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NSWIC
NEW SOUTH WALES IRRIGATORS' COUNCIL

SUBMISSION

Select Committee on the Multi-Jurisdictional Management and Execution of the Murray-Darling Basin Plan

Issues Paper

February 2020

Introduction

The NSW Irrigators' Council (NSWIC) is the peak body representing irrigation farmers and the irrigation farming industry in NSW. Our Members include valley water user associations, food and fibre groups, irrigation corporations and commodity groups from the rice, cotton, dairy and horticultural industries. Through our members, NSWIC represents over 12,000 water access licence holders in NSW who access regulated, unregulated and groundwater systems.

NSWIC engages in advocacy and policy development on behalf of the irrigation farming sector. As an apolitical entity, the Council provides advice to all stakeholders and decision makers.

Irrigation farmers are stewards of tremendous local, operational and practical knowledge in water management. With over 12,000 irrigation farmers in NSW, there is a wealth of knowledge available. To best utilise this knowledge requires participatory decision making and extensive consultation to ensure this knowledge can be incorporated into best-practice, evidence-based policy. NSWIC and our Members are a valuable way for Governments and agencies to access this knowledge.

NSWIC welcomes this public exhibition as an opportunity to share local, practical and operational knowledge and expertise in water management. NSWIC offers the expertise from our network of irrigation farmers and organisations on an ongoing basis to ensure water management is practical, community-minded and follows participatory process.

This submission represents the views of the Members of NSWIC with respect to the *Select Committee on the Multi-Jurisdictional Management and Execution of the Murray-Darling Basin Plan – Issues Paper*. Each member reserves the right to independent policy on issues that directly relate to their areas of operation, expertise or any other issues that they deem relevant.

NSW Irrigators' Council's Guiding Principles

Integrity	Leadership	Evidence	Collaboration
Environmental health and sustainable resource access is integral to a successful irrigation industry.	Irrigation farmers in NSW and Australia are world leaders in water-efficient production with high ethical and environmental standards.	Evidence-based policy is essential. Research must be on-going, and include review mechanisms, to ensure the best-available data can inform best-practice policy through adaptive processes.	Irrigation farmers are stewards of tremendous knowledge in water management, and extensive consultation is needed to utilise this knowledge.
Water property rights (including accessibility, reliability and their fundamental characteristics) must be protected regardless of ownership.	Developing leadership will strengthen the sector and ensure competitiveness globally.	Innovation is fostered through research and development.	Government and industry must work together to ensure communication is informative, timely, and accessible.
Certainty and stability is fundamental for all water users.	Industry has zero tolerance for water theft.	Decision-making must ensure no negative unmitigated third-party impacts, including understanding cumulative and socio-economic impacts.	Irrigation farmers respect the prioritisation of water in the allocation framework.
All water (agricultural, environmental, cultural and industrial) must be measured, and used efficiently and effectively.			Collaboration with indigenous nations improves water management.

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Overview

NSWIC strongly welcomes the *Senate Select Committee on the Multi-Jurisdictional Management and Execution of the Murray Darling Basin Plan*. NSWIC notes that the Terms of Reference for the Committee include:

- *(a) Responsibilities in relation to the management and execution of the Murray Darling Basin Plan consistent with the objects of the Water Act 2007, in particular: (i) Commonwealth responsibilities, (ii) state and territory responsibilities, and (iii) areas of uncertainty or potential conflict in respect of responsibilities;*
- *(b) The effects, positive or negative or otherwise, of the different approaches of the states and territories to water resource management in the Murray Darling Basin including, but not limited to: (i) legislation, regulations and rules, (iv) management and administration, including differences in management organisations, (v) measuring, monitoring and compliance, (vi) enforcement, and (vii) openness and transparency;*
- *(c) complications in respect of basin-wide or cross jurisdiction oversight, including the oversight roles and jurisdictional limitations of: (i) state, territory and federal parliaments, (ii) state, territory and federal courts, and (iii) state, territory and federally-instituted inquiries and Royal Commissions;*
- *(d) any bill related to the Murray Darling Basin referred to the committee; and*
- *(e) any related matters.*

We note, in particular, that "*the committee aims to identify ways in which to improve efficiency, transparency, consistency, collaboration, and accountability across the various roles, responsibilities, and interactions of the Commonwealth and state agencies in implementing and enforcing the Plan*".

Position of NSWIC on the Basin Plan

NSWIC supports a healthy Murray-Darling Basin. Basin Plan policy is required to balance economic, social and environmental objectives. Whilst NSWIC historically (pre 2012) opposed the Basin Plan, since it has become implemented as law (post 2012), NSWIC works to ensure optimal implementation of the key individual elements. This involves balancing social, economic and environmental outcomes, and minimizing adverse impacts. Future implementation of the Basin Plan must acknowledge the impact so far on communities and our capacity to produce food and fibre. This means, going forward, implementation must be responsive and adaptive and value the importance of irrigated agriculture and rural communities to Australians.

It is the policy position of NSWIC that future implementation of the Basin Plan must involve no additional water recovery through buy-backs (unless part of community led strategic buy back and retirement), recognition that the remaining elements of the Plan present significant challenges and require increased flexibility in implementation, and greater adaptive management that acknowledges the issues facing the irrigation sector and communities.

Core principles for future implementation of the Basin Plan should include:

- Protection of property rights of entitlements for all water users;
- No impacts on reliability, accessibility or yields;
- No unmitigated third-party impacts;
- Maximising environmental water outcomes with the least amount of water, including supporting complementary measures;
- Increased flexibility in the delivery of the Basin Plan, such as through the SDLAM projects to improve outcomes for communities and the environment;
- Improved engagement with the irrigation and community sectors impacted by the Basin Plan.

Irrigation farmers support and respect sustainable levels of water use in the working Murray-Darling Basin.

Submission

1) General Comments

Importance and High-Standard of Irrigated Agriculture in the Basin

The Murray-Darling Basin is Australia's food bowl – **producing one-third of Australia's food supply**.[1] People in Australia value Australian grown food and fibre. Our geographic remoteness globally means food grown locally is fresh and high-quality, and our strict biosecurity, ethical and environmental standards mean the produce can is trusted as safe and ethically produced.

Through the Basin Plan and Sustainable Diversion Limits (SDLs) coming into effect in July last year (2019), Australian consumers also know that this food and fibre has been produced with a sustainable level of water use (below SDLs). No other country globally could claim sustainable water use to the same degree – with Australian irrigation farmers recognised as some of the most water efficient in the world. For example, the Federal Government Department of Agriculture reports on Australian rice and on cotton:

"The Australian rice industry leads the world in water use efficiency. From paddock to plate, Australian grown rice uses 50% less water than the global average."[2]

"Water-use efficiency has increased by approximately 240 percent since the 1970's and Australian cotton growers are now recognised as the most water-use efficient in the world and three times more efficient than the global average."[3]

Murray-Darling Basin agricultural produce must now be highly recognised as leading in water sustainability. This is something we should be proud of. We strongly encourage the Committee to communicate this.

[1] https://www.mdba.gov.au/sites/default/files/pubs/MDBA-Overview-Brochure.pdf
[2] Australian Government, Department of Agriculture, Water and the Environment (2019) "Rice": https://www.agriculture.gov.au/ag-farm-food/crops/rice
[33] Australian Government, Department of Agriculture, Water and the Environment (2019) "Cotton": https://www.agriculture.gov.au/ag-farm-food/crops/cotton

History of Reforms

There has been a wave of reforms to water management dating back over 20 years. Through these reforms, the volume of water available to farmers in the Basin has continually declined. The Basin Plan has reduced the volume of water available to farmers by 20% - or removed 1 in every 5 litres of water these farmers once had to farm with. If we consider earlier reforms pre-dating the Basin Plan (such as The Living Murray), this figure increases to 28% - or the equivalent of removing (approximately) 1 in every 3.5 litres of water from our farmers.

In addition to these reforms, droughts across the Basin are becoming increasingly frequent and severe. The Basin is currently experiencing the worst drought on record, only a few years after the previous worst drought on record (the Millennium Drought). In addition to the water recovery from policy reforms, farmers are also facing persistent low or zero water allocations, as a result of the drought.

It is important to recognise:

- That the Basin Plan is part of a suite of water reforms with a long history at both state and federal levels of government, and must be considered in the context of that package of reforms, and not just in isolation.
- That the Basin Plan is only midway through implementation, commencing in November 2012 and due for completion by 2024. Many other water reforms, particularly at a state level (NSW), are also midway through implementation. The context of the Inquiry amidst a dynamic era of change must be recognised.
- The intentional removal of water from agriculture from policy (Basin Plan) is happening at the same time as the climatic removal of water from agriculture from extensive droughts.

There is no shortage of evidence already that the continual removal of water has led to the demise of irrigated agriculture in many regional communities which has had drastic socio-economic impacts on people, families and communities. There is no wonder why communities have been calling out for improvements in the Plan and the way it is being delivered. On a whole, implementation of the Plan has been poor, which has fractured the support for the Plan itself.

Whilst there are serious and depressing socio-economic impacts arising from the Basin Plan and other reforms, it is important not to forget that the Basin Plan has begun to (and will continue to) produce a range of positive outcomes for the environment. This can be demonstrated by the quantities of water now held by the Commonwealth Environmental Water Holder (CEWH) of 2,851,393ML of registered entitlements with a Long Term Average Annual Yield of 1,978,230ML to go towards environmental outcomes in the Basin.

This submission will go into further details on the specific components raised in the Issues Paper.

2) Adequacy of information

Misinformation

There is a lot of information available on water management (including the Basin Plan), but there is also a lot of misinformation. The later is the greatest challenge.

The greatest opportunity for improvement would be having a 'voice of truth' to dispute and fact check misinformation, and provide balanced and factual information.

In the age of social media, often short misinformed tweets receive greater weighting in the public domain than lengthy evidence-based reports by Officials. At present, there is no mechanism for these claims to be disputed, and often they stand untested as 'facts'. This causes continual spirals of misinformation which undermines public confidence in water management, and in turn, threatens the social licence of irrigation. It is deeply unfortunate that, despite our irrigation farmers being leaders globally in water efficiency, that they do not receive the same reputation publicly as other farmers. Australians love our farmers, but when a farmer uses irrigation technology (and becomes an 'irrigator') their reputation is tarnished by a misunderstanding of water policy, water use requirements, and irrigation itself. Unfortunately, the term 'big corporate irrigators' or 'corporate irrigators' is a terminology used for political effect and intentionally disregards the reality that businesses employ people and support their local communities.

The impact of misinformation extends beyond the social licence of irrigation farming, but also has very serious mental health impacts on our farmers and communities. The misinformation, perpetuated in the media (and even by some politicians) is nothing short of bullying in the way it vilifies a group of people, usually without basis. NSWIC urges the Committee to take the mental health of farmers and their communities as an utmost consideration in this inquiry, and develop tangible means to protect our irrigation farmers from the bullying that results from water management.

Just last week, there was an enormous positive response to a post regarding the bullying of northern irrigation farmers over recent rainfalls.[4] The post said:

"Last night the farmer that rang me had a shaking voice, many that I speak to nowadays do. Their mental health is fragile, surviving drought is one thing, but surviving the sustained attacks on their right to farm, grow the type of crop that suits their soil type and climate and their right to use water has them shell shocked."[5]

"It is a symptom of a bigger problem – there is no trusted source of information on water."[6]

"It's no wonder their voices shake and they feel like giving up."[7]

Recommendation:
NSWIC urges the Committee to take the mental health of farmers and their communities as an utmost consideration in this inquiry, and develop tangible means to protect our irrigation farmers from the bullying that results from water management.

A lot of the misinformation is largely due to the complexity of water management, and a general poor standard of water literacy by the general public, media, and even some

[4] https://twitter.com/nswirrigators/status/1231720837138370561
[5] Ibid.
[6] Ibid.
[7] Ibid.

politicians. Frequently media sources fail to overcome the complexity and often report factually incorrect information either due to want of a hit news story, or by failing to understand the complexity. This leads the public to often misunderstand the issue. Training for journalists, as well as a fact checking system, would assist to improve public understanding.

It would be worthwhile for government to invest in improving the 'water literacy' of the community. Many in the public do not know that the water used by irrigation farmers is licenced, subject to an allocation system, paid for, metered and capped at a sustainable level. This lack of water literacy is a key attribute to the trembling social licence for farmers to use water, despite the fact they use that water to produce the fresh and high-quality food all Australians enjoy, within strict requirements. Such a water literacy program could involve public education campaigns (tv advertisements etc), school education programs, or training for media and politicians, just to name a few. It should be noted that the most success would likely occur by bringing the information to the individual, rather than requiring the individual to go out of their way to seek the information (as in everyday busy lives the engagement ratings would likely be lower).

As asked in the Issues Paper, a central public source of information for the Murray-Darling Basin would be beneficial to coordinate information and have a 'go to' point of reference. However, the difficulties would be bringing together information from so many different agencies across the states, all of whom have different terminology for the same events/items, different metrics for measurement, and different legislation/requirements. A further challenge would be ensuring the website stays up to date given the pace of changes. It would be critical to ensure the information was factual, and that any bias (even implicit) was removed. It would also be essential for the information source to be user-friendly.

Understanding the Basin Plan

It is fair to say that the Basin Plan is poorly understood by many. Many use the Basin Plan to point their fingers whenever there is a water management issue, when often, that issue may have arisen due to water sharing agreements (such as the Murray Darling Basin Agreement, or state based Water Sharing Plans), state based water allocation policies, river operations, or even the drought. The Basin Plan has a very specific purpose – largely centred around reducing diversions to a sustainable level. NSWIC strongly support inclusion of the statements in the Issues Paper:

"The Basin Plan does not aim to drought-proof the Basin or return it to pre-development conditions"[8]

Public misunderstanding is of course understandable when water policy is so complex, and tracking down exactly where the problem lies, is difficult even for trained professionals. However, there is enormous risk in the community not understanding water policy, as the significant public interest and concern leads to a slippery slope where decision-making occurs based on (misinformed) public perception rather than reality, or what best-practice arrangements would be.

Inquiries

[8] https://parlinfo.aph.gov.au/parlInfo/download/committees/reportsen/024341/toc_pdf/IssuesPaperMulti-JurisdictionalManagementandExecutionoftheMurrayDarlingBasinPlan.pdf;fileType=application%2Fpdf [P 11].

There have been numerous reviews and inquiries into the management of the Murray-Darling which have produced a breadth of information contained in detailed reports. Of the (at least) 45 inquiries which have been conducted since implementation of the Basin Plan commenced just 7 years ago, the greatest problem is not that information is unavailable, but that the information, findings and subsequent recommendations are not appropriately acted upon. Often Government Responses to these reviews – such as the Productivity Commission – are seen as inadequate and not going far enough to address the issues and recommendations.

Appendix 1 contains a (non-exhaustive) list of MDB Inquiries since 2012.

Rather than simply seeking to conduct further reviews to gather more information, NSWIC urges stronger action on existing inquiries (particularly the Productivity Commission) which have already provided valuable, detailed and constructive steps for how implementation of the Basin Plan can be improved. Time is rapidly running out for these recommendations to be appropriately acted upon – now is the time for action. The Productivity Commission Report provides a critical way forward on improving implementation of the Plan – however, the Government Response was underwhelming.

Appendix 2 outlines the specific recommendations in which industry felt the Government Response was insufficient to address the recommendations. With the timeframe for the completion of the Basin Plan drawing to a close, timely implementation of those recommendations from the Productivity Commission will be critical to the success of the Plan overall.

Recommendation:
Urgent action to implement the recommendations from the Productivity Commission as a detailed and comprehensive way forward to improving implementation of the Basin Plan.

Water Volumes

In response to the question in the Issues Paper (around tracking and accounting for water volumes, and measures to improve the scope, accuracy, and accessibility of data) we feel that the greater issue is the volumetric focus to begin with.

Throughout recent reforms, the focus has clearly been on water volumes, above actual environmental (or socio-economic) outcomes. This focus on volumes of water is too simplistic and doesn't account for the many other environmental projects which would be of great value to restore the health of the river system. Environmental measures must go beyond flow targets, and the 'just add water' approach. Complementary measures would be of great benefit, whilst not having such significant impacts on communities. During the current drought when many river systems were completely tried up, that would have provided a timely opportunity to remove litter from river systems, but that opportunity was surpassed. Furthermore, the environmental benefits that are achieved in the delivery of *productive* water must also be accounted for. To date, these benefits of irrigation water delivery are poorly understood and not accounted for.

Many agencies such as the MDBA and WaterNSW have volumetric information publicly available on their websites. If an individual wishes to access this information,

it is available, provided they know where to find it (which can be difficult if unaware). Simply, information access is not so much the issue, compared to the user interface of information. Measures to improve the accessibility, such as through an app with live data could be an area for improvement in terms of usability. An app that allowed individuals to see the volume of water at each point of the river, as well as a breakdown of river flows (e.g. how much was environmental water, how much was an irrigation delivery, how much was for stock and domestic use) at each point along the river may be of interest to people. Links to key information, in one information portal, would be beneficial so people knew where to go. Utilising new and emerging technologies for this purpose could be an interesting area for investigation.

Complexity of current Basin Plan governance arrangements

To some extents, complexity is necessary for managing a shared resource in a multijurisdictional/transboundary system, within a federated and democratic government structure, across a vast array of water users. Many of the areas which are 'complex' could also be viewed as necessary, to allow for uniqueness in water management contexts (geographic, hydrological, and social), due and consultative processes, adaptive management, and flexibility. Reducing complexity as an objective, should not be as higher priority as ensuring the aforementioned water management principles are possible. However, there are always opportunities for improvement, particularly around streamlining systems to ensure efficiency and transparency, no duplication, ensuring responsibilities are clear so accountability for decision-making is apparent, as well as clear communication between agencies and to stakeholders.

Commonwealth Powers

The history of water management in Australia is one where water is managed by the states, as per the Australian Constitution. It is highly unlikely that there would be support for those arrangements changing. It is also highly unlikely that would produce better outcomes – in fact, changing these arrangements would likely just add to the complexity itself. Whilst efforts to reduce complexity would be supported where practical and feasible, and where designed to reduce duplication; creating additional commonwealth power would not necessarily achieve that aim. It could also produce perverse outcomes, whereby Commonwealth overreach would preclude States from managing water resources in the manner necessary for the unique needs of each state.

Practically speaking, the Commonwealth already has significant power, which has been demonstrated by the development of the Basin Plan, and requirements for states to comply with SDLs, and by developing WRPs to meet these requirements which are accredited by the Commonwealth. The Commonwealth government also has significant influence by providing or withdrawing funding. We feel the current separation of some power between the Commonwealth and States also creates a system of checks and balances. Furthermore, any change to Commonwealth power may infringe on the current need for agreement by all Basin State governments on significant interjurisdictional matters, which would be moving away from a model of consensus and agreement. Whilst working through the tiers of government can be agonising and time consuming, it facilitates checks and balances, and allows complex issues to be worked through based on consensus, mindful of the unique needs of respective areas. We feel that the state-based model is thus more suited to best practice water management, provided there is effective processes for multijurisdictional collaboration.

It is thus highly unlikely that NSWIC would support such a proposal for increased Commonwealth powers if it was brought forward.

Reform Fatigue – Certainty & Stability as paramount

The simple answer to the questions posed in this section is - we are amidst a lengthy period of water reforms (at both a state and Commonwealth level), with many reforms still ongoing (not yet, or only partly, implemented), and with such reform fatigue, certainty and stability in water policy is of greater concern. The changes proposed in the questions asked in the Issues Paper would be monumental and would fundamentally alter the regulatory environment for water management. With such reform fatigue already, and current reforms not even implemented yet, we feel that it is necessary to prioritise implementing current reforms properly and allowing time for the benefits to be assessed and realised.

NSWIC has concerns that such a change would require significant changes to state legislation, which has recently already undergone such significant reform. After such a lengthy period of reforms, water users require policy stability to operate their businesses and to underpin their financial decisions. Operating a farm business when water policy is in such a state of flux makes forward-planning difficult and undermines the confidence of financial institutions. The reform fatigue facing water users and their communities is extensive, and a priority of government should be stabilising water policy to give certainty to water arrangements. Following such lengthy reforms, and the current state of flux with policy midway through delivery, it is far from the right time to be making such monumental changes to the policy environment.

Supremacy of state water policy instruments

With the status quo, it is critical that state-based legislation does not become subservient to federal instruments, in the context of water. One significant risk for NSW in transitioning to the Basin Plan (and thus WRP) model is possibility that NSW WSPs and instruments are misconstrued as subordinated to Commonwealth instruments (such as the Basin Plan). For NSW water users, it is critical that the supremacy of the WSP remains upheld, as the WSP is far better suited for flexible/adaptive water management requirements. In fact, WRPs (and the Water Act 2007, and any Commonwealth regulations) should not exclude or limit the concurrent operation of a NSW WSP.

Limitations

One limitation of the current governance arrangements is the tendency to 'pass the baton' when it comes to responsibility for decision-making. Whilst often the passing of responsibility is in accordance with their areas of responsibility, it makes it difficult for stakeholders to raise concerns and seek answers. This is particularly the case when often matters fall across the responsibility of a number of agencies. We have experienced actions undertaken pre-emptively based on one agencies' perception or assumption of what another agency may determine.

We understand the Inspector-Generals Office are intending to create a map of current legislation and regulation for water management, as well as areas of responsibility. We

strongly support that initiative and ask the Committee to support ensuring that is developed.

Recommendation:
Government must prioritise certainty and stability amidst reform fatigue and allow time to for the benefits of current/ongoing reforms to be assessed/realised.

It is critical to ensure NSW instruments are not misconstrued as subordinate to Commonwealth instruments in the transition to the Basin Plan model. Commonwealth regulations should not exclude or limit the concurrent operation of a NSW WSP.

3) Consumptive water limits and water recovery

Effectiveness of SDLAM Projects

The Sustainable Diversion Limit Adjustment Mechanism (SDLAM) is crucial to minimising the social and economic impacts of the Basin Plan in the Southern Basin. NSWIC strongly supports well-designed and locally supported SDLAM projects to achieve the equivalent of 650GL of water recovery as the most critical component to future implementation of the Basin Plan, providing the lowest risk to communities, and realising targeted environmental outcomes.

Crucially, the Productivity Commission identified that:

"The package of agreed supply measures is potentially more cost-effective than recovering 605 GL of water entitlements to achieve the environmental outcomes. Successful implementation could save Basin Governments and taxpayers large sums of money by avoiding further water recovery, which is a concern for many communities. These measures could also provide additional benefits to improve the long-term health of the Basin, such as the ability to provide additional delivery capacity, greater flexibility for river operations and capacity to water new areas of floodplain."[9]

Whilst the concept of the SDLAM is critical for socio economic outcomes in the Basin - unfortunately in NSW, many of the projects which were put forward are not supported by local communities, as they were poorly designed, lacked due process and were not designed with effective consultation/involvement with local communities. This has effectively caused the projects to stall, raising significant concerns about the high risks of a scenario in which the SDLAM projects were not completed, and further water recovery from already fragile communities would be required.

These views regarding the problematic nature of many of the actual SDLAM projects was also found by the Productivity Commission. The Productivity Commission stated that "*This sentiment is the result of a lack of transparency, consultation and candour in the process of developing these projects*".[10]

[9] Productivity Commission (P 16) https://www.pc.gov.au/inquiries/completed/basin-plan/report/basin-plan-overview.pdf
[10] Productivity Commission (P 17) https://www.pc.gov.au/inquiries/completed/basin-plan/report/basin-plan-overview.pdf

"The apparent reluctance of Basin Governments to recognise the reality of these issues and to plan to undertake the projects with full consultation and appropriate issue resolution is further eroding community confidence."[11]

As a result, **NSWIC sees flexibility and adaptability for new and improved projects as essential to success of the SDLAM**. Flexibility for new and/or improved projects would allow the NSW Government to get these projects right (not their current form), get them in place, and thus protect communities from further expose to buybacks, as well as achieve the real environmental benefits which are intended.

Critically, all stakeholders and communities affected by projects must be effectively involved in development and delivery.

It is also worth noting that the Productivity Commission found that implementation of many of the projects will require more time, and if that time is not permitted, water recovery is likely to be back on the table. Not only is that not a cost-effective means of achieving outcomes, but further water recovery would damage many already fragile communities beyond repair. Specifically, the Productivity Commission found:

"Failure to successfully implement these projects by 2024 would mean that either Basin States or the Australian Government will most likely need to make good any shortfall in the offset, which could include further water recovery. The 2024 deadline for a number of these projects (particularly the constraints projects) is highly ambitious, if not unrealistic."[12]

"Strictly enforcing the 2024 deadline could lead to the abandonment of worthwhile projects."[13]

"To enable worthwhile projects to be implemented in realistic timeframes, Basin Governments should be open to the possibility of extending the 30 June 2024 deadline and make this clear to project proponents prior to detailed business cases being completed."

NSWIC also note that the Independent Assessment of Social and Economic Conditions in the Basin identified as the first area for action:

"1. Help build confidence of Basin communities by robustly meeting minimum expectations of community support for any recovery options affecting the remaining consumptive pool. Now that the impacts of aspects of water reform and drought are demonstrating the elevated social and economic vulnerability of some Basin communities, it is critical that:

- *The 605 GL of Sustainable Diversion Limit programs be delivered in partnership with affected communities. Earning community support for projects is crucial and options not supported by community should be given lowest preference. Should the suite of projects fall short of the 605 GL, more projects should be sought.*
- *Robust socio-economic neutrality criteria should be rigorously tested and applied."*[14]

[11] Ibid.
[12] Ibid (p 19).
[13] Ibid.
[14] https://www.basin-socio-economic.com.au/47038/documents/126155 (P 6)

Proper delivery of the SDLAM is necessary to ensure both the environmental, and socio-economic outcomes, can be achieved – but this will involve changes to business as usual in order to occur.

Recommendation:
Enable Basin State Governments the flexibility and adaptability for new and improved SDLAM projects, noting that this would likely require an extension of time to ensure proper process and adequate consultation is possible.

Buybacks should not be considered as a fallback option if State Governments fail to deliver SDLAM projects (for the reasons outlined by the Productivity Commission, as well as the fragile nature of these already impacted communities). All possible means should be taken to ensure this (further water recovery) does not happen, such as through legitimate timeframe extensions.

Developing and implementing WRPs

The development of WRPs in NSW, and the subsequent changes to WSPs, has been chaotic, evidenced by the significant delays and failure to meet timeframes. Whilst NSW sought an extension of the initial 30 June 2019 deadline, to December 2019, that timeframe still failed to be met. The cost of that delay is not only a lack of certainty to water users and community frustration, but also the withdrawal of crucial funding for important projects such as the NSW Healthy Floodplains Project[15]. It is not appropriate that water users have had to suffer by having Commonwealth funding for critical projects withdrawal, at the fault of the NSW Government for failure to meet timeframes, conduct adequate consultation and resolve outstanding issues.

We note that the Productivity Commission found that the quality of WRPs is likely to be compromised if rushed through. Whilst that is true, delays as significant as this, without clear and transparent direction and process to move forward and resolve grievances, also impacts on the integrity of the plans and process.

NSWIC recognise the recent decision to remake NSW WRPs for 1 July 2020. Whilst a remake would aim to provide certainty to water users, there is no indication of whether the core concerns of people (outstanding issues) on the substantive elements will be addressed, nor is there indication of whether the concerns on the procedural elements (such as consultation, transparency around decision-making etc) will be improved.

NSWIC has concerns that the process has lacked engagement with non-government stakeholders, particularly at the final stages of the process when timeframes have been tight. Water users have requested on several occasions for the NSW Department to provide draft Water Sharing Plans, minus any commercially sensitive information, to valley-based Stakeholder Advisory Panels (SAPs) for review at key stages of the process. Many SAPs, who had a commitment made to them that they would be able to see the final version of the plan prior to progression, and meet to discuss the changes, were instead declined this opportunity due to timeframe restrictions. We are yet to hear a response from the Department or see an updated version of surface water plans.

[15] https://www.industry.nsw.gov.au/water/plans-programs/healthy-floodplains-project/about

Stakeholder engagement is critical so that water users can have confidence that the accredited WSP and WRP is one they can have confidence in, work with, and that the legitimate issues which have been raised have been resolved prior to accreditation.

Whilst legitimate timeframe extensions may be required in some circumstances to ensure they are done properly, ongoing delays that lack direction on how outstanding issues will be resolved, is inadequate.

Recommendation:
Ensure the further development of NSW WRPs, including the subsequent interactions with NSW WSPs, follow a clear and transparent process for how the substantive and procedural issues will be resolved in a timely manner.

One example of a substantive issue arising through the WRP process, relates to the definition of Planned Environmental Water (PEW). Until recently, the NSW Government and Murray-Darling Basin Authority (MDBA) interpreted provisions that relate to underused water very differently according to the differences in the *NSW Water Management Act (2000)* (WMA) and *Cth Water Act (2007)* in determining PEW. Under the Water Act, any water not specified for consumptive use (thus including underused water) becomes PEW by default. The NSW Government in the Fact Sheet relating to PEW have adopted the MDBA position that this unused water is PEW and any change to Water Sharing Plans to allow access up to SDL would result in a reduction in PEW. This position is inconsistent with NSW WMA which specifies all water above Plan Limit is PEW, or water that is specified.

The difference in PEW protection creates a problem due to the interpretation that 'no net reduction' (s 10.28 of the Basin Plan) requires an "effectiveness test" relating to the protection of PEW (and thus, restricts access to the underused water) as a result of any changes to the rules in place at the time of signing the Basin Plan (Nov 2012). The NSW WMA does not legally recognise this water as PEW – thus the use of an effectiveness test and the interpretation of its legal standing is currently not substantiated.

The rigidity of the effectiveness test has stopped Stakeholder Advisory Panels (SAPs) from progressing viable and constructive rule changes to create a regularly environment that better fosters optimal water usage. NSWIC Members have reported that SAP members came to the conclusion that there was neither opportunity nor appetite to change rules for improved conditions for productive water use (or for other usage such as town water supply, drought resilience or improved environmental outcomes), and consequently many rule changes were either withdrawn, not put forward, or not progressed.

The changes proposed through the WRP/WSP process effectively undermine critical and long accepted operational rules in current plans and will additionally limit water access to water users beyond agreed means and measures.

We recognise and appreciate the requirement for no net reduction in PEW, and an objective of the water resource planning process for the Basin Plan to better articulate planned environmental water in water sharing arrangements. However, progressing both the regulated and unregulated WSPs without rectifying these issues undermines the existing rights of water users (including environmental water users) and surely cannot be the intent. Such change is unacceptable and challengeable in the court of law.

Water users have insisted on amending the definition of PEW to reflect the agreed intent of specifying rules based planned environmental water and the water currently not available for extraction, over and above the sustainable diversion limit which is more similar to the current plan rules.

In essence, these issues have arisen as a result of technical alignment issues between state and federal legislation. This issue is one example of an outstanding issue which requires rectifying before plans are locked in place.

SDL Compliance

SDL compliance must expand to both under and over usage against the SDL.

The ability for water users to optimally use the available share of water resources is an important area of focus, given persistent trends of underusage against allowable limits in recent times. Underusage against allowable limits must be recognised, accounted for, and industry should be credited in some form. There is also likely scope for unused consumptive water to meet a range of Basin Plan objectives.

Where underusage is the result of rules that restrict optimal usage (we can call this 'involuntary underusage'), it should be a priority of Government to work with water users to enable optimisation of the share of water available for consumptive use. Where underusage is the result of decision making or behaviours of water users (we can call this 'voluntary underusage') because of factors such as capital availability for example, and if that trend is sustained, then that reduction in usage and diversions should be recognised and formally accounted for in any plan to reduce diversions, such as the Basin Plan.

The optimal outcome would be for voluntary underusage to be accounted for and credited in some form towards Basin Plan (and other) objectives, but for involuntary underusage to be usable again – by removing the impediments to usage.

One of the largest impediments to underusage against SDLs in NSW (in addition to capital availability coming out of the Millennium and current drought) is inflexibility for NSW WSP rule changes to allow water usage up to the SDL/Plan Limits. There has been a continual reluctance by officials to change rules which would benefit usage by farmers, even if it is within the consumptive water share and compliant with requirements. This sub-optimal regulatory environment has further constrained usage further below capped and compensated requirements. This was largely due to perception that changes would not meet Commonwealth requirements.

Anecdotally, the focus of water reforms in recent times has largely been on shifting the usage of water, rather than focusing on how that water is used – i.e. focus has been on shifting water between buckets, not what happens within each bucket. If we wish to look to the future of water management and adopt a long-term and forward-thinking vision for the future of water management, the optimisation of water within each 'bucket' will be critical.

We understand that the NSW Department has developed the below points in response to this issue (as well as the growing trend of underusage of productive water), and it is critical that these are included in the final plans, and that further work is undertaken to ensure that water users can, and do, use up to the allowable share of water as per the Sustainable Diversion Limit.

** Inclusion of the following economic objective: to maintain, and where possible improve, access to water up to the long-term average sustainable diversion limit for agriculture, surface water-dependent businesses and landholders.*
** Removal of the following environmental water rules (Murrumbidgee example): 15(3) the water that is not committed after the commitments to basic landholder rights, and for sharing and extraction under any other rights, have been met, and 16(1)(c) the water remaining after water has been taken under basic landholder rights, access licences and any other rights under the Act in accordance with the provisions in Part 6 and Part 8 and 16(4) The planned environmental water established under subclause (1) (c) is maintained by the provisions specified in Part 6 and Part 8. Note that these provisions have been retained in the Belubula and Peel where they have been in place since the first plans for those areas.*
** Inclusion of a new amendment clause (Murrumbidgee example): 92(3) This Plan may be amended to facilitate total extractions reaching the long-term average annual extraction limit or long-term average sustainable diversion limit should an assessment of compliance with those limits made under Part 6 show that total extractions are in the Minister's opinion significantly less than those limits over the long term.*
** Removal of references in the WSP to a long term water plan.*

In addition, Government must:

- Develop a review trigger to respond if a trend of under-utilisation occurs to allow for the timely investigation of the cause of underuse and whether there may be a need to amend the WRP;
- Develop an SDL credit mechanism or process to outline transparently what happens if 'SDL credits' do accumulate.

We are aware that the MDBA are undertaking work on underusage, and it is critical that WSPs/WRPs are flexible to allow for responses to underusage to be incorporated into the plans.

WRP Compliance

The first step towards WRP compliance in NSW, would be having WRPs in place to comply with. Our response to the questions raised in this section are raised in the aforementioned sections, specifically:

- Ensure the further development of NSW WRPs, including the subsequent interactions with NSW WSPs, follow a clear and transparent process for how the substantive and procedural issues will be resolved in a timely manner.
- It is critical to ensure NSW instruments are not misconstrued as subordinate to Commonwealth instruments in the transition to the Basin Plan model. Commonwealth regulations should not exclude or limit the concurrent operation of a NSW WSP.

Water Recovery

To date, most of the direct water recovery required under the Basin Plan has already been completed. This is a significant step forward for the Basin Plan, and that must be acknowledged. All that water recovery has had (and will have) many positive outcomes – water is now available in the hands of the CEWH for environmental needs, and that

water is accounted for and publicly available. The CEWH now has 2,851,393 ML of registered entitlements across the Murray-Darling Basin, with a Long Term Average Annual Yield of 1,978,230 ML.[16] Whilst common criticisms claim that water recovery has 'not worked', it is undeniable that this water is now available for environmental use when it wasn't available for that purpose before. It is evident by an overwhelming amount of recent reports and CEWH publications that this water has gone towards positive environmental outcomes.

What also must be acknowledged is that this water recovery has come at a cost. Water recovery, through the Basin Plan and a suite of reforms, has seen over 25% of water that was once available to farmers, now gone. That has massive multiplier effects for not just farmers, but their local communities whose prosperity and livelihoods are founded around the agriculture sector. These impacts also span the full length of the supply chain, right through to the consumer (through impacts to supply, and thus food prices).

In the ongoing Independent Assessment of Social and Economic Conditions in the Basin, it was found that:

"Reduction in the consumptive pool of water is exacerbating the effects of drought and climate change".[17]

"Services in some areas are deteriorating. Some smaller communities and some larger centres are struggling to sustain basic services and to attract and retain workers to fill vacant positions in health, welfare, policing, schools and the community sector." [18]

It is also worth noting that this water recovery has occurred simultaneously with the worst drought in our recorded history. This has meant that water has been removed from these communities because of both reforms and drought simultaneously. Due to these exceptional circumstances, some flexibility is certainly needed throughout the remainder of the Basin Plan, given the drought has exacerbated the negative impacts of water recovery. The volume of total water recovery as a percentage of total water in the Basin, would be very different now (2020) to at the time the Basin Plan was implemented (2012). Our initial calculations are that the 2750GL water recovery volume was about 12% of total available water in storage in November 2012, but 2750GL represented about 37% of the total available water in storage in November 2019 – a 25% increase in relative water recovery.

Recommendation:
Future implementation of the Basin Plan must involve no additional water recovery through buy-backs[19], recognition that the remaining elements of the Plan present significant challenges and require increased flexibility in implementation, and greater adaptive management that acknowledges the issues facing the irrigation sector and communities.

[16] https://www.environment.gov.au/water/cewo/about/water-holdings
[17] https://www.basin-socio-economic.com.au/47038/documents/126155 [P 5].
[18] https://www.basin-socio-economic.com.au/47038/documents/126155 [P 4].
[19] Unless part of community led strategic buy back and retirement.

Acknowledgement that the extensive drought has exacerbated the negative impacts of water recovery, and that will require flexibility and adaptability in the implementation of the Plan.

Over and under recovery

The Basin Plan requires recovery of both a local volume and volume which is considered a shared contribution to downstream flows or connectivity.

As of 31 March 2019, there is **over recovery** in the Gwydir (5GL) and Macquarie-Castlereagh (38GL), and there is a local target remaining (**under recovery**) in Barwon Darling (1,9GL), Namoi (9.5GL) and NSW Borders Rivers (5.1GL) and a shared volume in the Murrumbidgee (4.3GL) and NSW Murray (10.2GL).

NSWIC supports the return of over recovered water to the consumptive pool within the effected valley, subject to consultation with water users.

NSWIC supports irrigation farmer led approaches for further water recovery where the local recovery target is under-recovered. Where Governments have failed to 'bridge the gap' and there is under recovery of the local target, the reasonable excuse provisions should apply and irrigation farmers in affected valleys should not be negatively impacted by Government failure to secure the required water.

Given the above finding by the Productivity Commission, that supply measures are potentially more cost effective then recovering water entitlements, and bring additional environmental benefits, such as "*to improve the long-term health of the Basin, such as the ability to provide additional delivery capacity, greater flexibility for river operations and capacity to water new areas of floodplain*"[20] – **buybacks should be off the table in terms of further water recovery**. Critically, therefore, the legislated cap on buybacks must remain in place to protect communities, and ensure policy decisions are cost effective, and produce intended outcomes. Further reasons are outlined in the NSWIC submission to the Senate Standing Committee (February 2019)[21].

NSWIC and many others see complementary measures as having greater benefits for river systems, without the significant costs to our farmers, communities and food production.

4) Environmental Water

Environmental water must be used as effectively and efficiently as possible, to maximise environmental outcomes from the least amount of water. Environmental health is important and highly valued by irrigation farmers and our industry. Environmental improvements are not just about flows and volumes of water, but about the wholistic health of the river system.

In response to the specific questions asked in the Issues Paper:

[20] Productivity Commission (P 16) https://www.pc.gov.au/inquiries/completed/basin-plan/report/basin-plan-overview.pdf
[21] NSWIC Submission https://www.nswic.org.au/wordpress/wp-content/uploads/2019/02/NSWIC-Submission-Water-Amendment-Purchase-Limit-Repeal-Bill-2019.pdf

- *There are a number of different plans that guide the delivery of environmental water. Is there any crossover between planning (for the delivery of environmental water) that is carried out by Basin states and the MDBA? Is there opportunity for such planning processes to be streamlined and, if so, how might this occur?*

The overarching objectives for delivering environmental water are outlined in the *Basin Plan (Chapter 8, Part 2)*, which are then built on through the *Basin-wide environmental watering strategy*. The principal arrangement at the state level to guide the management of water for the environment over the longer term is *Long-term Water Plans* (LTWP). The LTWP is required to identified priority assets and ecosystems functions and their watering requirements for each water course.[22]

This multiplicity of plans and agencies responsible is a major cause of confusion. Often it is impossible to clearly distinguish which plan is being is being implemented and by whom.

It is recommended that the Commonwealth and State organisations involved improve communications around the alignment and coordination of set objectives for environmental watering, and then communicate the effectiveness against those objectives with local stakeholders and the broader community. It is critical that local knowledge is an utmost consideration in how these higher level objectives are met at the ground level.

- *A range of coordination committees meet on an ongoing a basis to plan water delivery and coordinate environmental watering events across different WRP areas and between jurisdictions. How effective are these coordination committees? What changes, if any, could improve environmental water coordination?*

NSWIC has often expresses concerns over the complexity and multiplicity of agencies in the management of the MDB. In our 2017 submission to Commonwealth Environment Water Holder (CEWH), we noted that "the level of complexity and bureaucracy involved in any environmental watering projects" is too burdensome, lacks transparency and impedes achieving desired objectives[23].

Most importantly there is a strong perception of some committees not having a good understanding of water-users, especially irrigation farmers. Farmers have demonstrable appreciation for the environment upon which their livelihood depends, and strongly value the importance of healthy river systems. However, many of the plans and their implementation often reflect limited understanding of the local situation on the ground. For that reason, it is strongly recommended that Committees include local water users (irrigation farmers) to ensure environmental watering events can be work with other water users and be suited to local conditions and needs.

- *Are the outcomes of environmental watering communicated effectively with stakeholders and the broader community? If not, what information needs to be publicly available to improve understanding of environmental watering, and the transparency of environmental watering processes?*

[22] https://www.legislation.gov.au/Details/F2018C00451

[23] NSWIC Submission https://www.nswic.org.au/wordpress/wp-content/uploads/2018/02/NSWIC-Submission-to-Commonwealth-Environmental-Water-Office_CEWH-Investment-Framework-2017-1.pdf

There is generally a very poor level of understanding about environmental watering, and this (in part) can be traced back to communication. The general public do not understand that the CEWH is the largest entitlement owner and are left to assume that held environmental water is the only type of water in the system that is not used by irrigation farmers or other extractive uses.

We have always held the view that the aforementioned focus on volumetric outcomes rather than well-defined and measurable ecological outcomes is a major weakness in the whole environmental watering approach for the Basin. This undoubtedly makes it difficult to effectively communicate outcomes to the stakeholders, because the most visual result that the community sees is the environmental degradation of river systems and their flora and fauna (such as the tragic Menindee Fish Deaths). Despite the CEWH now having large volumes of water to achieve environmental objectives with – in the eyes of the general public – those numbers are outweighed by graphic images of polluted river systems, algae blooms, invasive species and degraded riverbanks. Overcoming that, will need to involve much stronger communications about the successes of environmental water and what it is being used to achieve, beyond simply communicating volumes of water. Communicating the limitations of environmental water managers (such as during critical drought times when they too have little water to utilise) would also be valuable.

The focus on volumetric objective has created a strong perception amongst water-users that there is a lack of clear outcomes for environmental watering across many of the environmental programs in the Basin. This makes it difficult to communicate the merits and implementation of many environmental watering plans. For example, Ernst & Young identified several shortcomings[24], including a lack of adequate and clear information for stakeholders, a general lack of clarity as to the exact measures and objectives of the scheme and use of language unfamiliar to generality of license holders. All these were found to cause low level of trust and thereby impeding implementation of the program.

There is also a critical role for communications when environmental watering events become questioned by the community. There is a need for environmental water managers to explain the reason for their decisions, to avoid public mistrust developing. For example, some communities have raised concerns about the unnatural inundation of low lying depressions that have no known history of being naturally flooded by the nearby rivers. Communities have expressed concerns about watering certain areas that would have been dried during droughts, and the subsequent environmental impacts.

The relative void of communications around environmental management, and the subsequent impacts that poor perception of environmental management has on the irrigation sector, has left many farming organisations to have to fill the gap. This has involved organisations such as NSWIC developing EnvIrrigators' Campaigns, as well as actively sharing information about environmental watering on social media. There is certainly room for environmental water managers to be more active, and proactive, when it comes to communications.

NSWIC has consistently argued for rigorous reviews of scientific evidence upon which the various environmental standards and outcomes are based in the management of the Basin. A typical example is the recent questioning of the salinity status of the two

[24] https://www.mdba.gov.au/sites/default/files/Analysis-of-Efficiency-Measures-Final-Report-v2.pdf

lakes at the terminus of the MDB that are currently maintained as freshwater requiring large amounts of freshwater to be delivered[25].

- *There have been concerns raised about the effectiveness of environmental watering including that the outcomes of watering events are not monitored and evaluated adequately, and that there is a lack of transparency in how environmental outcomes are measured. How might these processes be improved?*

These concerns are justifiable and emanates from a perceived lack of clear ecological objectives that are measurable beyond the volume of water delivered. With the removal of large amounts of water from the productive sector to go towards environmental water management, it is incredibly important that the benefits can be demonstrated, accounted for, and transparent.

If outcomes are poorly monitored and evaluated, the system cannot be adequately monitored, and thus cannot be objectively evaluated and effectively improved.

As aforementioned, improvements can be gained through clearly defined objectives and communication of these. Objectives beyond volumes of water and flows are necessary for the community to appreciate the benefits it provides. Clear due process with transparency and accountability is also vital.

The responsible authorities should adhere to adaptive management of watering events. This could involve deployment of more sensors with telemetry capability augmented with human monitoring to ensure greater control and effective delivery during watering.

- *Is there a need for the Commonwealth Environmental Water Holder to have powers to compel information from other bodies to assist in the delivery and coordination of environmental water?*

With the multiple agencies involved in the governance and management of environmental water in the Basin, effective coordination is essential.

NSWIC are not aware of a situation where powers to compel information would have been required, however, we note that merely giving the CEWH the authority to compel information would not be good enough alone for ensuring that the desired outcomes of environmental watering are achieved and efficiently done so.

Recommendations:

- Implement complementary measures to achieve environmental objectives beyond simple flow targets / volumes of water.
- Commonwealth and State organisations should improve communications around the alignment and coordination of set objectives for environmental watering, streamline them where possible, and then communicate the effectiveness against those objectives with local stakeholders and the broader community.
- Ensure committees have individuals with in-depth knowledge of the specific local environmental and ecosystem assets, including local water users (irrigation farmers) to ensure coordination and access to knowledge.

[25] https://www.publish.csiro.au/PC/PC18085

- Every environmental watering event should have a clear and measurable scope (spatial and temporal) and objectives, with transparency and accountability against those objectives, and these should be communicated publicly.
- Environmental water managers must be active and proactive in ensuring the general public recognise, understand and value environmental watering, so that they can appreciate the benefits and have confidence in the system.

5) Water Trade

A well-functioning, transparent and effective water market is critical to a prosperous, sustainable and viable irrigation industry. The policy position of NSWIC is that the water market must foster confidence from all water users by being transparent, simple to use, based on well-informed price data and sound reporting. The water market must also facilitate the secure, sustainable and productive use of water resources, in a manner that supports the ongoing prosperity and needs of all water users.

NSWIC notes that the water market is relatively new and continues to mature. Water markets are also a very unique type of market. As a result, there are evidently a number of 'growing pains' which will require attention to ensure the market continues to mature to deliver the intended outcomes, whilst not having adverse third-party impacts. The water market pre-dates the Murray-Darling Basin Plan, with the expansion of water markets arising from a broader suite of reforms underpinned by the Council of Australian Governments (COAG) *Water Reform Framework* initiated in 1994, and then the National Water Initiative (NWI)1 in 2004. As a necessary precondition to the development of the water market, was the separation of water from land, which enabled water to become a tradeable property right.

Despite the prematurity of Murray-Darling Basin water markets, they are described as some of the most sophisticated water markets in the world. The development of water markets has created significant benefits to irrigation farmers – most significantly by securing a property right for water which has strengthened the security and certainty of water access for farmers. Market development and trade reforms have also enhanced the value of irrigated agriculture; facilitated the inflow of capital; become an 'insurance mechanism' or buffer in times of drought; led to greater flexibility for water users to respond to changes in water availability, commodity prices, and other factors; as well as provided a mechanism for the transfer of water entitlements from productive extractive use to Government environmental accounts..

However, in recent times, there has been growing concerns from water users (and the general public) that the market, together with complex government rules and regulations, are not delivering as originally intended. These concerns include the surge in the price of water which threatens the viability of certain crops and is driving a shifting trend in agricultural production and water demand; the ability of the market to protect from third-party impacts (including the environment); a lack of transparency and access to timely information; as well as the existence of non-competitive conduct. NSWIC also acknowledges that amongst industry, there are concerns over the ownership of water by non-water users, which undoubtedly should be thoroughly assessed to inform evidence based decision making - whilst mindful of the significant negative impacts for irrigation business if restrictions on ownership were put in place.

The Murray Darling Basin has experienced significant changes in water demand and availability largely driven by water reforms and the worst drought on record (supply side), and changes in the use of water that have brought new participants into the water market (demand side).

Transparency

One of the core recommendations of NSWIC is improving the transparency of water markets – including the availability and accessibility of information – which is fundamental to ensuring fairness, proper conduct, and that the market is operating effectively.

The issues around transparency can be categorised as follows:

- **Availability** - There is significant market information that is available through trading platforms. The problem is that there is a lack of timely market information available to market participants.
- **Complexity** - NSWIC notes that the complexity of the water market is unfavourable to transparency, as confusion often arises around the various water products and exchanges.
- **Anti-competitive or unethical behaviour** - It is critical that information is publicly available, and accessible, for competition authorities to be able to determine what constitutes anti- competitive or unethical behaviour, and for clear processes to outline how such behaviour is managed. If insufficient information is available, assessment of market behaviours is constrained.
- **Data and reporting** - The market price data published by Murray-Darling Basin Authority (MDBA) relies on state water registers that often take up to several months to be brought up to date. These registers are considered to have poor quality control and are often published with errors and inconsistencies. In 2019, the MDBA conducted an audit of water trade price reporting with the purpose of: (1) assessing the effectiveness of processes and procedures of each Basin state to collect, validate and reporting accurate water trade pricing information; and (2) assessing water traders' compliance with the requirement to report accurate price information. The findings included that no Basin state had robust arrangements for accurate price information (including some data being incomplete or inaccurate); as well as a multitude of complexities which resulted in no single point of truth.
    - Applications such as Waterflow™ provide useful information, and are a positive step forward, but they also rely on government agencies and sources such as the state water registers as a primary source. Further, while NSWIC acknowledges there are many legitimate instances of $0 trades, it is difficult to have confidence that all trade prices are reported accurately.
- **Accessibility** - Relevant information is distributed amongst several agencies. Water users must be informed about where to access information, and also in some cases search fees are involved for access. Access to information is also constrained by privacy and confidentiality provisions that might create a perception of lack of transparency and so undermining public confidence in the market (mindful, in turn, of the privacy constraints of changes to this). Resource poor market participants may be disadvantage if they rely on publicly available information and unverifiable sources in making significant financial decisions. This is an approach they won't normally adopt in other areas of their

operation, such as cropping decisions for which they often seek professional advice.

This Inquiry, in alignment with the ACCC Inquiry, should focus on identifying ways to improve transparency and integrity in water markets to ensure confidence in the industry and community at large.

Recommendations:

- Any proposed change to market operations must follow a transparent process with full examination of potential ramifications to ensure no adverse impacts, owing to the complexity of the water market.
- Core principles (such as those outlined in the NWI) as well as the utmost protection of water property rights, no unmitigated third-party impacts and certainty/stability are fundamental in the consideration of any changes.
- This Inquiry should engage with the ongoing ACCC Water Markets Inquiry regarding the section on water trade.
- The Inquiry (along with the ACCC Inquiry) should identify any market or government behaviour, including policy/regulation changes, that could significantly impact entitlement, reliability and allocations, and consequently distort the water market.
    - If unlawful wrongdoings have occurred, the full force of the law must apply, with a zero-tolerance approach.
    - Where actions are not unlawful, but behaviour is considered unethical or poor conduct, then rules should be strengthened to improve conduct and practices, ensure ethical standards/conduct and disincentivise poor behaviour.
    - If allegations are made, but are not substantiated, these should be publicly dismissed as false claims to ensure public confidence is not undermined unnecessarily.
- It is important that information on water market and tradeable water holdings are made available in a timely manner to the public and especially all market participants. State water register information needs to be consistent, timely and up to date.
- The inquiry should recommend clear guidelines on ensuring data access at reasonable cost and on time.

Further information and specific details are contained in the NSWIC submission to the ACCC Water Markets Inquiry [HERE].[26]

6) Compliance

NSWIC note that there have been significant reforms to monitoring and compliance in NSW in recent years. This involves the new NSW Non-Urban Water Metering Policy, as well as the creation of the Natural Resources Access Regulator. These changes have increased the standard of compliance arrangements in NSW, and

[26] NSW Irrigators' Council (2019) Available here: https://www.nswic.org.au/wordpress/wp-content/uploads/2019/12/2019-11-29-NSWIC-Submission-ACCC-Water-Markets.pdf

irrigation farmers (and their representative organisations) have been supportive and active in the government processes to design and deliver these measures. There should be every confidence that compliance in NSW is of an incredibly high standard and strictly enforced.

Industry has a strict zero tolerance approach to water theft.

Understanding

Generally irrigation farmers have a high-level of understanding about their obligations – although for that to continue (particularly with rapid and sometimes sudden changes to usage conditions, such as sudden embargoes) clear communication from government in a timely and direct manner is essential.

Data, beyond compliance

NSWIC firmly believes that improvements to metering and measurement of water use should not solely focus on compliance but be part of a broader strategy for gaining greater data to inform natural resource management. For example, this should encompass providing data to support river operations, billing, and understanding changing patterns of water use. Whilst compliance is a critical and important element, the singular focus on compliance distracts from opportunities to design the framework to suit a broader suit of needs for water management.

Funding for metering

NSWIC wishes to highlight that much of the reason for upgrading the metering framework is to foster increased public confidence in water management and compliance, following years of inadequate regulatory action through the various Government departments. Following from the *Matthews Inquiry*, responsibility and cost now shifts to water users. Whilst that motivation for public confidence is highly supported by industry, in terms of cost, it must be recognised that this framework is largely for the public interest and not for the benefit of the individual irrigation farmers bearing the cost. This should be paramount in cost arrangements.

NSWIC understands that the Federal Government has a budget allocated for ensuring compliance with AS4747 but understands that this has not yet been delegated to the NSW Government. Ensuring that costs are reasonably shared for measures of this kind is necessary.

Penalties regimes

Whilst there may be benefits in terms of consistency for a uniform sanction/penalty system, there would be a number of challenges due to various state laws and agencies.

Perhaps the more significant option for now would be ensuring that 'what constitutes compliance' is consistent across states, rather than focusing on what the penalty is. For example, in South Australia, water account balances can be overdrawn provided they

are balanced by the end of the quarter. This would be considered water theft in NSW, if the water is not in the account prior to water pumping commencing.

Media influence

Notably also, the time for judicial process is a challenge. The reputation of water users is easily tarnished by reports of non-compliance, even before they are in court. It appears the 'innocent before proven guilty' principle does not stand in the public eye when it comes to water. Media should be closely scrutinised in that regard, to ensure public opinion does not have undue influence on judicial process.

Recommendation:

Given the significant and ongoing changes to compliance arrangements in recent times, the Committee must allow time and support resourcing for the continued delivery of these efforts, to ensure sufficient time to assess improvements through these new programs.

The Committee should also provide a strong finding that – counter to the popular narrative and public sentiment – that there have been significant changes and now exceptionally high standards of compliance.

7) Monitoring and evaluating Basin Plan implementation

Timeframes

NSWIC supports flexibility in timeframes for implementation of the Basin Plan, provided any changes are linked to improved implementation arrangements and a secure agreement by Government not to pursue buy backs.

The Plan includes hard wired deadlines which are legislated. The key date of 2024 (1 July) for completion of agreed constraints measures and supply and efficiency measures is significant, as under current legislated arrangements and policy, any under-delivery of the SDLAM will result in further buy back. This would be devastating for regional communities and the irrigation sector.

It is important to note that recent times have seen a great deal of reforms be implemented, or be in the process of implementation, at both a state and federal level. NSW, for example, has seen an overhaul to many regulations and requirements. It is critical that time is allowed for implementation to proceed, as well as any assessment to allow adequate time to see the benefits that this suite of reforms will have.

Flexibility in implementation timeframes would allow environmental water managers to learn by doing, developing and implementing new and improved options for the use and management of environmental water. Communities could be more effectively engaged in the development of SDLAM projects, allowing new and adaptive approaches to be properly explored, ultimately resulting in an improved triple bottom line outcome.

It is unfortunate that, under the status quo, irrigation farmers (and thus regional communities) are the ones carrying the risk of the Basin Plan not being delivered 'on time'. This risk is real, and if timeframes are not appropriately managed, the farming sector and communities will be the ones most directly impacted.

Recommendation:
Flexibility in timeframes for improved implementation of the Basin Plan, linked to a secure agreement by Government not to pursue buy backs as a result of under delivery by 2024.

8) Drought, Climate Change and Water for Critical Human Needs

Irrigation farmers respect the prioritisation of water, and this is a guiding principle of NSWIC. In a recent media release on 18 February 2020, NSWIC stated:

"All water-users recognise that higher priority town and environmental reserves must be met first…"

"recent drought conditions have been unprecedented, and we agree that during these exceptional circumstances, drastic measures such as embargoes have been required to ensure higher priority needs can be met in the short term. These measures represent the most comprehensive protection of inflows ever applied."

However, NSWIC does have concerns that the use of the drastic measure to suspend WSPs should not become a normal operating measure, nor should it be a long term measure. This was also stated in the media release:

"However, suspending a water sharing plan is never the long-term solution. After over 12 days of intense rainfall and flood conditions in many areas, Government is yet to identify the target for when established water sharing arrangements will resume."

Ideally, water sharing arrangements should include scientifically robust targets, so that the WSP is able to deal with extreme circumstances without having to be suspended. This would give all water users – upstream, downstream, and including the environment – certainty over water management arrangements.

The media release continued:

"No pumping from rivers has yet occurred, as irrigation farmers respect that higher priority needs must still be prioritised, however we need a clear pathway forward for how our farmers can get back on their feet.

Our irrigation farmers have walked along dry river beds for 3 years, and clearly defined targets are necessary for the whole system to recover [and for WSPs to become operational]."

It is critical that water policy is able to deal with all circumstances, even extreme circumstances, so that there are no pockets of uncertainty, or opportunities for decision-making to occur without transparency or due process.

Critical Human Needs

In the Water Act (2007), Part 2A, 86A (2) states:

Critical human water needs are the needs for a minimum amount of water, that can only reasonably be provided from Basin water resources, required to meet:

(a) core human consumption requirements in urban and rural areas; and

(b) those non-human consumption requirements that a failure to meet would cause prohibitively high social, economic or national security costs.

Part (b) has largely been untested and undefined in terms of what defines non-human consumption requirements whereby a failure to meet would cause prohibitively high social, economic or national security costs. Evidently, during current times (but particularly the previous 3 years) between extensive drought and water reforms, the lack of water available to farmers has caused enormous economic depression in regional communities, where farms have shut their gates, businesses have closed down, people have had to relocate to cities to find work and agricultural output has faced an enormous downturn, with a supply crisis leading to higher costs for food in urban areas.

ABS Chief Economist, Bruce Hockman said last year: "*Drought conditions are impacting prices for a range of food products. Food prices increased 1.3 per cent this quarter with price rises for beef and veal (+2.9 per cent), pork (+4.7 per cent), milk (+1.7 per cent) and cheese (+2.4 per cent). Both the impact from the drought and lower seasonal supply contributed to price rises for fruit (+6.8 per cent) this quarter.*"[27]

From previous droughts, such as in 2002-03, "the real gross value of vegetable production in Australia declined by 9% and took several years to recover" [28] (ABARE 2007)[29]. In 2005-07, "food prices increased by 12%, again double the overall CPI rate of 6%. During this period, consumer prices for bread and eggs increased by 17%, vegetables by 33% and fruit by 43%"[30].

The questions remains as to what constitutes prohibitively high social and economic costs, and what measures can be taken to alleviate such costs whilst adhering to other legislative obligations for water needs. This would be an important area for the Committee to investigate.

Drought

According to the CSIRO, by 2070, there is expected to be 40% more months of drought in eastern Australia.[31] It is critical that active preparations are done to ensure the agriculture sector is prepared to not just be resilient to these climatic changes, but to continue to prosper despite them.

[27] https://www.abs.gov.au/ausstats/abs@.nsf/lookup/6401.0Media%20Release1Dec%202019

[28] J Quiggin (2007), "*Drought, climate change and food prices in Australia*" [P 8]. Available at: https://www.researchgate.net/publication/228936289_Drought_climate_change_and_food_prices_in_Australia

[29] ABARE, Australia Vegetable Growing Industry: an economic survey 2006-06, October 2007 [P 4].

[30] J Quiggin (2007), "*Drought, climate change and food prices in Australia*" [P 8]. Available at: https://www.researchgate.net/publication/228936289_Drought_climate_change_and_food_prices_in_Australia (P 8)

[31] J Quiggin (2007), "*Drought, climate change and food prices in Australia*" [P 2]. Available at: https://www.researchgate.net/publication/228936289_Drought_climate_change_and_food_prices_in_Australia

"*In Australia, inflows to the Murray-Darling Basin, the location of most irrigated agriculture, are projected to decline.*"[32]

Water availability is a product of both **climatic water availability** (droughts) as well as **regulatory water availability** (allocations, sharing agreements, water recovery programs, etc). At the present time, water availability for irrigation farmers is dramatically reduced because of both climatic water availability (with the worst drought in Australia's recorded history), as well as regulatory water availability with the implementation of arguably the largest water reform in Australia's history (Murray-Darling Basin Plan with a 20% reduction in agricultural water) and 0% allocations in most valleys. The culmination of both the climatic and regulatory hindrances on water availability has been unfortunate and puts increased pressure on the implementation of these reforms. The challenges of implementing significant reforms amidst such a critical drought have been evident.

Following years of water reforms which have cumulatively removed over 25% of water away from the agriculture sector, serious measures will be needed to ensure that the irrigated agriculture sector is sustainable and viable into the future. This is the sector that produces most of the fresh fruits, vegetables and fibre enjoyed by Australians, such as oranges, almonds, dairy, rice, and grapes. NSWIC outlined in detail measures that are needed to support the irrigated agriculture sector to be stronger during drought in a submission to the Senate Standing Committee on Rural and Regional Affairs and Transport, earlier this year.[33] This may involve:

- Policy measures to ensure drought risk and burden is appropriately managed and shared;
- Responding and adapting to a changing climate of water availability by investing in innovative infrastructure to enhance water conservation capacity for increased resilience to prolonged dry periods;
- Supporting increased Research, Development & Extension in agricultural water security and efficiency; and
- Reviewing NSW rural bulk water cost sharing arrangements to ensure the inappropriate framework (impactor pays principle and absurd counterfactual) as well as financial constraints of water users during drought periods does not inhibit development of drought proofing infrastructure.

Conclusion

NSWIC strongly welcomes the *Senate Select Committee on the Multi-Jurisdictional Management and Execution of the Murray Darling Basin Plan*.

The key message is that the removal of water from farming communities through the Basin Plan has had significant impacts, and there is an urgent need to take action to improve the delivery of the remainder of the Basin Plan.

[32] J Quiggin (2007), "*Drought, climate change and food prices in Australia*" [P 5]. Available at: https://www.researchgate.net/publication/228936289_Drought_climate_change_and_food_prices_in_Australia

[33] NSWIC Submission (February 2020), Senate Standing Committee on Rural and Regional Affairs and Transport, "*Federal Government's response to the drought, and the adequacy and appropriateness of policies and measures to support farmers, regional communities and the Australian economy*". Available here: https://www.nswic.org.au/wordpress/wp-content/uploads/2020/02/2020-01.pdf

Those improvements have been provided to Government through an official review of the Basin Plan – by the Productivity Commission – but to date, action has been insufficient.

NSWIC and our farming communities urge you to take the recommendations put forward on how to improve implementation of the Basin Plan seriously, so that there can be restored confidence in water policy, and our communities getting back on their feet.

Kind regards,

NSW Irrigators' Council.

Appendix 1: List of MDB Inquiries since 2012

External Analysis

Date	Organisation	Inquiry
2020	Senate Select Committee on the Multi-Jurisdictional Management and Execution of the Murray Darling Basin Plan	Multi-Jurisdictional Management and Execution of the Murray Darling Basin Plan
2020	Interim Inspector-General of Murray–Darling Basin Water Resources	Inquiry into management of Murray–Darling Basin water resources
2019	Independent Panel for Capacity Project Review	Report to Murray Darling Basin Ministerial Council - River Murray Capacity and Delivery Shortfall Project peer review
2019	Independent Expert Panel to Investigate River Flows	Murray-Darling Basin constraints modelling Report by the NSW and Victorian Ministers' Independent Expert Panel
2019	ACCC	Murray-Darling Basin water markets inquiry
2019	Independent socio economic panel	Independent assessment of social and economic conditions in the Basin (underway)
2019	NSW Natural Resources Commission	draft report for Barwon-Darling water sharing plan review
2019	Academy of science report on fish deaths	Investigation of the causes of mass fish kills in the Menindee Region NSW over the summer of 2018–2019
2019	"Vertessy" Independent expert panel	Independent panel to assess fish deaths in the Lower Darling
2018	EY (for Murray-Darling Basin Ministerial Council)	Analysis of efficiency measures in the Murray-Darling Basin
2018	Ombudsman NSW	Water: Compliance and enforcement
2018	Independent water experts (for QLD Department of Natural Resources, Mines and Energy)	Independent audit of Queensland non-urban water measurement and compliance
2018	Independent Royal Commissioner (for South Australian Government)	Murray-Darling Basin Royal Commission
2018	**Productivity Commission**	Murray-Darling Basin Plan: five-year assessment
2018	Standing Committee on the Environment and Energy	inquiry into the management and use of Commonwealth environmental water
2017	Auditor General	Effectiveness of Monitoring and Payment Arrangements under National Partnership Agreements
2017	Auditor General	New South Wales' Protection and use of Environmental Water in the Murray-Darling Basin
2017	Productivity Commission	National Water Reform
2017	Senate Standing Committee on Rural and Regional Affairs and Transport	Integrity of the water market in the Murray-Darling Basin

2017	Senate Standing Committees on Environment and Communications	Adequacy of the regulatory framework governing water use by the extractive industry
2017	Standing Committee on Agriculture and Water Resources	Inquiry into water use efficiency programs in agriculture
2015	ACCC	Review of Water charge rules
2015	Senate Select Committee on the Murray-Darling Basin Plan	Murray-Darling Basin Plan
2014	National Water Commission	Australia's Water Blueprint National Reform Assessment

Internal analysis

Date	Organisation	Inquiry
2018	Murray-Darling Basin Authority	Basin Compliance Compact
2017	Murray-Darling Basin Authority	The Murray–Darling Basin Water Compliance Review
2017	Murray-Darling Basin Authority	Murray-Darling Basin Plan SDL Limits of Change Review
2017	Murray-Darling Basin Authority	Sustainable Diversion Limit Adjustment Mechanism: Draft Determination Report 2
2017	Murray-Darling Basin Authority	2017 Basin Plan Evaluation
2017	Murray-Darling Basin Ministerial Council	Implementing the Basin Plan
2016	Murray-Darling Basin Authority	Northern Basin Review
2018	University of New England (for MDBA)	An independent review of the southern basin community modelling approach
2018	Drew Bewsher and Greg Claydon (for MDBA)	State water recovery - independent review reports
2018	University for Melbourne (for MDBA)	Return flows: Independent review
2017	Aither (for NSW and Vic Governments)	Murray-Darling Basin SDL adjustment mechanism
2017	Aither (for NSW DPI)	Review of socio-economic neutrality in the context of Murray-Darling Basin Plan implementation
2017	Bewsher (for MDBA)	Independent Review of Hydrologic Modelling for SDL Adjustments
2017	Ken Matthews (for NSW Department of Industry)	Independent investigation into NSW Water Management and Compliance
2017	Vic Department of Environment, Natural Resources and Regional Development Committee	Inquiry into the management, governance and use of environmental water
2016	KPMG (for MDBA)	Northern Basin Community Economic Modelling
2016	University of New England (for MDBA)	Independent review of the social and economic modelling for Northern Basin Review
2015	Deloitte (for MDBA)	Socio-economic impacts of Groundwater Amendments to the Basin Plan

2015	Warren Martin & Graeme Turner (for MDBA)	SDL Adjustment Stocktake Report
2014	Cardno (for MDBA)	Independent review of the efficiency of River Murray Operations

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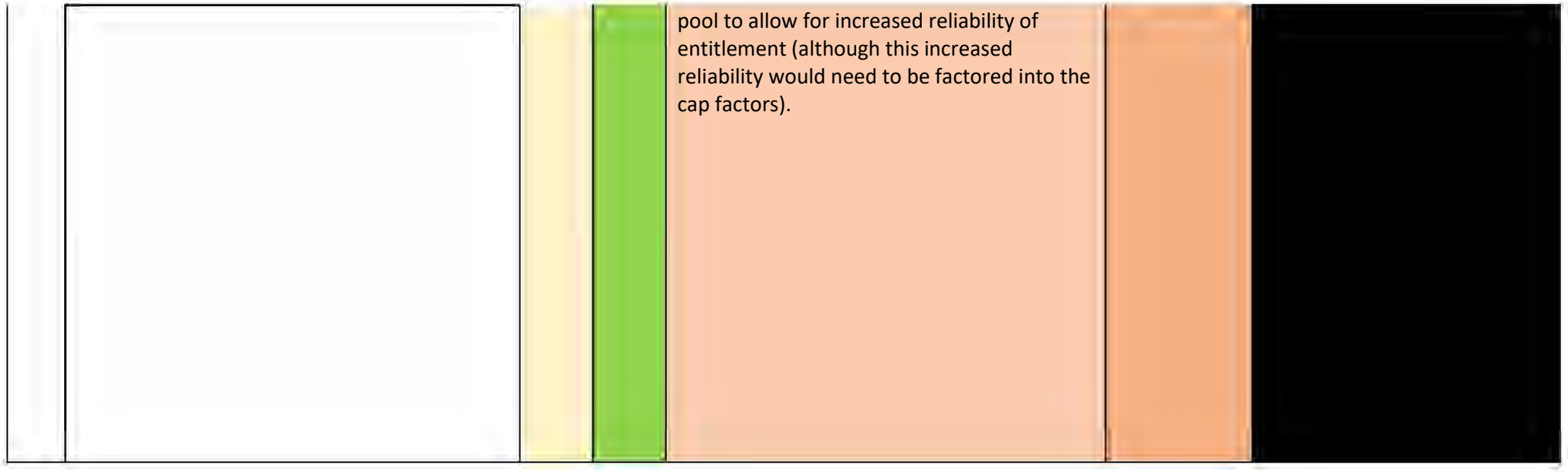
Appendix 2: Industry Perspective on the Adequacy and Appropriateness of the Government Response to the Productivity Commission Murray Darling Basin Plan 5 year assessment.

Recommendations		Agreement by Government	Agreement by Industry	Commentary on Government Response	Agreement by Industry to Government Response	ACTIONS SOUGHT
3.1	Once Water Resource Plans are accredited, the Murray-Darling Basin Authority (as Basin Plan Regulator) should assess which (if any) resource units are over-recovered against the Sustainable Diversion Limit. As soon as practicable, the Commonwealth Environmental Water Holder, in co-operation with Basin Governments, should develop a process and an appropriate timeframe to return any identified over-recovery to consumptive uses in accordance with Sustainable Diversion Limits.	Agree in part	Agree	The lack of commitment in this response is concerning and will inevitably delay action. Whilst the final amount of any over-recovery may not be known for some time, a process must be established in a timely manner to provide certainty and avoid unnecessary delays when volumes do become known. It is a concern that there is no clear commitment to consultation with the valleys affected. It would be seen as inconsistent if Government continues to pursue recovery in under recovered areas but was not willing to deal appropriately with over recovery. Potentially water can be added to resource	Inadequate (stronger response required)	Governments must promptly establish a clear, proper process for over-recovered water, including exploration of the option to add water to the resource pool to increase the reliability of existing entitlements. This process should be informed by meaningful consultation with communities in affected valleys.


pool to allow for increased reliability of entitlement (although this increased reliability would need to be factored into the cap factors).

4.1	Basin Governments should, as soon as practicable: • resolve governance and funding issues for supply measures, including risk sharing arrangements • develop an integrated plan for delivering supply measures to improve understanding and management of interdependencies within the package of supply measures • develop clear mechanisms for consultation on the package and individual projects with Traditional Owners and local communities.	Agree	Agree	**Position:** NSWIC strongly supports well-designed and locally supported SDLAM projects to achieve the equivalent of 650GL of water recovery as the most critical component to future implementation of the Basin Plan, providing the lowest risk to communities, and realising targeted environmental outcomes. However, whilst the concept of a SDLAM is strongly supported, many of the actual projects were poorly designed (and designed out of touch from local communities). Thus many individual projects are not supported by local communities. This creates significant challenge for progressing SDLAM. As a result, flexibility and adaptability for new and improved projects are essential to success. All stakeholders and communities affected by projects must be effectively involved in development and delivery. **Response to Government Response:** Industry welcomes COAG agreeing with recommendation 4.1, however, we seek further information on risk sharing arrangements. Industry remain concerned that there is a separation of responsibility for delivery (which rests with governments) - and the consequences of failure to deliver	Inadequate (stronger response required)	Develop a flexible pathway to allow for new and improved SDLAM projects, and ensure greater community participation and communication.

			(which fall on irrigation farmers and regional communities). We would like to have seen a stronger commitment in this regard, and would look forward to being part of further work to define the risk sharing arrangements. The risk of projects not being completed by the deadline due to implementation failures, is that it creates a significant risk and fear that further buy-backs will be required. This is possibly the greatest risk there is for regional communities remaining under the Basin Plan.		

4.2	Basin Governments should be open to the possibility of extending the 30 June 2024 deadline for specific supply measures to be operational where an extension would be necessary to allow worthwhile projects to be retained. Basin Governments should make this position clear to project proponents early enough to inform the finalisation of detailed business cases for supply measures. It should be clear that extensions would need to be well founded, only apply in limited circumstances, and not alter the requirement to make good if a project ultimately fails.	Further consideration needed	Agree	Industry is disappointed at the response which appears to delay necessary action. Despite best efforts, it is becoming increasingly apparent that the 2024 deadline is highly ambitious, if not unrealistic, and should be an inevitable reality Governments must confront as they consider how to implement supply measures. We welcome the commitment that it is possible that deadlines for these specific initiatives may need to be revisited on a case-by-case basis but feel that this may be deferring an inevitable problem. The very slow pace on these projects is clearly confirmed by the fact that the response indicates that in many cases gateway assessments are yet to be complete. This lack of progress is frustrating for industry and communities.	Inadequate (stronger response required)	Governments must take a clear position on this recommendation, before detailed business cases are complete, to provide certainty to communities that there will be flexibility with project deadlines rather than inadvertently locking in the uncertainty of post 2024 water buybacks if water recovery proves inadequate. Worthwhile projects, as determined by the gateway process (recommendation 4.4), should be afforded the opportunity to be implemented in realistic timeframes. This will allow good projects to be completed and for communities to realise their full benefit. Similarly, projects that fail to make reasonable progress should be removed and replaced with projects that are more feasible and are supported by community. This flexibility and adaptability is necessary to successful implementation.

10.2	Basin Governments should set and publish a work plan within the next 12 months that describes how delivery capacity issues and third party effects associated with changes in water use and trade will be investigated and managed. The work plan should specify responsibilities, timeframes and how this information will be communicated to the water market. Basin Governments should assign the Murray-Darling Basin Authority (as the agent of governments) responsibility for identifying and managing risks related to changes in water use and trade in shared resources and connected systems.	Agree in part	Agree	This is a critical issue for industry. The consequence for irrigation farmers if deliverability is not appropriately managed involves risks to both the reliability of water entitlements, and to the accessibility of allocations. The risk to reliability is a result of substantial losses in the system reducing the total water balance; and the risk to accessibility is a result of the physical capacity of the system to deliver desired volumes of water.	Agree - but must be progressed as a priority issue	Addressing deliverability must: • *Protect the property rights of entitlement holders (i.e. water availability, accessibility, reliability).* • *Ensure no negative unmitigated third-party impacts (including for the environment);* • *Delivery shortfall risks are to be borne by new developers* • *Be agnostic to (not discriminate between) agricultural industries;* • *Seek to minimise operational losses – with delivery of productive water not being overbank;* • *Maintain entitlement characteristics;* • *Enforce trade rules;* • *Improve the understanding of risk, and the management of risk, for all water users (historical and new);*

- *Recognise and account for the environmental benefits from the delivery of productive water;*

Ensure consultation with stakeholders.

11.7	Basin States should manage the risks to achieving the environmental watering objectives set out in long-term watering plans by delivering complementary waterway and natural resource management measures (such as habitat restoration or weed and pest control).	Agree	Agree	This is a critical recommendation from the Productivity Commission, backed by recommendations from the Vertessy Report and as advocated by the agricultural sector now for many years. The recognition that environmental outcomes cannot be achieved by flow alone is very welcome, however this needs to be translated into real action. The Basin Plan will not achieve positive environmental outcomes while we fail to tackle cold water pollution, connectivity issues, feral pest species etc. These are key components of the Northern Basin toolkit measures, but progress is slow and lacks coordination.	Inadequate (stronger response required)	Develop a package of complementary measures as a Basin Strategy on Environmental Improvement based on non-flow means.