

A Rivers of the West Act

Draft proposals to protect and restore Melbourne's western rivers and waterways and to defend the liveability of the West



Executive Summary

This report calls for the Victorian Parliament to enact legislation for the protection and restoration of rivers and waterways of Melbourne's west. This Rivers of the West Act would be intended not only to establish a long-term framework to achieve healthy waterways but also to establish a new model of urban design that integrates natural places into community life, deepen accountability in decision-making and contribute to reconciliation with Indigenous communities.

Legislative reform directed to protection of key environmental assets in the West concerns the liveability, well-being and public benefits available to communities in the West. In short, protection and restoration of the rivers and waterways of the west is a matter of environmental and social justice.

The Act would adapt and build on measures now implemented in legislation for the Yarra River, such as legislated river protection principles, preparation of long-term landscape-scale strategic plans, and establishment of independent institutions to manage rivers and affected land.

Expansion on the approach taken under the Yarra River Act would include formulation of landscape connectivity and guardianship principles for river management. The Act would require preparation of strategic plans for each key waterway in the West but also an overarching 'biolinks' framework to facilitate restoration across the landscapes of the West. Aboriginal 'country planning' would be integrated into this approach. These planning tools would be legally binding on public authorities.

This expansive approach to a 'rivers of the west' law would be founded on a new model of urban design and development, emphasizing 'green infrastructure', as well as integrating 'caring for Country' practices. In addition to a biolinks framework for protection and restoration, the green infrastructure model would include Ministerial powers to declare major green infrastructure projects for improved planning for large-scale protection and restoration. The model also would require implementation of 'green infrastructure accounting'. The latter are environmental and liveability indices that attach quantitative measures to the protections and restoration of rivers and waterways.

In the report we identify a series of actions that can be taken in anticipation of or alongside legislative reform to better protect and care for the rivers and waterways of Melbourne's west. These 'intermediate' steps indicate how existing planning and regulatory mechanisms can be used in the short- to medium-term to deliver benefits. Those steps would likely be important 'stepping stones' to new rivers legislation for the West.

Introduction

The western region of Melbourne is currently undergoing extensive change. The dynamism of the west is evident in rapid population growth, urban and peri-urban development and changes to demographics, industries and community expectations.

Within this ambit of change, the model of development also needs to change. Merely reproducing rolling plains of concrete, glass and asphalt is an increasingly untenable model, compromising qualities of liveability and the integrity of natural places. International best practice in urban design and planning focuses on the need to 'green' cities and stimulate mind, heart, community and

imagination.¹ Unless we begin to refashion the current development model toward best practice we not only risk losing green spaces and undermining ecosystem benefits for the community but also deepening alienation, health concerns and social division.

For western Melbourne, access to and restoration of healthy ecosystems, including clean air and water, open space, interactions with nature and places to roam, and functioning biodiversity, are matters of justice as well as good practice. These conditions are deeply connected to healthy communities, effective social networks, and strengthened cultures. They are also features of our 'common wealth' that should be widely, democratically available. Access to healthy environments and places should not be a privilege of private wealth but a right of active citizenry; not only available far away, but in our urban localities and neighbourhoods.

At the heart of the 'rivers of the west' project is a desire to adjust the urban model to put key natural places nearer to its centre. Those key natural places – albeit under considerable pressure – include the major waterways of the Maribyrnong and Werribee Rivers and the series of smaller waterways and wetlands in between them. Protection and restoration of the western rivers and waterways are important outcomes for the intrinsic value of those places. But in addition those outcomes would signify better outcomes for the environment, communities and urban design more generally.

The proposals contained in this report centre on legislative and policy reform, building on recent changes elsewhere, notably on the Yarra River. New laws cannot achieve everything but, effectively designed, they can contribute to new approaches and to shifts in economic and institutional behaviours necessary to achieve ambitions of healthy cities and stimulating, liveable places. We hope these proposals will be read in that light.

The geography of the rivers of the west

Physical geography

Melbourne's western suburbs and surrounding hinterland are geographically distinctive. Comprising large areas of volcanic plains with ranges in the hinterland, Melbourne's west is dissected by a series of important rivers and waterways. The larger of these are the Maribyrnong and Werribee Rivers. Other waterways of significance include Little River, Skeleton Creek, Laverton Creek, Cherry Creek, Kororoit Creeks and Moonee Ponds Creek. The great native grasslands across the plains, and the red gum woodlands along the rivers and creeks, are now largely gone. Protection and restoration of remnants is variable.

Our western rivers and waterways are among the main remnant natural features in this part of urban and peri-urban Melbourne. As with most urban waterways, these places have been subject to extensive change as settlement, and then the city, expanded westwards. The limited protective

¹ See eg Zoe Myers 'Greening for wellbeing – science tells us how to design urban spaces that heal us' the Conversation, 28 August 2017, <https://theconversation.com/green-for-wellbeing-science-tells-us-how-to-design-urban-spaces-that-heal-us-82437>; Tony Matthews and Jason Byrne 'If planners understand it's cool to green cities, what's stopping them?' The Conversation, 9 March 2016, <https://theconversation.com/if-planners-understand-its-cool-to-green-cities-whats-stopping-them-55753>; Benjamin Cooke and Brian Coffey 'Why "green cities" need to become a deeply lived experience' The Conversation, 4 October 2016, <https://theconversation.com/why-green-cities-need-to-become-a-deeply-lived-experience-65566>; J Morgan Grove and Michelle Condo 'Greening cities makes for safer neighbourhoods' The Conversation, 11 July 2016, <https://theconversation.com/greening-cities-makes-for-safer-neighbourhoods-62093>

measures on the Yarra River in Melbourne's east, such as retention of parklands and a 'green' corridor, and closure of the upper catchment, are largely absent from the western rivers. Nonetheless, these places are especially important to communities in the west, to Traditional Owners, and to Melburnians generally.

Cultural geography

These rivers and waterways are significant cultural places. They are of the site of distinctive and special attachments for Aboriginal communities, including places of custom and traditional practices as well as revitalisation of culture. This emanates from exercise of and claims to sovereignty.² As elsewhere in Australia,

Waterways are an important landscape feature in traditional Aboriginal culture. Waterways sustained areas of Aboriginal occupation and also functioned as travelling routes and locations of inter-group meeting places for trade, ceremonies, initiations, marriages, or to resolve inter-group conflict.³

They were also key places of customary economy. The significance of these points is not only reflected in the protection of cultural heritage, both 'tangible' and 'intangible', but of the bi-cultural character of our rivers and waterways, as the Yarra River Act now seeks to express in law. There are over 300 registered Aboriginal heritage places associated with the western rivers and waterways.

Laws and programs directed to the protection and restoration of these waterways should facilitate not only recognition of this ancient cultural landscape, but also truth-telling and reconciliation.

Governance and 'river laws'

Public governance of rivers and waterways is fragmented and distributed across numerous agencies and authorities. The western rivers and waterways are no exception in this regard. At least seven municipalities have a role in managing these waterways, together with Melbourne Water, Southern Rural Water, the Environment Protection Authority, DELWP, the Victorian Planning Authority, City West Water, Western Water, Port Phillip and Westernport Catchment Management Authority, and Parks Victoria.

As these governance arrangements suggest, there are many laws and regulatory instruments applying to the western rivers and creeks. These instruments are administered by one or more of the municipalities or other public agencies responsible for the river or its environment. They include planning schemes, environment protection policies, water licences and entitlements, catchment management duties, heritage laws, and laws governing public lands.

There are also administrative tools which do not have the force of law but are often significant in terms of the actual management practices relevant to rivers and creeks, such as management plans

² The term 'sovereignty' is used here in the sense employed in the *Uluru Statement from the Heart* (2017):

This sovereignty is a spiritual notion: the ancestral tie between the land, or 'mother nature', and the Aboriginal and Torres Strait Islander peoples who were born therefrom, remain attached thereto, and must one day return thither to be united with our ancestors. This link is the basis of the ownership of the soil, or better, of sovereignty. It has never been ceded or extinguished, and co-exists with the sovereignty of the Rivers of the West.

³ Wurundjeri Land and Compensation Cultural Heritage Council Aboriginal Corporation Rivers of the West: Summary of Aboriginal Heritage Places (2018), 7. Registered Aboriginal heritage data was supplied (with certain exceptions) in relation to the Maribyrnong River, Deep Creek, Jacksons Creek, Kororoit Creek East Branch and the Werribee River and included artefact scatters, mounds and earth features, quarry sites, scarred trees, stone features and Aboriginal ancestral remains. We are grateful to Wurundjeri for preparing this cultural heritage report for this project.

for reserves and parks, water management strategies and policies, and the regional catchment strategy. These measures are what are sometimes termed 'soft law'.

Many of these laws and policy tools have been considered and referred to in our earlier discussion paper and options paper, prepared by workshops 1 and 3 of this series.



The Rivers of the West project

The workshop program built on EJA's approach to 'participatory design', originally employed in preparation of proposals for a Yarra River Act. Our model of participatory design represents an NGO/community group led process of policy design and development, one in which lead organisations (in this case EJA with Friends of Steele Creek and the Werribee River Association) organise and workshop with interested community groups, individuals and public agencies. The lead organisations are also engaged in advocacy to decision-makers and other groups and individuals may be also.

The approach taken on Rivers of the West was very similar. Four workshops, open to the public and including members of community groups as well as local government and public authority officers, have been undertaken, with an intention to progress from key issues through to proposals for change. The workshops are intended to be iterative and build a base of ideas and knowledge to inform final proposals.

The program of workshops is:

- Workshop 1 – identification of key issues
- Workshop 2 – vision for the rivers of the west
- Workshop 3 – options and models for reform
- Workshop 4 – consideration of draft proposals and strategy going forward.

All of the ideas and material generated through this process inform the draft set of proposals contained in this document.

Reports on each of workshops 1-3 are available online via EJA's website.

In Workshop 3 participants were presented with a spectrum of potential models for improved protection for western rivers and waterways, ranging from incremental improvement of existing legal and policy tools (Model 1), through adaptation of the Yarra River Act for the West (Model 2), to a more ambitious 'green infrastructure' law for the west (Model 3). Participants were asked which model, or position across this spectrum, they preferred. An overwhelming majority of participants chose to support Model 3 or a variation on it.

The proposals drafted in this paper proceed from the preference expressed by our workshop participants for a model of river law and policy change toward the radical or ambitious end of the policy spectrum. This was referred to as a 'green infrastructure' model of rivers laws and protections.

'Green infrastructure': evolving narratives of nature protection and the law

'Green infrastructure'⁴ has emerged as a framework synthesizing concepts of the human (constructed) environment and the values and benefits of nature. The concept can be associated with environmental theories of ecosystem services (measurable benefits of nature to people), landscape architecture (green spaces), and green engineering (modified built infrastructure). This approach is particularly useful to the design of cities. It can also lend itself to

For Melbourne's west, green infrastructure can be associated with natural or semi-natural places. Key areas include the river and creek corridors, remnant grasslands, coastal reserves, urban parks and streetscapes. Connecting built infrastructure, such as drainage schemes, is relevant too. Our present focus is on waterways as a core of green infrastructure but with clear regard to their connections to coastal and grassland reserves in particular. One reason for doing this, in simple terms, is it allows us to judge and insist on the value of the natural environment to community well-being, 'liveability' and, indeed, our humanity.

'Green infrastructure' models permit us to consider the value and function of the natural world in human geographies and to afford it priority and balance alongside built infrastructure. This is especially important in areas such as Melbourne's west, where there is a very high degree of built (often alienating) infrastructure and a scarcity of green space and access to nature. The wealth of vibrant environmental spaces needs to be available to communities of the west, as well as to

⁴ See generally Botanic Gardens of SA 'Green infrastructure evidence base – Green infrastructure: concepts and definitions', <http://gievidencebase.botanicgardens.sa.gov.au/contents/green-infrastructure-concepts-and-definitions>

communities elsewhere in Melbourne. The Rivers of the West project concerns this protection and restoration of rivers and waterways, and how we use law and public policy to do this.

Green infrastructure is not the only narrative: conservation and Country

As useful as it might be, restoring our rivers and waterways cannot only be about transposing or adapting the language of engineers and planners to environmental protection. We still need to protect and restore these places because they are valuable ecosystems, worthy of conservation and repair. Indeed, in certain cases there are larger obligations to do so, such as protection of threatened species and communities, benefits to internationally-important wetlands, and defending biological diversity in the face of mounting failures to do so.

Just as powerfully, law and public policy has begun to recognise the environmental integrity of rivers and waterways, through tools such as environmental water reserves,⁵ but also now recognising and respecting the ancient models and relationships to that Country as expressed in the long renaissance of First Nations. Arguably, this is exemplified in bi-lingual naming of the Yarra River and its treatment now as a 'living and integrated natural entity' in Victorian legislation.⁶ *Caring for Country*⁷ and the underpinnings of Aboriginal occupation and continued connections to land and waters are integral elements of a 'river law' framework.

New legal and policy frameworks for the rivers and waterways of the west are needed to aid the mobilisation of each of these narratives, and of the tools and perspectives contained within them, in the service of long-term strategies and trajectories of environmental balance and repair. Like the initial 'stepping stone' laid by the *Yarra River Protection (wilip-gin Birrarung murrn) Act 2017*, the proposals laid out below might contribute to improved outcomes for those rivers and waterways and for the communities of the west.

A Rivers of the West (Green Infrastructure and Caring for Country) Act

We propose the Victorian Parliament enact legislation for the protection and restoration of rivers and waterways of Melbourne's west. This outcome builds on the innovation of the *Yarra River Protection (wilip-gin Birrarung murrn) Act 2017*, adapting that 'river law' model to the circumstances of Melbourne's west, and taking the next logical step of enacting a legislative framework protecting, restoring and connecting, to the greatest degree practicable, the natural and cultural landscapes of the west. The riverine corridors of the Maribyrnong and Werribee Rivers, and the urban creek corridors, would represent the core of this framework. Other natural features, such as the western grasslands and coastal areas would also be integrated into this base approach. Taking

⁵ *Water Act 1989* (Vic), ss 4A-4B

⁶ *Yarra River Protection (wilip-gin Birrarung murrn) Act 2017* (Vic), s 1(a):

The main purposes of this Act are—

(a) to provide for the declaration of the Yarra River and certain public land in its vicinity for the purpose of protecting it as one living and integrated natural entity...

⁷ Jessica Weir, Clare Stacey and Kara Youngtob *The benefits associated with caring for country: a literature review* (AIATSIS, 2011), <http://aiatsis.gov.au/publications/products/benefits-associated-caring-country>

the Yarra River Act as a starting point for legislative and policy design, we propose Rivers of the West legislation that aims for a long-term vision of connected and restored landscapes, respecting and recognising Aboriginal history and practice, within a new model of urban design. We suggest the working title of a *Rivers of the West (Green Infrastructure and Caring for Country) Act* ('Rivers of the West Act').

Certain elements of this legislation would proceed from the Yarra River legislation, such as objects, river management principles, strategic planning, and independent institutions. Having regard to the unique circumstances of the western rivers and waterways, we propose additionally:

- Integrated ownership and management of riverine lands;
- Expansion of the public estate in and near riverine corridors;
- A framework enabling the preparation and delivery of landscape restoration (green infrastructure) projects.

Our proposals are elaborated below.

Purposes of the Act

The Act should reflect a vision for these waterways looking to a 50- to 100-year timeframe. The objects or purposes provisions contain the core ambitions for the legislative framework. Four are proposed:

Achieving healthy rivers and waterways. River health is a central concern. It is also a prominent concept in water management and planning. The healthy river object needs to be given specific expression in the Act, with river health including:

- the *protection and conservation* of ecosystem services and values, ecological processes and biological diversity; and
- the *restoration* of ecosystems, including ecosystem services and ecological processes, to determined baselines.

The objective of 'healthy rivers and waterways' should be established as the paramount purpose of the Act. This is also reflected in the focus of targets and strategic plans.

A new model of urban design for the communities of the West. The Act would build on the natural, cultural and amenity values of the western rivers and waterways in order to modify urbanisation in the west. Western Melbourne and surrounding peri-urban regions are the subject of extensive development pressures. Current measures to account for and protect rivers and waterways are not arresting adverse outcomes. A new approach is needed. A key object of the Act would be to re-set the balance in urban design genuinely and effectively toward protection of natural places and integration into community life.

Deepening integrity and accountability in decision-making. Accountability and integrity are critical to good governance and to outcomes that are both effective and embraced by the community. However, lack of accountability and integrity⁸ can be weaknesses in environmental, planning and natural resources laws and regulation. For instance, there are notorious weaknesses in monitoring of environmental systems, compliance and enforcement of laws and regulation, and supervision of

⁸ EJA *Corruption in Environmental Decision-making* (2017), <https://www.envirojustice.org.au/corruption-in-environmental-decision-making/>

environmental controls. A well-designed legislative framework, combined with effective laws and organised communities, would improve the record of accountability and effective outcomes.

Relevant measures include:

- monitoring of and reporting on environmental performance;
- public participation in decision-making and policy-making; and
- enforceability of decisions and actions.

Accountability will mean accountability at a number of levels and through various channels. For instance, it means the accountability of councils and public agencies for regulatory controls sufficient to achieve long-term river health outcomes. It means accountability to transparent standards and baselines, and with clear lines of responsibility.

Respect and reconciliation. The Act would contribute materially to the task of reconciliation between Indigenous and non-Indigenous communities. This has been a notable focus of the Yarra River Act – an approach that should be extended to the rivers of the west. The lands and waters of western Melbourne and rural and peri-urban hinterlands are traditional Country of Wurundjeri and Wathaurung.⁹ Respect, preservation and revitalisation of knowledge and practices of those communities, including through negotiated outcomes and co-management arrangements, would materially contribute to reconciliation. Such actions also contribute to implementation of Australia's international obligations, such as the Biodiversity Convention.¹⁰

River and waterway management principles

Management and restoration of the western rivers and waterways need to be guided by clear and effective principles, aimed at bringing environmental, social, Indigenous, and good governance principles into actions and decision-making. The *Yarra River Protection Act 2017* does provide a model for a comprehensive set of river 'protection principles'. The Yarra protection principles include:

- general principles,
- environmental principles,
- social principles,
- recreational principles,
- cultural principles; and
- management principles.

These can be adapted to a Rivers of the West Act. They are extracted in *Appendix 1* to this report.

In adapting 'river protection principles' to the western rivers and waterways, it is useful and necessary to bear in mind additional matters or considerations, which might be drafted into the existing scheme of principles or added to it, such as:

A principle of landscape connectivity. 'River legislation' is intended to focus on the landscape scale and overcome the historic fragmentation of river systems into functional or geographic parts. This equally applies to the west. In the west also the focus should be on connectivity across river and waterway corridors as far as possible (for example integrating grasslands and woodlands into the

⁹ <https://www.vic.gov.au/aboriginalvictoria/heritage/registered-aboriginal-parties.html>

¹⁰ Convention on Biological Diversity (entry into force 29 December 1993), Article 8(j)

network of natural places based on rivers and creeks¹¹) and on connectivity of communities to rivers and waterways (building custodianship and community engagement).

A principle of guardianship. A concept of guardianship toward nature, and rivers in particular, is emerging in legal discourses around the world.¹² While often attributed in circumstances where rivers are given the status of legal persons, a principle of guardianship need not depend on that specific legal reform. Guardianship presupposes a person acting on behalf of and in the best interests of another entity. It is a type of fiduciary relationship. The relationship of care, trust and/or advocacy can apply in the context of management of rivers and waterways. These guiding values can be attached to the tasks of achieving river health and ecological integrity, protection and long-term environmental restoration. This principle can be attached to the conduct of public authorities.

Applying river protection principles. Under the Yarra River Act, 'Yarra protection principles' apply to the actions and decisions of identified public agencies in requiring those agencies to 'have regard to' protection principles in carrying out their functions (where these functions affect Yarra River land). While useful, in our view 'river protection principles' should be strengthened in their application to decision-making. For example, the Act could state that all reasonable steps are taken to give effect to or implement river protection principles.



¹¹ A Marshall *Start with the Grasslands: Design Guidelines to Support Native Grasslands in Urban Areas* (Victorian National Parks Association, 2013), <http://vnpa.org.au/publications/start-with-the-grasslands/>

¹² Eg *Te Awa Tupua (Whanganui River Claims Settlement) Act 2017* (NZ); Ein O'Donnell and Julia Talbot-Jones 'three rivers are now legally people – but that's just the start of looking after them' *The Conversation* 24 March 2017, <https://theconversation.com/three-rivers-are-now-legally-people-but-thats-just-the-start-of-looking-after-them-74983>

Strategic river planning within a Biolinks Framework

The Act would require preparation and implementation of strategic plans for the rivers and waterways of the West. The operation of a corridor-based strategic plan will be a particular focus of the new governance arrangements for the Yarra River. In these proposals, the Yarra Strategic Plan is a relevant model but certain modifications and departures from the legislative provisions for the YSP are proposed here.

Strategic plans are medium-term (5-10 year) instruments setting out actions, measures, management objectives and strategies necessary to achieve them, on the basis of best available science and public input, to achieve long-term targets or outcomes.

River and waterway strategic plans would contain baselines, objectives, actions, assessment provisions, and performance standards – in short, a detailed scheme for achieving river health. They would be legislative instruments, hence tabled in Parliament and subject to disallowance. In our original proposals for a Yarra River Act, EJA's view was that such all provisions of such a Plan would be binding on public authorities in the exercise of their functions and powers where they have direct responsibility for management of rivers and environs. We think that remains the preferable approach.¹³ Binding measures should be accompanied by extended rights of standing for persons seeking to enforce those plans.

Strategic planning arrangements for the rivers and waterways of the west are representative of 'nested' governance arrangements. The principle of 'nesting' management refers to the integration of rules and decision-making structures operating at different scales, within functional or spatial hierarchies.¹⁴ This model is most commonly employed in governing natural resources, such as water systems, fisheries or landscape-scale or transboundary reserves. Complex management can be done in a way that allocates decision-making to the most appropriate level of scale and capacity. In Australia, catchment management and planning has developed on these principles, as have key 'natural resources' laws such as the Federal Water Act¹⁵ and the Basin Plan.

Nested governance is particularly relevant to the rivers of the west. Consideration needs to be given to managing a series of waterways, and doing so, in our view, within a single regional framework. By contrast, the Yarra River Act applies to one river corridor and, potentially, adjacent lands and catchment. In response to this geographic challenge, we propose:

Waterway plans. Strategic plans are prepared for the Maribyrnong River, Werribee River, and nominated urban creeks. These instruments would build on existing measures, such as the Healthy Waterway Strategies. They would be wider in scope than the Healthy Waterway Strategy, as the Yarra Strategic Plan is for the Yarra River.¹⁶

Connectivity. River and waterway strategic plans would operate in the context of an overarching Biolinks Framework. This would be a higher level instrument aimed at providing and setting out a regional strategy for urban design, based on connectivity – connectivity of landscapes and corridors (including nearby grasslands and woodlands), and connectivity of communities to natural and cultural spaces. Re-establishing habitat along urban creeks and rivers should be linked to restoration

¹³ The approach taken under the Yarra River Act is that public authorities identified must have regard to the YSP, other than when the Plan is stated as expressly binding an authority.

¹⁴ See Graham Marshall 'Nesting, subsidiarity and community-based environmental governance beyond the local level' (2008) 2 *International Journal of the Commons* 1 75

¹⁵ Water Act 2007 (Cth)

¹⁶ Yarra River Protection (Wilip-gin Birrarung murrnong) Act 2017 (Vic), ss 20-21

of grasslands and woodlands nearby and urban forest, stormwater management projects or ‘street greening’ projects could also be used as links and connecting features within the landscape.

Target-setting. Target-setting is an important feature of waterway management and operates under the Healthy Waterways Strategy and the *SEPP (Waters of Victoria)*. The Yarra River Act establishes similar ‘performance outcomes’. Targets are especially important for assessing progress toward goals (such as river health) and setting actions and obligations conducive to achieving those outcomes. Healthy waterway targets will remain relevant and important. Additional targets ought to be adopted, such as reduction in impervious surfaces, baseflows in streams, and levels of community organisation as an indicator of custodianship and participation.

Recognising and caring for Country. Country mapping and planning are emerging processes intended to set out Aboriginal/First Nations’ law, custom and narratives relating to land, water and resources. Scope for the registration of ‘intangible Aboriginal heritage’ under the Aboriginal Heritage Act has given impetus to this approach. Similar processes, such as Aboriginal Waterway Assessments, have been used in the Murray Darling Basin. We propose that ‘Country plan(s)’ are prepared for Melbourne’s western rivers. In addition, we propose that priority is given to these plans and, under the Act, any Strategic Plan or Biolinks Framework must be consistent with a Country Plan to the maximum degree practicable, and prepared subject to negotiations with Traditional Owner organisations.

One land and water manager

A Rivers of the West Trust. Two key sets of natural assets need to be the focus of management, protection, care and restoration on the western rivers and waterways: land and water. Clearly other natural features, such as flora and fauna, are crucial but these are features of the terrestrial and riverine environments. In any case, the law’s fragmentation of the natural environment into rights and duties attaching distinctly to land and water is a key determinant of how the riverine environment is managed.

We propose rationalisation of the ownership and control of public land and water resources in the waterway corridors and basins of the west. With respect to land, two issues arise in the current arrangements of riverine lands:

- they are fragmented in ownership and supervision so that there is a lack of any one public actor ‘speaking for’ river lands, as well as uncertainty over who the relevant landowners are;
- if, over time, the plan is to acquire or manage more river lands within the public estate, for environmental and community purposes, it is preferable to have a single, authoritative agency who acquires and owns that land.

In a way this has occurred along the Yarra River through the Greater River Parklands. In the fast evolving development landscape in the west, however, there is added urgency to establish a prominent ‘voice’ for this public estate of riverine lands. We suggest this entity is termed the ‘Rivers of the West Trust’.

Managing land and waters? For the most part, law manages water and land separately. With some notable exceptions, legal rights to take, use or store water subsist in entitlements or licences granted under water resources legislation. These rights are held by public authorities as well as individuals and corporations, and dealings in them operate under that legislation. Land title, including for public lands, is distinguishable from this title to take, use or control water.

This invariably makes the management of rivers and waterways complex. Whoever owns the public lands to the river (potentially including the river channels and riparian lands) may not necessarily own or control how the water is used or diverted in the river. A Rivers of the West Trust holding public lands would likely not own or control the principal water entitlements or use rights, such as Bulk Entitlements held by water authorities or consumptive (e.g. irrigation) licences. With respect to water in these rivers and waterways, however, the Trust could additionally act in the manner of a 'water trust' to the extent of:

- Holding environmental entitlement(s);
- Acquiring or being granted water licences that could be used for public purposes under the Rivers of the West Act;
- Acquiring or holding water in stormwater systems;
- Where not holding water rights directly, entering into arrangements with rights/entitlement holders to achieve the Trust's or the Act's purposes;
- Monitoring and/or enforcing the environmental water reserve in respect of the western rivers and wetlands.

In these respects, the Rivers of the West Trust can exercise powers and acquit functions in a manner aiming to overcome the fragmentation of land and water responsibilities.

The Rivers of the West Trust would function as an independent statutory body, although it may practically sit within an agency such as Melbourne Water. The Trustees or Guardians of the Trust would include representatives from each relevant municipality, Melbourne Water and Southern Rural Water, community organisations and Traditional Owners.

Major Green Infrastructure or Caring for Country Projects

We propose a 'rivers of the west law' include measures for the planning and delivery of protection and restoration projects consistent with landscape connectivity and riverine strategic planning. These are green infrastructure projects.¹⁷ The measures and laws proposed would be analogous to major projects facilitation laws.¹⁸ The purpose of this approach would be to enable greater efficiency, integration and improved planning in protection and restoration projects of particular significance or at a substantial scale. For example, this type of intervention may be appropriate to planning and delivery large-scale biolinks across riparian corridors, requiring land acquisitions (or acquisition of rights in relation to land), delivery of water, and associated works. This project might also require ecological and water assessments, Aboriginal waterway assessment, and be coordinated with community organising and local education programs (e.g. a Conservation Action Plan). In certain ways, this 'major projects' approach mirrors infrastructure legislation but in other respects what is envisaged is a refashioning of development planning and project delivery models (for example precinct structure planning) toward ecological and cultural restoration ambitions.

¹⁷ Eg Al Appleton How New York City used an ecosystem services strategy to carried out through an urban-rural partnership to preserve the pristine quality of its drinking water and save billions of dollars and what lessons it teaches us about using ecosystem services Paper presented to the Katoomba Conference, Tokyo, 2002, <https://www.cbd.int/financial/pes/usa-pesnewyork.pdf>. See also Alice 'Kenny Ecosystem services in the New York watershed', https://www.forest-trends.org/ecosystem_marketplace/ecosystem-services-in-the-new-york-city-watershed-1969-12-31-2/

¹⁸ Major Transport Projects Facilitation Act 2009 (Vic)

These arrangements might include:

Declaration of Green Infrastructure [or Caring for Country] projects. The Act would include powers for a Minister to declare a project and lay out an assessment, approval and planning pathway. Coordination with relevant agencies, communities and nongovernmental actors would likely be necessary also. For example, a large-scale revegetation project or catchment-wide project aimed at reducing interception activities on stream flows might be declared as key strategic projects.

A Rivers of the West Authority. The Act would provide for an independent Authority to be established to advise on, plan and deliver major green infrastructure projects for the west. The Authority might also prepare a program of works and measures to facilitate or contribute to the ongoing maintenance of green infrastructure projects.

A Green infrastructure and Caring for Country Fund. Delivery of declared projects will depend on appropriate funding and resources being available to back those projects. Both Federal and State funding should be directed to green infrastructure and Caring for Country projects, an arrangement typical of built infrastructure projects such as transport infrastructure. Funding should be backed by appropriate business cases and ordinary due diligence requirements.

Assessments and approvals. Under existing major projects legislation a purpose for the law is to facilitate (or fast-track) environmental and other assessments and the grant of approvals. Arguably, a different type of assessment and approval situation applies to 'green infrastructure'. Assessment processes may be aimed more at investigations and inquiries designed to accumulate scientific and other knowledge informing protection or restoration projects. This method is analogous to the work of bodies such as the Victorian Environment Assessment Council, strategic assessment programs, or a modified form of EES. Approvals that might be relevant include planning permits or amendments, water licences, or works licences.

'Conservation action planning' and co-management. In our view major green infrastructure projects cannot be designed and delivered by government, or rather they must be led by communities, relevant experts and NGOs, with government agencies and councils. This model of design and delivery is similar to that of 'conservation action planning' formulated and refined by The Nature Conservancy¹⁹ over two decades and used in various landscape governance and restoration programs. These approaches are strongly collaborative and deliberative in nature. Their application at scale in the West will build on existing community organisations' stewardship and management of rivers and waterways.

A Green Infrastructure Fund. Reform of funding available to restoration and green infrastructure projects would be needed. This could include establishment of a Green Infrastructure Fund, reform of the way developer contributions are collected and administered, and/or novel measures connected to pricing costs and benefits to the urban river environment (e.g. taxing or rating attached to impervious surfaces; taxes attached to development or land use transactions).

Preparation of Green Infrastructure Accounts

Planning for and delivery of any green infrastructure projects relies on preparation of appropriate business cases and fully informed technical information. Preparation of such material for built infrastructure projects rarely includes accounting for what are seen as 'externalities' such as

¹⁹ The Nature Conservancy *Conservation Gateway*, <https://www.conservationgateway.org/Pages/default.aspx>

environmental costs and benefits. Nevertheless, such ‘green accounting’ methods²⁰ are now commonplace, operating at high degrees of sophistication in relation to various values, such as carbon, biodiversity, water, health and liveability. Some jurisdictions, such as the states of Vermont and Maryland in the US, have taken steps to incorporate these methods into formal economic accounting.²¹

We propose the preparation of green infrastructure accounts – directed to environmental and liveability indices – as a mandatory requirement of project planning, and the incorporation of those accounts into project delivery. Green infrastructure accounts should be prepared in relation to river/waterway lands and waters as a whole and any other Biolinks lands (e.g. urban grasslands or woodlands). By way of comparison, preparation of metrics for the environmental protection of urban waterways has occurred already on a tributary of the Yarra River (Little Stringybark Creek), allowing quantifiable values to be attached to environmental benefits.²²

Acting now

Intermediate actions in the short- to medium-term

Dialogue, debate and policy development around a new approach to the management of the rivers and waterways of Melbourne’s west will invariably take time. By comparison, from announcement of its intention to legislate for improved protection for the Yarra River in 2014, it took another two and a half years for advisory, policy development and legislative processes to take their course – as is appropriate – and for the Yarra River Act to be adopted. We should not expect that a new framework for governing our western rivers and waterways will proceed any more rapidly.

In the meantime, there are valuable courses of action that can contribute to better protection, and scope for restoration, of the rivers and waterways of the West. Some of these measures are outlined in earlier discussion and options papers in this series. It was signalled by workshop participants in our Rivers of the West program that there is a clear body of opinion willing, indeed preferring, to approach law reform for these rivers and waterways in a staged, strategic manner: looking to strong ambition and a more radical overhaul of planning, policy and legal settings, while achieving tangible gains and improvements in the near- and medium-term (e.g. in the next parliamentary term).

We suggest that an intermediate reform program include:

Planning policies. Interim planning policies for protection of the Maribyrnong and Werribee rivers and for protection of the urban creeks in State Planning Policy Frameworks.²³

Development controls. New or revised overlays establishing development controls along the urban Maribyrnong River reaches protecting the river corridor, including landscapes, visual amenity and public access to river lands. Stricter set-backs to developments along escarpments are needed, such as in the lower Maribyrnong and in Sunbury, and broader waterways buffer zones need to apply to

²⁰ Eg Roger Jones, Celeste Young, and John Symons ‘How green is our infrastructure? Helping cities assess its value for long-term liveability’ The Conversation 13 November 2015, and references cited therein;

²¹ See various references cited in EJA *Legislating for what counts*, Blog, 4 June 2014, <https://www.envirojustice.org.au/projects/legislating-for-what-counts/>

²² <https://urbanstreams.net/lsc/>.

²³ Similar to those operating for the Yarra River, see VPP cl 12.05-2

urban streams.²⁴ For example, a key development site on which controls will have to be carefully thought through is the defence land on the Maribyrnong River.

Public acquisition of riparian land program. A program of work to set out public acquisition opportunities and needs as a strategic priority in all river/waterway corridors and catchments, sufficient to secure biolink schemes in the urban, peri-urban and rural catchments. This program should be designed in concert with substantial conservation tender programs and purchase of appropriate use or development rights over private lands (e.g. through conservation covenants or easements).

Urban stormwater standards reform. A far more robust approach to urban stormwater retention and harvesting in all Precinct Structure Plans (and other strategic planning exercises) in the West, mandating minimum 200m buffers on all urban streams and waterways, caps on impervious spaces within new development areas, Water Sensitive Urban Design (WSUD) features in all developments, an audit of WSUD features and their effect in PSPs/urban development zones completed or under construction, and riparian repair of all urban waterways. Both planning and building standards should be targeted for reform to significantly strengthen urban stormwater controls at the lot and precinct (neighbourhood) scale. Design of standards should include measurable indices and metrics to deliver outcomes.²⁵ Standards need to be drafted in mandatory, rather than discretionary, language.

Streamflow management plans. We propose that, in anticipation of legislative outcomes, streamflow management plans are prepared for certain key waterways in the West, such as the Werribee River, Deep Creek and Jacksons Creek. Streamflow management plans are made for 'water supply protection areas', in short for waterways and catchments where special measures are required to manage water in an equitable and sustainable manner.²⁶ The potential contents of streamflow management plans is broad and water authorities have powers to administer and enforce these plans. Actions available under these plans can relate to take and use of water, as well as catchment activities affecting water (such as operation of licensed dams) and restrictions to ensure environmental flows are maintained. Streamflow management plans must be the subject of wide consultation. There have been several established on urban and rural rivers and streams around Victoria.²⁷

Tackle interception activities in rural areas. A Cumulative Impact Assessment (CIA) of interception activities in rural areas of the Maribyrnong and Werribee catchments, with a view to reduction of take or interception benefitting base flows in streams in these catchments, with specific focus on:

- farm dams; and
- take under private rights in the Macedon Ranges.

²⁴ By way of comparison, see Yarra Planning Scheme, cl 42.03 – Significant Landscape Overlay Schedule 1 (Yarra), and cl 43.02 – Design and Development Overlay Schedule 1

²⁵ See eg Tim Fletcher, Christopher Walsh, Darren Bos, Veronika Nemes, Sharyn Ross, Rakesh, Toby Presser, Belinda Pratt and Rhiannon Birch 'Restoration of stormwater retention capacity at an allotment-scale through a novel economic instrument' (2011) 64 *Water Science and Technology* 2 494

²⁶ Water supply protection areas are declared under *Water Act 1989*, s 27 and management plans are made under s 32A of that Act.

²⁷ See eg <https://www.melbournewater.com.au/water/waterway-diversions/stream-flow-management>; DSE A Brief History of Streamflow Management Planning in Victoria (2009), https://www.gmwwater.com.au/downloads/gmw/Groundwater/Upper_Ovens_WSPA/TATDOC-2770598-v1-A_BRIEF_HISTORY_OF_STREAM_FLOW_MANAGEMENT_PLANNING_IN_VICTORIA_DSE_2009.pdf

Where a CIA into interception activities concludes that private rights to water (including in respect of take from off-stream farm dams for stock and domestic purposes) is having a significant impact on the health and functioning of waterways, a *Rivers of the West (Green Infrastructure and Caring for Country) Act* should permit streamflow management plans to regulate for this type of activity.

A flora and fauna assessments program. A systematic program of landscape, flora and fauna studies of the key river and creek corridors, including (but not necessarily limited to) Jacksons Creek, Deep Creek and Emu Creek.

Precinct Structure Planning. Certain measures above, such as development controls and stormwater standards, can be tackled in the context of precinct structure planning programs already underway or intended to be commenced. Obviously, a great deal of PSP implementation has occurred. Nevertheless, both nascent PSPs as well as implementation of those concluded but not yet implemented should be a focus of the new approach to urban design proposed.

Next steps

These proposals are intended to inform law and policy reform, based on the detailed and consider work of community group members, local government and agency staff and officers, and interested individuals who have attended the Rivers of the West workshops and contributed their views, innovations, experience and ideas enthusiastically to this project.

These are draft proposals only at this stage. Following circulation and discussion at our final workshop on Monday 2 July, suggestions, comments and critique will be taken on board and a final set of proposals developed.

Further information

Dr Bruce Lindsay, Lawyer, Environmental Justice Australia

T: 03 8341 3100

E: bruce.lindsay@envirojustice.org.au

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Appendix

Part 2—Yarra protection principles

7 Part sets out Yarra protection principles

The Yarra protection principles are set out in this Part.

8 General principles

(1) Proposed development and decision-making should be based on the effective integration of environmental, social and cultural considerations in order to improve public health and wellbeing and environmental benefit.

(2) Decision-makers should take into account the best practicably available information about the potential impacts of climate change so as to avoid, so far as possible, serious or irreversible damage resulting from climate change.

(3) Decision-makers should take into account the impact of any individual action or policy on public health and wellbeing and seek to ensure that public health and wellbeing is enhanced by the action or policy.

(4) Each generation should ensure that the environmental, social and cultural benefits that have been acquired are maintained or enhanced for the benefit of future generations.

(5) Protection of the environment and delivery of sustainable development is a responsibility shared by all levels of government, industry, business, communities and the people of Victoria.

9 Environmental principles

(1) If 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 or for failing to assess the risk-weighted consequences of the options.

(2) Environmental practices and procedures should ensure that biodiversity and ecological integrity is maintained or enhanced in ways that are proportionate to the significance of the environmental risks and consequences being addressed.

(3) If approaches to managing environmental impacts on one segment of the environment have potential impacts on another segment, the best practicable environmental outcome should be sought.

(4) There should be a net gain for the environment in the area of Yarra River land arising out of any individual action or policy that has an environmental impact on Yarra River land.

10 Social principles

(1) The existing amenity of Yarra River land, including its natural features, character and appearance, should be protected and enhanced for the benefit of the whole community.

(2) Community consultation and participation should play an essential and effective role in the protection, improvement and promotion of Yarra River land.

11 Recreational principles

(1) Community access to, and use and enjoyment of, Yarra River land should be protected and enhanced through the design and management of public open space for compatible multiple uses that optimise community benefit.

(2) Public open space should be used for recreational and community purposes that are within the capacity of that space, in order to sustain natural processes and not diminish the potential of that open space to meet the long-term aspirations of the community.

12 Cultural principles

(1) Aboriginal cultural values, heritage and knowledge of Yarra River land should be acknowledged, reflected, protected and promoted.

(2) The role of the traditional owners as custodians of Yarra River land should be acknowledged through partnership, representation and involvement in policy planning and decision-making.

(3) The cultural diversity and heritage of post-European settlement communities should be recognised and protected as a valued contribution to the identity, amenity and use of Yarra River land.

13 Management principles

(1) There should be coordination between all levels of government and government agencies when designing policies and programs and making decisions in relation to Yarra River land.

(2) When designing policies and programs, the best practicable measures available at the time should be used.

(3) Implementation of natural resource management should aim for continuous improvement and extend beyond compliance with relevant laws and requirements.