

# Water Quality - the sleeping issue in the MDB?



**A collaboration with:**



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# Today's panellists



Andrew Western,  
*Uni. of Melbourne*

Jason Wilson,  
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the Northern Basin*

Dr Matt Landos,  
Future Fisheries  
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Reef Lead,  
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# Confluence Paper on Water Quality



A **discussion paper** to explore water quality issues that are important in the MDB

It aims to **indicate the base level of understanding** rather than provide management answers

To the extent possible, the discussion is **based in the literature** of the MDB and relevant studies are outside the MDB, noting that there are major knowledge gaps

We try to set the scene around **existing and potential management issues** and suggest future **research priorities and future actions**

We are in the process of drafting this and welcome feedback



Poor water quality is impacting on ecological and human health and a range of economic and societal values.



Catchment management has focussed mainly on macro pollutants such as nutrients, salts and sediment. These issues remain important. There is relatively good associated knowledge.



There is growing recognition of the potential impacts from a wide variety of chemicals of concern for both human and ecological health. Examples include pesticides, PFAS, and pharmaceuticals. Relevant knowledge is low.



Populations of organisms that are likely sensitive to water quality are seeing large declines across MDB rivers.



Rivers are important sources of food for Indigenous Australians and other river communities. These food sources are declining and could pose health risks, but knowledge is poor.



Chronic impacts on complex aquatic ecosystems take a long time to become apparent and we have limited knowledge of the role of water quality (especially chemicals of concern) in these declines.



The health, environmental and economic, externalities of widespread chronic exposure to poor water quality are poorly understood but should be incorporated into management decisions.



There are major knowledge gaps related to most of the above statements, although the direction of action is clear.

This hampers effective management action.



Exposure to many chemicals of concern is via multiple pathways and a one-health approach is likely needed in managing these.

One-health implies an integrated rather than siloed approach to the health of people, animals and the environment.



The best integrated catchment water quality management program in Australia is in the Great Barrier Reef catchments and it is leading to improved water quality



Water quality is best managed at the source, which in the context of the MDB often involves agriculture.

From an environmental perspective, usually water quality can only be managed at the source.

# Questions?





# Thank you

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