

Pre-requisite Policy Measure Implementation Plan – June 2017

About Pre-requisite Policy Measures

Pre-requisite Policy Measures (PPMs) are proposed policy measures designed to maximise the beneficial outcomes of proposed supply measure projects for the Sustainable Diversion Limit Adjustment Mechanism (SDLAM). The SDLAM and detailed project details are described in other fact sheets available at <http://www.water.nsw.gov.au/>.

When setting the Sustainable Diversion Limit, the Murray-Darling Basin Authority (MDBA) assumed that PPMs would be implemented to allow the maximum environmental benefit to arise from use of the Commonwealth's licensed environmental water. Without this implementation, proportionally more water would be required to meet the environmental outcomes of the Basin Plan, leaving less for other purposes.

Implementation of the PPMs will allow the use of licensed environmental water at multiple sites (environmental flow reuse) and the opportunity to order licensed environmental water from a headwater storage during a natural flow event (piggybacking). These measures aim to maximise the efficient use and beneficial outcomes derived from licensed environmental water, whilst ensuring that the licenced access rights of other water users are protected.

PPMs will be implemented only in the regulated Murray-Lower Darling and Murrumbidgee River systems, as these are the only river systems where supply measure SDLAM projects are being implemented. They will only apply to the use of licensed environmental water, not planned environmental water established by rules under the relevant NSW water sharing plans.

Pre-requisite Policy Measure Implementation Plan

Under the *Intergovernmental Agreement on Implementing Water Reform in the Murray Darling Basin 2013*, states agreed to deliver a PPM Implementation Plan by June 2017 to the Murray-Darling Basin Authority (MDBA). The PPMs are required to be implemented by June 2019, and NSW has made a commitment that PPMs will only be implemented to the extent that third party impacts relating to water supply reliability can be negated, offset, or are acceptable to the community.

Due to the involvement of three Basin States, the MDBA is coordinating the delivery of the PPM Implementation Plan for the River Murray system. This will identify the collective actions required to implement PPMs. The NSW PPM Implementation Plan deals with those areas of PPM implementation that fall within NSW's authority and area of responsibility for the River Murray system, and all areas for the Murrumbidgee River system. However, NSW agreement to the River Murray PPM Implementation Plan is contingent on the same principle of no third party impacts.

The detailed NSW Implementation Plan is available on the DPI Water website. Technical guidance for the implementation of PPMs will be incorporated into the existing regulatory and operational frameworks which guide water management in NSW.

Pre-requisite Policy Measures

There are two proposed PPMs to be implemented:

1. The ability to allow the call of held environmental water from storage during regulated and unregulated flow events ("piggybacking"); and
2. The ability to credit environmental flows that are returned to the water source so that water can be used for downstream environmental use ("environmental flow reuse").

These will be implemented as two separate measures, however in practice it is anticipated that they will often operate together, for example, to enable "piggybacked" water to move through different environmental sites and between river systems through also requesting "environmental flow reuse".

Principles for Implementation

NSW has developed a set of high level principles to guide PPM implementation. Long term implementation of PPMs will be through provisions in the relevant WSPs and PPM Implementation Procedure Manuals; however these principles will guide the preparation of these documents. They are outlined below.

Principle 1

NSW will implement PPMs only to the extent that impacts on third party licenced access rights can be mitigated or offset, whilst aiming to optimize environmental outcomes.

Section 7.15 (1) (d) of the Basin Plan requires that there be no “detrimental impacts on reliability of supply of water to the holders of water access rights that are not offset or negated” in the implementation of PPMs. NSW has identified that there is potential for supply reliability and access rights for third parties.

NSW will specifically target risk areas in developing implementation documentation to avoid, minimise, and/or mitigate any adverse impacts on third party rights. In particular, implementation will begin with a deliberately conservative approach to minimise the potential for incurring unacceptable third party impacts. As experience and understanding are enhanced through modelling and measurement, this conservatism will shift through the application of an adaptive management framework as operators and technology improve the ability to avoid impacts.

Principle 2

NSW will develop operational tools that are simple, practical to implement, and cost effective.

NSW will avoid overly complex approaches in favour of options consistent with the existing legal framework, and will only pursue options that do not result in significant costs, or options where these costs are fully offset by Commonwealth funding.

Principle 3

The reliability and access characteristics of licensed entitlements held for environmental water purposes are the same as other licenced entitlements.

NSW will favour a rules-based approach to implementing PPMs, which will be enabled through the development of Water Sharing Plans, as a component of the Water Resource Plan (WRP) development process. This will allow these measures to be extended to other water access entitlement holders, if they choose to take up these alternative water delivery options. The implementation of PPMs will not alter current water delivery and trading arrangements.

Principle 4

Adaptive management is required.

NSW recognises that policies to implement the PPMs need to be secure and enduring to enable future planning. However, to minimise adverse impacts to the access rights of all licenced water users, an initially conservative approach will be used.

However, over time, it is likely that more innovative approaches to environmental watering will be developed, and it is important that there is sufficient flexibility in both rules and the management framework to maximise the triple bottom line benefits arising from these initiatives. PPM Implementation Procedures Manuals will be developed to include an adaptive management framework.

PPM 1: Piggybacking

In standard regulated river operations, water orders are met from the most efficient supply, including from downstream tributaries. By contrast, piggybacking allows the release of water from a nominated headwater storage to raise the height and reach of environmental flows, and hence make the most effective use of all available water. These releases may occur during regulated or unregulated flows, and would likely be timed to achieve specific environmental outcomes, for example, improved stream connectivity or overbank flows in a target area.

Initial modelling suggests that piggybacking water in this manner has the potential to impact the reliability of water supply for all water users in both positive and negative ways, and on a range of scales,

depending on the headwater storage used, the pattern of ordering, and the climatic conditions under which the releases are made. Because of this, NSW has identified possible measures by which to avoid or address potential negative impacts on other licence holders. However, because impacts will vary between locations, the final strategy for each of the Murray and Murrumbidgee systems will be developed as part of WRP development, in consultation with water users, through the Stakeholder Advisory Panels.

Due to the nature of this measure, it is anticipated that ordering water will always require negotiation between the river operator and environmental water users on an event by event basis. Ultimately, operating rules including a decision making and adaptive management framework will be codified into supply work approvals and PPM Implementation Procedure Manuals.

PPM 2: Environmental Flow Reuse

Under current legislation, water that returns to the river downstream of an environmental site is re-regulated or used to meet other water orders. The PPM for Environmental Flow Reuse would formally recognise the return flow of water to a river downstream of an environmental watering event, to allow that water to be reused to water other environmental sites or outcomes further downstream. These return flows would be protected from extraction and re-regulation into downstream storages for the length of the river. River operators will endeavour to deliver the environmental water to other downstream environmental sites and protect return flows, however the river operator will not guarantee the volume and timing of water downstream of the delivery point.

To ensure a fair distribution of in-stream losses, NSW has reviewed several options to implement environmental flow reuse. Of these, 'combination debiting' was selected as the most suitable, as it provides a balance between guaranteeing deliveries to the environment and minimising risks to other water users, including regarding the reliability of water entitlements.

In combination debiting, environmental water holders are debited differently depending on whether the chosen water delivery path includes sites from which return flows can be accurately measured, or sites which require an estimate of assumed use by the site.

The portion of the delivery path for which usage can be accurately measured will have in-stream losses socialised, as for all other water uses. The portion of the delivery path below the first environmental site for which usage cannot be accurately measured will not have in-stream losses socialised, and these losses will be assigned to the licence holder requesting the order.

River operators will endeavour to ensure optimum water delivery, but non-socialised losses along the delivery path will be calculated and attribute to the environmental water licence holder to avoid potential third party impacts from changed river operations. Similar principles will apply if contingency measures for delivery are in place due to dry conditions, or when water moves between river systems.

Integration into Water Resource Plans

The PPM Implementation Plan outlines the detail regarding the approach to piggybacking and environmental flow reuse, however technical implementation will be through the development of Water Sharing Plans as part of the Water Resource Plan process, and the development of valley specific PPM Implementation Procedures Manuals. Specifically, these rules will be codified in the Water Sharing Plan for the NSW Murray and Lower Darling Regulated Rivers Water Sources, and the Water Sharing Plan for the Murrumbidgee Regulated River Water Source. These documents will be developed in the period 2017-2019, for implementation from 1 July 2019.

Initially, the tools and mechanisms to enable PPMs will necessarily be best suited to environmental water delivery. However, by establishing the rules governing PPMS through the WRP process, and ensuring the use of an adaptive management framework, it is intended that the flexible delivery offered by PPMs will be able to be used by all licenced water users. It is a core assumption of implementation that access rights and trading rules that apply to licensed water entitlements held for environmental use should be no different to those held for any other purpose.

Stakeholder Engagement and Consultation

As WSPs and WRPs are the key vehicles for developing rules to enable the implementation of PPMs, stakeholder consultation will be undertaken as part of the WRP process. Stakeholder Advisory Panels and targeted consultation with peak water user groups will be an important component within the development of PPM Implementation Plans for the Murray and Murrumbidgee regulated river systems.

At a more operational level, the development of PPM Implementation Procedure Manuals will include engagement and discussion with WaterNSW Customer Advisory Group and key water user groups in each valley.

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