



Draft floodplain harvesting monitoring and auditing strategy

Joint submission by The Australia
Institute, Southern Riverina
Irrigators, Darling River Action Group
and Tolarno Station

The draft strategy is inadequate for managing floodplain harvesting in New South Wales. It is inconsistent with numerous legislative and other government commitments and is likely unlawful. It should be withdrawn and heavily revised.

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SRI is a peak lobbying organisation providing advocacy to membership which is comprised of five landholder associations whose members are irrigators, farming within the footprint of Murray Irrigation Limited in the Southern Riverina of NSW.
www.southernriverinairrigators.com.au

ABOUT DARLING RIVER ACTION GROUP

The Darling River Action Group Incorporated (DRAG) was formed in 2004 after Broken Hill's water supply turned salty and foul in 2003 and came very close to drying up. The water came from the Darling River and it became clear to Broken Hill's citizens that the security of their water supply depends on the health of the Darling River and the Menindee Lakes.

DRAG's aim is to improve the health of the Darling River in terms of water flow, water quality and riverside environment. The group has members and supporters in Broken Hill, Menindee, Wilcannia, other parts of Australia, as well as a few international members.

<http://www.d-r-a-g.org.au/>

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Tolarno Station sits on the Darling River approximately 50km south of the Menindee Lakes. Tolarno and two other properties owned by the McBride family cover 680,000 acres on the Lower Darling. All three properties depend on the Darling for livestock and domestic purposes. The properties have a rich history spanning 160 years, and today run merino sheep, cattle and rangeland goats.

<http://www.tolarnostation.com.au/>

Summary

The NSW *Draft Floodplain harvesting monitoring and auditing strategy* (draft strategy) is entirely inadequate for managing floodplain harvesting in the state. It should be withdrawn and heavily revised before being finalised.

Floodplain harvesting has a huge impact on not just the Northern Basin, but every stakeholder in the Murray-Darling Basin: financially, socially and environmentally. It has been a factor in the Menindee fish kills and has received scathing criticism from the South Australian Royal Commission into the Murray-Darling Basin. NSW Department of Industry (DoI) has acknowledged there has been a significant growth in floodplain extractions.

The draft strategy does not comply with numerous legislative and other government requirements. Firstly, it does not protect water sources, ecosystems or other stakeholders rights and so is unlikely to meet the NSW Water Management Act 2000.

The draft strategy will not bring floodplain harvesting in line with existing extraction limits, but will instead increase them as outlined in the Draft Macquarie-Castlereagh Surface Water Resource Plan.

The draft strategy contradicts itself in claiming that no additional water will be taken, while stating that current floodplain harvesting diversions are unmonitored. Existing estimates are 'grossly underestimated' according to evidence before the SA Royal Commission.

The draft strategy would increase sustainable diversion limits (SDL) based on consumptive use not science, and so is likely in breach of the Federal Water Act. It provides no detail on how the DoI will manage a future breach of SDL.

Proposed monitoring is based on long-outdated technology. Despite \$13 billion allocated to the Basin Plan, this major part of water diversions is to be measured by 'gauge boards' which to the untrained eye resemble a painted stick. The licence holder is required to manually keep their own recordings of gauge board readings and self-report. There appear to be no checks or safe-guards against under recording water in storages and the proposed system is ripe for manipulation.

The draft strategy's monitoring proposal is grossly inadequate, including claims such as "gauge boards will need to be checked every ten years to demonstrate that they are correctly calibrated". It will not maintain public confidence in natural resources

management legislation and is therefore inconsistent with the objectives of the Natural Resource Access Regulator.

The draft strategy downplays evaporation in storages, including 'temporary storages' which are defined as having water in them for 'a few weeks', but appear to allow for indefinite storage with minimal reporting and exemptions.

The draft strategy contradicts NSW obligations under the *Murray-Darling Basin Compliance Compact* to use up-to-date technology, such as estimation of evapotranspiration via satellite imagery or telemetric metering that is tamper proof and not self-regulated.

The draft strategy is inconsistent with the NSW Quality Regulatory Services Initiative. This initiative is based on the risk and impact of non-compliance, both of which are very high for floodplain harvesting under the draft strategy.

Astonishingly, the draft strategy aims to audit just one in ten floodplain harvesters each year. It is difficult to understand how this could be considered an acceptable level of verification, particularly when the risk and impact of non-compliance are both very high.

While the draft strategy lists nine enforcement options, it is unclear how breaches will be treated. It appears that multiple breaches could be met with little more than advisory letters and verbal warnings.

We believe that the floodplain harvesting policy is unlawful and we recommend that the floodplain harvesting policy and this draft strategy is withdrawn or heavily amended prior to finalisation to avoid legal action.

Introduction

The Australia Institute welcomes the opportunity to make a submission on the NSW *Draft Floodplain harvesting monitoring and auditing strategy* (draft strategy).¹

The purpose of the draft strategy is to:

- ensure fair use of water resources
- build trust and confidence through a transparent strategy
- support the irrigation industry's continued access to floodplain water into the future
- support the reliability of water supply for downstream water users
- ensure compliance with the requirements of the Water Management Act 2000, meet the objectives of the National water Initiative
- protect the environment (page 4)

While we support these goals, the current draft it will fail to achieve any of them with the exception of the third point ensuring access to floodplain water for particular Northern Basin irrigators. The current draft should be withdrawn and heavily revised to ensure the other goals are met.

Floodplain harvesting has a huge impact, not just on the Northern Basin, but on all stakeholders in the Murray-Darling Basin: financially, socially and environmentally. The South Australian Royal Commission into the Murray-Darling Basin summarised this:

It is apparent that floodplain diversion policy decisions have the potential to exacerbate detrimental impacts on wetlands, waterbird breeding, the health of flora and fauna, as well as 'social well-being and economic livelihoods'.

Not only do floodplain diversions deny economic opportunities across the Northern Basin, left unregulated they are 'one of the most significant threats to water security in the Northern Murray-Darling Basin' to both licence holders and downstream states.²

¹ NSW Department of Industry (2018) *Draft Floodplain harvesting monitoring and auditing strategy*, <https://www.industry.nsw.gov.au/water/plans-programs/healthy-floodplains-project/monitoring-and-auditing-strategy>

² Walker (2019) *Murray-Darling Basin Royal Commission Report*, <https://www.mdbrc.sa.gov.au/sites/default/files/murray-darling-basin-royal-commission-report.pdf?v=1548898371>

Research by The Australia Institute identifies a step decline in low and medium flows into the Darling and the Menindee Lakes this century.³ MDBA's own research says this decline cannot be attributed to climate change or climate variability and is most likely caused by increased irrigation extractions.⁴ If we accept that river extractions are regulated properly under the Cap, then the only explanation of increased extractions must be attributed to growth in floodplain harvesting, which has not been reported under Cap.

Floodplain harvesting's impact reaches across the Basin because of how the South Australian entitlement is met. As prescribed under the Murray-Darling Basin Agreement, SA's entitlement comes equally from NSW and Victoria. Historically, the Darling and Menindee Lakes supplied 39% of NSW's part of SA's entitlement with the Murray supplying the remainder.⁵ Increased extractions in the Northern Basin through floodplain harvesting have reduced the volumes in Menindee and therefore the Darling's ability to contribute to the South Australian entitlement. This shortfall is transferred directly to Murray water licence holders. Southern irrigators such as Southern Riverina Irrigators therefore have a direct and pecuniary interest in NSW's floodplain harvesting policy and how it is monitored and audited.

The NSW floodplain harvesting policy and this draft strategy is attracting close attention not just because of its Basin-wide impacts, but also because of the Menindee fish kills and the subsequent inquiries that has generated; and the release of the South Australian Royal Commission into the Murray-Darling Basin.

This draft strategy could be an opportunity to help restore public confidence in the management of water in the Murray-Darling Basin and the irrigation industry, more generally. In its present form, however, it will only make a distrustful public more cynical and will damage confidence further.

This draft strategy is the latest example of repeated failure of water agencies at both federal and state level to manage our water in an equitable, transparent and credible way. This repeated failure by governments is jeopardising the social licence of the entire irrigation industry.

³ Slattery and Campbell (2019) *A Fish Kill QandA*, <http://www.tai.org.au/sites/default/files/P665%20-%20A%20Fish%20Kill%20QandA%20%255bWEB%255d.pdf>

⁴ MDBA (2018) *Hydrologic assessment of flow changes in the Northern Basin*, <https://www.mdba.gov.au/publications/mdba-reports/hydrologic-assessment-flow-changes-northern-basin>

⁵ Thoms et al (2000) *Report of the River Murray Scientific Panel on Environmental Flows: River Murray - Dartmouth to Wellington and the Lower Darling River*, River Murray Scientific Panel on Environmental Flows

Misleading claims in the draft strategy

The *Draft Floodplain harvesting monitoring and auditing strategy* (draft strategy) contains several erroneous or misleading claims. Perhaps the most problematic is the following:

This policy aims to bring all legitimate floodplain harvesting diversions within the water licensing and approval framework under the Water Management Act. These diversions will fall within pre-existing water sharing plan limits. This means that no additional water take is allowed and flows for downstream systems are not reduced. (page 1)

Each sentence in this paragraph is misleading and are addressed separately below.

1. This policy aims to bring all legitimate floodplain harvesting diversions within the water licensing and approval framework under the Water Management Act.

Leaving the question of 'legitimacy' aside, much floodplain harvesting is unlikely to comply with the principles of the Water Management Act. Principle Three of the NSW Water Management Act states:

in relation to water sharing:

a) sharing of water from a water source must protect the water source and its dependent ecosystems, and

b) sharing of water from a water source must protect basic landholder rights, and

c) sharing or extraction of water under any other right must not prejudice the principles set out in paragraphs (a) and (b).⁶

The Department of Industry (DoI) has not provided any evidence that the floodplain harvesting strategy will protect the water source and its dependent ecosystems. South Australia's Royal Commission noted on this point:

⁶ Water Management Act 2000, s5(3), http://www8.austlii.edu.au/cgi-bin/download.cgi/au/legis/nsw/consol_act/wma2000166

In determining the ESLT, the MDBA did not have or obtain accurate information about either floodplains or floodplain diversions in the Basin. Floodplain diversions have had a significant detrimental impact on the health of many important environmental assets of the Basin.⁷

Floodplain harvesting as proposed does not protect downstream basic landholder rights in general and the draft strategy does not provide a mechanism to address this. On the contrary, floodplain harvesting has caused significant harm to property rights downstream. Research by The Australia Institute has reported on this in the Lower Darling.⁸ The financial value of other southern stakeholders property rights are also being impacted through a diminishment of water licence reliability.

2. These diversions will fall within pre-existing water sharing plan limits.

This is incorrect. The water sharing plan limits will be increased by the floodplain harvesting licence amounts, as explained in the Draft Macquarie-Castlereagh Surface Water Resource Plan. That plan shows that floodplain harvesting licence shares are yet to be determined, but will be in addition to the plan limits set under the existing Water Sharing Plan.⁹

3. This means that no additional water take is allowed and flows for downstream systems are not reduced.

It is unclear how DoI can assert no additional water take and no impact on downstream flows, when there has been little to no monitoring of floodplain take to date. This statement is directly contradicted on page 2 of the draft strategy:

There is currently no monitoring of floodplain harvesting diversions.

With no current monitoring DoI cannot claim the policy will have no impacts.

⁷ Walker (2019) *Murray-Darling Basin Royal Commission Report*, <https://www.mdbrc.sa.gov.au/sites/default/files/murray-darling-basin-royal-commission-report.pdf?v=1548898371>

⁸ Slattery and Campbell (2018) *Trickle Out Effect*, <http://www.tai.org.au/content/trickle-out-effect>

⁹ DoI (2019), *Draft Macquarie-Castlereagh Surface Water Resource Plan*, https://www.industry.nsw.gov.au/__data/assets/pdf_file/0012/201900/draft-wsp-macquarie-castlereagh-surface-water-resource-plan.pdf

Beyond the lack of current monitoring, NSW estimates of floodplain harvesting volumes are infamous for their inaccuracy. The SA Royal Commission noted that:

Evidence was also provided to the Commissioner indicating that the New South Wales Government has acknowledged that floodplain diversions have been ‘grossly underestimated’.¹⁰

and

Floodplain harvesting ... is an urgent issue for urgent action. It presently renders administration of the water resources in question a virtually data-free zone. And that precludes administration ‘on the basis of the best available scientific knowledge’.¹¹

It is impossible for DoI to determine that no additional water is taken and guarantee that there will be no impact on downstream systems if there has been inadequate monitoring of historical take and that diversions have been ‘grossly underestimated’.

Further, MDBA’s analysis, published only three months ago, concedes that there has been an impact on low and medium flows in the northern basin.¹²

Given these issues, the draft strategy and the floodplain harvesting policy are in, our view:

- not consistent with the Water Management Act;
- not within pre-existing plan limits; and
- likely to increase water take and impacts on downstream users.

The Royal Commission makes the following observations in relation to floodplain harvesting:

In relation to the MDBA, the very significant difference between the Basin Plan’s assumption of 210 GL to account for floodplain diversions, and the likely reality of that figure being significantly greater, means that either the work purportedly completed by the MDBA before the Basin Plan was enacted was

¹⁰ Walker (2019) *Murray-Darling Basin Royal Commission Report*, <https://www.mdbrc.sa.gov.au/sites/default/files/murray-darling-basin-royal-commission-report.pdf?v=1548898371>

¹¹ Walker (2019) *Murray-Darling Basin Royal Commission Report*, <https://www.mdbrc.sa.gov.au/sites/default/files/murray-darling-basin-royal-commission-report.pdf?v=1548898371>

¹² MDBA (2018) *Hydrologic assessment of flow changes in the Northern Basin*, <https://www.mdba.gov.au/publications/mdba-reports/hydrologic-assessment-flow-changes-northern-basin>

inaccurate, or significant resource development has occurred since 2012, raising grave concerns about compliance by Basin States and the MDBA. It is plain that the calculation of the ESLT did not have regard to floodplain requirements, as repeatedly illustrated by the Guide, the ESLT Determination Report, and most recently the NBR. In this regard, the MDBA could have expected Basin States to provide more accurate information about floodplain diversions during the four years of study undertaken for the NBR (by which time floodplain diversions should have been monitored in accordance with the NWI), or it could have exercised its own powers to do so. It makes a nonsense of the NBR for the MDBA to propose to increase SDLs once again, based on floodplain diversions that the MDBA had ample opportunity to assess.¹³

Ultimately, the MDBA's proposal to increase SDLs by reference to increases to BDLs is unjustifiable. The Water Act intrinsically links SDLs to the ESLTs for each water resource area (SDLs must reflect an ESLT). The Water Act does not mention BDLs at all. Given the lack of information and informed modelling about the water requirements for floodplains, the MDBA cannot determine a change to SDLs. Any proposal to do so necessarily assumes that the ESLT can be determined (to increase) by reference to changes in consumptive use. That is plainly wrong. The ESLT must be established independently from consumptive use, not because of it. Should no re-examination of the ESLT occur then, firstly, there can be no basis upon which SDLs could be adjusted, but secondly, the only logical result would be to decrease SDLs as extractive entitlements will need to be further reduced to meet the ESLT. This may have significant and unwarranted implications for communities. The point is (in theory) that a change to the BDL does not necessarily result in a change to the ESLT or SDL, either by way of increase or decrease, but the only way this can be determined is if further research is undertaken to properly understand the watering requirements for floodplains having regard to the amount of water that is now understood to have been diverted from them.¹⁴

Should the ESLT be reconsidered (albeit no such proposal has been identified), it may be permissible to increase the SDL if it is demonstrated that the volume of water being extracted from floodplains has no impact upon the watering

¹³ Walker (2019) *Murray-Darling Basin Royal Commission Report*, <https://www.mdbrc.sa.gov.au/sites/default/files/murray-darling-basin-royal-commission-report.pdf?v=1548898371>

¹⁴ Walker (2019) *Murray-Darling Basin Royal Commission Report*, <https://www.mdbrc.sa.gov.au/sites/default/files/murray-darling-basin-royal-commission-report.pdf?v=1548898371>

requirements. However, it remains possible (or perhaps likely) that, by reference to new BDLs which have regard to the volume of water being extracted from floodplains, additional reductions from extractive entitlements may be required to achieve the ESLT.¹⁵

The proposed treatment of floodplains by the Basin States and the MDBA has the potential to further undermine the original, and any future, assessment of the ESLT.¹⁶

The draft strategy does not address these fundamental criticisms of the floodplain harvesting policy and appears to endorse a business as usual approach, which has contributed to the shocking fish kills at Menindee Lakes and negative financial and socio-economic impacts in the Lower Darling and NSW Murray.

¹⁵ Walker (2019) *Murray-Darling Basin Royal Commission Report*,
<https://www.mdbrc.sa.gov.au/sites/default/files/murray-darling-basin-royal-commission-report.pdf?v=1548898371>

¹⁶ Walker (2019) *Murray-Darling Basin Royal Commission Report*,
<https://www.mdbrc.sa.gov.au/sites/default/files/murray-darling-basin-royal-commission-report.pdf?v=1548898371>

Increase to the Sustainable Diversion Limit

The floodplain harvesting policy proposes to increase the Baseline Diversion Limit and also the Sustainable Diversion Limit by a corresponding amount. This approach is logically flawed and likely to be unlawful, because it does not use best available science as required by the Water Act and will not achieve an Environmentally Sustainable Level of Take (ESLT). These points are well summarised in the Royal Commission report:

Inssofar as any further work is being undertaken to determine how much water is extracted from floodplains, there is no evidence that this further work is accompanied by any additional research as to floodplain watering requirements. Inssofar as the MDBA may be proposing to raise SDLs by reference to increases in baseline diversion limits (BDL) as a result of new estimates for floodplain diversions, there appears to be no logic to such an approach. Any proposal to do so necessarily assumes that the ESLT can be determined (to increase) by reference to changes in consumptive use. The ESLT must be established independently from consumptive use, not because of it. If there is any logic or proper science to justify an increase to SDLs only by reference to increased BDLs, it has not been disclosed by the MDBA, or anyone else.¹⁷

The New South Wales Government has so far only released a revised BDL to account for floodplain diversions in the Gwydir. The revised BDL model for the Gwydir is not accompanied by any updated scientific knowledge about the ESLT in that area. Evidently, further information of this nature is required in all areas where proposals to increase the BDL will be made. This information will be vital for WRPs. WRPs cannot be prepared in a manner that complies with the Basin Plan if the BDL is not assessed against the environmental watering requirements for those areas to ensure the continuing obligation to reflect an ESLT is satisfied.¹⁸

¹⁷ Walker (2019) *Murray-Darling Basin Royal Commission Report*, <https://www.mdbrc.sa.gov.au/sites/default/files/murray-darling-basin-royal-commission-report.pdf?v=1548898371>

¹⁸ Walker (2019) *Murray-Darling Basin Royal Commission Report*, <https://www.mdbrc.sa.gov.au/sites/default/files/murray-darling-basin-royal-commission-report.pdf?v=1548898371>

In light of the Royal Commission's report and our reading of the relevant legislation the approach outlined in the draft strategy is likely to be unlawful. Stakeholders in the Southern Basin are known to be seeking legal advice and options for redress on the impact of floodplain harvesting on their property rights. We recommend that the floodplain harvesting policy and this draft strategy is withdrawn and heavily amended prior to another consultation process, if legal action is to be avoided.

Managing breaches to the SDL

The draft strategy acknowledges that floodplain harvesting will need to reduce to be compliant with the SDL:

In some areas of the northern basin, there has been a significant growth in floodplain harvesting infrastructure, causing floodplain harvesting diversions to increase above plan limits. The NSW Floodplain Harvesting Policy, when implemented, will function to restrict floodplain harvesting activities so that diversions return back to the plan limits.¹⁹

Yet, there is no detail on how any future breach of SDL will be addressed to bring floodplain take back under SDL. This suggests that NSW is not seriously contemplating breaches, despite the high risk that floodplain take will exceed SDL.

There are limited policy or regulatory tools proposed to ensure the reduction in floodplain harvesting take is achieved. For example, there is no ability to regulate physical access to floodplain take for structures that are already in place. Combined with the inadequate monitoring, audit and enforcement measures (discussed further below), there seems to be very little consideration or regulatory response to possible breaches in SDL.

The Royal Commission report notes:

Based on the evidence before the Commissioner, significant increases in floodplain diversions have resulted in large unaccounted volumes of water being extracted from flows over floodplains. This raises serious concerns about compliance with the longterm cap on diversions (Cap), the assessment of sustainable diversion limits (SDLs), and the achievement of environmental and community outcomes.²⁰

It is not clear why New South Wales proposes to assess only those works constructed on or before 3 July 2008. New South Wales risks breaching the Cap should the volume of floodplain diversions licensed be determined by reference

¹⁹ NSW Department of Industry (2018) *Draft Floodplain harvesting monitoring and auditing strategy*, <https://www.industry.nsw.gov.au/water/plans-programs/healthy-floodplains-project/monitoring-and-auditing-strategy>

²⁰ Walker (2019) *Murray-Darling Basin Royal Commission Report*, <https://www.mdbrc.sa.gov.au/sites/default/files/murray-darling-basin-royal-commission-report.pdf?v=1548898371>

to water resource development as of 3 July 2008 and not 30 June 1994. It is not clear how the New South Wales Government will confirm what works were in place as of 3 July 2008 as compared with how much water was capable of extraction by way of floodplain diversions as of 30 June 1994. Absent any information publicly available in this regard, community concerns that licensed floodplain diversions will breach the Cap and contribute to overallocation are well-founded.²¹

Without serious consideration of policies and measures to address a future breach of the SDL, the draft strategy is little more than a veneer of proper process over the unjustified and unlawful licensing of increased extractions in the Northern Basin.

²¹ Walker (2019) *Murray-Darling Basin Royal Commission Report*, <https://www.mdbrc.sa.gov.au/sites/default/files/murray-darling-basin-royal-commission-report.pdf?v=1548898371>

Proposed monitoring

There is a very high level of concern and scepticism about NSW's floodplain harvesting policy across the Basin. The monitoring methods outlined in the draft strategy do little to alleviate these concerns.

The minimum monitoring requirement under the draft strategy is a gauge board. This is effectively a large ruler placed in a storage, with the volumes recorded for different water levels. To the untrained eye, a gauge board looks very much like a painted stick. The storage volume is calculated by estimating a water level with a corresponding volume, based on the size and shape of the storage. The licence holder is required to manually keep their own recordings of gauge board readings and self-report. There appear to be no checks or safe-guards against under recording water in storages and the proposed system is ripe for manipulation.

For example, the draft strategy's claim that "gauge boards will need to be checked every ten years to demonstrate that they are correctly calibrated" (page 5) will hardly inspire confidence in stakeholders across the Basin.

The definition of temporary storage is problematic as the draft strategy describes 'temporary storage' as a 'few weeks', but appears to allow water to be kept in 'temporary storage' indefinitely, with minimal reporting requirements and exemptions to being considered diversions (page 6).

Even without mischief, the volumes diverted under the draft strategy will be under reported because diversions to final storages will be net of evaporation. This will allow at least the socialisation of evaporation from these storages, whereas every other licence holder in the Basin incurs evaporation losses themselves after extraction.

Measuring floodplain harvesting take post evaporation could be a highly material understatement. A report prepared in 2007 for the former Murray-Darling Basin Commission estimated that the total evaporation from storages (private and public) in the Northern Basin was nearly 2,000GL in total, and a significant cause of water loss:

Evaporation from [Northern] water storages is now estimated to be about 2,000,000 Megalitres per annum, which is equal to about 25% of the average flow in the [Northern] Basin's rivers.

It is apparent that evaporation losses add significantly to the impact water use development has had on river flows in the Darling.²²

The amount of evaporation is likely to have increased in the last 12 years, due to the increase on-farm storages, as noted in the draft strategy. Governments may claim that the Commonwealth efficiency program has invested in saving evaporation from on-farm storages. However, we are not aware of any public evidence that can verify that assertion.

It is inequitable to all water users that one substantial form of private take – floodplain harvesting – is effectively net of evaporation, while all other irrigators take is gross of evaporation.

The draft strategy's minimalist monitoring approach contradicts the NSW Government's obligations under the Compliance Compact, signed only two months ago. The Compact commits NSW to take advantage of emerging technology:

In terms of measuring non-metered take, modelling, and hydrometrics, the Parties will manage Basin water resources based on the best available data, and will take advantage of emerging technology.²³

There are a range of low-cost methods that use existing and emerging technologies that should be immediately added to the monitoring of floodplain harvesting take:

- An estimation of floodplain harvesting by measuring evapotranspiration via satellite imagery. This has already been trialled by the MDBA and showed a high level of accuracy at a low cost;
- Latest metering technology that is telemetric, tamper proof and not self-regulated;
- Farm water balances, with a reconciliation of crop production; and
- Crop production reconciled with industry seed inputs and gin production.

All these methods should be used and results made publicly available.

The point of the Murray-Darling Basin Compliance Compact, signed by NSW in December 2018 is:

²² Webb, McKeown & Associates Pty Ltd (2007) *State of the Darling: Interim Hydrology Report*, Webb, McKeown & Associates Pty Ltd, https://www.mdba.gov.au/sites/default/files/archived/mdbc-SW-reports/17_State_of_the_Darling_Interim_Hydrology_Report_2007.pdf

²³ MDBA (2018) *Murray-Darling Basin Compliance Compact*, <https://www.mdba.gov.au/sites/default/files/pubs/Basin-Compliance-Compact-12-December-2018.pdf>

to restore public confidence in water resource management in the Basin by providing transparency and accountability of surface and groundwater management and regulation, and a consistent approach to compliance and enforcement practices by governments across the Basin.²⁴

The draft strategy fails to meet the stated objective of the Compact Compliance. The proposed monitoring strategy based on gauge boards not only fails to help restore public confidence in water management and regulation, it will further undermine whatever public confidence remains.

The draft strategy also appears inconsistent with the objectives of the Natural Resource Access Regulator (NRAR) that include:

- maintain public confidence in the enforcement of the natural resources management legislation.

And to achieve this, the NRAR will:

- promote compliance with the objectives of the Water Management Act 2000 and the Water Act 1912
- achieve best practice management and regulation of surface water and groundwater.²⁵

The draft strategy is also inconsistent with NRAR's policy because:

- It will erode, rather than maintain, public confidence in the enforcement of natural resources management legislation;
- It does not promote compliance with the Water Management Act 2000, because the floodplain harvesting policy is in breach of the Water Management Act 2000 principles; and
- It is not best practice management as it is proposing an outdated method of monitoring without any reasonable internal or mitigating controls.

²⁴ MDBA (2018) *Murray-Darling Basin Compliance Compact*,
<https://www.mdba.gov.au/sites/default/files/pubs/Basin-Compliance-Compact-12-December-2018.pdf>

²⁵ Natural Resource Access Regulator (undated) *Regulatory Policy*,
https://www.industry.nsw.gov.au/__data/assets/pdf_file/0003/144039/NRAR-Regulatory-policy.pdf

Proposed auditing

The draft strategy is also problematic in relation to the NSW Quality Regulatory Services Initiative. The draft strategy's audit approach will be:

an outcomes-focused and risk-based regulatory approach that aligns with the requirements of the NSW Quality Regulatory Services Initiative ... (page 9)

The NSW Quality Regulatory Services Initiative describes risk as the product of the probability and impact of non-compliance:

Probability of non-compliance: The probability of non-compliance is essentially the likelihood of whether or not one or more regulated entities will not comply with the obligation in question. Probability may take into account past compliance records, which may indicate the frequency with which the relevant obligation has been breached. The probability of non-compliance may also be affected by the difficulty associated with achieving compliance with the obligation in question – eg. where the obligation in question is particularly onerous, such as compliance with demanding technical standards.

Impact of non-compliance: The impact of non-compliance with a particular obligation may be the occurrence of a significant adverse event – eg. injury/death or failure of a particular service/facility. In some cases, the obligation will be so trivial that non-compliance will have no or very limited impact – eg. failure to file a form within the prescribed deadline.²⁶

Practically every aspect of the NSW floodplain harvesting policy has a high probability of non-compliance:

- The policy is new and has not been regulated or measured to date. As the draft strategy states, “there is currently no monitoring of floodplain harvesting diversions.”²⁷ As such, monitoring could be subject to teething problems, uncertainty, technical difficulties or error;

²⁶ Maddocks (2018) *Implementation of the 'Quality Regulatory Services Initiative' in New South Wales*, <https://www.maddocks.com.au/implementation-quality-regulatory-services-initiative-new-south-wales/>

²⁷ NSW Department of Industry (2018) *Draft Floodplain harvesting monitoring and auditing strategy*, <https://www.industry.nsw.gov.au/water/plans-programs/healthy-floodplains-project/monitoring-and-auditing-strategy>

- The floodplain harvesting policy, if implemented as described, will not reduce historical floodplain take, to return floodplain take to plan limits. “In some areas of the northern basin, there has been a significant growth in floodplain harvesting infrastructure, causing floodplain harvesting diversions to increase above plan limits.”²⁸ It is highly unlikely that individuals will reduce historical take voluntarily without a high level of scrutiny and regulation;
- The economic benefit of not complying with the policy is high because of the commensurate value of irrigated crop production.

The floodplain harvesting policy also has a high impact of non-compliance. Non-compliance and over extraction of water from the floodplain will have a high impact on:

- down-stream irrigators through lost economic production;
- floodplain graziers through lost economic production. For example, a MDBA study estimated that as little as 70GL can return up to one third of lost stock productivity (31.9%) and earnings (34.9%) for floodplain graziers in the Lower Balonne;²⁹
- down-stream communities that rely on irrigation or floodplain grazing;
- the inland recreational fishing economy, estimated to be worth \$1.3bn annually;³⁰
- environmental outcomes, valued by the Commonwealth at \$13bn, representing its commitment to improve environmental outcomes.

The draft strategy proposes that:

Subject to resourcing requirements, it is expected that **10%** of floodplain harvesters will be pro-actively audited each year (page 9, emphasis added)

It beggars belief that a risk-based audit approach developed in accordance with the NSW Quality Regulatory Services Initiative would aim to audit just one in ten floodplain harvesters. It is difficult to understand how this could be considered an acceptable level of verification, particularly when the risk and impact of non-compliance are both very high.

²⁸ NSW Department of Industry (2018) *Draft Floodplain harvesting monitoring and auditing strategy*, <https://www.industry.nsw.gov.au/water/plans-programs/healthy-floodplains-project/monitoring-and-auditing-strategy>

²⁹ MDBA (2016) *Lower Balonne floodplain grazing model report*, https://www.mdba.gov.au/sites/default/files/pubs/NB-floodplain-grazing_2.pdf

³⁰ MDBA & NSW DPI Fisheries (2018) *Good flows mean more fish*, <https://www.dpi.nsw.gov.au/fishing/habitat/rehabilitating/fish-and-flows>

The 10% target gives the impression that NSW is not serious about verifying and regulating floodplain harvesting take. It therefore does not meet NRAR's objectives to:

maintain public confidence in the enforcement of the natural resources management legislation.³¹

It achieves the opposite, as it will erode public confidence in the floodplain harvesting policy and diminish the credibility of NRAR and the NSW Water Agencies. Future versions of the draft strategy should aim to verify at least 50% of floodplain harvesters per year in the early years of program implementation. This would provide far stronger incentives for compliance with practitioners expecting to be audited in the average year.

³¹ Natural Resource Access Regulator (undated) *Regulatory Policy*,
https://www.industry.nsw.gov.au/__data/assets/pdf_file/0003/144039/NRAR-Regulatory-policy.pdf

Proposed enforcement

The strategy lists nine 'graduated and proportionate' enforcement steps, based on the severity of non-compliance and the regulated entity's culpability, cooperation and approach to the non-compliance. (page 10)

It is not clear from the strategy what type of breach will qualify a non-compliant action to graduate up the enforcement ladder; or whether all breaches will be treated sequentially through each enforcement step. It appears that multiple breaches could be met with little more than advisory letters and verbal warnings.

Combined with the minimalist monitoring method and the inadequate 10% audit goal, the enforcement measures are meaningless.

Conclusion

Floodplain harvesting has a huge impact on not just the Northern Basin, but every stakeholder in the Murray-Darling Basin: financially, socially and environmentally.

The NSW floodplain harvesting policy and this draft strategy present no convincing controls that floodplain harvesting take will be effectively regulated, or even monitored.

The draft strategy does not meet criteria set out under the Murray-Darling Basin Compact Compliance; the Regulatory Policy of the Natural Resource Access Regulator; or the risk-based regulatory approach under the NSW Regulatory Services initiative.

There is very high level of concern and scepticism about NSW's floodplain harvesting policy shared by a broad range of stakeholders across the basin. This draft strategy does nothing to alleviate those concerns and will instead increase stakeholder's critic and further erode public confidence in water management in NSW.

We believe that the floodplain harvesting policy is unlawful and are we recommend that the floodplain harvesting policy and this draft strategy is withdrawn or heavily amended prior to finalisation to avoid legal action.