

2024 Peter Cullen Trust Water Symposium

Panel Presentation – Professor Ross Thompson (2014)

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MANAGING WATER TRADE-OFFS IN AN INCREASINGLY EXTREME WORLD

Panel address from Professor Ross Thompson (Centre for Applied Water Science, University of Canberra) at the Peter Cullen Trust Water Symposium

I am a hypocrite. I love native fish but enjoy a glass of pinot. I understand blackwater events but am sad to see a rural town in decline. The Lower Lakes are awesome but gee I love King Valley cheese.

So I'm also a pragmatist. We cannot ignore the fact that we dwell in a space where we are dealing with trade-offs – in particular between agricultural productivity and environmental benefits.

The idea that resonates with me is that of a healthy working river... doing our best for biodiversity while recognising that we are managing, or even engineering, river systems to deliver the wide range of values we care about.

The mistake made by some is to think that water reform is about restoring the Murray Darling Basin. It isn't. It is about managing the system for multiple outcomes... Ecological. Agricultural. Social. Recreational.

We do not have a mandate to restore the MDB to its pre-development state.

What we do have is a mandate to redress the balance. And we have had some success. If we had continued to manage the river as we were in the late 1990s we would have lost species. Anyone who says water reform has had 'no positive ecological effect' doesn't understand the data. The statement polarises the debate. It's actually quite a lazy assessment. There clearly have been ecological benefits from environmental water in some places at some times, particularly when considered against the counter-factual case where there had been no water recovery for the environment.

The real question is are those returns enough? That is a social decision... are the ecological benefits enough or are we willing to trade off more economic and social cost to generate more ecological benefit. Don't delude yourselves ... that is the question we are asking. It is not how much water do the environmental values of the river need (the answer to that is 'all of it', obviously). It is how much water we are willing to give to achieving collectively determined ecological outcomes.

And extreme events will challenge this still further. Climate models by the CSIRO predict that by mid-century, the Murray–Darling Basin may experience a 5% reduction in average annual rainfall, leading to a 20% reduction in average annual runoff. In an extreme scenario, the reduction in average annual rainfall could be as much as 15%, resulting in a 40% reduction in average annual runoff.

We will see extreme drought and we may well see alternating patterns of extended drought and extreme wet periods.

That world will see rural communities in particular under extreme stress. The human response to crises is to focus locally and to respond reactively. It will take a really evocative regional and national

vision to counter those drivers. Drying trends and extreme events will erode some of the environmental gains we have made.

Which brings us to the way forward. We focus on the Murray Darling Basin Plan but the NWI was the foundation on which it was built, and the process that built the NWI was the mandate. We look backwards to Peter's legacy but ignore at our peril Peter's true legacy which is to seek the consensus which allows us to look forward. I would argue that the NWI doesn't need a refresh, but rather that we need to carry out a new process of building a consensus view on the future of Australia's waterways.

So what is the role of science in all this??

The water science field is increasingly understaffed, under-resourced and fragmented. Recent published debate has focussed more on critique than developing genuine partnerships to address water management challenges. In my assessment scientists work well together in two situations – where there is shared opposition to something or when this is a shared (resourced) challenge. In recent years we have gravitated to the former not the latter. Sadly in the absence of Land and Water Australia and the National Water Commission, debate has often been divided sectorally and poorly focussed on genuine policy needs. In the absence of a positive vision we have seen scientists at odds with one another.

My challenge to the academic community is to get real and show genuine leadership in this area. Leadership is about vision. But it is also about impact. We can imagine a better future for the MDB but if we can't plot a path through the economic and social foreground to get there, the vision is the wrong sort of vision... the magic mushroom kind of vision.

So I am an unapologetic pragmatist. I will challenge myself and everyone in this room on the 'how'. How can we achieve change. And seek to plot the course from our current reality to a shared vision.