Submission to the Productivity Commission

re Murray-Darling Basin Plan: Five-year assessment - Draft Report (August 2018)

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Summary

The Productivity Commission draft report is largely supported; it is a damning report;

- The Productivity Commission has highlighted the shortcomings in the implementation of the Basin Plan so far. Importantly the lack of transparency in the processes has lead to a lack of confidence throughout the Basin communities;
- Significant Progress has been made...? Yes; but that has been the 'low hanging fruit', the remainder is far more complex, risky and challenging;
- The report identifies that the Basin Plan is unlikely to be delivered 'in full and on time' as has been so often promoted by politicians and government reports;
- Almost $5Bn of the allocated $13Bn budget remains unspent; however the expenditure momentum is fast and time is short. There is a real risk of declining value from future actions and investments;
- The language in the report is bureaucratically strong but could be even blunter! Given the massive financial investments, a much more robust and measurable outcome is demanded.
- The measurable successes to date result from:
    - The relatively easy 1500 GL water recovery program requiring only the allocation of money and a competitive tendering process. Even so, concern is raised on the validity of the water entitlements recovered during the buy-back water recovery program. The translation of current water rights into long term (100 year+) actual water availability is questioned.
    - The Commonwealth Environmental Water Holders comprehensive water delivery arrangements;
    - The approach to recovering water by efficiency projects has been exceptionally expensive with questionable outcomes;
- Basin Governments can't be trusted to prepare adequate Water Management Plans with sufficient consultation in the time available. It is likely that compromise plans will be offered up with inadequate evidence, analysis and modelling;
- The suggestion that MDBA is not sufficiently impartial with inherent conflicting functions is supported. The suggestions for reform of institutional and governance is supported. Preferably a more independent impartial review process could be instigated;
- The Productivity Commissions comprehensive suite of detailed findings and recommendations, whilst very thorough, tends to blur the big picture with too much detail.
- Given the overall conclusion that 'the delivery of the plan is at risk', and consideration should be given to extending timelines, it is suggested that a stronger overarching recommendation be considered: - Governments should pause the Plan; particularly the rate of expenditure, until improved governance, program scrutiny and evaluation of outcomes meet appropriate standards.
- The ongoing issue will be to hold Basin Governments to account to get the Plan back on track to meet its stated objectives.

Introduction

This submission to the Productivity Commission Draft Report has been prepared by Bob Newman; a consultant hydrologist (retired) having had a long involvement with Murray-Darling Basin matters. The submission has been prepared in consultation with members of the Scientific Expedition Group and others in South Australia.

It is noted that *"The Productivity Commission has responsibility for assessing the effectiveness of implementation of the Basin Plan and associated Water Resource Plans (WRPs) every five years. This function was included in the Water Act 2007 (Cwlth) to ensure there was a regular independent review."*

In discussion with other South Australians, it is apparent that the Basin Plan, as legislated, did not adequately reflect the public perception of the 'agreed' plan as publicised back in 2012. The legislated Plan has included a number of clauses which seem to diminish the effectiveness of the Plan at the outset. No doubt this was critical to gain the political consensus that was required for a plan to be agreed. Nevertheless, the adopted plan needs to meet its proclaimed goals, targets and timelines. Accordingly, it is important that the PC review highlights deficiencies against those matters.

The overarching concern is that the current Plan will not achieve the aims of the 'national' Water Act (2007) which includes '*to ensure the return environmentally sustainable level of extraction for water resources that are overallocated and overused'*.

There is no doubt that the rivers of the Murray-Darling Basin were grossly overused. This has been confirmed by many scientific studies over decades. We are reminded of the 1985 Murray-Darling Basin Environmental Assessment which lead to the formation of the Murray-Darling Basin Commission from the earlier River Murray Commission and initiated a change of ethos. In particular, the floodplains along the river corridor below Swan Hill through to the Murray Mouth and Coorong have been severely degraded and continue to degrade. It is now evident that similar problems are occurring throughout the Basin in particular in the lower reaches of the Darling River system. The abandonment of the Healthy Rivers Assessment program in 2012 has limited the collation of evidence relating to the condition of the rivers.

Having stated that position, it is acknowledged that the scope of the Productivity Commission Inquiry Terms of Reference is limited to the current legislated 2012 Plan and subsequent amendments.

Productivity Commission (PC) Draft Report Overview

The one page Key Points summary is well written and provides a useful document using blunt language to engage with concerned people; – well done.

The introduction provided in the draft report overview provides an excellent summary of the Plan itself and the process of negotiation to get the agreement and the subsequent role of the Productivity Commission. It provides a good reminder of the Basin Governments' responsibilities and timeline commitments.

In particular the importance of the 2019 timeline cannot be overemphasised. Also, the significance of the SDL (Sustainable Diversion Limits) Adjustments incorporating 'supply', 'efficiency and constraints measures' and the 'Toolkit'. Thank you.

Box 2 assists with the terminology. Nevertheless, these terminologies indicate the complexities of the Basin Plan and the jargon that hangs around it. Many community members and also some professionals have difficulty with that jargon. It was the publicity around the Northern Basin Review together with the ABC documentary highlighting water theft and policy manipulation that brought the inadequacies of the original plan back into public focus during 2017. Concern remains over the lack of commitment of all Governments, but particularly NSW and Queensland.

Significant Progress has been made.....?

Table 1 'Progress towards implementing Basin Plan elements': highlights the appalling current situation and the strong likelihood that the Plan will fail by falling short on many fronts, in particular the timelines.

To date, the only successes have been the water recovery program and the approach to Commonwealth Environmental Water Holder (CEWH) management arrangements.

However since the water recovery program has been curtailed by the embargo on acquiring any more than 1500 GL/a, this will severely limit the water holdings available to the CEWH. It is noteworthy that much of the 1500 GL/a of water recovered occurred before the Plan was agreed. We support the views of academics associated with the Wentworth Group of Concerned scientists[i] and economists, who have raised particular issues with the water efficiency program for water recovery. They raised questions about the cost effectiveness of that program together with a possibility that the water savings were overstated, having not allowed for prior return flows. No doubt you will receive further inputs from those contributors, so we urge you to take heed of their inputs; they are one of the few scientific inputs to the Plan who are reasonably independent. I have previously raised concern over the true independence of the CSIRO in the development of options.

The suggestion that water trading rules are a success factor is also questioned by the fact that these changed rules have facilitated increased irrigator to irrigator trade resulting in increased diversions due to the activation of 'sleeper water'!

New management arrangements by July 2019 – This section emphasises the obligations beyond just the recovery of water allocations. The Basin Plan subordinate planning frameworks are largely in place, but have yet to be fully implemented and documented. Specifically the pre-requisite policy measures which need to clarify historic water use are limited by inadequate data and modelling capability.

Water Recovery is largely complete

The public profile of the Basin Plan has always focussed on the recovery of water allocations. There has been concern whether the allocations actually recovered had a history of 'actual use' and whether the acquired water rights reflected actual water availability. The MDBC 1997 Cap on Diversions was supposed to cap all unused water allocations; however it is understood that there

has been considerable uncertainty in defining the historical allocations and incorporating into long run 114 year model record. This relates to the uncertainty in the pre-requisite policy measures.

These uncertainties will contribute to real challenges in the development of accredited regional Water Resource Plans. Concern is raised that there is too much incentive for the States to develop the Plans on the basis of favourable water use history by irrigators. Given the delays and current urgency, we raise concern that there will be inadequate modelling review processes.

Section 4 "In other areas success is less certain....."!

Given the damning findings throughout the report this heading is a gross under-statement!

Models – validation and review

The MDBA, and its predecessors the MDBC and RMC, have a long and comprehensive history of generating hydrologic models. For the shared rivers (the Murray and Darling below Menindee); there is an excellent hydrographical record (back to 1896 and earlier). This is due to the historic development of river regulating structures (dams and weirs). The Basin's tributary rivers have a much sparser data set, especially in the early part of 20th Century. There is no comprehensive integrated basin model. The modellers have had to cobble together a disparate suite of models and this has resulted in considerable mismatch at the boundaries. Clearly some effort has been made to overcome this but I am advised that scenario modelling requires a lot of 'human intervention'.

I have personally had involvement with the development, calibration and review of the Basin rivers hydrologic models through the MDBC Basin Salinity and Drainage Strategy 1989 MDBMC Basin Salinity Management Strategy (2001). That work involved validating hydrologic models for the 25 year period 1975 – 2000. That was a very significant challenge. Projecting the models for the 114 year period 1896 – 2009 for the Basin Plan involves a leap of faith in extrapolating data.

My experience suggests that the basin states have an incentive to adopt assumptions that are generous to water users; the peer review process is often somewhat incestuous. My suggestion is that a better approach to dealing with uncertainty is needed and that a wider, perhaps international, peer review approach is worthwhile.

Supply Measures

The program of 'supply measures' have been conceived to claw back the water recovery by some 675 GL/a. However they have been endorsed on very limited analysis and driven through parliament on 'behind the scenes' deals. There is great scepticism that they will provide the suggested combined benefits. The supply measures have the sense of 'smoke and mirrors'! They will provide excuses for further procrastination.

The report emphasise that '*the 2024 deadline for supply projects is highly ambitious, if not unrealistic'.* Box 3 illustrates some of the challenging components. We would add that it is unlikely that the projects will result in better attainment of targets in the lower Murray reaches.

These matters that have been so poorly managed and communicated by the Basin governments. There seems to have been very poor consultation, with very short timelines after years of 'behind the scenes' studies and negotiations. The reports substantiating the validity of the proposed projects

are very preliminary. A 'trust the proponent' approach has been adopted with much of the validation analysis being left for the 'out years'.

Efficiency Measures to recover additional 450GL/a by 2024

Given the uncertainty about the projects in the supply measures it is even more suspicious that the additional 450GL/a will be achieved. In fact there seems to be strong reticence by the upstream states to contemplate such a program. It is that last component of the Basin Plan that will provide the most benefit to the lower Murray Mouth and Coorong which is of particular concern to the SA communities.

The Commonwealth Environmental Water Holder has made a good effort at promoting how annual environmental water allocations are made in the context of the transient water availability.

Value for money and socio-economic implications

Almost $5Bn of the allocated $13Bn budget remains unspent; however the expenditure momentum is fast and time is short. There is a real risk of declining value from future actions and investments;

As a hydrologist, I struggle with these matters; however it is increasingly obvious that the Basin Plan has tried to reach far beyond its credible goals within its large but limited budget.

The Plan has become a tool for structural adjustment throughout the Basin's regional communities. When measured in hydrologic terms of volumes of water recovered and subsequently applied for environmental recovery targets, it is falling far short of value for money. I'll leave further discussion of those matters to others, eg Wentworth Group of Concerned Scientists (and associate academics).

Monitoring & Evaluation

Our local contacts have raised concerns that monitoring and evaluation is very under resourced. This is a critical element to a so called 'adaptive management' Basin Plan. It appears that the funding arrangements do not adequately provide for long term monitoring reporting. We recognise that the environmental benefits will lag well behind the actual actions and this is compounded by the erratic dynamics of river flows. But there are emerging techniques that can deal with such transience.

Opponents of the Plan have raised concerns about the socio-economic impacts of the plan; however this appears to be based upon emotion, mis-information and poor economic assumptions[ii].

When the time comes to review the performance of the Plan rather than just the progress with its implementation, will there be adequate data and analysis?

The question of compliance with water abstraction licence conditions remains a concern.

Section 5 Where does that leave us?

The language in this section is applauded. A real challenge for the Basin Governments has been outlined.

It is now up to communities to demand that the Basin governments provide an adequate response to the PC Review and to focus on the detail of numerous individual actions and projects. This will be

a challenge for communities in particular those with environmental objectives. The irrigator communities appear to be well organised and coordinated to restrain the Plan. There is a need for better coordination amongst environmentalists.

Triple Bottom Line

– perhaps beyond the scope of the PC review but worthy of commentary!

The Basin Plan Implementation appears to focus / bias towards socio- economic outcomes rather than ecological priorities. It was unreasonable at the outset to expect a Water Plan to drive regional restructuring. The notion that the river communities are wholly dependent on irrigation requiring continued over-allocation and water take is naive and simplistic. The irrigation industries have a history of crises resulting from poor market decisions, with the recent dairy industry woes being a prime example.

The Australian climate and consequent stream flow is highly variable (more so than any other major global river basin). Reconfiguration of inland economies needs to recognise this fact and become less reliant on continued unsustainable water take. Inland tourism including ecotourism is growing rapidly and the evidence is growing that this could become more valuable than irrigated agriculture. The marring of the landscape with irrigation ventures that scar the landscape and jeopardise the health of the rivers and floodplains is in itself a drag on tourism potential.

In my opinion Australia needs to embark on a regional development planning approach to cope with the rapid population growth which is causing so much consternation in Sydney & Melbourne. The Productivity Commission should include how its investigations could foster a more integrated understanding of Australia's broader issues.

Bob Newman

Retired consultant hydrologist residing in SA

Note this submission has been prepared using anecdotal observations; it is not an academic publication and I apologise for a lack of detailed references. Nevertheless I trust that it is useful to the Productivity Commission's further work.

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[i] The Murray-Darling Declaration 5th April 2018 https://murraydeclaration.org/

[ii] SUBMISSION TO THE MURRAY-DARLING BASIN'S ROYAL COMMISSION
Professor Sarah Wheeler, Professor Jeff Connor, Professor Quentin Grafton, Professor Lin Crase and Professor John Quiggin