

Att B: RGA's Project List – As Discussed with DCCEEW Since October 2022.



AREA	DESCRIPTION	PROOF OF CONCEPT	CONSULTATION	CHALLENGES
Urban Efficiency.	<p>Operational in 2019, the Murray to Broken Hill pipeline moved the supply of Broken Hill's water from the Menindee Lakes to the River Murray, NSW. Removing Broken Hill's reliance on Menindee Lakes has resulted in 420 GL of water savings at the Lakes every year.¹</p> <p>The new pipeline has been operating for four years, yet none of its water savings benefits are being recognised under the Basin Plan.</p>	<p>The pipeline is operational. Its benefits aren't being recognised under the Basin Plan.</p>	<p>Completed – pipeline is operational.</p>	<p>The MDBA in particular has judged the Menindee Lakes SDLAM project very harshly, describing it as 'undeliverable'². To our knowledge no work has been done to assess the benefits of the Murray to Broken Hill pipeline, which was always part of the Menindee project and has been operational for four years.</p> <p>To support the pipeline's operation, its water comes from the NSW Murray, through the creation of a specific <i>Water Access Licence</i>, in the order of 10 GL. As a result of this action, the pool of water available to NSW General Security Licence holders has been reduced by 10 GL – with no compensation provided.</p>
Other.	<p>Work is currently underway to improve the <i>movement and efficiency of water delivery</i>³ through the Barmah-Millewa reach of the Murray River. One option under investigation is: <i>Optimising the timing and transfers of water from Hume Dam to Tar-Ru (Lake Victoria)</i>.⁴ A key objective is to minimise water loss, either from storage spills or increased conveyance.⁵</p>	<p>In 2002, operations at Tar-Ru were revised to minimise impact on Aboriginal cultural heritage values.⁶ A key priority was to: <i>reduce the impact on water resource availability</i>. Revised operations at Tar-Ru resulted in a 19 GL increase in flow to South Australia in dry years.</p> <p>Changed river operations often create water savings. The water savings created by the Barmah-Millewa Feasibility Study must be recognised under the Basin Plan.</p>	<p>Extensive consultation will take place as part of implementation of the Feasibility Study. None of it will need to be paid for from funding available for Basin Plan implementation.</p>	<p>The Commonwealth refuses to open its bulk River Murray operations to external scrutiny. There's also a very strong reluctance to consider and implement long-term efficiency measures. This means there's no way to explore how bulk operations can contribute to water savings under the Basin Plan. Given the substantial volumes being moved around the Murray system every year, this seems very unfair and a lost opportunity.</p>

¹ [Summary of final business case - Broken Hill Long-Term Water Supply Solution - October 2017 \(nsw.gov.au\)](#)

² [Sustainable Diversion Limit Adjustment Mechanism: 2022 Assurance Report \(mdba.gov.au\)](#)

³ [The Barmah-Millewa Program | Murray-Darling Basin Authority \(mdba.gov.au\)](#)

⁴ [The Barmah-Millewa Program | Murray-Darling Basin Authority \(mdba.gov.au\)](#)

⁵ [Review of impacts of system-wide drivers on Tar-Ru - Scoping report - Stage 1 \(mdba.gov.au\)](#)

⁶ [Lake Victoria Operating Strategy 27 MAY 2002 \(mdba.gov.au\)](#)

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Other.	Leading up to and following the millennium drought, there was a significant shift in river operations. Through Improved Regulation of the River Murray , it's possible to lock in place these improvements. This means: <i>an additional 110 GL/yr of operational losses will not be required.</i> ⁷ The result is an extra 110 GL of water savings being available each year.	This proposal has been under consideration for over 10 years. It has been included in the same process as all other SDLAM proposals.	This proposal has been subject to the same consultation requirements as all other SDLAM projects.	While this proposal sits in the package of notified measures under SDLAM, the MDBA refuses to assign it an off-set value. ⁸ Our comments about the Commonwealth's unwillingness to properly scrutinise its river operations apply here as well.
Urban Efficiency.	The NSW Government is implementing a Town Water Risk Reduction Program ⁹ , scheduled for completion at end-2024. Objectives include: (i) secure and sustainable water supply and sewerage; & (ii) innovative technology to give towns reliable, resilient and safe water. The Program's water saving opportunities have not been explored in terms of Basin Plan outcomes. This warrants further investigation.	Urban efficiency is a well-understood concept. The infrastructure supporting it also has a very long and successful history. The only component missing is a willingness to connect opportunities under this Program to the outcomes being sought under the Basin Plan.	Consultation will take place as part of the Program's implementation. The RGA would also be more than happy to facilitate the establishment of relevant connections, should the Commonwealth prove serious about pursuing this particular option.	As noted, the only component missing is a willingness to connect opportunities under this Program to the outcomes being sought under the Basin Plan. This requires a commitment on behalf of the Commonwealth to take opportunities like these seriously.
Other.	Associate Dean and Professor, Dr Kurt Schwabe, from the University of California has been awarded a Fulbright Distinguished Chair Fellowship to: <i>collaborate with Australian scientists to better capture and store water as the planet warms.</i> ¹⁰ Working in collaboration with CSIRO, Dr Schwabe's study will take place in the first half of 2024, and will look specifically at the establishment of 'groundwater banks' across the Murray-Darling Basin.	Managed Aquifer Recharge (MAR) is not new, and is already recognised for its benefits including ¹¹ : long-term storage for drought supply (consumptive and environmental); offering a low-cost, low-energy supply; and also offering a storage alternative with no evaporation. Alongside this, Commonwealth agency Geoscience Australia is conducting an in-depth study of the Basin's groundwater resources to 'support water management'. ¹²	The RGA has already reached out to Dr Schwabe in relation to his study, and expressed interest in being involved.	Given this study will be conducted in the first half of 2024, this opportunity sits well within the criteria set by this 'Have Your Say' process. It also strongly reinforces Minister Plibersek's call for 'bringing the science up-to-date' ¹³ to future-proof the Basin Plan. The only component missing is a willingness for Canberra to connect the threads of work being undertaken across a number of its agencies, and recognise the benefits under the Basin Plan.

⁷ [10-Improved-Regulation-of-the-River-Murray-IRRM-Current-notification-Amendment-1-Redactions-applied.pdf \(water.vic.gov.au\)](#)

⁸ [Projects \(water.vic.gov.au\)](#)

⁹ [The program | Water \(nsw.gov.au\)](#)

¹⁰ [Capturing heavier rains in an era of drought | News \(ucr.edu\)](#)

¹¹ [Managed aquifer recharge \(csiro.au\)](#)

¹² [Darling-Curnamona-Delamerian | Exploring for the Future | Geoscience Australia \(ga.gov.au\)](#)

¹³ [Minister's address – River reflections 2022 on Vimeo](#)

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Community Use.	<p>A range of community-based initiatives within the RGA's footprint offer multiple benefits for the environment, first nations and other users.</p> <p>At the Werai Forest, in the Central Murray, from an environmental water perspective, primarily this would upgrade existing regulators. However, there are also strong potential benefits for First Nations at this site, along with a modest water recovery volume.</p> <p>For over 10 years, the RGA-supported Bitterns in Rice project¹⁴ has ensured survival of globally endangered Australasian Bitterns. We protect the breeding populations that descend on our rice crops each year. Our agricultural wetlands have a crucial role to play alongside traditional conservation reserves.</p>	<p>Community-led conservation projects have a multi-decadal history in the Riverina, which also provides testament of their success.</p> <p>What we don't have is a clear understanding of how projects like these can be incorporated into finalisation of the Basin Plan. We also must understand how these types of projects can be used to off-set the damaging impact of taking water out of the consumptive pool.</p>	<p>The RGA would be more than happy to facilitate the establishment of relevant connections, should the Commonwealth prove serious about pursuing this particular option.</p>	<p>As noted, the only component missing is a willingness to connect opportunities under this proposal to the outcomes being sought under the Basin Plan. This requires a commitment on behalf of the Commonwealth to take opportunities like these seriously.</p>
Other/Market Based.	<p>The approach of simply giving licences to the Commonwealth Environmental Water Holder (CEWH) is no longer what's needed to: <i>support the maturation of environmental water management</i>.¹⁵ As water availability across the Basin becomes more volatile, all users must be more flexible, efficient and adaptable. Two high-level principles are worth exploring here:</p> <ul style="list-style-type: none"> Increasing the reliability of licence-types held by the CEWH would also increase the volume that its current portfolio holds. If the CEWH could enter into more sophisticated commercial arrangements, it could negotiate mutually beneficial outcomes with other licence-holders. 	<p>The MDBA has acknowledged that the factors used to assess how much water has been recovered for the environment can change.¹⁶ By extension, projects that increase the size of relevant allocation pools would benefit all licence-holders who own that type of licence.</p> <p>For the second principle, there are also precedent-setting examples, including the recent <i>Narran Lakes Water Reimbursement Project</i> and the <i>supply-by-agreement</i> in place between the CEWH and Grampians Wimmera Mallee Water in Victoria.</p>	<p>The first step would be to confirm with relevant experts what actions are needed to give effect to a proposal such as this. The RGA would be happy to scope a list of case-studies, should the Commonwealth prove serious about pursuing this particular option.</p>	<p>The only component missing is a willingness to connect opportunities under this proposal to the outcomes being sought under the Basin Plan. This requires a commitment on behalf of the Commonwealth to take opportunities like these seriously.</p>

¹⁴ [About The Bitterns in Rice Project | Bitterns in Rice Project](#)

¹⁵ [Terms of reference - Murray-Darling Basin Plan: Implementation Review 2023 - Productivity Commission \(pc.gov.au\)](#)

¹⁶ [Factors for water recovery | Murray-Darling Basin Authority \(mdba.gov.au\)](#)

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Other.	<p>A ‘stock-take’ of older ideas would identify which projects are feasible now, given the drive to make the Plan’s finalisation innovative.</p> <p>A first-cut list would offer the following: <i>SDL Adjustment Stocktake Report, Aug 2015</i>¹⁷</p> <ul style="list-style-type: none"> • Existing Project Refinements (p. 24). • Improved Operating Tools (p. 24). • Lake Victoria Operating Rules (p. 25). <p><i>Murray-Darling Basin Plan: Five-Year Assessment, Dec 2018</i> (p. 136)¹⁸</p> <ul style="list-style-type: none"> • Logical Sequencing of Projects. • Integration With River Ops/Other Work. <p><i>Analysis of Efficiency Measures in the Murray-Darling Basin, Jan 2018</i> (p.154)¹⁹</p> <ul style="list-style-type: none"> • Icon Water – ACT (29 GL). • SA Desal Substitution (50 GL). • General Urban Opportunities (7.7 GL). <p><i>Supporting the Independent Assessment of Economic and Social Conditions in the Murray-Darling Basin, Aug 2019</i> (p, 50)²⁰</p> <ul style="list-style-type: none"> • Efficient Management/Measurement. • Behaviour Change/Reduce Consumption. <p><i>Advice to the Independent WESA Review Panel: Final, Dec 2021</i> (pp. 43, 51 and 52).²¹</p> <ul style="list-style-type: none"> • Stock/Domestic/Urban/Industrial (140 GL) • NSW Off-Farm (57 GL). 	<p>Suggestions provided come from independent, peer-reviewed work undertaken on behalf of Commonwealth agencies. We assume this means that the associated assessments of their viability are legitimate.</p>	<p>The RGA would be more than happy to facilitate the establishment of relevant connections, should the Commonwealth prove serious about pursuing this particular option.</p>	<p>The only component missing is a willingness to connect opportunities under this proposal to the outcomes being sought under the Basin Plan. This requires a commitment on behalf of the Commonwealth to take opportunities like these seriously.</p>

¹⁷ [SDL Adjustment Stocktake Report August 2015 \(mdba.gov.au\)](https://www.mdba.gov.au)

¹⁸ [Inquiry report - Murray-Darling Basin Plan: Five-year assessment \(pc.gov.au\)](https://www.pc.gov.au)

¹⁹ [Project title or company name \(mdba.gov.au\)](https://www.mdba.gov.au)

²⁰ [Literature review \(dccew.gov.au\)](https://www.dccew.gov.au)

²¹ [A4 Portrait Report \(dccew.gov.au\)](https://www.dccew.gov.au)

Table Two: Additional Ideas – As Prompted By The Recent ‘Have Your Say’ Process.



AREA	DESCRIPTION	PROOF OF CONCEPT	CONSULTATION	CHALLENGES
<p>Timeframe Extension.</p>	<p>The Commonwealth has already indicated that projects contributing to the 450 GL can receive funding and be completed after 30 June 2024, without triggering the need for a legislative change.²² It only seems fair that this approach be extended to the entire SDLAM package.</p> <p>Delivery beyond 30 June 2024 should be further bolstered by the Basin Plan’s reasonable excuse provisions (s.6.12(4)). Under this section of the Plan, non-compliance with SDLs is reasonable if caused by factors beyond a state’s control.</p>	<p>As noted, the Commonwealth has already advised an independent review that Basin Plan delivery timelines are not legislatively binding.</p> <p>With regard to ‘reasonable excuse’ the decade between November 2012 and November 2022 was characterised by three high-flooding years, and just over two years of extreme pandemic response. At a minimum, this should ensure that SDLs are not unfairly adjusted if reconciliation is triggered later this year.</p>	<p>All three components of the SDLAM package – as defined by Minister Plibersek²³ – already have strong support. Extended timeframes is the only way to deliver the full package. Doing so without a potentially risky and rushed legislative amendment is highly desirable.</p>	<p>The only component missing is a willingness to connect opportunities under this proposal to the outcomes being sought under the Basin Plan. This requires a commitment on behalf of the Commonwealth to take opportunities like these seriously.</p>
<p>Other.</p>	<p>Our key concern with this ‘Have Your Say’ process is being confident that the ideas put forward will actually be utilised to finish Basin Plan implementation. For us, this means ensuring that the 605 GL is delivered in full.</p> <p>It’s highly likely that this may require the inclusion of new projects - as well as the amendment of existing projects so they’re capable of receiving community support. We believe this can be done without triggering the need for legislative change.</p>	<p>Based on the Commonwealth’s 450 GL advice²⁴ Plan clauses are open to wide interpretation.</p> <p>With this in mind, we note the 605 GL package can be amended (s7.12). Importantly, there is no specification of how narrow or broad those amendments can be. This should provide sufficient scope to consider new proposals.</p> <p>We also note that under s7.15(2) the BOC can advocate for a new assessment method for projects that contribute to the 605 GL. There’s no time limitation within the Plan for when this assessment approach can change.</p>	<p>Amended processes is the only way to deliver the full 605 GL. Doing so without a potentially risky and rushed legislative change is highly desirable.</p>	<p>The only component missing is a willingness to connect opportunities under this proposal to the outcomes being sought under the Basin Plan. This requires a commitment on behalf of the Commonwealth to take opportunities like these seriously.</p>

²² <https://www.dccew.gov.au/sites/default/files/documents/second-review-water-for-the-environment-special-account.pdf>, p. 14.

²³ (1) 605 GL of projects that deliver outcomes without water; (2) 450 GL of additional water – with no socio-economic impact; (3) constraints lifting to allow for higher flows.

²⁴ <https://www.dccew.gov.au/sites/default/files/documents/second-review-water-for-the-environment-special-account.pdf>, p. 14.

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<p>Environmental Management.</p>	<p>At noted, the blunt approach of ‘transfer licenses’ is becoming obsolete. Non-water tools are often the only fix for many issues.</p> <p>Carp now make-up between 80% and 90% of all fish biomass in the Murray-Darling Basin.²⁵ Currently, this is arguably the biggest threat to native fish populations. None of the solutions under the <i>National Carp Control Plan</i> recommend recovering more water from the consumptive pool in order to address this issue. Instead, all options revolve around direct intervention within systems to remove carp.</p> <p>The last three years have been characterised by record-breaking floods. Above-average flows generated water quality problems that weren’t going to be addressed by adding extra water into the system. Instead, these challenges could only be addressed by direct intervention, for example through the creation of oxygenated refuges for native fish.²⁶</p> <p>The National Irrigators’ Council (NIC) has also highlighted the importance of infrastructure to improve fish migration from Menindee Lakes to the Murray. Once more, this can only be achieved through non-water methods.</p>	<p>These are all examples where the best available science is no longer recommending additional water recovery as the solution to the problem.</p>	<p>Requisite consultation either is, or is expected to take place as part of delivery and implementation.</p>	<p>Proposals like these deserve adequate recognition under current Basin Plan processes. Where this requires an amendment to the 605 GL package, or its assessment method, this should be undertaken as a matter of urgency. As we’ve highlighted, both can already be done without legislative amendment.</p>

²⁵ [National Carp Control Plan - DAFF \(agriculture.gov.au\)](https://agriculture.gov.au)

²⁶ [Murray valley annual surface water quality report: 2021-2022 \(nsw.gov.au\)](https://nsw.gov.au) (page 11).

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Other.	<p>The <i>Murray-Darling Basin Agreement</i> is the often-forgotten companion to the Basin Plan. In many ways, it made the Plan's job much easier, having already been the first to cap diversions, water iconic environmental sites and effectively deal with Basin salinity issues.</p> <p>It's the seminal document for state water sharing, storage operation and the movement of water along the full length of the Murray.</p> <p>Many of its provisions are decades old, and if modernised may more efficiently deliver the outcomes being sought under the Basin Plan.</p> <p>Examples of 'quick wins' include:</p> <ul style="list-style-type: none"> • SA's Entitlement & Storage Right. • Use of Lake Victoria. • Surplus Flow to SA. • Additional Dilution Flow – SA. • Losses. • Efficient Regulation of the River Murray. • Menindee Lakes Storage. 	As noted earlier, independent advice has already flagged the need to modernise aspects of the <i>Murray-Darling Basin Agreement</i> . ²⁷	The wholesale review of the Agreement is an outstanding activity that Basin Governments have long been reluctant to commit to. There are some obvious 'quick wins' that are possible under the Agreement, which could directly support Plan outcomes.	The strong reluctance on behalf of some governments to open up the Agreement, even though many of its provisions are no longer optimal after 10 years of Basin Plan implementation.
Environmental Management.	Minister Plibersek has two portfolios of direct relevance to the Plan: Water and Environment. A number of announcements the Minister has made in her 'environment' capacity are worth exploring for their ability to achieve outcomes under the Basin Plan. ^{28,29,30}	Suggestions provided come from Minister Plibersek herself. We assume this means all related assessments of viability are legitimate.	Extensive consultation should take place as each announcement is delivered. No funding would need to come from that available for Plan implementation. The RGA can facilitate establishment of regional connections if the Commonwealth is serious about pursuing this option.	What we don't have is a clear understanding of how projects like these can be incorporated into finalisation of the Basin Plan. We also must understand how these types of projects can be used to off-set the damaging impact of taking water out of the consumptive pool.

²⁷ [Project title or company name \(mdba.gov.au\)](#), p. 154.

²⁸ [Joint media release: Coordination key to driving down impacts of feral animals | Ministers \(dcceew.gov.au\)](#)

²⁹ [Nature Repair Market legislation introduced to parliament | Ministers \(dcceew.gov.au\)](#)

³⁰ [Joint media release: Biodiversity certificates to increase native habitat and support Australian landholders | Ministers \(dcceew.gov.au\)](#)