

Managing floodplain harvesting in Basin Plan water resource plans

NSW water resource plans set out how NSW will meet its obligations under the Murray–Darling Basin Plan 2012 in the nine surface water and 11 groundwater water resource plan areas.

Water resource plans address the requirements of Chapter 10 of the Basin Plan and are accredited under Part 2, Division 2 of the Commonwealth's *Water Act 2007*.

The Basin Plan identifies floodplain harvesting as an interception activity (sections 10.23 to 10.25) and a 'form of take'. The Basin Plan (section 10.23) requires water resource plans to identify the risks posed by interception activities that may have a significant impact on:

- (a) the water resources of the water resource plan area; or
- (b) water resources which are hydrologically connected to the water resources of the water resource plan area'

The NSW Government has developed the NSW Floodplain Harvesting Policy (hereafter floodplain licensing) to bring floodplain harvesting into the water licencing system and manage it through NSW water sharing plans. This policy is currently being implemented in the Northern Basin.

There is now a timing mismatch between when the NSW water resource plans are required to be provided for accreditation and the timeframe for implementing floodplain licensing in the Northern Basin.

The NSW Government has worked with the Murray–Darling Basin Authority to develop interim arrangements valleys that will allow accreditation of the water resource plans required under the Basin Plan, and then subsequently update the relevant resource plans once floodplain licensing has been completed.

Interim baseline diversion limit

The baseline diversion limit is an estimate of how much water was used in the Basin before the start of the Basin Plan. For surface water, this is set at 30 June 2009 and is applied at a Basin and valley scale. The baseline diversion limits, which set a historical reference level for water management, are determined using the best available information, and will be adjusted as improved information becomes available.

As part of the process of implementing floodplain licensing, the NSW Government through the Department of Planning, Industry and Environment has been updating models and information for how much floodplain harvesting water was allowed to be taken prior to the Basin Plan.

The *Independent review of NSW floodplain harvesting policy implementation* found that more work needs to be done on the models. Accredited water resource plans will contain estimates of floodplain harvesting volume for each valley based on the most up to date information at the time the plans are submitted. As we complete the model updates and finalise implementation of floodplain licensing, we will update this interim volume.

Meeting the Basin Plan requirements

Identifying the risk to water resources associated with floodplain harvesting

The NSW Government identified five valleys in the northern Basin—the Border Rivers, Gwydir, Namoi, Barwon–Darling and Macquarie valleys—in which there is a medium to high risk that floodplain harvesting is impacting on the water resources of the water resource plan area or connected water resource plan areas. The department is implementing floodplain licensing in these valleys.

In the Murray–Lower Darling, Murrumbidgee, Lachlan and Intersection Streams water resource plan areas, we have determined the risk is low and no immediate action needs to be taken, but we will periodically re-assess the risk.

Monitoring floodplain harvesting

Under the Basin Plan, all interception activities must be monitored (s. 10.24). The department has developed the NSW Floodplain Harvesting Monitoring and Auditing Strategy to do this for floodplain harvesting. Once implemented, the strategy will provide accurate, on-farm measurements of water take from floodplain harvesting activities.

While the strategy is being rolled out, and in order to meet our Basin Plan requirements, we are proposing the following interim method of calculating floodplain harvesting be included in the relevant water resource plans:

- If a floodplain harvesting event has not occurred, the annual actual take will be zero.
- If a floodplain harvesting event has occurred, the annual actual take will be equal to the volume determined by the annual permitted take model.

We will apply this method at the end of the water year. The use of the annual permitted take model enables us to provide the best estimate of the volume of water that is taken if a floodplain harvesting event occurs.

Once the Floodplain Harvesting Monitoring and Auditing Strategy is implemented in a valley, the on-farm reports will be used to determine the actual volume of water that is taken in a water year.

Managing growth in floodplain harvesting

Under the Basin Plan, any growth in interceptions must be addressed (s10.25). We are proposing to meet this requirement through the sustainable diversion limit accounting and compliance mechanism.

We will determine the annual permitted take at the end of each water year as follows:

- If a floodplain harvesting event has not occurred, the annual permitted take will be zero.
- If a floodplain harvesting event has occurred, the annual permitted take will be equal to the volume determined by the application of the baseline diversion limit model for that water year.

If prior to finalising floodplain licensing, the sustainable diversion limit is exceeded as a result of a floodplain harvesting event, NSW may be required to:

- Reduce the allocations to other licence categories to offset this growth. In the first instance this may include reductions in the allocations to supplementary water access licences.

Future water resource plan amendments

The approach we are proposing enables the state to meet the Basin Plan requirements for water sharing plan assessment and accreditation during the implementation phase of floodplain licensing.

Once the major elements of floodplain licensing are in place, we will work with the Murray–Darling Basin Authority to amend the water resource plans to include:

- the floodplain harvesting entitlements
- measurement requirements for floodplain harvesting
- the water sharing plan rules for managing floodplain harvesting entitlement accounts
- any other rules related to the management of floodplain harvesting (available water determinations, etc.).

We will also update the baseline diversion limit and annual permitted take models as part of the water resource plan amendments.

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