Submission
to the Victorian Department of Environment, Land, Water and Planning on Protecting the Yarra River (Birrarung)

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Doctors for the Environment Australia
67 Payneham Road
College Park SA 5069
P 0422 974 857
E admin@dea.org.au
W www.dea.org.au

Healthy planet, healthy people.
About Doctors for the Environment Australia

Doctors for the Environment Australia (DEA), the organisation making this submission, is a voluntary organisation of medical doctors in all states and territories. Our vision is ‘healthy planet, healthy people’.

DEA understands that human health and wellbeing are absolutely dependent upon a rich, biodiverse planet where all ecosystems sustain life in balance. Humans need a future with clean air and water, healthy soils producing nutritious food and a complex, diverse and interconnected humanity whose needs are met in a sustainable way.

We work towards sustainable development that meets the needs of the present generation without compromising future generations. DEA has a distinguished scientific committee of advisors whose knowledge of medical and public health issues is fully contemporary and our members include doctors and medical students from all facets of medicine.

Introduction

As medical doctors we welcome this opportunity to contribute to the community discussion about opportunities to improve the oversight and management of the Yarra River. We rely on natural ecosystems for clean air and water; healthy fertile soils in which to grow our food; a stable climate in which to thrive and a rich tapestry of living organisms- biodiversity- from which we have taken food and developed over half of the medicines in use today.

We are facing urgent threats to our wellbeing from climate change and biodiversity loss and preservation of our river systems is essential as they support our health in many ways, key of which is the protection of our drinking water supplies.

Health considerations:

1. Water quality for both drinking and recreation

The Yarra River system provides around 70% of Melbourne’s drinking water. This invaluable resource is of an excellent standard but is highly dependent on upstream environmental integrity for its maintenance. Specifically, the high yield of water per hectare of catchment is reflective of the pristine forests from which it is drawn. The Victorian Government needs to ensure that the remaining forests within the Yarra catchment are explicitly and permanently protected - with no intrusion from logging or land clearing, and, where possible, that the range of protected forestation
should be extended to enhance environment resilience in the face of environmental change.

This is especially critical given the impact of decades of fire and logging on the said catchment areas. In particular, as the Mountain Ash forests of the Central Highlands are the key source of Melbourne drinking water, protecting the Yarra logically means protecting those same forests. Indeed, the Victorian Central Highlands have been scientifically assessed as ‘critically endangered’ under International Union for the Conservation of Nature (IUCN) criteria. Consequently, we strongly recommend this review support the current Great Forests National Park Proposal within the policy framework directed at the future health of the Yarra.

A related issue is that of reducing storm water drainage and microbiological, agricultural and industrial pollution sources. Addressing this issue will need continued investment and policy prioritisation directed at retaining and enhancing Melbourne’s green spaces and environmental quality standards. In particular, emphasis should be given to promoting planting diverse species of heat tolerant native vegetation as well as the retention and reclamtion of urban wetlands. In addition, especially where storm water is concerned, the promotion of grass swale drains, vegetated filter strips and porous pavements will facilitate greater ground uptake of urban drainage. Similarly, the active protection of stream habitats and promotion of creek restoration in areas previously affected by channeling should be a policy priority. Such interventions not only address storm water quality but also quantity - objectives that go beyond contamination to address local flood protection within the Yarra environs.

Linking the Yarra with its immediate surrounding urban and industrial landscape, not just upstream forest catchments, is essential to the maintenance of its health. Consequently, we recommend the inclusion of Yarra water quality criteria in the evaluation of Melbourne urban infrastructure, as well as regional catchment agricultural development proposals. This will ensure that a whole of government policy approach is adopted to retain and strengthen the health of the Yarra. It is clear that water quality in the urban areas of catchments is generally much lower (rated Poor or Very Poor), compared to water ways in the upper catchments closer to forested areas, due to the impacts from residential development and industry, [http://yarraandbay.vic.gov.au/report-card](http://yarraandbay.vic.gov.au/report-card). As such, we further recommend integration of this plan with the 2036 Victorian Government Biodiversity Plan, [http://www.delwp.vic.gov.au/environment-and-wildlife/biodiversity/biodiversity-plan](http://www.delwp.vic.gov.au/environment-and-wildlife/biodiversity/biodiversity-plan) and the Melbourne City Urban Ecology and Biodiversity Strategy, [http://participate.melbourne.vic.gov.au/nature](http://participate.melbourne.vic.gov.au/nature).

Furthermore, similar to the provision of daily ultraviolet radiation levels and pollen counts, the Victorian Government should be regularly reporting to the public on a real time basis what the Yarra water quality is like - eg

2. Historical legacy of pollutants

We are aware of health warnings about polychlorinated biphenyl (PCB) chemical contamination of fish and health warnings to anglers for the lower Yarra and Maribyrnong rivers and yet we see no mention of this in the discussion paper. The warning applies to fish and eels caught in the lower Yarra where these chemicals remain in the environment from industry phased out in the 1970s. Health effects of PCB’s include learning problems and developmental delay in children, skin problems like acne or rashes, liver problems, changes to the immune and hormone systems, https://www.betterhealth.vic.gov.au/health/healthyliving/fishing-eat-your-catch-with-care. In this Better Health Channel fact sheet a 2005 study is quoted where two in every fifteen eels in the Lower Yarra exceeded the maximum safe limit of PCB levels and black bream were also high in PCBs.

The Department of Human Services (DHS) issued health advice in 2007 for people who catch fish in the lower Yarra and Maribyrnong Rivers. This advice states that while it is safe to eat fish from the Lower Yarra and Maribyrnong Rivers, it is recommended that "people limit themselves to four serves of fish a month and one serve of eel a month, and children and women of child bearing age should limit themselves to one serve of fish per month and should eat no eels from these rivers", http://www.epa.vic.gov.au/~/media/Publications/1283.pdf. The EPA and the Department of Health need to be involved in long-term monitoring of a range of inorganic contaminants in the Yarra that affect health and the environment and adequate resourcing should be provided to support ongoing data acquisition and public advice.

3. Potential legacy of radioactive contaminants

This is not mentioned in the discussion paper yet there remains concern that the Yarra river bed may contain sediment containing radioactive material.
It is reported that during the 1941 to 1965 period projects involving the separation and concentration of uranium, cerium and thorium containing radioactive ores were carried out by the CSIRO at its Fishermen’s Bend property, 506 Lorimer Street (adjacent to the Yarra River). The uranium and thorium ore was transported from Radium Hill in SA and Rum Jungle in the NT. The ores arrived by cargo ship, and were unloaded at the wharf adjacent to the Lorimer Street site. It was suspected that radioactive waste products from these research projects, and possibly those from subsequent projects, had been disposed of on the property. The site was investigated in 1989 and was found to have radioactive contaminants throughout the buildings and grounds; and in a 380mm pipe leading to the Yarra. Thousands of tonnes of contaminated soil were removed during remediation work in 1990. However, no investigation or treatment of the adjacent sediments in the Yarra was undertaken. Of ongoing concern is the decontamination report finding that radioactive materials were found buried onsite, and a pipe that may have led to the river, was discovered partly filled with contaminated waste. Some 9,700 x 200 litre drums of radioactive waste were produced from the site, some of them highly contaminated. By 2009 the waste still accounted for more than 50% of all radioactive waste in containment facilities within Australia. The reports also reveal that some contamination remains on site, https://www.crikey.com.au/2008/09/03/is-radioactive-mud-a-problem-for-victorias-channel-deepeners/.

We feel that a thorough analysis of the potential radioactive risk to human health must be undertaken as part of this new look into the health of the Yarra, particularly given the ongoing development of the Port and lower reaches of the river and the potential privatisation of the Port of Melbourne.

4. Green and open space along the Yarra

The provision of natural space for human mental and physical health is an important component of the Yarra River corridor, the river provides a place, both on its surface for boating, rowing and kayaking and along its banks for cycling, walking, jogging and relaxing. These recreational activities are as important for our mental health as they are for our physical wellbeing. There is now a growing body of evidence to support the assertion that time in a natural place lifts mood, reduces stress and improves focus and attention. Given the busyness of life in a city of three million people where anxiety, depression, sleep and attentional difficulties challenge many, a natural resource like the Yarra River provides a place of restoration and recovery.

Exercise in a natural environment is enormously beneficial as it provides an opportunity for both strenuous and gentle activities which suit all within the community, from the elderly to the very young. The presence of trees and other plants as well as the river itself is cooling for our city
which is important as we face pressures from climate change with increased frequency of severe weather events like heat waves. Heat waves are an important health challenge already impacting our city. In the heat wave prior to the Black Saturday Bushfires in 2009 there were 374 excess deaths, mostly the elderly and those with pre-existing medical problems. For more information on the health consequences of climate change please refer to our Climate Change and Health policy document.

DEA supports the following proposals outlined in the discussion paper:

- moves to reduce fragmentation of management of the river and to increase coordination and public input and accountability
- the "healthy planet health people" approach such that we advocate continual improvement of the natural environment of the Yarra to support biodiversity and human well-being
- measures to educate the public about the fabulous health asset Victoria has with the forests that filter Melbourne’s drinking water
- many people would be unaware of the importance of these forests for this purpose

Discussion questions:

We would like to specifically address discussion questions 1, 3, 4 and 9.

1. What aspect of the Yarra River and its environs would you most like to see protected?

We would like to see the water quality of the Yarra protected, this would necessitate the protection of riparian and surrounding vegetation. We also strongly support the development of the Great Forest National Park which will enable the protection of water catchments, biodiversity and also the creation of healthy, long-term jobs in tourism and other nature based activities. This will also provide a new place for Australians to come to appreciate the majesty of Victoria’s forests.

3. Is there any information or issues we have missed?

As an organisation concerned with highlighting the absolute dependence of human health on natural systems, Doctors for the Environment Australia finds the discussion paper lacking an emphasis on the
importance of the river system and associated catchments for human wellbeing.

For example, human health and wellbeing should be included as a value (Section 3.8). This would add greatly to the value Melburnians place on the river system as it would enable the worth of preservation of the upper catchment for maintenance of our exceptional drinking water quality to be highlighted.

Human health encompasses our physical, emotional, mental and social wellbeing. Protection and restoration of the river throughout its length would benefit health by supporting all these elements. In the current discussion paper the high-quality drinking water is covered under the ‘economic’ value whereas surely the prime benefit of excellent drinking water is for human health. Human health is threatened by climate change and the river corridor, by cooling our city, helps to protect us.

Also, rather than aiming to ‘protect the river’s water quality and ensure sufficient water flows’ we should be focusing on improving the river’s quality up to a standard where kayakers falling from their craft don’t need to worry about becoming ill from contact with the water or even to match some European cities (like Copenhagen) where the river is a place for swimming. This would also meet cultural and social values as it would remind us of the time when our river was made famous when ‘Australian crawl’ was developed as a swimming stroke in it. Perhaps some of the sporting events named as opportunities can be on or in the water, rather than just alongside it?

In order to cope with the coming challenges of increased population and the ongoing and enlarging threat posed by climate change river flows will need to be increased beyond what has historically ‘sufficed’ to maintain the river. Private sporting grounds and golf clubs will need to demonstrate care and responsibility regarding their water use and ensure they are looking after the river bank abutting their land, minimising the run off of fertilisers and other potentially damaging nutrients. They should be utilising water recycling and harvesting so as to minimise the volume of water they take from the river.

Human health and well-being needs to be included as a key element of the community vision for the river and its environs. The river system is crucial for the health and well-being of all Melburnians as we depend upon it for our drinking water, the recreation that sustains our physical and mental health and as a buffer in the face of climate change and ongoing biodiversity loss. Given the relationship between the health of ‘country’ and that of its indigenous people, the health of the Yarra is a critical determinant of the health of the people of the Wurundjeri people.

‘A healthy community’ should be added to the Goals. Once again, human health and wellbeing has been omitted and yet is an essential goal. This
brings the river from just a place for ‘enjoyment’ of the river by the community to being an essential element of a healthy community. By providing us with clean drinking water, a place for recreation that sustains our physical and mental health and protecting us against the extremes of heat we are facing with accelerating climate change, the river system is crucial for our wellbeing.

4. What would you like to see included in a vision for the Yarra River?

A renaming of the river to Birrarung to honour the name it had from the First Australians. This would serve as a mark of reconciliation and an acknowledgement of the understanding and ongoing connection indigenous people have to the river. Consideration should also be given to renaming other waterways including Coranderrk (Badger’s Creek) and Kooyongkoot (Gardiner’s Creek). This process would require consultation with appropriate indigenous communities and education of non-indigenous Australians as to the history of displacement of aboriginal people and the subsequent loss of stewardship suffered by First Australians. It would also ‘improve the recognition and celebration of Aboriginal heritage and culture’, a stated need outlined by the discussion paper (3.10).

We would also like the vision to include an aspiration that the water quality be such that the river is once again safe for swimming and that its biodiversity be increased.

9. What are your thoughts about establishing a new organisation to oversee development and monitor delivery of the Yarra strategic plan?

We agree with the proposal to establish a new entity oversee development and monitor delivery of the Yarra strategic plan. It is important that this entity be subject to an independent audit so transparency of decision making can be ensured. There also needs to be public health input and regular reporting of water quality that is publically accessible. This body would need to have ongoing funding which is adequate to address the breadth of its responsibility.

It is also important that organisations like Parks Victoria, which is currently responsible for managing large sections of the river system and liaising with the public on issues of relevance to river health, have its funding increased.