

WENTWORTH GROUP OF CONCERNED SCIENTISTS

Dr Emma Carmody, Prof Tim Flannery FAA, Mr Mike Grundy, Dr Terry Hillman AM, Prof Lesley Hughes,
Prof David Karoly FAA, Prof Richard Kingsford, Prof Martine Maron, A/Prof Bradley Moggridge, Prof Jamie Pittock,
Mr Robert Purves AM, Ms Teagan Shields, Prof Fran Sheldon, Prof Bruce Thom AM, Mr Martijn Wilder AM.

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RECONCILIATION OF THE SUSTAINABLE DIVERSION LIMITS ADJUSTMENT MECHANISM PROJECTS

The reconciliation of the SDLAM projects is a critical component of the delivery of the Murray-Darling Basin Plan and central to the adaptive aspects of the plan. It allows SDLs to be adjusted if the expected environmental benefits of projects differ from what was originally proposed, as per Section 7.11 of the Basin Plan.

The recent paper by Lyons et al (2022) *Towards a scientific evaluation of environmental water offsetting in the Murray Darling Basin, Australia*¹ highlights the importance of the reconciliation process in providing credibility and assurance that any SDL determination is appropriate given any changes to projects or the removal of projects from the SDLAM 605GL offset target. The authors identified significant flaws in the proposed reconciliation framework based on modifications of the CSIRO's 'Ecological Elements' method² that are likely to render the reconciliation invalid.

The proposed framework does not meet the standard of scientific rigour required by the Basin Plan and the *Water Act 2007* as it has not been empirically verified, nor truly independently peer-reviewed, and many of its assumptions are based on subjective judgements that could lead to biased assessments about "equivalent environmental outcomes."

We are concerned that a lack of scientific rigour in the reconciliation process may lead to misrepresentation of the ecological benefits of the SDLAM projects and the SDL adjustment volume or raise questions about the integrity of the process.

These concerns are consistent with those of the Independent Review Panel to the MDBA made nearly a decade ago: "*Nevertheless, in reaching this judgement, the IRP recognises that the method is also novel and untried. Hence, there are significant ecological and management risks involved in its application. Some possible scientific actions to mitigate these risks are described in section 4 following. The IRP recommends that these scientific risk mitigation actions should be fully considered as part of the next phase of work by the MDBA and jurisdictions.*"³

Based on the research paper by Lyons *et al.* (2022), Wentworth Group recommends the following improvements to ensure that the supply contribution 'achieves equivalent environmental outcomes compared with benchmark environmental outcomes':

1. Develop a rigorous approach for estimating the SDL adjustment which is informed by empirical evidence from implemented projects and likely real-world outcomes of proposed projects;
2. Account for residual environmental risks (e.g., salinity, blackwater) in the determination adjustment;
3. Convert water savings from rules-based projects into an entitlement;
4. Configure pre-requisite policy measures proposed by states into the model used to calculate an adjustment; and
5. Account for climate change impacts on water availability in determining supply contribution.

At the core of the Basin Plan there is need for an ongoing adaptive process developed on the basis of the best available scientific evidence. We believe the above based on the work of Lyons et al (2022) provides a constructive pathway forward to restore integrity to the proposed reconciliation process.

¹ <https://www.publish.csiro.au/mf/Fulltext/MF22082>

² <https://publications.csiro.au/rpr/pub?pid=csiro:EP153938>

³ <https://www.mdba.gov.au/publications/independent-reports/sdl-adjustment-ecological-elements-method-development-report-review>