

# Reduced supplementary water access allocations in Border Rivers and Gwydir - 2022/23

This document answers frequently asked questions about how growth in use is managed in water sharing plans that exceed the plan extraction limit.

## What are the reductions in the Border Rivers and Gwydir?

The available water determination (AWD) made for supplementary water access licences at the commencement of the 2022/23 water year has been reduced in the Border Rivers and Gwydir. AWDs of 0.74ML/share and 0.21ML/share have been made available in the Border Rivers and Gwydir respectively. The reduced limits will apply to all supplementary water access licence holders in those valleys. The AWD defines the maximum volume that can be taken in that year prior to trades and is normally 1ML/share.

## Why is a reduced supplementary water allocation required?

As part of our obligations under NSW water sharing plans and commitments under the Basin Plan, access to water must remain within a legal limit as outlined in the specific water sharing plan for each valley. This includes compliance with the long-term average annual extraction limit (LTAAEL).

Results from modelling published under the healthy floodplains program show that the Border Rivers and Gwydir regulated rivers have exceeded the LTAAEL and that compliance action is required. These exceedances are described in the model scenario reports published during the water sharing plan consultation and can be found on the [website](#) and through the following links:

- [Floodplain Harvesting Entitlements for NSW Border Rivers Regulated River System: Model Scenarios Report](#)
- [Floodplain Harvesting Entitlements for Gwydir Regulated River System: Model Scenarios Report](#)

These models have now been extended to run up to 30 June 2021 and used for this updated compliance assessment.

Growth in farm infrastructure has resulted in growth in diversions. The water sharing plans specify triggers for when this growth needs to be acted upon; generally, when total diversions exceed the LTAAEL by more than 3%. This trigger has been exceeded in the regulated Border Rivers and Gwydir systems. Licensing of floodplain harvesting will largely address this growth in use. Until then, the current water sharing plan provisions require that the compliance action is to reduce the maximum available water determination (AWD) made on 1 July for supplementary water access licences.

The required compliance action is to reduce total diversions to the LTAAEL. Modelling is needed to determine the required action as the AWD impacts actual supplementary access diversions differently each year based on flow conditions and capability to store water. In many years there is no impact at all.

### Will we update our assessment after commencement of floodplain harvesting licences?

We will revise the compliance assessment after the revised water sharing plans commence.

With the planned arrangements, this commencement will mean that both the Border-Rivers and the Gwydir will be compliant and the supplementary water access AWDs can be increased.

### What are the likely impacts?

There is no guarantee that the supplementary access AWD volume can be taken, as licence holders can only take water when a supplementary flow event is declared. This means that the maximum volume has no effect in the many years that have insufficient supplementary access opportunities for an entitlement holder to use their water and reach the limit. Therefore, we can't predict what the actual impact will be in the 2022/23 water year as we don't know what the supplementary access opportunities will be.

Supplementary events are declared when flows exceed the requirements set out in water sharing plans - typically when all other water requirements have been met. The reduced AWD does not impact on how these events are declared; rather reduces the maximum potential volume that might otherwise have been taken in the water year. Trading of water can continue as usual. The reduced AWD will not have any impact on licence holders in years when there are few supplementary flow events declared and hence little opportunity to take the maximum annual limit.

Using historic usage data, we estimate that there is about a 70% chance that the reduced supplementary access AWD will impact on diversions in the Gwydir in any one year; in the Border Rivers there is about a 20% chance.

Allocations can be restored when a revised assessment shows a return to compliance with long-term average annual extraction limits. A new assessment will be completed once the floodplain harvesting licencing framework commences. If this occurs prior to the end of the 2022/23 water year, then the likely impacts are reduced. For example, if the restrictions only apply for 3 months in the Gwydir, then there is a about a 20% chance that they will impact on diversions. For many entitlement holders, on farm storages are currently near full, which also means that restrictions over a short period are unlikely to lead to impacts.

### Why are the AWDs smaller than last year?

The AWD in the Border Rivers is slightly lower than last year. This is due to the model running over a longer time period.

There is a larger difference in the Gwydir. Last year an AWD of 0.5 ML/share was issued. This AWD was not sufficient to return total diversions to the LTAAEL, but was adopted as an interim measure. DPE have adopted an approach of staging the reductions over two years if a reduction in the AWD of more than 50% is required. This is consistent with the approach taken to manage LTAAEL compliance in all groundwater sources.

### How do we assess compliance with the limits?

It is important to note that legal limits and our assessments against them are based on long term capability to take water. The way that we share water and check for compliance takes into account variable climatic conditions. This means that a growth in use management action can occur in wet or dry years. In any one year, water use can be above or below the long-term average limits. We assess

compliance with the LTAAEL by checking for long term trends in water use. We do this by developing river system models, which reflect current conditions and compare to the LTAAEL.

### How is LTAAEL compliance different to SDL compliance?

We use a different method to check for compliance with the sustainable diversion limit (SDL) under the Basin Plan framework.

The SDL compliance method compares modelled or estimated allowable diversions for any one year based on its observed climatic conditions to the actual diversions in that year. A running total is kept of the differences between expected and actual take until the cumulative total exceeds a threshold rather than comparing long term modelled outcomes as done for LTAAEL compliance.

The two compliance assessment frameworks can support each other, and they provide multiple lines of evidence for monitoring growth in use. The two methods may result in different compliance conclusions at times.

For example, water use in one year may be significantly higher than that predicted by the models used for SDL compliance assessments, however; in the following year this may be lower, indicating that diversions are within the required limits.

The LTAAEL compliance assessment is less affected by single year anomalies and was chosen by NSW having regard to the higher degree of variability in northern basin rivers compared to the southern connected system.