

SUBMISSION PAPER

Submission to the House of Representatives Standing Committee on Regional Australia

Inquiry into certain matters relating to the proposed Murray- Darling Basin Plan

Macquarie River Food and Fibre

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About MRFF

Macquarie River Food and Fibre represents irrigated food and fibre producers in the Macquarie Valley. Our membership comprises riparian irrigators along the regulated section of the Macquarie River downstream of Burrendong Dam, the groundwater irrigators of the Lower Macquarie Groundwater Sources, as well as the individual members of the valley's seven off-river irrigation schemes being the Buddah Lake, Greenhide, Narromine, Nevertire, Marthaguy, Tenandra and Trangie Nevertire irrigation schemes. MRFF is supported by a number of associated local businesses.

About this Submission

This is a formal submission to the House of Representatives Standing Committee on Regional Australia for their *Inquiry into certain matters relating to the proposed Murray-Darling Basin Plan* from Macquarie River Food and Fibre.

While this submission is provided on behalf of irrigated food and fibre producers in the Macquarie Valley our members reserve the right to provide individual submissions.

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1. INTRODUCTION

- 1.1 Macquarie River Food and Fibre (MRFF) represents the interests of over 500 irrigated farming families in the Macquarie Valley and is associated with a number of supportive local businesses. Our membership comprises riparian irrigators along the regulated sections of the Macquarie River, the groundwater irrigators of the Lower Macquarie Groundwater Sources, as well as the individual members of the Valley's seven off-river irrigation schemes.
- 1.2 MRFF thanks the House of Representatives Standing Committee on Regional Australia (the Committee) for the opportunity to provide a submission on their *inquiry into certain impacts relating to the proposed Murray-Darling Basin Plan*.
- 1.3 While the Committee's Terms of Reference refers to progress toward 'bridging the gap' for proposed new Sustainable Diversion Limits (SDLs), MRFF wishes to note up front our dissatisfaction with the process undertaken by the Murray Darling Basin Authority (MDBA) to determine the SDL for the surface water region referred to as the Macquarie-Castlereagh.
- 1.4 Our objections to the approach were highlighted in detail in our submission¹ to the MDBA on the *Proposed Basin Plan – a draft for consultation* and as they remain unaddressed MRFF believes it pertinent to bring them to the attention of this Committee. In particular, because the inconsistency of the approach taken to determining the SDL in the Macquarie-Castlereagh will impact on the ability of the Commonwealth Government to bridge the gap in other areas.
- 1.5 At the heart of our concerns is the inclusion in Schedule 2 of the *Proposed Basin Plan of a 'local reduction amount'* of 65 GL per year². As reported by the MDBA this figure is based purely on water recovered by governments since the commencement of the current Water Sharing Plan rather than the consistent application of the methodology for determining the environmentally sustainable level of take (ESLT) using the best available science, as applied to other regions³.
- 1.6 That is:
- a) The approach is hugely inequitable given it reflects a difference in the methodology that has been applied to the Macquarie-Castlereagh system (as well as the Gwydir and Lachlan valleys) to that applied to other water resource plan areas across the basin. This inequity is exacerbated by the fact that the baseline diversion limit (BDL) in the Macquarie-

¹ Available on the MDBA's submissions webpage

² Based on long-term diversion limit equivalent volume, i.e. 'yield' rather than entitlement

³ Page 57, MDBA publication no: 226/11, and personal communication with MDBA staff

Castlereagh, when compared to total inflows, is already lower than all other developed areas of the basin⁴.

- b) Adoption of this number in the legal instrument essentially locks government into acquiring and holding an equivalent volume of entitlement for 'local' environmental requirements. While this might be acceptable if the volume was indeed the 'optimal' environmental water requirement, the MDBA has acknowledged that the iterative modelling was not undertaken for the Macquarie system to determine if in fact the environmental objectives could be met with a lower 'local reduction amount'⁵.
- 1.7 MRFF submits that the previous point should be of significant concern to current and future governments responsible for managing public resources, and therefore, this Committee. Setting a 'local reduction amount' that is potentially higher than that required demonstrates a complete disregard of the significant public investment required to meet SDLs.
- 1.8 MRFF submits that the 'local reduction amount' for the Macquarie-Castlereagh must be based on the consistent and equitable application of a methodology for determining the Environmentally Sustainable Levels of Take as applied to other areas, and not simply be a plug-in number that assists the basin wide reduction sum to a number that satisfies a political imperative at the expense of the social, environmental and economic imperatives of our region.
- 1.9 Should the MDBA not have time to complete this work ahead of the plan being finalised, MRFF submits that the SDL reflect our current water sharing plan limit adjusted to include the climatic sequence from 2001 to 2012. This approach would not preclude water already acquired in the Macquarie system from contributing to a 'shared reduction amount'⁶, but would ensure that public funds are not locked into meeting a local reduction in the Macquarie when it seems that more significant reductions, and therefore investment, are required elsewhere in the basin.
- 1.10 Our response to the specific Terms of Reference of this Committee are provided in the following section.

⁴ Information obtained from MDBA technical reports 2011/01 version 2 and 2010/20 version 2.

⁵ MDBA publication no: 226/11, and personal communication with MDBA staff

⁶ Subject to the considerations raised elsewhere in our submission to the MDBA relating to the shared reduction

2. RESPONSE TO TERMS OF REFERENCE

Progress to date in water recovery toward bridging the gap by 2019 through both irrigation infrastructure investments and water purchases

- 2.1 As reported to the Committee in our supplementary submission to the *inquiry into the impact of the Murray-Darling Basin Plan in regional Australia* in February 2011, there has been considerable progress in environmental water recovery in the Macquarie Valley.
- 2.2 Environmental water recovery in the valley had progressed ahead of the completion of even the *Guide to the Proposed Basin Plan*, and therefore ahead of any specification of environmental requirements, such that the valley's irrigation industry is already significantly diminished. Water provided for human uses in the existing Water Sharing Plan has now been reduced by over 25%.
- 2.3 The table below provides a summary of entitlement acquisition in the Macquarie Regulated River system since the implementation of the existing Water Sharing Plan.

Recovery Program	Entitlement Acquired	Yield Based on NSW Govt Determination (0.53 reliability)	Yield Based on Cth Govt Determination (0.42 reliability)
NSW Government Riverbank, Rivers Environmental Restoration Program and Wetland Recovery Program ⁷	48 GL General Security 1.5 GL of Supplementary	25.44 GL	
Commonwealth Government Restoring the Balance in the Murray Darling Basin Program ⁸	58 GL General Security 2 GL of Supplementary		24.36 GL
Commonwealth Government Round 1 of the Private Irrigator Infrastructure Operators Program for NSW	48 GL General Security (approximate – projects yet to be completed)		20.16 GL
Commonwealth Government Round 2 of the Private Irrigator Infrastructure Operators Program for NSW	17 GL General Security (estimate – volume to be confirmed with DSEWPAC)		7.14 GL

⁷ <http://www.environment.nsw.gov.au/environmentalwater/waterpurchase.htm>

⁸ <http://www.environment.gov.au/water/policy-programs/entitlement-purchasing/macquariebogan.html>

- 2.4 The 'Yield' columns in the table above relates to the estimate of the long-term average reliability of allocation associated with General Security entitlement in the Macquarie regulated river system. Of note is that the NSW and Commonwealth Governments currently have different estimates of this reliability factor despite relying on the same IQQM modelling.
- 2.5 In particular, MRFF notes that the reliability factor used by the Department of Sustainability, Environment, Water, Population and Communities (DSEWPaC) for the Macquarie (being 0.42)⁹ is different to the modelled long-term diversion limit as compared to the volume of water access entitlements held in the system. There is no obvious explanation for the approach taken by the Commonwealth DSEWPaC, however, the material impact is that they significantly overestimate the volume of entitlement required to 'bridge the gap'.
- 2.6 In their calculation of volumes already recovered to offset the proposed SDL for the Macquarie-Castlereagh region, the MDBA has used each of the NSW and Commonwealth governments' determinations for yield, the inconsistency in approaches therefore leading to an unnecessarily complex and skewed representation of this figure.
- 2.7 MRFF submits that the 'reliability' factor must be determined as the modelled long-term diversion limit as compared to the volume of water access entitlements for a given water class and water source and not be a separate, unexplained and unrelated determination. Our preferred, and generally accepted, approach is that taken by the NSW Government¹⁰.
- 2.8 Finally, as previously submitted to this Committee, MRFF remains of the opinion that irrigation modernisation, or efficiency upgrades, is the preferable option for achieving the triple bottom line objective of maximising environmental, social and economic outcomes. However, in reality, in this valley further opportunities for significant gains are now limited by the fact that the irrigation industry accounts for a relatively small proportion of the available water resource (less than 20%).

⁹ <http://www.environment.gov.au/water/policy-programs/entitlement-purchasing/macquariebogan.html>

¹⁰

http://www.google.com.au/search?rlz=1C1FDUM_enAU487AU487&sugexp=chrome,mod=14&sourceid=chrome&ie=UTF-8&q=modelled+river+water+availability

The potential role that new environmental works and measures projects could play in partially offsetting SDL reductions under the Basin Plan

- 2.9 MRFF is continuing to engage with the NSW Government, State Water Corporation and the other northern basin water groups to pursue opportunities for environmental works and measures projects that could play a part in offsetting SDL reductions under the proposed Basin Plan. We believe that there are a range of as yet unpursued options to assist with both the 'local reduction amount' for the Macquarie-Castlereagh region and the 'shared amount' for the Northern basin.
- 2.10 In respect to the local reduction amount, MRFF refers to suggestions put forward in our supplementary submission to the *inquiry into the impact of the Murray-Darling Basin Plan in regional Australia* in February 2011 relating to both opportunities for in-stream efficiency projects and improved management of the Macquarie Marshes.
- 2.11 In respect to the shared reduction amount, MRFF is supportive of the need to pursue an integrated suite of projects for the Northern Basin that includes consideration of the Menindee Lakes storage.
- 2.12 MRFF submits that while we are supportive of the concept of works and measures projects to offset proposed SDLs, such projects are not without risk to existing entitlement holders where new environmental licences are created as a result of 'savings'. That is, if savings prove not to exist, creation of a new licence will impact on the reliability of existing licence holders. For this reason, MRFF submits that there be a formal valley based process for identifying and pursuing environmental works and measures projects that is fully inclusive of *all* existing entitlement holders. It is very difficult for individual stakeholders to invest in project feasibility in the absence of such certainty in process.
- 2.13 MRFF notes that obstacles identified in our original submissions to this Inquiry in regards to pursuing such projects are yet to be overcome. That is, despite public rhetoric of funding earmarked for works and measures projects, no program has come forward at the State or Commonwealth level with clearly stated objectives and assessment criteria, or a formalised process for contributing to project development at the regional level.
- 2.14 Finally on this issue, MRFF highlights that severely hampering the ability to identify projects that could help achieve environmental outcomes with less water is the fact that the sought environmental outcomes at the local level have not yet been clearly articulated.

The groundwater sustainable diversions limits (SDLs) for the Basin in the revised proposed Basin Plan

- 2.15 MRFF is primarily concerned with the implications of the MDBA's proposal on the ground water resource area currently covered by the *Water Sharing Plan for the Lower Macquarie Groundwater Sources 2003*.
- 2.16 The Lower Macquarie Groundwater Sources has been subject to prior entitlement and reliability reductions for the purposes of returning water to the environment. As late as 1996 groundwater development for irrigation was encouraged, however, by 1998 the NSW Government had placed an embargo on the issuing of new groundwater licences.
- 2.17 A water sharing planning process was embarked upon in the early 2000s which culminated in the implementation of a Water Sharing Plan in 2006. The Water Sharing Plan saw the existing level of irrigation entitlement across the 6 zones of the Lower Macquarie Groundwater Sources reduced by over 50% from 134,208 ML to 65,524 ML. Individual reductions varied considerably with some licence holders losing in excess of 80% of their original entitlement. Some compensation to licence holders was made available through the *Achieving Sustainable Groundwater Entitlements* program.
- 2.18 The *Water Sharing Plan for the Lower Macquarie Groundwater Sources* guides water management and sharing rules amongst the users of the six aquifers that comprise the groundwater sources. The vision for this plan is to ensure the ecological, social, cultural and economic sustainability of the Lower Macquarie Groundwater Sources.
- 2.19 The current long-term annual extraction limit is based on the average level of recharge to each aquifer less an amount reserved for the environment and Aboriginal cultural heritage. The plan was developed through comprehensive community engagement processes to account for and balance the necessary trade-offs between local environmental, social, cultural and economic values.
- 2.20 The plan is underpinned by the NSW Government's hydrologic modelling, which is recognised as the best available knowledge in this area and has therefore been adopted for use by the MDBA.
- 2.21 MRFF notes and supports the MDBA conclusion that there is no new evidence to suggest a change is necessary to the state-based recommendations for the sustainable diversion limit for the Lower Macquarie Groundwater Sources.

3. FURTHER INFORMATION

Once again MRFF thanks the Committee for the opportunity to provide a submission to the *Inquiry into certain matters relating to the proposed Murray-Darling Basin Plan*. Please be in touch should further information or clarification on any of the comments or recommendations in this submission be required.

Representative/s from MRFF would be available to present further information at the public hearing for this inquiry should this be required.

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