

Use of environmental water records after 2009

There were many similar themes and commonly asked questions during the recent call for submissions relating to amended long-term diversion limit equivalence (LTDLE) cap factors. The responses below are provided in relation to the issues raised.

Won't the use of environmental water records post 2009 distort results?

Ideally, diversion records that are not influenced by significant new water users entering the system would be used for calculations.

NSW Department of Industry's high-quality diversion records are associated with the commencement of the regulated river water sharing plans. In most cases the high-quality records start in 2004–05. However, in some valleys, the high-quality records begin from 2012.

If diversions records from after 2009 are excluded, in a number of cases this would reduce the period of record from 12 years to four years (2004 to 2009). Even more importantly, in the period 2004 to 2009 the regions were in the midst of a drought.

Excluding water records from after 2009 would mean that the records wouldn't be representative of longer-term behaviours and decisions. Using the period 2004 to 2017 demonstrates diversions over a wider range of climatic conditions.

The total diversion component isn't defined by account data.

The total amount of LTDLE factor is set by the long-term baseline diversion limit (BDL) model, without being influenced by post-2009 environmental purchases. This prevents the recovery of environmental water unduly influencing the long-term diversions. Put another way, the account data is being used to define the relative volumes across entitlement types, while the total usage is defined by the modelled BDL long-term average usage.

The environment now owns a broad range of entitlements in most valleys. As the objective of the LTDLE factors is to determine if the Commonwealth has recovered enough entitlement to meet the volumetric recovery target, it was found that in practice the overall status of recovery wasn't heavily influenced by the distribution of entitlement types. Where holdings of one type of entitlement went up, another type would go down, and the net effect of the Commonwealth portfolio largely balanced out.

Most of the change in recovery outcomes between the 2011 factors and the 2018 factors were driven by change to align factors with the BDL, not the adopted utilisation rates. NSW Department of Industry found that the historical utilisation rates were most important for high-reliability entitlement types such as stock and domestic (S&D), local water utility (LWU) and high security (HS).

The observation was the utilisation of these entitlements didn't change materially across years, and high security and conveyance entitlements were highly utilised in nearly every case. Environmental ownership is not materially altering the extent to which those entitlements are being used.

Supplementary entitlement usage is defined by the long-term model and is therefore unaffected by environmental usage. General security entitlements are then assigned the remainder of the BDL volume, so by extension they also aren't directly affected by environmental water usage.

The proportion of take for environmental use

Ultimately, the overall use of environmental water to date isn't significantly different from that of consumptive users. The pattern and timing of usage are different, but the overall usage from environmental water entitlements is within the range of use demonstrated by other single entitlement holders.

While the environment is often now the biggest single holder of entitlement in a valley, other water users continue to hold the majority of entitlements.