

## WITNESS STATEMENT

**Name:** Geoffrey Wise  
**State:** New South Wales

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1. My name is Geoffrey Wise and I am providing this statement to the staff of the Murray-Darling Basin Royal Commission (**Commission**).
2. I have provided a detailed submission to the Commission dated 27 May 2018.
3. I provide this statement in addition to that submission.

### Background

4. Since 2012 when I completed a five year term as General Manager, Bourke Shire Council, I have become significantly involved in Dubbo community and western NSW community committees, five of which I Chair, and all of which are virtually voluntary. In 2013 I was appointed by the then NSW Minister for Lands to the legislated position of Chair, Western Lands Advisory Council, and I report directly to the person holding this Ministerial portfolio. I continue to hold this role (now titled "Western Lands Advisory Committee").
5. I have a significant background and involvement in NSW water resource policy and management, including balancing competing needs between extractions and the environment, particularly in the Barwon-Darling River. From 1995 until 2006, as Regional Director, Far West, Department of Land and Water Conservation (including a few title changes), I led a team representing the NSW Government regarding the Government's responsibilities to develop a "Cap" on growth in long term average extractions from the Barwon Darling River system. This was part of a Murray-Darling Basin wide decision that the rivers and riverine environments were at risk from over-extraction. In this role I developed an understanding of the environmental, urban and grazier importance of low flows in the highly variable flowing Barwon Darling, and how these flows should be managed for sustainability. For the same 11 years, I simultaneously held the position of Western Lands Commissioner, responsible on behalf of the NSW Government for all land administration across western NSW. This responsibility allowed me to understand the significance of water needs for all water stakeholders in the western 40% of NSW, particularly including graziers, Aboriginal people, towns and villages.
6. In 2012, I was invited to join the Northern Basin Advisory Committee (**Committee**). In this role, I undertook a range of tasks, including undertaking my own assessment of flows into and through the Barwon-Darling (in the long-term) having regard to the extraction rules under the current Barwon-Darling Water Share Plan, introduced in 2012. I recall that low flows and the protection of environmental water were significant concerns for the Committee.

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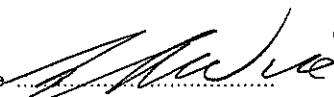
7. During my time on the Committee, I drafted many reports and minutes for consideration by the Committee and the Murray-Darling Basin Authority (**MDBA**). Some of these are attached to my submission. I have referred to some of those materials in this statement. The purposes of the various reports / minutes were to provide constructive advice to the Committee and to the MDBA, and as appropriate to ensure there was a record of the Committee's concerns about the Northern Basin Review.


### Problem with Averages

8. In my view, the MDBA is limited in how they can achieve their prescribed objectives, in the sense that the only tool given to the MDBA under the Water Act and Basin Plan is to determine how much water should be reduced from licensing in order to achieve a sustainable diversion limit (**SDL**) over the long term annual average.
9. In a highly variable system, such as the Northern Basin, the long term annual average (including both the average volume of water able to be extracted and the average return of water for the environment) is too simplistic an approach. To my mind, averages are meaningless in the Northern Basin. This fact appears to have never been well recognised by the MDBA.
10. Consequently, in my view, simply reducing (or increasing) extraction by any annual average amount does not achieve the overall goals of the Basin Plan, which are to achieve a healthy working Basin through integrated management of water resources for the long-term benefit of the Australian community, recognising the balance of triple bottom line considerations.

### The Role of NSW Water Share Plans in the Northern Basin

11. Water Sharing Plans (**WSP**) in NSW were an important part of the Committee's consideration, particularly due to their impact upon environmental flows and connectivity in the Northern Basin. These issues were important to consider in order to assess, amongst other things, whether there should be any reduction to the SDL for the Northern Basin.
12. Having been involved in water policy and management in NSW for a significant period, I was, and remain, concerned that there's no commonality among the WSPs in NSW. Each WSP or valley has been treated as though there's nothing beyond the end of that geographic area. This raises concerns about what happens to environmental water when passing through to a different valley.
13. Further, during the course of the Northern Basin Review, Committee members assumed that before any state formally signed off on a WSP, the MDBA had a right to look at it and sign off on it. We understood that the spirit of co-operation between the Commonwealth and the States would continue and that the MDBA had a right to refuse a state WSP. I later understood that this assumption may have been incorrect, particularly for the Barwon Darling WSP that was introduced in October 2012, one month before the Basin Plan was introduced.

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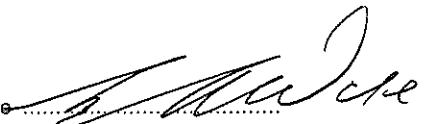
Further, I gained an impression that no-one from the MDBA took any interest in understanding the implications of the Barwon Darling WSP for the first several years of the Northern Basin Review.


**Barwon-Darling**

- 14. My experience is that the Barwon-Darling River is a water taker, not a water maker. The only water that gets into the Barwon Darling is the water that flows in from tributaries. There's virtually no local rainfall runoff. Its flows are dependent on what comes in from other catchments.
- 15. My understanding is that the MDBA's modelling for the Barwon-Darling assumed that environmental water would be protected. In my view, the MDBA were being naïve to the fact the NSW Barwon-Darling WSP was not in any way protecting environmental water once it arrived in the Barwon-Darling. I frequently brought this contradiction to the attention of the MDBA. In my view, it demonstrated bad policy, bad governance, lack of Commonwealth and State cooperation. It also demonstrated a lack of understanding about risk for the MDBA through the Basin Plan, and for the NSW Government through the Barwon Darling WSP, to have totally contradictory planning strategies, launched one month apart. The Basin Plan sought a large (143 GL) shared reduction of extractions mostly from the tributaries to be converted to environmental water for the Barwon Darling, yet the NSW Barwon Darling WSP allowed for this environmental water to be eligible for extraction for irrigation as soon as it entered the Barwon Darling River system.
- 16. Further, the Barwon-Darling WSP took away the flexibility needed for management of low flow events and tried to make hard and fast rules. These rules virtually all maintained the status quo or favoured irrigation extraction. None of them swung the balance the other way to protect environmental water.
- 17. Even if the MDBA has no power or control over WSPs, my concern is that eventually WSPs will become Water Resource Plans (**WRP**). It would be a bad process in my view, if the WSP for the Barwon-Darling is converted to a WRP without undertaking further risk assessments about the protection of environmental water, and implementing appropriate strategies, at least equivalent to what applied prior to the 2012 WSP.

**Managing Low-Flows**

- 18. The MDBA attempted to use modelling to manage low flows. In discussions with the MDBA, I consistently raised that models are the wrong tool for low flow water management. Instead, in my view, the solution was to study low flows (with States, who have the tools and data) and develop flow-event management strategies.
- 19. By flow-event management, I mean making a decision about whether a licence holder could or couldn't extract water based on the flow that's coming down the river.

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20. From my experience, flows can be managed on an individual event basis, factoring in how long it's been since the last flow, how wet the downstream system is, where the flows are coming from and how big they are.
21. During the 11 years I was Regional Director of Land and Water Conservation operating under the NSW legislation that existed at the time, I essentially managed low flows in the Barwon-Darling system in that way. As soon as there was a flow coming down, I'd work with the stakeholders (government, irrigators and environmentalists). We'd have teleconferences fairly regularly to discuss how to manage the flow event. I had sufficient authority under the legislation to say that the Minister can change how the flows are used, and I had the Minister's authority to do that. Sometimes the irrigators got more than they were allowed, sometimes they got less. But we had a network of stakeholders having input into the decision.
22. This is the most practical solution I can think of, particularly in the Barwon-Darling, considering that it is an artery connecting all the tributaries to the southern Basin.

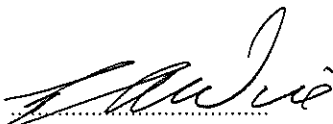
### **Engagement with MDBA**


23. From my perspective, the Committee communicated with the MDBA frequently, including with the CEOs, Rhondda Dickson and later Phillip Glyde. Dr Dickson or Mr Glyde attended virtually every one of the Committee's meetings.
24. Also present at the Committee's meetings from the MDBA were a large group of senior team leaders, including modellers. Some of the questions that the Committee raised would be asked of the modellers, and they would show us their modelling and scientific information.
25. I recall the modellers accepted that there wasn't much reliability in the models dealing with low flows. I recall this was consistent with a report I read that the MDBA commissioned from Brewsher Consulting.
26. I gained the impression that the MDBA was not hearing the Committee's concerns in this regard and that the modellers continued to stand by the modelling, albeit that they acknowledged the limitations to the modelling in relation to low flows. Maximising reliability of low flows remains the most critically important issue for the Barwon Darling, for the environment and all water users, other than irrigators. Irrigators maximise their water reliability by accessing higher flows and pumping into off river storages

### **Documents attached to submission**

#### **Draft Discussion Paper**

27. I refer to the document attached to my submission entitled "Draft Discussion Paper" dated 13 April 2014. The fourth bullet point relates to the accuracy of IQQM in the Northern Basin.

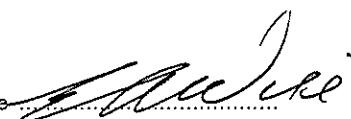
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- 28. To elaborate further on this, the IQQM was used during the development of cap figures from the late 1990s to 2006. This was used to work out what the extraction limits should be in the Barwon-Darling after the cap was introduced. Some people have argued that as a result of the cap, the Barwon-Darling lost two thirds of its water. Based on my experience on the Barwon-Darling that is a very manipulative interpretation of what happened.
- 29. Very simply, until 2006, irrigators in the Barwon-Darling had all been given an annual licence. They could use up to that amount and started with a clean slate on 1 July every year. There was no carryover. Logically, in such a highly variable system, it was not sound business for irrigators to develop their property to the maximum of their licence, because they'd only be able to use that amount in big flow years. The net result was that only a third of the total water licences were used on average. The range was commonly from 0 to 50% of those original licences. Consequently, the argument that people lost two thirds of their water is a bit of a smokescreen.
- 30. I also wish to elaborate on my reference to rating table, or conversion factors. By conversion factors I am referring to the conversion from river height in a flow event to a daily volume of river flow.
- 31. During the period when I was living in Bourke from 2007-2012, on one occasion within a six week period there were two significant flow events that came down the Darling past Bourke. Coincidentally, the peak of these flow events were exactly the same flow height – from recollection approximately 12 metres, equivalent to approximately 70,000 to 80,000 ML a day.
- 32. During the brief period between the two flow events, the NSW Department undertook a review of the conversion from flow height to flow volume, and based on the flow events referred to above, amended one of the two conversions by 10%, or about 10,000 ML/day. This meant that the second identical gauge height has been permanently documented as either 10% more water or less water in terms of volume.
- 33. My concern is that this type of historic data is relied upon to make policy decisions. Using raw data with errors such as this 10% variation risks the resulting policy decisions being misguided, as they are based on incorrect information.

18 February 2016: Member's Report on Member Issues

- 34. I refer to the document titled '18 February 2016 Member's Report on Member Issues' attached to my submission. In that document I have referred to an Environmental Science Working Group.
- 35. To elaborate further on this point, the Environmental Science Working Group was made up of people from the MDBA, along with some technical groups with people from relevant NSW and Queensland departments. I was selected to be part of that working group on behalf of the Committee. As a result of attending those meetings, I put together this report to take back to the Committee. The matters identified under the section entitled 'critical concerns of G Wise', were matters that I raised at meetings with the working group and reported on back to the Committee and to the MDBA.

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36. The third concern I have raised in that document relates to the release of alternate scenario models. I recall that my concern in this regard was that there should have been alternative models provided by the MDBA as part of the consultation process. This would have provided stakeholders with an opportunity to talk to the MDBA about a range of different scenarios. Unfortunately, the MDBA only provided a limited range of models. I felt that the MDBA was not being fully transparent with all stakeholders.
37. Another one of my recommendations was for the MDBA to engage a statistician. My reasoning was that although the MDBA acknowledged the massive variability in the daily, monthly and annual river flow data, they still turned to the modelling tools (dependent upon the variable data) to provide answers.
38. In my view, it was dangerous to draw conclusions from highly variable flow data. I recommended a statistician be engaged to look at the river flow data to determine whether or not meaningful statistically significant conclusions could be drawn from it. I believed it would have been helpful to bring in this specific scientific skill to look at some of the fundamentals that were influencing the Northern Basin Review. Although I recommended that the statistician should not have prior experience with water management, I did not consider that recommendation to be essential. The MDBA never engaged a statistician as recommended.

MDBA Meetings at Bourke and Brewarrina

39. I refer to the document attached to my submission entitled '160821 MDBA Meetings at Bourke and Brewarrina.' In that document I recommended that a modelling review of the Barwon-Darling be completed.
40. To elaborate on this point, the reason for my recommendation was that towards the end of the term of the Committee, the MDBA were saying that NSW had not conducted modelling for the Barwon-Darling that incorporated both the changes introduced through the 2012 Barwon Darling WSP (that increased extractions from low flows), and the extractions of environmental water from tributaries. The MDBA were effectively saying that they couldn't do anything until they got the modelling work from the states. In my view, in order for the Committee to give advice, and for the MDBA to make decisions, it was vital that the advice and decisions were based on the best available models that recognised current WSP rules. I was never convinced that this essential work had been effectively completed before the MDBA made their recommendations to amend the SDL.

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