

15 February 2019

Floodplain Harvesting Policy Implementation Review
Department of Primary Industry – Water
SYDNEY 2000

By email and online: fph.monitoring@dpi.nsw.gov.au
<https://www.industry.nsw.gov.au/water/plans-programs/healthy-floodplains-project/monitoring-and-auditing-strategy>

Dear Review team,

Draft Floodplain harvesting monitoring and auditing strategy

EDO NSW welcomes the opportunity to comment on the *Draft Floodplain harvesting monitoring and auditing strategy (Draft Strategy)*.

EDO NSW is a community legal centre specialising in public interest environmental law. We have many years' experience engaging with water law and policy processes at both State and Commonwealth levels. We also have extensive experience advising a broad range of clients including irrigators, community groups and peak conservation organisations on NSW *Water Management Act 2000*, as well as the *Water Act 2007 (Cth)*, Basin Plan and associated policies.

Our work is evidence-based and draws on advice from experts on our technical advisory panel and expert register, as well as landholders and irrigators with considerable experience in managing their properties in variable conditions.

As we have consistently argued for improved metering and measurement of all extractions, greater transparency with respect to usage and account data and greater protection of environmental and low flows, we are pleased to see the issue of how to monitor and audit floodplain harvesting being addressed. We appreciated the opportunity to attend a briefing in late 2018.

As previously recommended we support developing a clear, evidence-based monitoring framework as a priority which will in turn assist with baseline data, compliance and enforcement.

This submission addresses:

Introduction: Key issues for effective floodplain harvesting regulation
Preconditions and baseline data
Determining a Monitoring approach
Purpose
Monitoring floodplain take
Storages
Measurement devices
Data recording and reporting
Verification, auditing, investigation and enforcement

Complementary issues
Environmental flows
Trading

Introduction: Key issues for effective floodplain harvesting regulation

In our submission on the *NSW Water Reform Action Plan* (April 2018) we made a number of comments and recommendations regarding the Floodplain Harvesting Consultation Paper that are relevant to the Draft Strategy.¹

While EDO NSW is generally supportive of the proposal to bring floodplain harvesting (FPH) within a licensing framework, we do not support the issuing of floodplain harvesting WALs in the absence of any clear, defensible and publicly available evidence regarding:

- the current volume of water being diverted (or lost, as the case may be) in the northern Basin via floodplain harvesting;
- how much of this is being diverted (or lost) as a consequence of unlawfully constructed structures, noting that it is inconsistent with the NSW Government's current stance regarding compliance and enforcement to reward unlawful conduct with a valuable, tradeable property right;
- the environmental and downstream impacts of licensing a particular volume of water in each affected catchment;
- the environmental and downstream impacts of the proposed accounting methodology, noting that a 500% allocation does not exist for any other class of WAL in the State and would allow for large volumes of water to be diverted from floodplains (and away from downstream users and the environment) during a single flood event. Again, this is inconsistent with the NSW Government's current policy position regarding the protection of environmental flows;
- the relationship between the SDLs set under the Basin Plan and the volume of water that will be licenced under the Floodplain Harvesting Policy. Relevantly, the Basin Plan assumed that only 210GL was being diverted or lost as a consequence of floodplain harvesting in the northern Basin.² However, the consultation paper indicates that 600.5GL would be eligible for entitlements in the *Gwydir catchment alone*.³ This suggests that it will be difficult to comply with SDLs in affected catchments if more than 210GL of water is licenced for the purposes of floodplain harvesting;
- how trading will actually function, keeping in mind that the vendor would have to decommission levees to prevent future, unlawful impoundment of overland flow. This is unlikely to occur unless the NSW Government is vigilant and extremely proactive with respect to compliance and enforcement. However, the government has not yet provided the community with a detailed compliance and enforcement strategy to comment on, making it difficult to support a 'hypothetical' trading framework;
- how floodplain harvesting (including associated structures) will be dealt with over time as water becomes scarcer due to climate change;
- why metering cannot be used to measure some harvested water, keeping in mind that overland flow is generally diverted from levees into channels which then flow into storages. Where channels are dry, the inflow from overland flow can be metered

¹ EDO NSW submission on the NSW WRAP is available at: https://d3n8a8pro7vhmx.cloudfront.net/edonsw/pages/5638/attachments/original/1529302770/WRAP_Consultation_2_EDO_NSW_Submission_150418.pdf?1529302770

² Murray-Darling Basin Authority and Independent Panel, *Murray-Darling Basin Water Compliance Review*, p. 42.

³ *Implementing the NSW Floodplain Harvesting Policy: Consultation Paper*, p. 14.

through a pipe. In any case, LiDAR can also be used to calculate volumes of harvested water; and

- how the Floodplain Harvesting Policy and proposal to issue WALs interacts with the NSW Government's on-farm irrigation efficiency funding programs. We understand that these programs have been subsidising on-farm storages (ostensibly to reduce evaporation) in the northern Basin, which in turn allows for greater volumes of overland flows being harvested and then stored. These storages would have been built/augmented in the last decade.

We reiterate that further detail on these issues should be made publically available prior to the issue of new FPH WALs and the commencement of the monitoring and auditing regime.

Preconditions and baseline data

In order to have an effective monitoring and auditing regime in place, it is necessary to have comprehensive information. We therefore reiterate our previous **recommendations**, namely:

1. We recommend that a complete audit of all earthworks on floodplains and on-farm storages be undertaken across the northern Basin as soon as possible, with the results of the audit made publicly available.
2. In the interests of transparency – and in order to understand growth in both development and floodplain harvesting – we recommend publishing the details of all storages that have been built or upgraded with funding from any on-farm irrigation efficiency programs in the last decade.
3. We recommend developing a clear, evidence-based monitoring framework as a priority which will in turn assist with baseline data, compliance and enforcement, and therefore support the development of the Draft Strategy.
4. We recommend developing a clear, evidence-based policy regarding adaptive management of floodplain harvesting (including associated structures and storages) as water becomes scarcer due to climate change.
5. After satisfying 1-4 inclusive (and not before), we recommend only licensing the volume assumed to develop the SDLs for the Basin Plan in 2012. This appears to be 210GL for the entire northern Basin (and subsequently less for the northern parts of NSW). Anything above this volume will undermine the Basin Plan, the purpose of which is to reinstate an environmentally sustainable level of take.

Determining a monitoring approach (p2)

As noted in the Draft Strategy, there is currently no monitoring of floodplain harvesting diversions, and a staged monitoring process is proposed (p3). This is supported.

Purpose (p4)

The proposed purpose “protect the environment” could be augmented with detail about maintaining healthy floodplains and environmental flows (see below).

Application of the strategy (p4)

We note that the strategy will apply to those landholders who receive a floodplain harvesting access licence and associated water supply work approval under the Floodplain Harvesting Policy. We understand our previous recommendations relating to not issuing licences for unlawful constructed works have been adopted.

Monitoring floodplain take (p5)

Storages

We note the Draft Strategy focuses predominantly on measuring the changes in water levels in permanent storages (p5).

After subsequent briefings and discussions with the department, we identified the following further issues:

- lawful structures (i.e. levees) that allow the licence holder to take more than their licence permits will remain in situ, with the additional water (in theory) being discharged by the user. There needs to be clarity around how this will be monitored to ensure that the unlawful component of the diversion is being discharged.
- It is unclear how storages that do not meet the eligibility criteria will be dealt with. This could include unlawfully constructed storages (for which an application was not submitted by July 3 2008) and lawfully constructed or augmented storages (i.e. that post-date July 3 2008).

In relation to storages that do not meet the eligibility criteria, we understand from the department that:

- *unlawful structures have not been considered for eligibility for FPH, these structures will not be included on the associated Water Supply Work Approval and will fall under the normal compliance process*
- *lawful structures built post-2008 - these structures are ineligible for consideration for determining a FPH licence but are able to be used to impound floodplain harvesting and will be identified on the associated Water Supply Work Approval. All storages used to impound floodplain harvesting water (including those ineligible storages built post-2008) will be subject to the monitoring requirements as per the FPH Monitoring & Auditing Strategy.*
- *It is important to note that there could be structures built after 2008 that are eligible because they comply with eligibility category 2 of the FPH Policy (i.e. had an application prior to 2008). These works would be included for floodplain harvesting modelling purposes as well as being included in WSWAs.*

This is potentially confusing and must be made clear in the policy, the monitoring and auditing process, and in outreach and education programmes for landholders.

There needs to be a clearer definition of temporary storages (p6) in terms of how long water is temporarily held. For example a set period – held for less than X weeks” would be easier to monitor and enforce.

Measurement devices

We support the proposed devices but recommend significant government investment in more technologically advanced, objective and accurate tools such as telemetry. This process should be accompanied by a review of the evidentiary provisions of the *Water Management Act 2000* (in particular ss367A and B) to ensure that measurement and monitoring can meet the criminal standard of proof.

We support allocation of Healthy Floodplains Project funds for initial installation of monitoring devices, and agree that ongoing maintenance and repair is the responsibility of the licence-holder.

We recommend that maintenance and checking of gauge boards be every 5 years rather than every 10 years as suggested (p5).

Data recording and reporting (p6)

The system is based on self-recording and reporting. Verification will be undertaken using aerial imagery, but only during major flood events. If funding is not guaranteed for this on an ongoing basis, then self-recording and reporting will be unreliable. Again, this goes to the importance of maintaining compliance and enforcement capacity in perpetuity (which is an obvious risk as government policy and funding changes regularly).

Verification, auditing, investigation and enforcement (p9)

We recommend the development of a compliance and enforcement strategy in relation to floodplain harvesting, including in relation to the decommissioning of levees post-trade.

We would like to note that while the compliance work being done in this space is extremely promising, if it does not reach maturity and/or is defunded at any stage, it would have a serious impact on the success of the proposed reforms including on environmental outcomes and compliance with SDLs under the Basin Plan. This is largely because:

- a. Trade will require works to be decommissioned. Where they serve a secondary purpose and must remain in situ, they will need to be monitored to ensure that they are not being used to divert overland flows unlawfully.
- b. A number of unlawful works will need to be removed.
- c. Temporary storages – which are not subject to the licensing regime and which are not taken into account for the purposes of SDL accounting – will require ongoing monitoring to ensure that they are indeed temporary and more generally that they are not resulting in unintended, perverse impacts on the environment and downstream users.
- d. There will be an ongoing need to ensure that licenced volumes are not being exceeded.
- e. As part of d), storages will need to be monitored to ensure that they are not being unlawfully augmented.

Accordingly, there needs to be a strong commitment by government to resource compliance work on an ongoing basis.

We also recommend a high level of transparency with respect to hotspot audits undertaken for each relevant valley.

Complementary issues (p11)

Environmental flows

We strongly support introduction of measures to ensure held environmental water is protected from extraction by floodplain harvesters where it is released to meet downstream environmental needs. The intergovernmental working group should explicitly address this issue in their interim solutions package.

In relation to downstream environmental needs, as previously recommended, water accounting for floodplain WALs must ensure that environmental and downstream needs are met, and the delivery of those outcomes is accurately monitored. To that extent, we

recommend discarding the proposed accounting framework, notably the proposed 500% allocation and unlimited carryover. A new accounting framework based on a transparent assessment of environmental and downstream needs – and SDLs – should be developed in its place.

We would request that any assessment of the impact on flow targets associated with shifting floodplain harvesting from modelled losses to modelled diversions be transparent and repeatable i.e. the methods and assumptions applied are clearly set out so that they could, in theory, be tested by any other suitably qualified expert. This would provide the community with additional confidence.

We would also like to see a high level of transparency around the methods and assumptions applied, and the outcomes achieved, with respect to volumetric limits that are developed for each valley.

Trading

During the briefing, we inquired as to whether the share component of a FPH WAL will be divided into rainfall and overland flow components for the purposes of trade (given rainfall is site specific – it can't be traded). We understand that at this stage, it will not and the ratio of rainfall:overall flow will be deciphered at the point of trade and only the overland flow component will be able to be permanently traded. We recommend that more clarity is provided as to how this is going to work in practice.

If there are any matters that you would like to discuss please do not hesitate to contact myself or Deb Brennan on 02 92626989 or deborah.brennan@edonsw.org.au.

Yours sincerely,
EDO NSW



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