant ACCC recommendation(s)
VIC	Victoria has announced that interim regulations restricting tagged water use in line with trade are to be made enduring, to keep a level playing field for all types of trade and help protect the health of the lower Goulburn River. Victoria has also improved the information available on the interzone trade limits they manage.	provide consistency for interzone trade; R22–Improve intervalley trade mechanisms
IGWC	The IGWC is currently finalising an audit into interstate trade in the NSW/Qld Border Rivers.	
Cth, NSW, VIC, SA	Tagging water access entitlements for extraction in another location is one form of trade. MDBA has completed a review of tagging arrangements for interstate tags in the southern connected Basin. This will result in an improved manual for authorities involved in administering tagging, and recommendations to improve the protocol (made under Schedule D of the Murray–Darling Basin agreement) which governs administration of tagging.	
Cth, NSW, VIC, SA	MDBA has commenced its review of Schedule D of the Murray–Darling Basin Agreement, which underpins interstate trade in the Southern Connected Basin. Noting the linkages with the development of the water market reform roadmap, this review will be conducted in several phases, with the first phase dealing with Schedule D issues that are less related to the roadmap development	
Improving data and systems for water trading		
NSW	WaterNSW’s ‘WAVE’ program will improve digital infrastructure for processing trades and managing water accounts in NSW. This upgrade intends to deliver new functionality including an online Customer Portal where customers can submit allocation trade applications online, as well as view their water allocation accounts and access a self-service guided application selection and submission process for Licences, Approvals, Water Trading and Orders including detailed water account information.	R6–Reshape current information portal initiatives; R15–Increase the transparency of allocations decisions and the drivers of water availability
NSW	NSW DPIE’s trade dashboard and WaterNSW’s WaterInsights Portal publish detailed water information, including allocation trade data for the NSW Murray Regulated River water source which clearly identifies which water management zone(s) are associated with the trade.	R6–Reshape current information portal initiatives
Victoria	Victoria has recently updated its presentation of aggregated trade data for the Victorian Murray, and now clearly identifies the trading zone(s) associated with the published median prices.	
SA	SA is currently implementing its new online water register and trading system, Water Management Solutions (WMS). Among other features, WMS includes functionality to enable market participants to submit water allocation and entitlement trade applications, licence alterations, enact payment for services, and also includes a customer portal where customers can view their allocation accounts, approvals and detailed water account information.	
All	Basin states and Commonwealth government information portals now make available easily accessible metadata on how price series are calculated and explain data cleaning processes undertaken prior to derivation of aggregate or average price series.	

Water Market Reform Roadmap—December Advice

Jurisdiction	Actions already underway	Relevant ACCC recommendation(s)
Improving the evidence base for water market policy: Research and Development		
Cth	<p>The MDBA is currently undertaking a series of hydrological modelling update programs, including:</p> <ul style="list-style-type: none">the Integrated River Modelling Uplift program, to boost modelling capacity and confidently advance water management and transparency in the Basinthe Sustainable Diversion Limit (SDL) Accounting Improvements Strategy Model Harmonisation project, to ensure harmonisation of Basin sub-models and to ensure best representation of SDL conditionsWater Resources Core Modelling, to provide technical and modelling support to partner governments.	R18–Improve modelling of delivery and trade
NSW, VIC, SA	NSW, Vic and SA governments are in the process of transitioning from legacy models to the eWater <i>Source</i> modelling platform which allows for the effective linking and interaction between different Basin State and MDBA models.	
ACT	ACT has invested in hydrological modelling focusing on urban runoff and water quality in Lake Burley Griffin and Lake Tuggeranong, including work to link urban, hydrology and hydrodynamic models.	
QLD	In Queensland, the Water Planning Science Plan has identified areas for improvement and collaboration, including future modelling improvements. Routine model updates are also carried out to support annual compliance reporting in Queensland Murray-Darling Basin catchments and state Water Plan reviews. Queensland is also currently working collaboratively with the MDBA and the basin governments to identify the opportunities, collaboration and support of the Integrated Modelling Uplift Program, Water and Environment Research Program and the Model Harmonisation.	
VIC	Victoria continues to implement modelling improvements and best practice modelling as part of its ‘business as usual’ modelling program.	
NSW	NSW is currently developing 12 regional water strategies that brings together a range of tools to plan and manage future water needs, including modelling for future climate projections. Policy or infrastructure options that influence the supply, demand, or allocation of water within a region are evaluated in a linked economic and hydrological model to assess the value of water for key extractive user groups. Economic variables considered in the model include a regional water value function, cost of proposed options, and a ‘break-even’ analysis of the proposed option.	
Improving River Operations and interactions between RiverOps and water markets		
Cth, NSW, VIC, SA	<p>The MDBA and southern Basin states are progressing work to address delivery risks under the Capacity and Delivery Shortfall Project, which receives advice and peer review from the Independent Panel for Capacity Project Review led by Dr Jane Doolan. The Panel is currently reviewing existing approaches and principles that guide decisions on actions to avoid shortfalls and share impacts where shortfalls cannot be avoided.</p> <p>As part of the Capacity and Delivery Shortfall Project, the Independent Panel for Capacity Project Review is currently developing a decision-making framework and principles to help the Basin Officials Committee more effectively and transparently balance trade-offs between river operations and broader system management. This includes consideration of impacts on water markets. If approved, this decision-making framework could be included in the <i>Objectives and Outcomes for River Operations in the River Murray System</i> document (‘O&O document’). This is in line with the ACCC’s recommendation that trade and market design be better integrated into river operations decision making.</p>	R19–Formalise and communicate plans for managing delivery shortfalls

Water Market Reform Roadmap—December Advice

Jurisdiction	Actions already underway	Relevant ACCC recommendation(s)
VIC	The Victorian Government has commenced a program of work to strengthen its delivery rights framework to make sure that when shortfalls cannot be avoided, management arrangements are clear and effective. This will support better management of the system which delivers water to water users, including managing physical, environmental and operational constraints and empowering water users to manage their own delivery risks through a 'cap and trade arrangement'. These changes should be implemented from 1 July 2023. Victoria has also produced factsheets on delivery and shortfall risks including what users can do to prepare for these risks.	
VIC	Victoria recently published its operating plan for the delivery of water from the Goulburn IVT for 2021–22. The plan outlines how delivery can occur within ecological thresholds, without restricting trade and without impacting delivery risks in the lower Murray. The plan sets a 'default delivery pattern' and details how delivery could be varied depending on seasonal conditions or spill risks, which gives water market participants more information and visibility over river operations decisions that affect trade opportunity.	
Cth, VIC, NSW, SA	MDBA is developing its updated shortfall response plan, building on the one published in 2020. Victorian agencies are updating their Shortfall Rationing Plans to align with the MDBA Shortfall Response Plan that was finalised this year and has factsheets available on delivery risks. NSW is also developing a Murray Shortfall Response Plan. Consultation on this is planned in early 2022. SA recently consulted on shortfall management options, with a shortfall response plan to be formalised and published within 1-2 years.	
Cth	The MDBA published the report <i>Losses in the River Murray System 2018–19</i> in March 2019. The report provided information about the drivers behind the conveyance losses in the River Murray System, how they vary between years and how they were tracking for the 2018-19 water year. The MDBA published an update for 2018-19 and 2019-20 in March 2021 and has committed to publishing losses data annually.	R21–Improve transparency of conveyance losses and other delivery impacts
Improving transparency and enabling effective participation in water markets		
Cth, QLD, NSW, VIC, SA	Basin states (with the exception of the ACT) currently publish educational material on water markets on their individual websites. The MDBA produces webinars, with Basin state representatives where relevant, focused on different aspects of water management and river operations across the Basin.	R13–Implement a Basin-wide Water Market Education Program
Cth	DAWE is beginning a process to create a culturally appropriate document/brochure, including associated Indigenous art/graphics, to translate water market information for Indigenous communities, organisations and businesses. It is envisioned as the first phase of a multi-phased project.	
Cth	The Australian Government has committed \$35 million to support an improved hydrometric network in the northern Basin and developing remote sensing and satellite technologies. This includes building a public water information website run by the Bureau of Meteorology. The first version of the website went live on 30 June 2021, and further upgrades are planned for future phases. The website contains a wide range of information about water resources, as well as data on completed trades sourced from Basin state registries and some irrigation infrastructure operators.	R6–Reshape current information portal initiatives; R12–Implement a public-facing Water Market Information Platform which harnesses improved data collection and quality; R17–Strengthen metering and monitoring

Water Market Reform Roadmap—December Advice

Jurisdiction	Actions already underway	Relevant ACCC recommendation(s)
Cth	The IGWC has commenced a review of the operation of the Murray and lower Darling Rivers to assess the key drivers of allocation decisions, including how well water is being measured and modelled at the Basin and valley scales for conveyance losses and bulk state water shares. This work also includes an assessment of hydrometric data coverage and quality, and associated data analysis processes.	R15–Increase the transparency of allocations decisions and the drivers of water availability; R21–Improve transparency of conveyance losses and other delivery impacts
NSW	NSW has recently made significant progress to improve water information transparency through the development of water information dashboards and the WaterInsights Portal. Water balances for each valley are included on the WaterInsights Portal to support improved understanding of conveyance losses, and the WaterNSW publication Murrumbidgee River Operations Plan also includes information of this nature. WaterInsights has created an environment where it is easy to see storage, flow, water availability, allocation, weather outlook and trading in one location. Consistent with the NSW Water Strategy, NSW is currently pursuing a strong open data framework, taking an ‘if not why not’ approach to publishing information.	
SA	SA publishes the <i>South Australia’s River Murray Flow and Use Report</i> quarterly report series containing SA River Murray water flow and use data. Stakeholders can also refer to the <i>SA River Murray Water Calculator</i> to discern how much allocation they will receive under different water availability scenarios.	
All Basin states	All Basin states have published guidance as to how water resources are managed during extreme events online	
All	All Basin states have published info on how water allocation decisions are made, MDBA has published information on how state shares are divided.	
Joint governments	Consistent with the ACCC recommendation to publishing procedural docs for committees, BOC now publishes communiques of its meetings	R29–Increase transparency of roles and functions of intergovernmental committees
Improving integration of environmental water delivery and trade		
Cth	The MDBA has assessed possible future options for the operation of Section 12.02 of the Basin Plan Water Trading Rules (BPWTR) as it relates to the trade of environmental water. The MDBA found that, on balance, it was preferable to retain the Section 12.02 exemption. The MDBA also commissioned a review of the Southern Spring Flow Event of 2019 which found the governance and delivery of environmental water is improving. Separately, the IGWC is currently undertaking a review of the CEWH’s processes for planning and managing environmental water each year. Held environmental water (HEW) delivery arrangements are considered in the Basin-wide Environmental Water Protection Strategy and Implementation Plan. The plan is due to be reviewed in late 2021. The Capacity Panel Working Group is also working to considering environmental water delivery within the River Murray System aspects as part of the delivery shortfall work and is working closely with the Environmental Watering Committee.	R23 – Better integrate environmental watering arrangements into trading arrangements and market design
SA, NSW, VIC	SA, NSW, and Vic are joint proponents of the Enhanced Environmental Water Delivery (EEWD) Project under the Sustainable Diversion Limit Adjustment Mechanism. The EEWD project is a multijurisdictional project aimed at improving the outcomes and efficiency of delivery of environmental water. The project will build on the existing knowledge of environmental water managers and river operators within the southern connected basin to improve coordination of HEW delivery across the southern connected basin.	
VIC	Work is underway to better clarify delivery rights for environmental water based on policy principles and embed these rights in the entitlement framework. This program aligns with work identified in consideration the ACCC’s advice on Section 12.02 of the BPWTR.	

Water Market Reform Roadmap—December Advice

Jurisdiction	Actions already underway	Relevant ACCC recommendation(s)
Cth, Qld, NSW	Arrangements have been established to account for the volume of held environmental water crossing the Queensland-NSW border. Queensland, NSW and the Commonwealth Environmental Water Office worked together to develop and successfully trial the accounting method during significant flows in early 2021. The States will now proceed to fully implement the arrangements according to an agreed procedure and protocols.	

Notes: BOC = Basin Officials Committee; Cth = Commonwealth; DAWE = Department of Agriculture, Water and the Environment (Cth); IGWC = Inspector-General of Water Compliance (Cth); MDBA = Murray – Darling Basin Authority (Cth); NRAR = Natural Resources Access Regulator.