



Daniel Connor
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Dear Mr Connor

I am writing in relation to the Department of Planning, Industry and Environment's (DPIE's) various requests for public comment on the floodplain harvesting licence rules being implemented in the Murray-Darling Basin.

I support efforts to bring floodplain harvesting into a regulated and licenced framework. This will mean that water management agencies, including my Office, will be able to achieve more effective water resource management outcomes.

In the interests of all water users, floodplain harvesting should be capped, rigorously managed and operating within a strong compliance framework. Uncontrolled floodplain harvesting has the potential to impact downstream flows and resource availability, with implications for environmental watering and the protection of some Ramsar-listed wetlands.

1. Outcomes

This reform is an important step towards restoring the natural connection between rivers and their floodplains. To this end, below are two important considerations in achieving the environmental outcomes we and many Basin communities are seeking.

Protection of critical functions:

- Floodplain harvesting should not negatively impact hydrologically important flows. The timing and duration of flow events should be managed to support critical ecosystem functions, such as critical wetland flows and fish and waterbird breeding, particularly during and following severe drought.

Protection of significant sites:

- Floodplain harvesting licencing rules should consider the location of structures that impact on nearby high value water dependent ecosystems in each valley.

I would also ask that as a matter of priority, monitoring be undertaken to inform regular reviews of the impact of the new rules on environmental outcomes throughout the system. This is particularly relevant if there are any significant changes to the spatial and temporal patterns of take.

On my visits with communities in the Basin, I have been approached by many stakeholders who believe that NSW will be allowing new take under these rules. My understanding is that in fact, the licencing arrangements will authorise take that has been happening for many years, in some cases decades. I understand your team worked with the Murray-Darling Basin Authority, who undertook a peer review of the work you have done to measure the historical take, in order to cap use within



Basin Plan limits. If this assessment indicated that the addition of floodplain harvesting take caused overall take to exceed the long-term limit, then the floodplain harvesting entitlement would be restricted. I look forward to hearing how NSW demonstrates the effectiveness of these limits and prioritises work to remove ineligible infrastructure in close proximity to sites of high environmental value.

My Office understands that under the NSW Water Management Act 2000, floodplain harvesting is given a higher priority than supplementary access. We consider that it is an opportunistic form of take that should have the lowest priority. As part of the floodplain harvesting licencing process, it's relative priority to other forms of take should be considered.

Stakeholders have also expressed concern about the application of a 500% account limit. However, my understanding is that whether a 500% account limit or a 100% account limit is applied, the same long-term average extraction volume will be allowed. This issue is addressed more fully in **2a.** below. My interest is directed instead towards ensuring effective monitoring and compliance of floodplain harvesting and protecting ecologically significant flows (e.g. first flushes) across the northern Basin for all forms of lower priority take, including floodplain harvesting.

I note the work undertaken to date by NSW DPIE to model the environmental and downstream outcomes of implementing the policy, and the rules developed with this improved understanding in mind. As system understanding and modelling improves, I trust this will inform future reviews and improvements of the floodplain harvesting framework.

Considering the above priority outcomes, I would like to comment more specifically on mechanisms and protections proposed by DPIE.

2. Mechanisms

a. Account management

Account limits are important for restricting overall take in the long-term. This is the primary mechanism to ensure sustainable diversion limits are adhered to.

My Office recommends a licencing approach with a 500% account limit, resulting in smaller entitlement volumes compared to an annual accounting approach. The difference between these two approaches depends largely on the sequence of high flow events over multiple years. Based on the outcomes of the Border Rivers modelling, smaller entitlements and a 500% limit would provide greater protections for the environment during the years following wet periods. This, combined with event-based protections described below, would likely provide enhanced environmental outcomes.

b. Access Rules

Complementary to account limits, clearly defined access rules should be applied to enable event-based management of floodplain harvesting (e.g. prohibiting access until certain downstream targets are met). This is important to meet critical and ongoing environmental needs across the northern Basin, particularly after a series of dry years and extreme drought.

We support the addition of provisions that will allow for the future inclusion of access rules for floodplain harvesting (regulated river) access licences. We would encourage the commencement of the work required to support this as a high priority.



c. Trade

The proposal to allow permanent trade of floodplain harvest licences needs to be approached with care. It should not only consider environmental, cultural and flood flow path implications, but also the likely change in frequency of access, depending on the relative locations on the floodplain. A concentration of licences in the lower parts of the floodplain may tend to increase take. This could have implications for other floodplain harvesting licence holders should take exceed allowable limits and a reduction in allocations be applied.

Question:

How do the floodplain harvesting access rules interact with priorities under the Water Management Act 2000 and other relevant policies such as Active Management, the NSW Extreme Events Policy, the Incident Response Guides and the North West Flow Rules? These instruments prioritise critical human needs and critical environmental needs during extreme events and apply across Water Sharing Plans and Water Resource Plan boundaries. The recent extreme drought 2017-20 may help inform development of appropriate access rules, which could include use of downstream volume triggers, as was informally applied during the 2020 first flush event.

3. Protections

a. Active Management

Water for the environment is commonly used to support beneficial wetland inundation, for example, overbank and floodplain flows in the Macquarie Marshes. Water for the environment should be protected from take to ensure it supports the objectives and outcomes it was designed to achieve. We support provisions and conditions on licences that prevent take when water for the environment is being used to create overbank flows.

Proposed access rules for floodplain harvesting (regulated river) access licences in the Macquarie and Cudgong Regulated Rivers Water Source:

1. Take is not permitted through works located in one of the following management zones when active management is being used purposely to create overbank flow:

- Gum Cowal Management Zone
- Lower Macquarie River Upstream Management Zone
- Lower Macquarie River Downstream Management Zone.

However, in the absence of an announcement system, it is unclear how licence holders would know when water for the environment is part of the event, and therefore protected from take.

b. Amendments

My Office supports the proposed amendment provisions to add, modify or remove provisions for floodplain harvesting for a range of purposes including flexibility for environmental flows, improved understanding from modelling, and monitoring etc.



Proposed amendment provisions for floodplain harvesting (regulated river) access licences in the Macquarie and Cudgegong Regulated Rivers Water Source:

1. An amendment provision to add, modify or remove provisions for floodplain harvesting (regulated river) access licences:

- to allow flexibility should environmental flows be targeted to create overbank flow
- in response to monitoring, evaluation and reporting outcomes of environmental benefits from licencing floodplain harvesting
- in response to improved understanding of the influence of floodplain harvesting on downstream flows
- in response to improved integration of hydrologic and hydrodynamic model systems
- in response to a review undertaken of the existing trade rules in the Macquarie Bogan Unregulated River Water Sources.

Building public confidence in the regulatory settings for floodplain harvesting will be dependent on the robustness of evidence used to determine the volume of licenced take, rigorous methods for the measurement of water take, and effective compliance.

My Office is keen to work with DPIE to further explore the implications and implementation of the Floodplain Harvesting Policy. I look forward to continuing to collaborate with you on this important work.

Yours Sincerely



Hilton Taylor

A/g Commonwealth Environmental Water Holder

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