

“Melbourne is now entering a third wave of development and needs a compensating and balancing improvement of governance arrangements for the Yarra.” *Yarra Riverkeeper*

CONNECTING THE YARRA (BIRRARUNG)

An Act and a Trust
for our river

**THE YARRA RIVERKEEPER'S RESPONSE TO
PROTECTING THE YARRA RIVER (BIRRARUNG)
DISCUSSION PAPER**



ABOUT THE YARRA RIVERKEEPER ASSOCIATION

The Yarra Riverkeeper Association is the voice of the River. Over the past ten years we have established ourselves as the credible community advocate for the Yarra. We tell the river's story, highlighting its wonders and its challenges. We monitor its health and activities affecting it. We run educational events and river tours and give informative presentations to schools, community groups, the authorities and businesses. We work closely with numerous government bodies and NGOs and advocate directly and through the news media for river care.



For links to the reports and other key documents referred to in *Connecting the Yarra*, see our websites actfortheyarra.org.au and yarrariver.org.au.

The Yarra Riverkeeper Association acknowledges the traditional owners, the Wurundjeri and the Boon Wurrung of the Kulin Nation, as the custodians of the land and waterways of the Yarra catchment.

REPORT FUNDED BY:



The proposed Yarra River Protection Act presents a once-in-a-generation opportunity to determine how we can best enhance and protect our river in the face of unprecedented pressures.

By protecting and enhancing the river, we can help ensure that future generations are able to benefit from, and to enjoy, a healthy beautiful river. We need to provide stewardship for the Yarra River just as indigenous people have provided and are providing stewardship for the Birrarung.

We need to make sure the new law is equal to — or better than — any law anywhere that governs a significant water catchment containing a river that starts in wilderness areas and flows through major rural, urban and city landscapes. The new law needs to be efficient and effective. It needs to provide for long-term planning, for ongoing monitoring and for extensive consultation with the community.

Good planning by past governments and agencies has delivered a remarkable river. A river with extensive and much loved parklands stretching from the city to the mountains. A river that, with its tributaries, provides 70% of Melbourne's drinking water.

With good planning today, we can protect the river from exploitation and we can improve it as an environmental and community asset. For example, we could recreate the corridor of green, riverine habitat that — for birds, animals and fish — eases the transition from the river down to Port Phillip Bay and from the bay up to the river. Doing so would improve the health of both the river and the bay.

The Yarra and the green corridor through which it flows are under unprecedented pressure. And that pressure is escalating. Melbourne's population is exploding. It is predicted to reach some 6 million by 2030 and some 8 million by 2050. The increase in population will put the river at greater risk. It may destroy 180 years of good planning and thousands of years of tradition. To ensure the river survives, thrives, and gets healthier, the community and the government need to take innovative and decisive action.

We need a law that institutes strong, co-ordinated, management for the Yarra.

Andrew Kelly, Yarra Riverkeeper

“Our Yarra: Healthy, Protected and Loved.”



Though the Yarra in the city is an urban landscape, the river and the life that lives on, in and alongside it shows surprising resilience. But that resilience cannot be taken for granted. Pressure is mounting on the river. So decisive action needs to be taken to protect the Yarra for present and future generations.

KEY POINTS IN RESPONSE TO PROTECTING THE YARRA RIVER (BIRRARUNG) DISCUSSION PAPER

The Yarra Riverkeeper Association welcomes the Ministerial Advisory Committee's discussion paper *Protecting the Yarra River (Birrarrung)*.

The Yarra Riverkeeper Association believes the Committee has identified many of the issues facing the river and the green corridor through which it flows. It has also scoped solutions with appropriate characteristics — namely: stewardship, integrity, community vision, community involvement, a strategic plan, an Act (with an integrative focus), improved institutional arrangements, appropriate funding, and an entity that champions the river.

In that light, the key additional points of this submission to the Committee are.

1. Require a baseline for the state of the river to be set as a basis for a strategy plan

Any work done to protect and enhance the river needs to begin with a clear and sound understanding of its current state. Any steps taken to improve water quality and the health of riverine landscape will be more efficient and effective if the people involved know what they're starting with. The Association hopes the Committee's final report, and the new Act, will include a requirement for such a baseline to be researched and determined.

2. Understates the impact of pollution

We are concerned that the discussion paper understates the extent of the river's pollution-related and stormwater issues and the risks that the catchment faces. The river's water quality is good enough,

when defined against a restricted set of parameters, and that is a remarkable achievement in the face of increasing development pressures. However, an alternative approach that focuses on the risks of deterioration that the catchment faces would strongly indicate that we cannot afford any complacency in our management arrangements. Rather we need to build innovative and robust governance for the long term.

3. Innovative governance solutions in the light of increasing pressures

The Committee correctly identifies that a third wave of population pressure and development is breaking over Melbourne and much of that development is occurring in the Yarra watershed. That pressure is, and will, put the Yarra, its corridor and its tributaries under intense pressure. Add to this mix a drying climate and we have pressures that we have not experienced before. In response we need innovative, robust governance arrangements.

4. Increased efficiency in planning and management

The river suffers from a lack of continuity in decision making. Although good recommendations are made, too often a change in government or in government emphasis means the recommendations remain unimplemented. Duplication and gaps in agency authority, and short management horizons, lead to inefficient delivery that fails the river and the valley and the city.

Now, we have a once-in-a-lifetime opportunity to implement a sustainable management model that can deliver on a long-term vision — a place-based model that generates strong community interest and involvement, and can survive the ebbs and flows of regulatory interest.



PROTECTING THE YARRA RIVER (BIRRARUNG)

Discussion Paper

The Yarra River Association welcomes the initiative of the government of Victoria in committing to improved management arrangements on the Yarra River, and as part of that initiative, to appoint a ministerial advisory committee. After extensive community and stakeholder consultations, the committee published a useful and important *Discussion Paper* canvassing the issues and proposing solutions on 1 July 2016.

INTRODUCTION

On July 1 2016, the Yarra River Protection Ministerial Advisory Committee released *Protecting the Yarra River (Birrarung) Discussion Paper*. This report is a response to that paper and it is the fourth of four reports on the Yarra River. The first three were published with Environmental Justice Australia (EJA) as part of The Yarra River Protection Act Project (actfortheyarra.org.au), which was formed by the two partners in response to the election promise of the ALP before the November 2014 election:

Labor will introduce a Yarra River Protection Act to guard the river corridor from inappropriate development. A new

Trust will develop standardised planning controls for the Yarra, and work with agencies to promote the river's amenity and significance.

The Yarra Riverkeeper Association had been lobbying for a one-river authority, and was pleased to welcome this initiative.

The government has followed up with a number of initiatives since:

- Calling together a round table of councils in September 2015 and announcing a planned group amendment for the six councils along the lower and middle Yarra.
- Amending the State Planning Policy Framework in December 2015 to strengthen the wording protecting the river.
- Strengthening overshadowing controls below Princes Bridge to minimise overshadowing of the Yarra in the CBD. Under the interim controls the discretionary height limits are converted to mandatory height limits, which is

an acknowledgment of the failure of discretionary controls at iconic sites such as the Yarra.

- Amending the Yarra Planning Scheme to include mandatory setbacks and height limits on the Yarra corridor in the city of Yarra. This is a further recognition of the limitations of discretionary controls. Mandatory limits were first introduced on the river by Matthew Guy when he was Planning Minister in 2012.
- Appointing a Yarra River Protection Reference Group and a Ministerial Advisory Committee (MAC) in December 2015.
- Releasing the Yarra MAC Discussion Paper on 1 July 2016 and soliciting public comment and contributions.

We appreciated the MAC's willingness to work with the community including with ourselves and EJA and with the participants in the community forums we have organised.

OUR SERIES OF REPORTS

As part of the Yarra River Protection Act Project, EJA and the Yarra Riverkeeper Association held a community forum in March 2015. The forum was attended by some 100 people, including residents, representatives of organizations and community and councillors. The forum included presentations from EJA, the Yarra Riverkeeper, a local councilor from the City of Yarra, a platypus expert and the founder of the Yarra Swim Company. The focus was on discussion about the issues facing the Yarra and a vision for the Yarra River under a proposed Yarra River Protection Act. This was a facilitated discussion.

In conjunction with the forum the first of a series of reports were published.

Let's Act for the Yarra Report — our first report

In our first report published for the Community Forum which was held in March 2015, we identified the scope of the Yarra River Protection Act Project and outlined the problems facing the Yarra.

Charting the Yarra — our second report

Our second report, *Charting the Yarra* focused on the development of land-use planning and of management along the river. Three issues facing the management of the Yarra were identified:

1 Fragmentation of responsibility.

Many authorities share a responsibility for the Yarra but there is no co-ordinating authority. For some authorities, the river falls on the border of their responsibilities. This delivers a less than optimum return on the time and effort put into river planning.

2 Inconsistencies. The lack of coordination means planning is inconsistent along the length of the river which delivers less optimal outcomes. Planning for the river needs to consider the river as a connected whole. Decisions are sometimes made in isolation without knowledge of or consideration of what is happening downstream or upstream, or on the other side of the river. These decisions may then trigger a community protest or campaign.

3 Continuity. There is a lack of continuity of planning over time. Good initiatives are started but then left uncompleted. Good plans are made but then shelved. This again is an inefficient use of community resources.

As *Charting the Yarra* identifies, there have been many reports on the Yarra, and these reports reflect the concerns of the community about their river. Though many reports have been commissioned, the



The Future of the Yarra report (produced by the Yarra Riverkeeper Association and Environmental Justice Australia) identifies new and innovative models of river management based on participatory democracy. The report recommends integrated legislation and a trust to champion the river.

implementation of a report often becomes disconnected from the findings of a report.

A key 2005 report, *Review of Policies and Controls for the Yarra River Corridor: Punt Road to Burke Road – Consultant’s Report*, was never implemented. In 2015, ten years later, the value of that *Review* is being recognised and it is being included as a reference document in State Planning Policies — though the report remains a draft.

More recently a detailed study, *The Middle Yarra River Corridor Study* was published in July 2014 as a draft recommendations report. While it is reasonable to assume that this work will inform the group amendment

that is currently being worked on as well as the work of the Yarra Trust when it is formed, the report still remains in draft and the recommended Municipal Toolkits have yet to be developed.

The Future of the Yarra — our third report

On 20 July 2016, the Yarra Riverkeeper Association and Environmental Justice Australia published *The Future of the Yarra: Proposals for the Yarra River Protection Act*. The report provides detailed recommendations how integrated legislation could effectively be structured to effectively and efficiently manage and protect the Yarra in the long

term, and to create a Yarra Trust as an independent champion of the river.

Connecting the Yarra — this report, our fourth

This current report is a submission to the Ministerial Advisory Committee (MAC) in response to the *Protecting the Yarra (Birrarung) Discussion Paper* released by the MAC. This report endorses the recommendations of *The Future of the Yarra* report and of the needs identified in the



Platypuses are an iconic species that live both in the tributaries and on the main stem of the Yarra. The photo above was taken in April 2016 of a platypus swimming in the river in Kew. The resilience of the platypus in our drying climate depends on connected habitat and populations. If populations are isolated as for example is that above Lilydale Lake, then the genetic pool becomes impoverished and the isolated population is less resilient and at risk of dying out. If a particular population dies out, then it cannot be replenished by other populations expanding into that territory in better times. This fragmentation can place species at risk.

Charting the Yarra report. This report is also available from the Yarra Riverkeeper website (yarrariver.org.au).

OVERVIEW OF OUR RESPONSE TO THE YARRA MAC DISCUSSION PAPER

The Association welcomes the thrust of the *Discussion Paper*. We endorse the statement of the chairman, Chris Chesterfield, in his opening message:

There is concern that current institutional and regulatory arrangements leave the river vulnerable to the increasing pressures of urban development and cannot deliver on the community’s expectations for a healthy river that can sustain the demands



of a population that seeks greater use and enjoyment of the river environment.(p. v)

We endorse his view:

... that future generations have the opportunity to enjoy the river's many values by strengthening management arrangements and ensuring a strong community voice in governance and oversight of the river.

RESPONSE TO — CHAPTER 2: “STEWARDSHIP OVER TIME” (P. 8)

Section 2.1 “Aboriginal peoples’ relationship with the Yarra” (p. 8)

We endorse the opening statements about the importance of the Birrarung (Yarra) to the Wurrundjeri people and the Kulin Nation. We note how much their ancestral lands have been changed since the arrival of the first European settlers.

The Wurundjeri and the Boon Wurrung of the Kulin Nation have very long traditions of connecting with the waterways of the catchment. The Birrarung (Yarra) has been and is a vital life force in the continuity of the culture of the Kulin Nation. The Kulin peoples have a particular appreciation of landscape including its spiritual dimension, which is woven into their stories. The Association endorses the *Discussion Paper’s* emphasis of the connection of the Kulin Nation to the Birrarung and proposals for the inclusion of the traditional owners in the ongoing management arrangements for the river. Indigenous values are not only traditional but also contemporary, and there are opportunities to create cultural values along the river such as installing wetlands of indigenous plants on and adjacent to the river in the CBD. We would encourage the use of the Kulin languages in naming places

and public buildings on the river to rebuild connections to the Indigenous world.

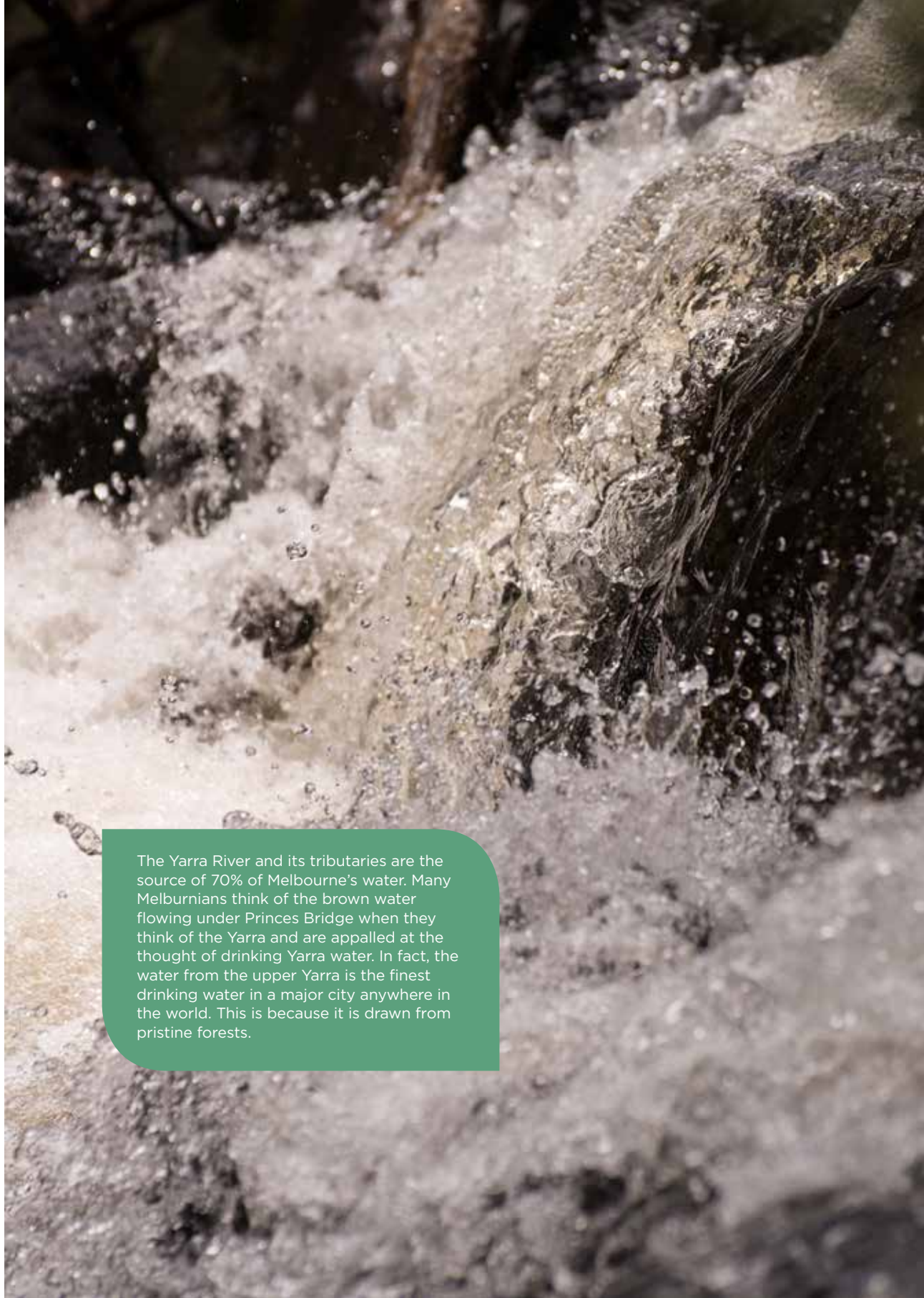
Section 2.2 “European settlement” (p. 9)

We note that the extended delta of the Yarra was drained and Albert Park Lake is the only remnant of once extensive wetlands. The river that once ran clear quickly became ‘muddy, polluted and unfit to drink’ (p. 9).

As the *Paper* states the sewerage of Melbourne, the setting aside of forest in the upper Yarra as protected catchment and the setting aside of extensive parklands along the river’s banks are the legacy of the foresight of the early planners. We now have a similar opportunity through the Yarra River Protection Act to show foresight and act to protect the Yarra for the next 150 years.

We note that investment and regulatory change has occurred in two waves. The first was in response to development of the city (p. 9). The second was in the 1970s and 1980s. This impetus has now waned. The shared trail network was part of the success of this second wave. While the plans were made and implemented in the 1970s and 1980s, planning and implementation have now become disconnected. The institution commissioning the plan is often no longer the body implementing the plan. A number of excellent plans for the river languish in draft.

The pollution, degraded water quality and spread of disease identified by the Yarra MAC were the result of a lack of care for the river and a lack of the sort of respect that the Kulin Nation had always had for the river. The setting aside of a large part of the upper catchment for the water supply in 1888 was an exercise in stewardship that reflected a long-term vision for the



The Yarra River and its tributaries are the source of 70% of Melbourne’s water. Many Melburnians think of the brown water flowing under Princes Bridge when they think of the Yarra and are appalled at the thought of drinking Yarra water. In fact, the water from the upper Yarra is the finest drinking water in a major city anywhere in the world. This is because it is drawn from pristine forests.

Even though Melbourne has a long tradition of planning for parklands, Docklands has yet to succeed in providing adequate green infrastructure or engaging effectively with the river. Opportunities to create a connection with the river have been ignored and long term economic benefits for the community have been sacrificed for short-term privatised profit. The river is a natural system but too often urban design has treated it as a facet of the built environment. This is one of the challenges facing Docklands and adjacent developments: How to revitalise wind-swept spaces dominated by concrete high rises? Effectively, the buildings are crowding the river. Any redevelopment needs to begin with a proper landscape plan. A plan that allows for some natural banks and an adequate corridor between the built environment and the river.



river. This desire for better management and regulation of the river was stimulated by the over-exploitation of the river that had preceded it. One of the most notable things about the setting aside of the upper catchment is that we are still enjoying the benefit more than 130 years later — and will probably still be doing so a hundred years hence. Over-development has marched hand in hand with better regulation.

Melbourne is now entering a third wave of development and needs a compensating and balancing improvement of governance arrangements.

RESPONSE TO CHAPTER 3: “THE YARRA RIVER TODAY”

Section 3.2 ‘River Health’ (p. 19) and 3.3 ‘Water Quality’(p. 20)

We have concerns about a number of gaps in the draft of the report *Yarra River Waterway Health Overview* (2016) by the Centre for Aquatic Pollution Identification and Management (CAPIM), which is cited in the discussion paper (p. 19). We were surprised by the statement quoted in the Discussion Paper, “Overall, the waterway health of the Yarra River is moderate when examining biota.” It is difficult to assess a river such as the Yarra with degraded lower reaches and a pristine upper catchment as an ‘average’ in terms of health.

The issue of sediment pollution and its impact on river health is not adequately addressed in the CAPIM *Overview*. The discussion of road run-off though does not address the run-off from gravel roads in the Middle Yarra, nor the impact of turbidity on the health of the ecosystem of the Lower Yarra. Anecdotal evidence (personal communication) suggests that the river ran clear at least in summer as far down as Heidelberg and there were aquatic plants

living on the bed of the river. The plants provided habitat and helped filter sediment out of the flow. The MAC report states that: ‘The river’s water quality is much better than it was in the 1970s ...’ This is true if the yardstick is the measurement of pathogens. It is less correct if you look at turbidity by reach.

The CAPIM report acknowledges as does the Yarra MAC’s *Discussion Paper* that the river ran clear when the first European settlers arrived in 1835 (pages 6 and page 9, respectively). Currently, the EPA has devolved management of sediments for construction sites including road repairs to local councils. Any enforcement is intermittent at best. It is noticeable on windy days while patrolling the Lower Yarra below Spencer Street Bridge that wind-blown sediment is dumped from construction sites from either bank into the river. At the time of writing, there are currently uncovered mullock heaps on the north bank, which have been there for the two years that the current Riverkeeper has been patrolling the river. The management of sediment may be addressed through the current review of the EPA.

Many, if not most, of the fish living in the river below Dights Falls are marine or estuarine species inhabiting the salt water that lies below not the turbid freshwater flowing above it. Turbidity reduces photosynthesis and plants growing on the river bed. Suspended solids have a range of impacts including entering the gills of fish.

Dissolved oxygen events also kill fish and other inhabitants of waterways. Though these events may be of short duration, the absence of oxygen in the water means that everything dies. So these events have a disproportionate impact on the waterway. These dissolved oxygen events occur in summer in the Dights Falls weir pool, as

well as elsewhere on the river in summer. They are a result of reduced flows and have a significant impact on water health.

At a recent meeting in the Upper Yarra at Healesville conducted by the MAC, local farmers raised concerns about herbicides and pesticides in the rural reaches. Yet there are no mentions of herbicides and only one mention of pesticides in the CAPIM report. There was a recent outbreak of eel deaths in the Darebin Creek, a major tributary of the Lower Yarra, which was reported to the EPA. It was assessed to be the result of a release of the commonly used pesticide permethrin. Pesticides are also widely used by the wine industry in the valley.

There are other pollutants to be considered including hormones, contraceptives and other small molecules which are difficult to eliminate in water treatment. Recycled water is released into the river from the Lilydale treatment plant and then becomes part of the flows that are pumped to the Sugarloaf reservoir and then sent to Melbourne as a contribution to our drinking supply. These pollutants impact on wildlife, especially fish and amphibians, living in the waterway.

The issue of inappropriately maintained septic tanks needs to be assessed and the extent that these may also be contributing not only pathogens but also hormones and other small molecules from medical resources. There is also the issue that once an area is sewered it is more likely to be developed. Development will increase the area covered in hard surfacing, leading to higher stormwater run-offs of poorer quality.

We also query the benchmarking of the Yarra against other levels of major urban rivers. Our concern is that the selection process is too arbitrary. The criteria included 'Comparable developed economy' yet the Chinese rivers, of which

a significant number are included, reflect a very different economy. Chinese rivers are often highly industrialised and enforcement of the environment laws is often lax. The selection of the river was based on the ready availability of data, which also distorts selection.

We appreciate that the time-frame for the CAPIM *Overview* may have been constrained but it is important that any review of the *Discussion Paper* notes these gaps.

The report states that:

This assessment at the whole of the Yarra catchment scale reveals that just over 10% of the length of waterways is in good to excellent condition, about 30% is in moderate condition and almost 60% is in poor to very poor condition.

And these assessment notes that it leaves out the Lower Yarra, where condition are presumably the poorest. Our reflection on this statement is that the condition of the Yarra is demanding new and innovative ways to improve and better co-ordinate the work of agencies responsible for the Yarra or we are facing a further decline in the health of the river as pressures intensify.

A more complete assessment of the health of the Yarra would assess the legacy of pollution in sediments in the waterway and bed and the risks of remobilization of those sediments. It would also review sites on the banks that are likely to be heavily polluted from previous uses which are placing the river at risk.

While Melbourne Water has done an excellent job reducing the pathogen levels in the river over the past fifty years, that improvement in water quality has plateaued, and the pressure is predicted to escalate. The current plateau may be a prelude to decline — given those escalating pressures.

We need to find new coordinated ways to manage the river if we are to meet the increasing challenges.

Section 3.4 “Estuary Habitat” (p. 22)

The importance of the estuary is correctly identified in the *Discussion Paper* and we endorse the comment (p. 22) that:

There has been very little study of the ecology of the river estuary or investment in restoring and maintaining aquatic habitat in this reach...

Recently, the replacement of the traditional wooden piers in Docklands and Fishermans Bend has destroyed a considerable amount of underwater habitat for species growing on and living around those piers. They were good fish and macro-invertebrate habitat. The reconstruction of the piers could have been designed to create habitat if an appropriate study had been conducted. This is symptomatic of the overlooking of opportunities to preserve and create habitat, support current in-water populations and encourage new ones and rewild the river. An example of this sort of project being done properly is the work currently being carried out at Blairgowrie Pier in which 5,500 sponges were transferred from the infrastructure being removed to the infrastructure replacing it (Operation Sponge Blairgowrie). There are also opportunities to extend and create wetlands along the river.

Dights Falls is mentioned in the MAC's *Discussion Paper* as a barrier to fish migration for the species that mature in the estuary. There are also additional barriers upstream with the Big Peninsula and Little Peninsula tunnels which are also effective barriers to fish migration.

Section 3.5 “Impact on Port Phillip Bay” (p. 22)

As the *Discussion Paper* states the Yarra is the largest contributor of sediments (toxics, pathogens and litter) to Port Phillip Bay and a major contributor of nutrients. It is also the major contributor of fresh water to the bay and that drives many ecological processes in the bay. Recent research suggests that the collapse of the sand flathead population in the bay is a result of a changed flow regime, and a lack of recruitment of maturing fish from the larvae in the plume at the mouth of the river. The health of the river and the health of the bay are inter-twined. This is another reason why a strategic plan needs to be drawn up for the river as it is for the bay, and the State of the Bays report needs to be integrated with a state of the river report that establishes a baseline for the health of the river.

Section 3.6 “Urban Parklands and Open Space” (p. 23)

The parklands are the jewel in Melbourne's crown but as the population explodes we need to find new space for parklands and to use existing spaces and parkland more effectively. We need to build green infrastructure both for the benefit of people and for wildlife. In terms of the river quite small spaces can be developed into effective staging posts for wildlife migrating up and down river.

Section 3.7 “Amenity” (p. 25)

The amenity of the river is dependent on preserving (and improving, as more people use the river), the landscape character of the Yarra.

Section 3.9 “Characteristics of each reach” (p. 26)

We propose that the vision for the river be based on the following finer grained approach to the division of the river into

reaches. Each reach has its logical beginning and end point and its own logic in terms of its management, authorities and unique characteristics.

Reach 1: The Estuary — from the Fawknor Beacon to the Bolte Bridge.

This is the biologically rich reach of the river where it meets the bay, and it is a major port. There are substantial amounts of open space, parkland and potential habitat controlled by Port of Melbourne Corporation — a dedicated agency would be able to drive this in the context of an overall vision and strategic plan for the river. Any planning on this stretch needs to co-ordinate with planning by the Corporation. As an estuary, this stretch is a particularly rich environment. The reach includes the biodiverse plume where the fresh water of the river meets the salt of the bay, and is where many bay fish feed and where many river species mature after hatching upstream. There are substantial opportunities for rewilding in this stretch of the river. The key tributaries are Stony Creek and Moonee Ponds Creek and they are key opportunities for habitat and improved open space. Moonee Ponds Creek is currently the remains of industrialised drain, separated from the river by a concrete wall. It is a surprisingly rich habitat as it is undisturbed by visitors in its lower section. In this sometimes bleak industrial landscape, there are opportunities for improving conditions for wildlife and to create a string of connected parklands and wetlands that form a ‘habitat highway’, and enable species to migrate safely up and down river. The longer term view of what is going to happen in this reach needs to be considered with the potential of industrial land for habitat and open-space when it is converted into residential development. Industrial sites, however, can sometimes provide better habitat than intensely redeveloped residential sites. Parts of this

reach may also be heavily polluted from past activities. It is also a reach of the river at risk from new invasions of species. The northern seastar is an example of relatively recent infestation by an invasive species (<http://www.depi.vic.gov.au/forestry-and-land-use/coasts/marine/marine-pests/northern-pacific-seastar>).

Reach 2: Redevelopment — Bolte Bridge to Spencer Street Bridge.

As this reach is currently under redevelopment, and is being converted from a series of industrial sites to a series of apartment towers, there is an opportunity to rework the relationship of river and bank. But that re-development is at risk of completely disconnecting the new apartments from the river — while using the river as a way of selling the apartments. Because of this opportunity this reach is different to the city reach upstream, where the bank infrastructure is largely fixed. The issues with Docklands are widely recognised and a key issue is the lack of naturalistic parkland that would also provide habitat and other ecosystem services such as reducing wind speeds, providing shelter and shade, and cooling the suburb. There has been insufficient consideration given to the role of the environment in the redevelopment. Ideally such a development would commence with a landscape plan and a detailed environmental assessment. There is current little indigenous habitat and there are opportunities to create small wetlands that connect the bank to the river and create places for migratory species to rest on their journey.

Overshadowing is one of the key issues in this stretch. There are also opportunities to extend the habitat highway of connected wetlands from Reach 1. Planning for such a ‘highway’ needs a whole-of-river perspective. Recreation opportunities in Victoria Harbour are growing and may extend

further into the waterway. This raises the question of how access to the river can be improved and competing users managed. This is being done on an ad hoc basis and is not managed with a whole-of-river view as part of an overall strategy.

A challenge for this stretch is the large number of authorities involved. Parks Victoria is the waterway manager. Melbourne Water is responsible for flood drainage and some aspects of amenity. Melbourne City Council is responsible for parts of the area, while other parts remain under the control of Places Victoria, with developers controlling particular precincts. There are few opportunities for community input to management in this reach.

Reach 3 The city proper — Spencer Street Bridge to Princes Bridge.

In the city the infrastructure of the banks has already been fixed. And initiatives for

improvement are more constrained and needs to focus on the opportunities to revive pockets of parklands, build in-river habitat, and to create ‘habitat highway’ of wetlands through the city centre. Melbourne City Council has a strong focus on climate resilience and enjoys the legacy of fine parklands.

The shared trail is an important feature of the riverbank in this reach, though its popularity can lead to conflicts.

The commercial ferries are also a feature of this stretch. Improvement of the banks will benefit these and other commercial enterprises based on tourism.

The Yarra Riverkeeper regularly patrols the Yarra, monitoring what happens on the river and building a detailed picture of the health of the Yarra. The Yarra Riverkeeper Association also advocates for and educates about the Yarra River.



The Yarra has over 100 wetlands along its length. Historically, much of what is now Melbourne was a series of connected wetlands that formed the extended delta of the Yarra. The river blackfish and waterfowl on the delta provided much of the protein for early settlers. Of this delta, the only substantial body of water that remains is Albert Park Lake. Many wetlands have now become disconnected from the river channel as flows have been reduced. The wetlands are now undergoing a steady decline. The wetlands have been the kidneys of the water — cleansing water through filtration. The wetlands have been a sink for biodiversity and refuge for wildlife.



The key authorities in this reach, in addition to Melbourne Water, are Parks Victoria as the waterway manager and the Melbourne City Council. Though excellent work is being done, better co-ordination and an overview built into a strategic plan would ensure investment is effective and delivers for the river.

Reach 4 Inner suburban — Princes Bridge to Dights Falls.

The first part of this stretch includes the beautiful, much loved and much used parklands above Princes Bridge that were set aside by Governor La Trobe in the 1840s, in a triumph of thoughtful long-sighted planning. As such a valued asset, these parklands need to be continuously improved. Large areas have been excised for sporting arenas. The remaining parklands need to be nurtured and protected and their value as habitat maximised. The shared trail network along this section is a result of the effective planning of the 1970s and 1980s. Planning along the trail needs now to consider its whole length and opportunities to grow and expand the trail. Many of the riders on the trail come from much further up the trail, and the impact of residential developments upstream need to be considered in managing the trail. How long with the trail be adequate for the amount of traffic it carries?

This reach is undergoing very substantial pressure from urban redevelopment and the intrusion of the built environment into the landscape of the river.

There are also opportunities for improving the river along this reach with planting, as is currently being undertaken by Stonnington. When both sides of the waterway are planted then there is an even more dramatic improvement in the landscape of the waterway. But this requires better co-ordination between councils.

The stormwater entering the river from tributaries along this stretch is often of very poor quality, with Gardiners Creek often being among the worst offenders.

The key authorities are, in addition to Melbourne Water, are Parks Victoria as the waterway manager, Melbourne City Council and the inner city councils of Stonnington, Yarra and Boroondara. There are also a number of trusts operating public assets in the area. Better co-ordination between these trusts with a whole-of-river perspective would deliver a better planning outcome.

Reach 5: Outer suburban — Dights Falls to Warrandyte.

Again due to the foresight of early planners, there is extensive parkland and national park in this reach. The waterway manager is now Melbourne Water and Parks Victoria's important role becomes being the manager of the extensive and connected national parks. The local councils are Banyule, Nilumbik, and Manningham councils.

An example of the sort of recreational pressure this stretch is under is the use of mountain bikes in Studley Park. Due to the increase in the adjacent population, and the popularity of riding and outdoor activities, a large number of mountain bikes are ridden within the park on a regular basis. This is sharply increasing erosion on the tracks, creating new tracks, killing vegetation, reducing habitat, spreading weeds and disturbing wildlife. Mountain biking is largely unmanaged. Bikers ignore protective fences, and bikes have the flexibility to reach most parts of the park. One proposal is to put in a dedicated mountain bike path to concentrate the riding to one part of the park.

Although much of this reach is protected as a 'green wedge', it is coming under increasing development pressure. In the

councils of Nilumbik and Yarra Ranges, there are opportunities to address stormwater with amendments to planning schemes. Improperly managed septic tanks are an issue in this region, though once a section is sewered it becomes more attractive to developers with a further increase in impermeable surfaces that then further threaten stormwater quality.

Reach 6: Rural Warrandyte to the Upper Yarra Reservoir.

This section of the river is rural and that is a highly valued aspect of the Yarra and its catchment. Community involvement is crucial along the river though people in this reach often feel ignored and disconnected from planning. There are differing views of waterway management that need to be recognised. Erosion is an issue as are pesticides and herbicides entering the waterway. Dams in the region significantly reduce flows into the tributaries and ultimately into the river. Many of the tributaries are governed by stream flow management plans. They are an effective management tool that has created both community involvement and community commitment. These plans means we already part of the way to establishing a baseline assessment of part of the catchment, and the committees that created them are a model for community involvement.

Reach 7: Forest and the closed catchment.

This stretch is managed by Melbourne Water for water supply and by Parks Victoria. Again visionary planning has protected the upper catchment. Forests remain largely pristine and untouched. Logging was an issue raised in the community sessions around this reach of the river. Most of the water in the Yarra comes from the upper catchment and flows.

RESPONSE TO — CHAPTER 4: “THE CASE FOR CHANGE”

Section 4.1 “Current Legislative, regulatory and management frameworks” (p. 34)

We agree with the intent of the following statement:

...the Yarra MAC considers that the legislative and regulatory frameworks are relatively effective for managing the Yarra given the single-purpose approach by each entity. There is not, however, an overarching mechanism for a joined up approach that aligns the objectives and decisions of organisations across regulatory and spatial boundaries.

All of the above quote is accurate, and the key message is in the “however”. We agree with an over-arching mechanism that co-ordinates planning along the Yarra. We also query the limitations of the remit of different agencies with important aspects falling between these remits. We note:

- There is a lack of transparency and community involvement in current arrangements.
- There is a disconnect between planning and implementation.
- We need new governance models to deal with the pressure for development from expanding population conjoined with the impact of climate change on the waterway and catchment. Both these pressures are outside the current experience of agencies and planning schemes. They demand new and innovative models of river and ecosystem governance.
- The river lacks an agency or body the key role of which is to be the champion for the river.

Section 4.4 “Current governance challenges” (p. 36)

The Discussion Paper clearly identifies key issues with current governance arrangements:

- the nature of the partnership with Aboriginal communities for managing the river is not clearly defined.
- there is no shared, overarching vision or strategy for the Yarra River corridor.
- there is no responsibility for developing and maintaining the amenity values of the river.
- a community vision for the Yarra River corridor is not embedded in statutory planning.
- there is no community forum with status.
- there are funding constraints.
- inconsistent application of standards and regulations.

Section 4.5 “Future Challenges” (p. 40)

We strongly agree that population growth and changing demographics will be key drivers in the need for new and better governance arrangements on the river.

The challenge today is to manage the demands that Melburnians put on the Yarra River. As the population grows, there will be pressure for more-intensive development in the catchment and greater recreational use of the river and its environs. As the city grows, there will be both greater appreciation of the need to protect the Yarra and a greater number of potentially damaging processes to protect it from. (p. 41)

We endorse this quote; if anything it understates the issues facing the waterway and the catchment.

For many Melburnians, the Yarra is as much a river of trees as it is a river of water. The green corridor is what most Melburnians see most often. That green corridor is a welcome relief from the built landscape,



The Yarra (and all waterways and open spaces in the city of Melbourne) is under increased pressure from expanding development. That pressure will dramatically escalate over the coming years as the population of Melbourne explodes to a predicted 6 million in 2030 and 8 million in 2050. The MAC notes that we are now in the third phase of explosive population growth (the first being the first decades of settlement and the second being the post-war boom). This pressure will involve development on the river with more high rise apartment blocks and new greenfield developments being constructed along the river and a reduction of habitat and the natural character and beauty of the Yarra. There will be similar developments, on a smaller scale, along each and every tributary of the Yarra. There will be an expansion of connected impervious surfaces across the catchment including on drainage lines at the tips of tributaries where the stormwater quality issues begin.

Melbourne Water has significantly improved the quality of the water in the middle and lower Yarra over the past 50 or so years. (This has also been a reflection of the relocation of polluting industries to China, India and parts of South-east Asia.) Yet in the past 10 years, those improvements have plateaued, and the rapidly increasing pressures on the stormwater from development in the catchment means that we need new ways to deal with the problems. We may have passed over the top of the curve of the graph and may now be faced with an increasing steep slide of declining water quality.

A RESPONSE TO — CHAPTER 5: “A NEW MANAGEMENT MODEL”

Section 5.1 “A community vision for the entire length of the river”(p. 44)

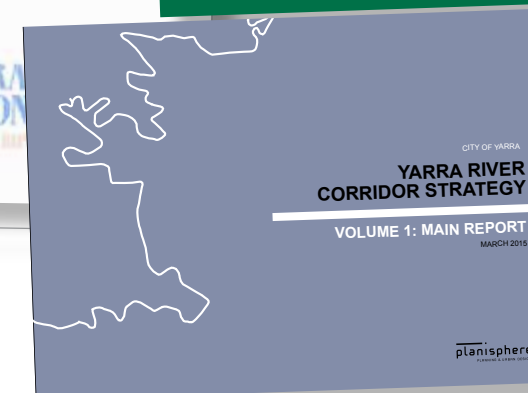
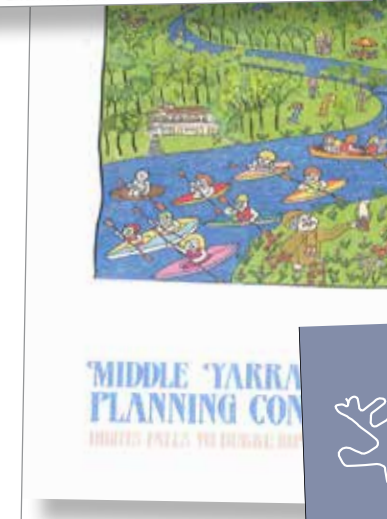
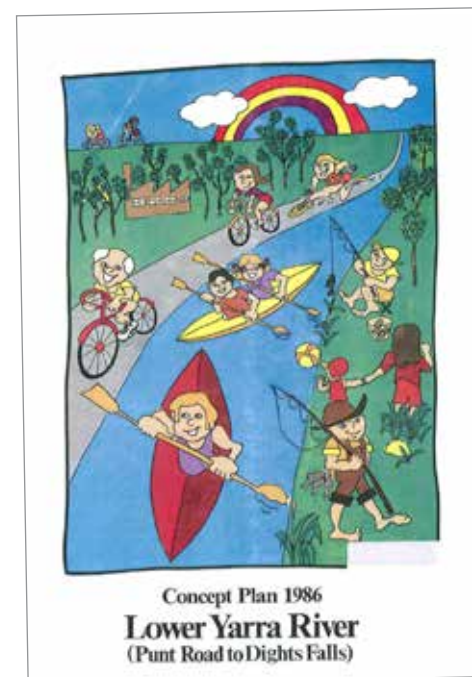
We agree with the need for a unifying vision for the river, and the need for the vision “to guide the decisions of the various planning and service delivery organizations”. We agree with the MAC on the six key points

1. a community vision that clearly outlines community requirements and expectations for the entire length of river over the long term.
2. an integrated, overarching strategic plan for the river that would give effect to the community vision.
3. improved management arrangements to ensure the Yarra Strategic Plan will be implemented efficiently and effectively with clear accountabilities for all aspects of management.
4. legislation to provide statutory backing and longevity to the new arrangements and give real confidence that the river will be protected over the long term.
5. a statutory reporting and audit function to provide regular reporting to government and the community about progress delivering the plan.
6. clear funding and infrastructure delivery arrangements.

Section 5.2 “A Yarra strategic plan”(p 46)

We are in agreement with the MAC about the importance of a strategic plan that would:

1. outline the community vision for the full length of the river (from its source to the bay) and each of the four reaches.



A selection of the covers of large number of planning reports written for the Yarra. A number of the more recent of these reports have remained in draft as there is an increasing disconnect between planning and implementation. Better co-ordination as proposed under Yarra River Protection Act would solve this issue.

2. identify issues and challenges for the corridor.
3. identify demand for services along the corridor now and in the future.
4. prioritise river values along the corridor.
5. enable community participation and stakeholder engagement at a scale commensurate with the river's significance.
6. develop standards and statements of outcomes for the corridor and for each reach.
7. establish broad strategic directions and detailed parameters for future planning and management that ensure the protection and enhancement of the Yarra River and its riverscape.

We would add that the strategic plan needs to be built on a baseline assessment of the health of the river.

Section 5.3 “A Yarra (Birrarung) Protection Act” (p.46)

We endorse the views of the Yarra MAC:

It is clear that the current governance arrangements do not sufficiently align and coordinate the efforts of the various entities and suffer from duplication, fragmentation and inadequate Aboriginal stewardship and recognition of the community's passion for the Yarra River

And agree with the components of the proposed act offered by the Yarra MAC:

- create the requirement to develop the Yarra strategic plan and community vision, for tabling in Parliament.
- establish a new entity or nominate an existing agency to develop the plan with Traditional Owners and community participation.
- outline the contents of the plan and its

development process, including how Traditional Owners and the community will be involved

- identify the relevant agencies and require them to participate in the plan's development and align their actions to it
- require all decisions affecting the river and its environs to be consistent with the plan and its objectives
- set out decision-making principles and processes
- provide referral powers as required
- extend any regulatory protections and service delivery functions as required
- outline the process for independent audit and reporting to Parliament.

“An example of integrative legislation: Transport Integration Act 2010” (p. 49) — and its flaw

The MAC in the *Discussion Paper* acknowledges the example of the Transport Integration Act (p 49):

It [the Act] defines integrated decision-making as, ‘The principle of integrated decision-making means seeking to achieve government policy objectives through coordination between all levels of government and government agencies and with the private sector.’

The Yarra Riverkeeper Association endorses the view that:

The Transport Integration Act is an example of legislation to clarify roles and improve consistency across the many agencies and portfolios whose work affects transport services.

The Act has been an influence in the drafting of the proposal in our joint report with EJA *The Future of the Yarra*. But here we note that the flaw has been in the

implementation of the legislation — it is too frequently found that it is easy to ignore. That is one reason that we believe that a ‘trust’ is necessary to champion not only the river but also the legislation and to ensure that government departments and agencies have a clear understanding of the processes and benefits of the legislation.

ADDITIONAL ISSUES ARISING FROM THE *DISCUSSION PAPER*

Below we highlight the issues that the Association believes the MAC should include or emphasise in the development of a final report to government.

Undervalued ecosystem services

There has been increasing recognition of the economic value of ecosystem services, and of the benefits people obtain from ecosystems. Waterways are one of the pre-eminent contributors of ecosystem services, especially in a city like Melbourne that has grown up around its river. Clearly, the first ecosystem service the Yarra delivers to Melbourne is high quality, low cost drinking water — though this service is frequently overlooked by the citizens of the city.

The quality of the drinking water is a major contributor the health of the city. People drink more water when it tastes better and adequate consumption of water is a key indicator of health.

Just as the value of good quality drinking water in Melbourne is taken for granted, other ecosystem services are overlooked and undervalued.

A key service is open space and recreation, and as the number of apartments sky-rockets in Melbourne the importance of our existing open space network, built largely around and along waterways, also skyrockets. The value of these open spaces, often parklands, is enhanced by biodiversity. People enjoy seeing a harmonious variety of birds, vegetation and wildlife. The value of biodiversity can be demonstrated by the excitement when a dolphin or a seal swims up river — social media lights up.

Vegetation also has a cooling effect on the city — both locally and across the city. Shade especially filtered shade is a locally important value. Vegetation also ameliorates the impact of wind and is particularly important where high winds are generated by high rise buildings.

Much of the city's vegetation exists on waterways. Where Docklands has failed, it has been a lack of balance between the built environment and vegetated open spaces, especially trees but also at other levels. People like plants. Concrete just does not do the job.

All pollinators need habitat — food, shelter and opportunities to move around safely. Pollination in Australia unlike other places depends as much on birds as it does on insects, and that needs to be factored in to the sort of habitats provided and to how ecosystem services are valued.

The benefits of ecosystem services need to be valued and included in any economic assessment of work on the Yarra and in a strategic plan for the river. Costings of any improved governance arrangements need to take into account the economic benefits delivered by improved ecosystem services.

The role of existing agencies — ensuring the new model is efficient

A key driver in the Association's lobbying for a one-river Act has been a desire for improved efficiency of river management and an improved use of government and community resources that deliver a better outcome, a better deployment of resources through a continuity of decision-making. It is important that proposed new arrangements reinforce the work that is being done along the river rather than taking away from the work being done by existing agencies. Nonetheless planning for the river needs overall co-ordination

and a champion. The current cycle of reports stalled in draft, and the existing roadblocks to implementation of findings delivers less than optimal results and is a waste of resources. The effect of a co-ordinating authority will cut regulatory overlap and reduce reporting requirements while improving how regulators administer regulations for which they are responsible. An effective river agency will reduce wasted time and shorten assessment times and provide clarity for developers.

One-stop shops

A number of community participants highlighted the issue of the complexity of approvals for events and community developments on the river and proposed that the trust take on a role as a clearing house for approvals.

The value of considering the tributaries

A plan for the river needs to include the tributaries at some levels. The focus of the legislation, strategic plan and the 'trust' may be on the main stem of the river. All three need to acknowledge the role of the tributaries and their importance. The catchment is a connected system and its health depends on its connectedness, and contributes significantly to the resilience of waterways and the resilience of the catchment in a drying climate. Much of the stormwater that flows into the Yarra is the result of what happens in the tributaries. Planning needs to consider and allow for this. Another key attribute of the tributaries are they are part of a connected network of habitats. The connection means that populations (in the case of plants — through seed dispersal) can share genetic material. That is vital for the health of open spaces and parklands, for biodiversity and for the resilience of ecosystems in the face of a drying climate.

Since the arrival of European settlers the flows in the Yarra have been substantially reduced. When the Upper Yarra Dam was opened in 1957, it is estimated that flow in the river was cut in half. Substantial amounts are taken out of the waterway for drinking water and there are also significant diversions for agriculture and even bottled water. Aesthetic dams, and farm dams, prevent water reaching the tributaries of the river and the river itself.

THE ROSE SERIES P. 2808 COPYRIGHT. UPPER YARRA DAM. Length along Yarra 6½ miles. Capacity of reservoir 44,000 million gallons. Estimated cost in 1952 £12,628,000

The legislation may have a more general advisory role with the tributaries but it must consider the tributaries in its planning. There is an opportunity to share planning initiatives for waterways from councils across the catchment to deliver best practice in land-use planning and move towards consistency in planning schemes (zones and overlays). In this way the connectedness across the catchment can be enhanced with all the advantages that brings for the green infrastructure and ecosystems services.

The importance of starting with a baseline study

The Yarra strategy plan must begin with a baseline study of the river that integrates all available information along the length of the river and across the catchment. The river has been extensively studied. That information and understanding often exists in silos and the studies need to be integrated to build a complete picture and establish a

set of baseline indicators for the health of the river. This needs to be made publicly available and the public made aware of its availability through a publicity campaign. An effective plan can only be built on a proper integrated understanding of the Yarra. Several studies have been completed for Western Port and for Port Phillip, yet none have been done to integrate our understanding of the river — a necessary prelude to effective planning. The Office of the Commissioner of Environmental Sustainability is already doing this work for the two bays, part of which involves assessing the impact of the Yarra on Port Phillip. This work would be feed into the strategic plan and feed into adaptive management principles as is being done with the Derwent Estuary Program.

Planning — specifications and targets

On page 18, the *Discussion Paper* presents an extract from the State Planning Policy

Framework Clause 12. We welcomed this amendment by the government to strengthen the wording in favour of the Yarra. We note however that when cited this year at the hearing at VCAT for review of planning application for 647 Victoria Street Abbotsford this re-wording had no impact on the Tribunal's decision.

What has had an influence on the outcome was the introduction of mandatory height limits and mandatory setbacks into the Planning Scheme for the City of Yarra.

More specifically and in reference to light spill in the report the Tribunal commented that

It may be that in time, the Planning Scheme will include specific controls and policies on light spill, but at present the reference to light spill in the Planning Scheme is limited to the matters referred to above. Introduction of a more comprehensive control or policies on light spill needs to occur on a State wide basis by changes to the Victoria Planning Provisions affecting all Planning Schemes, rather than in response to individual permit applications.

Extending this comment more broadly and given the inbuilt bias of planning laws towards development, it means that planning schemes and strategy plans need to include specifications for environmental provisions to be effective and those specifications need to be mandatory when it comes to iconic places such as the river.

The opportunity for world-class legislation for a world-class city

Melbourne is a city with a history of good planning — thought it has not been perfect, and the development of a city will always put pressure on natural environments. Because of the role of the Yarra in the imagination of Melbourne and because

of the history of good planning with its legacy of parklands running the length of the river from Princes Bridge to the source we have an opportunity that few cities have. That opportunity is to continuously improve the waterway and provide a resilient waterway that is best practice and continuously delivers to people of the city, rather than to aspire to have a river that is ranked somewhere among the middle of the pack of urban waterways, under-delivering in terms of ecological sustainability, and the economic return that the river could deliver to the city.

The Importance of a long term vision

The most successful urban planning initiatives — such as the setting aside of parklands on the Yarra or the closing of the upper catchment — are those that have delivered for the future of the city. Good planning needs to have a long term vision for the future. The Wurundjeri practised mosaic burning, in cycles as long as 28 years and possibly longer. There is also an increasing recognition that ecological cycles function on longer time frames. Effective government resists selling off the present; instead it invests in the future for the benefit of the community in the long run.

The value of citizen advocacy

Strong provisions should be built into the legislation to provide for citizen advocacy in the courts, across not just planning but also water management. This builds robustness.

The value of connecting habitat

Connected habitat is more valuable than isolated fragments of habitat. Connectivity enables wildlife to migrate and for wild populations to replenish gene pools and sustain resilience. Biodiversity corridors are critical for the resilience of Melbourne in the face of a drying climate and most

of those corridors fall on waterways. The Yarra is the spine for waterways across much of Melbourne. In dryer times, species can retreat to the comparatively wetter Yarra. These corridors also enable people to connect along walking paths and shared trails.

One of the opportunities for taking a whole-of-river approach is enabling planning to develop and connect habitat. Progress on the shared trail network is largely stalled, and an overview and strategic plan would allow for the championing of extending and connecting trails.

The value of long-term community involvement

The involvement of the community is important in the evolution of a vision for the Yarra as noted by the Yarra MAC. It is also important in the ongoing work under the legislation and the agency created or charged with the co-ordinative management under the Act. Community involvement brings a robustness to long-term undertakings. It is notable that during the time of the amalgamation of councils that the Friends of Merri Creek were crucial to the continuation of the work of the Merri Creek Management Committee. Ongoing community involvement brings transparency and therefore efficiency to governance arrangements, as well as community, and therefore political, buy-in on a long-term vision for the river.

The value of scalable and transferable arrangements

The arrangements created under the legislation needs to be scalable, and transferable to other urban water systems. Given the size of the population in the catchment and the importance of the river to Melbourne's imaginative understanding of itself, there is the opportunity to create

an innovative series of arrangements that can drive improvements in ecology and amenity and economic value of a waterway. This creative investment can then be translated to other urban rivers, such as the Maribyrnong, Werribee and Barwon. By keeping the potential for scalability and transferability in mind, the legislation and arrangement will be more robust as they will be tested against a wider variety of possible circumstances.

Guided by Ecologically Sustainable Development (ESD) principles

It is important, we as noted in *The Future of the Yarra* report (p. 14) that the legislation reflect Australia's ESD framework as guided by the 1992 *National Strategy for Ecologically Sustainable Development*:

- decision making processes should effectively integrate both long and short-term economic, environmental, social and equity considerations.
- where there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.
- the global dimension of environmental impacts of actions and policies should be recognised and considered.
- the need to develop a strong, growing and diversified economy which can enhance the capacity for environmental protection should be recognised.
- the need to maintain and enhance international competitiveness in an environmentally sound manner should be recognised.
- cost effective and flexible policy instruments should be adopted, such as improved valuation, pricing and incentive mechanisms.

- decisions and actions should provide for broad community involvement on issues which affect them.

The importance of landscape character

One of the crucial elements to be preserved is the landscape. Once lost it is gone forever. Protection of the Yarra needs to be considered on a landscape scale. A key value appreciated by Melburnians whether cycling along the Main Yarra Trail or crossing the Yarra on one of its many bridges is the landscape character of the river. For some, this is the key value. The gradual loss of this value is one of the signs of the need for a change of perspective on river management.

The remit of the legislation, and any entity established under the legislation, needs to include not only the channel, bed and the banks of the river but also any contiguous crown land, as this crown land is a critical part of the landscape of the river.

APPENDIX: RESPONSES TO SURVEY QUESTIONS PROVIDED BY THE MINISTERIAL ADVISORY COMMITTEE

Q1. What aspect of the Yarra River and its environs would you most like to see protected?

The landscape character of the river, of its environs and of its tributaries needs to be protected. This is fragile as the Yarra is not a large river, and its magic depends on its proportions. That magic is easily destroyed by intrusive development even of a comparatively small scale. Once developed, any intrusion cannot be reversed. Once lost, the magic is gone forever

It is a similar issue for land-use planning along drainage lines and tributaries. Once drainage lines are filled in with housing, they become part of the connected impermeable surfacing that is a major contributor to the deteriorating water quality (which then impacts on amenity and biodiversity). If drainage lines are built over rather than retained as sites for vegetation and re-vegetation this has substantial impact on downstream water quality. As the population of Melbourne increases there is increasing pressure to build over, fill in, and channelise creeks and smaller waterways. Planning amendments need to protect drainage lines and tributaries.

Q2. What aspect of the Yarra River and its environs would you most like to see improved?

We would like to see habitat along the corridor expanded and the quality of open space improved.

The existing habitat on the river needs to be improved and in a way that creates opportunities for biodiversity, for example

in the city we are losing the small species of birds such as the superb blue wrens and brown thornbills as we are reducing the undergrowth in backyards and in public open spaces. Connected canopy is a way for small birds to move with safety around the canopy but there is a steady decline in large native trees.

Once habitat is lost, it is difficult to restore and takes time to return to its former condition. The large industrial sites, while often polluting, also frequently and perhaps ironically create a range habitat niches — for example at the Alphington Mill almost half the site was vegetated. Similarly there is ‘waste’ land in Docklands and Fishermans Bend that is contributing to habitat on the river but will likely be covered in concrete. The opportunities for open space and habitat in the redevelopment of Docklands and adjacent precincts on either side of the river need to be protected.

Though not without its challenges there is room to improve, and add, to habitat along the Yarra.

Q3. What would you like to see included in a vision for the Yarra River?

The Yarra is critical to imagination of Melbourne, as the reason the city was founded here in the first place. The Yarra is the city’s primary open space. This means that there is the community will and political possibility for a long term aspirational vision that looks for opportunities to improve the river and its corridor. The vision needs to engage with the community and educate the community to possibilities for the river. Too often, the vision of the river has been constrained by the notion that because the river is brown it is severely polluted with pathogens. A common phrase is, “You’d never drink it”, with reference to the water. Many

Melburnians are shocked to be told that 70% of our drinking water comes from the Yarra and its tributaries and that water is among the finest drinking water in the world. Yet in 1888 a Select Committee of the Victorian Parliament had the vision to close the upper catchment and almost 140 years later we are still enjoying the benefits of that decision with low cost, high quality water that contributes to the health of each and every Melburnian. Where the water tastes worse, people drink less water at a cost to their health.

Q4. What elements would you like to see covered in a Yarra strategic plan?

The plan needs to be based on a scientific assessment of the state of the Yarra, that integrates the existing knowledge of the Yarra, and establishes a baseline for the health of the river. There have been a significant number of studies along the river but there has been no overall publicly available assessment of the Yarra, which could be a basis for planning, along the lines of management plans that have been done for Port Phillip and Western Port. The implementation of the plan needs to follow the principles of adaptive management and have annual report cards and 5 year objectives and 20 year goals.

The plan needs to cover amenity and recreation and identify opportunity for the improvement of and expansion of open space. It also needs to include better access to the river in an environmentally sensitive way, as well as preserving areas where the human presence is minimised. There should be the provision for the incremental extension of the shared trail, which while paralleling the river does not adhere to path of the waterway. In this way, areas can be preserved that are connected to the waterway. Any paths need to be constructed in an environmentally sensitive way and

construction needs to reflect opportunities to improve river habitat — for example: they should be necessarily accompanied by habitat creation through the planting of indigenous trees, and the trail should be constructed of permeable surfacing. Opportunities for walking and canoe trails need to be included. William Barak, the last traditional ngurungaeta (elder) of the Wurundjeri, walked from Healesville to Melbourne on many occasions and a trail could be constructed shadowing though not necessarily following exactly the route he took.

The emphasis on bikes needs to be balanced with a valuing of the pedestrian use of the shared trails. ‘Goat’ tracks for bushwalkers need to be considered and better management of mountain bikes in the river corridor, which are causing significant erosion and the spread of weeds. The plan could propose a dedicated mountain bike path in say Studley Park. Though the funding for this would not be done from the ‘trust’ funds but from elsewhere. In parts of the contiguous parklands mountain biking should be banned. The plan should examine ways to encourage the least damaging forms of recreation and educate users on the impact of activities on the landscape.

River crossings are impediments to migration and expansion of bridges needs to be designed to with an awareness of this opportunity enhance continuity through the design of the bridge. Structural features such as tunnels and overhead crossings need to be included as well as ways of mimicking features such as continuity of canopy and undergrowth.

As the MAC *Discussion Paper* notes the appreciation of landscape and of the spiritual significance of the landscape which is the heritage of members of the Kulin Nation must be included in any strategic

plan for the Yarra.

The plan needs to include specified targets and outcomes.

Q5. What would you like to see included in legislation to protect the Yarra River?

The challenge of the legislation is to build robustness and longevity into the arrangements. Part of that robustness will be that it delivers efficiencies of management rather than unnecessary duplication and that it distills community commitment to its river. The legislation should include the following elements

- An independent trust
- A community panel
- An assessment of state of the Yarra
- A strategy plan
- Monitoring of the strategy plan along the lines of adaptive management
- Auditing of the implementation of the strategy plan and an assessment of progress against the baseline.
- Regular reporting to parliament.

Q6. What do you think are the key criteria for the evaluation of the options for management arrangements of the Yarra River and its riverscape (as outlined in section 5.4 of the discussion paper)?

The Association is in broad agreement with the criteria in Table 9 of section 5.4. We endorse the general principles of efficiency and the need to use more effectively what already exists. Agencies have delivered excellent work along the Yarra over the past years and examples include planting along the lower Yarra, the building of shared

trails and improvements in water quality. The challenge is to continue to deliver in the face of increasing pressures and increased planning complexity. Part of this efficiency will come from co-ordination and shared knowledge and a central repository of shared information accessible to all partners. The remit of the management arrangement needs to cover the whole catchment while having the greatest focus on the main stem of the Yarra.

Q6. What are your thoughts on the options for a new management model for the Yarra River and its environs?

As this is a once-in-a-generation opportunity to establish planning for the river for generations to come, the institutional arrangements need to be robust and able to be maintained in the rise and fall of the political cycle. We support the following options

- A new body, a ‘trust’, that is independent with a clear focus and authority. It may be partially embedded in the department or in another agency, but with independent commissioners with a reporting line direct to the minister and parliament. The river needs a champion agency, that is able to reflect the community’s passion for its river. The trust could also be a means of gathering community funding for particular initiatives along the river.
- The service delivery would largely be done by existing agencies, with perhaps one lead agency. The lead agency would be responsible for delivery of the vision and the strategic plan. The initial scientific assessment of the state of the river (along the lines of the State of the Bays report) could be done by a separate agency at the same time the vision is being developed.

- The ongoing monitoring, and measurement of success of the strategy plan could be by the lead service delivery agency. The plan needs to be regularly audited by a separate agency to the service delivery agency and the report tabled in Parliament.
- The management model needs to include a panel of both experts and the community to provide a resource for the ‘trust’, to ensure that all groups along the river are properly informed and have the opportunity for input, and all processes are transparent. This will reduce the community campaigns that spring up in response to particular initiatives or development along the river.

Q7. What are your thoughts about establishing a new organization to oversee development and monitor delivery of a Yarra strategic plan?

This is an issue that needs to be considered carefully. It is important that the new organization is right-sized, and unnecessary duplication is avoided, yet the organization needs to be robust and independent with the capacity to champion the Yarra. A key role of the agency is to deliver better co-ordination of planning and existing agencies along the river, with the advantage of taking a whole-of-river view. The organization needs to enhance work on the Yarra and not disempower entities that are already operating effectively and therefore detracting from their sense of ownership of the work they do.

As the urban population expands not just in Melbourne but across the globe the issue of urban waterways will intensify as pressure mounts on these waterways. Innovation is not something that should be seen as being restricted to the business

sector but is just as important in how we manage our habitats. This is an opportunity to create something innovative, something world-class, something that establishes a benchmark for urban waterway management. Melbourne already becoming recognised for innovative environmental management in an urban context and this is an opportunity not only to focus that role but put a public face to it.

Q9. Is there any information or issues you feel we have missed?

Interest in the Yarra is often unduly weighted in favour of the lower river, where most of the people live and where most of the pressure on the river is apparent. It is clear from community sessions that the community supports a whole-of-river approach as the river is an ecosystem connected along its entire length. The importance of the Yarra to the Yarra Valley (above Yering Gorge) though mentioned in the report does need to be further highlighted. Environmental flows are a critical part of the overall health of the river, and given the huge reduction in flows since 1835 every opportunity to add to these flows or enhance the use of these flows (say pumping directly into wetlands) needs to be considered.

An education role, for example, for the new organization should be considered. Other trusts such as The Shrine of Remembrance Trust play an active educational role for the benefit of the community.

There is an opportunity for the Trust to be a conduit for private funding as is provided for in a number of overseas trusts, such as the Hudson River Trust. Studley Park is currently being degraded by unmanaged mountain bike recreation. New paths are constantly being opened as old paths turn into eroded gullies that eventually add to sediment load in the waterway. One solution

might be to create a dedicated mountain bike track in the park. This may be outside the budget of Parks Victoria but may appeal to a private philanthropist. The Yarra Trust could advocate for such particularised initiatives and be a conduit for private funding. The Trust for Nature is an example of a public entity that can accept donations from the community. The Trust for Nature also runs volunteer programs, and this is another activity that could be considered for inclusion in the Yarra Trust.

An overarching issue faced by management of the river of the increased complexity of planning faced by the river once a significant proportion of its length becomes urbanised. This affects the whole length of the river, and demands a whole-of-river perspective. Flows and pollution from upstream affect what happens downstream. What happens at the tips of the tributaries affects what happens to the water quality in the main stem. The fish and other wildlife migrate the length of the river.

Linear ecosystems like waterways and coastlines are particularly vulnerable to development pressures that destroy the very thing that has led people to want to be there in the first place — a beautiful naturalistic environment that is on the edge of the built environment. Both beaches and waterways are a public good that is at risk of being privatised.

Q10. Do you have any other suggestions or feedback for the Yarra MAC that has not been addressed in previous questions?

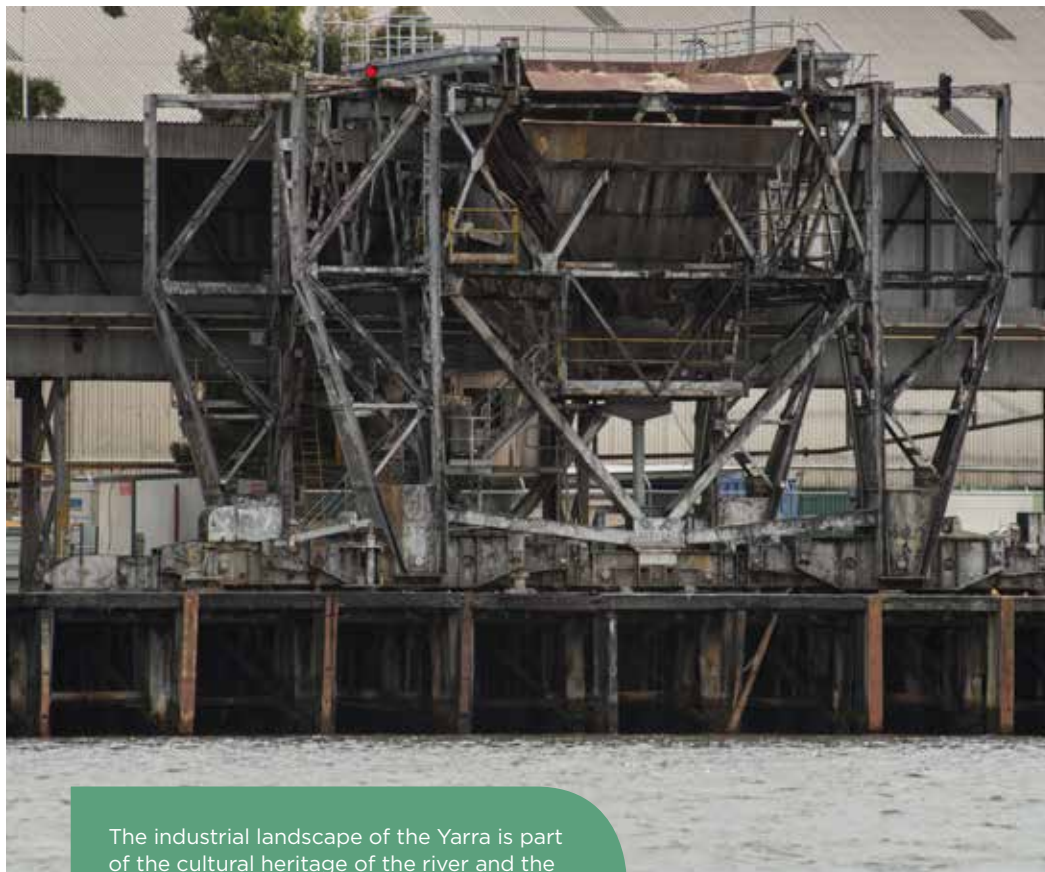
We have covered this in an earlier section.

A painting of the Yarra Valley by Robert Hoddle, one of Melbourne's first surveyors. Hoddle wrote in ink on the verso: "Camp on Yarra Yarra River 26th November 1844 in search of its source. Mountains on its banks 3000 feet above the level of the sea. Robert Hoddle. The party narrowly escaped drowning by the rising of the river during the night."



SOURCES

For links to the reports (and other relevant reports) referred to in *Connecting the Yarra* that are available on-line, see our websites actfortheyarra.org.au and yarrariver.org.au. Historical images are courtesy of the State Library of Victoria (p.16, p.25 and p. 33). All other photos are by Andrew Kelly, with the exception of page 15, which is by Matt Stewart, and page 7, which is by Josh Griffiths.



The industrial landscape of the Yarra is part of the cultural heritage of the river and the city. As brownfield sites are re-developed, we need the sort of strategies outlined in this report, *The Future of the Yarra* report and the Yarra MAC's *Discussion Paper* to ensure these brownfield sites are developed appropriately, and a connection to the river is sustained and improved.

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The Yarra Riverkeeper Association recognises the initiatives of past and present governments of Victoria to protect the Yarra. Now, through the proposed Yarra River Protection Act, we have a once-in-a-generation opportunity to further protect and improve the Yarra river for present generations and for many generations to come. This opportunity comes at a time of dramatically increased pressure on our river due to the rapid expansion of the population of Melbourne.

The Association acknowledges the insightful work of the members of the Ministerial Advisory Committee — Chris Chesterfield (chairman), Jane Doolan, Kirsten Bauer and Eamonn Moran QC — and the work of the supporting secretariat.

Christian Taylor on the Yarra River Photo Project. Under the aegis of the Yarra Riverkeeper Association, Christian, with the assistance of Riverkeeper volunteers is undertaking a photographic survey down the river, beginning at the Upper Yarra Reservoir to the bay. He is using a camera that takes 360° images of the waterway. These images are available on Google Maps. Christian's work will create a baseline measure of the river channel and banks. At regular intervals he takes water quality measurements, including turbidity. This is part of the Association's work monitoring the health and amenity.

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