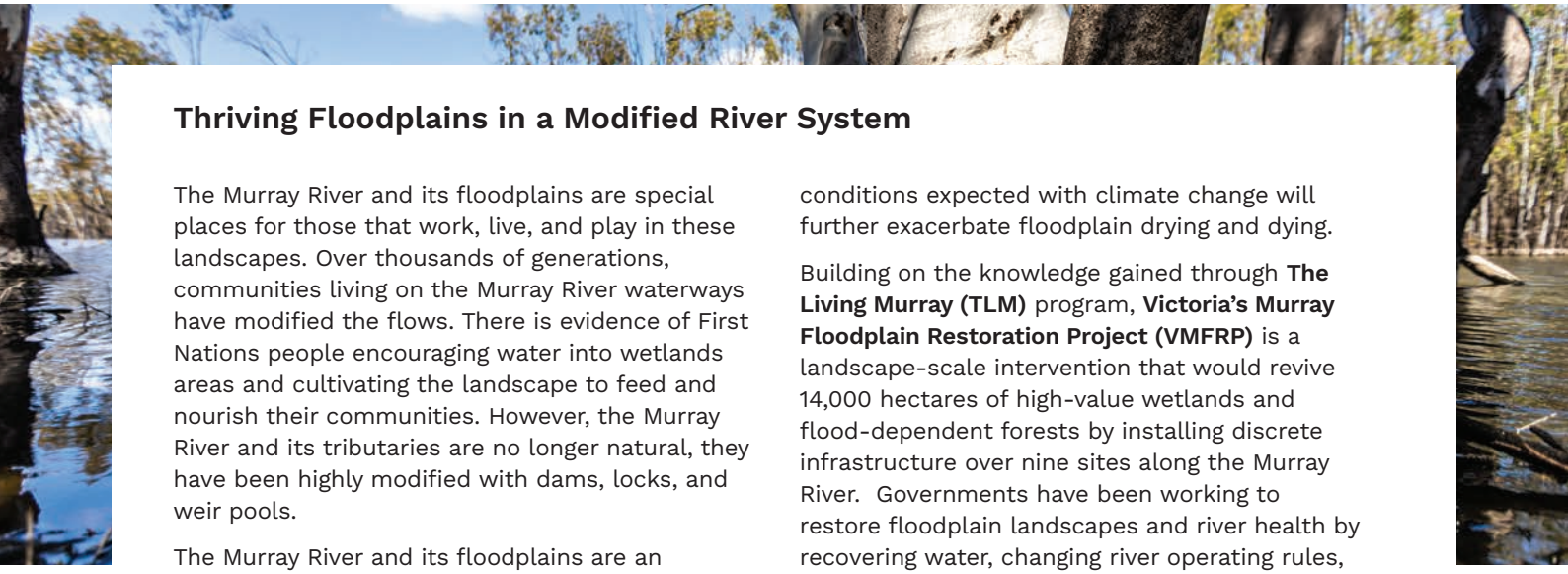
Floodplain Restoration

Using Infrastructure

VICTORIAN MURRAY FLOODPLAIN RESTORATION PROJECT
HEALTHY LANDSCAPES, STRONG COMMUNITIES



Thriving Floodplains in a Modified River System

The Murray River and its floodplains are special places for those that work, live, and play in these landscapes. Over thousands of generations, communities living on the Murray River waterways have modified the flows. There is evidence of First Nations people encouraging water into wetlands areas and cultivating the landscape to feed and nourish their communities. However, the Murray River and its tributaries are no longer natural, they have been highly modified with dams, locks, and weir pools.

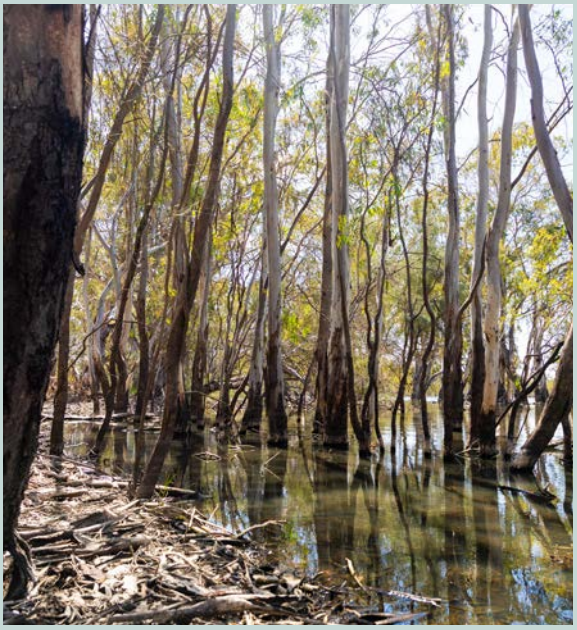
The Murray River and its floodplains are an ecosystem that supports over 2.6 million people, through water supply, agriculture, employment, recreation, and economic activity. By progressively storing and using more Murray water the frequency, extent and duration of flood events have been substantially reduced, resulting in a dangerous decline in the health of the floodplain. Without intervention, the hotter and drier climatic conditions expected with climate change will further exacerbate floodplain drying and dying.

Building on the knowledge gained through **The Living Murray (TLM)** program, **Victoria's Murray Floodplain Restoration Project (VMFRP)** is a landscape-scale intervention that would revive 14,000 hectares of high-value wetlands and flood-dependent forests by installing discrete infrastructure over nine sites along the Murray River. Governments have been working to restore floodplain landscapes and river health by recovering water, changing river operating rules, removing blockages and building works to deliver water into the floodplains more often, and for longer.

This fact sheet provides a summary of the need for delivery of water through the modified river system and the role of works and measures to restore and protect the health of the Murray River floodplain.

Land and water managers: Who does what for our floodplains?

- **Parks Victoria** manage land, specifically high-value environmental landscapes like floodplains.
- The **Murray-Darling Basin Authority** and **Goulburn-Murray Water** are river operators who manage the movement of water through dams, weirs, and locks for the environment and urban and agricultural users. This includes reducing flood risk for towns when it is wet, and efficiently delivering drinking water to towns and trade water for agriculture.
- The **Commonwealth Environmental Water Holder (CEWH)** and **Victorian Environmental Water Holder (VEWH)** hold and manage water to achieve environmental outcomes. These environmental water holders manage the water recovered for delivery of environmental water for environmental improvement projects such as VMFRP and The Living Murray.
- **Victoria's Catchment Management Authorities** manage waterways including rivers, wetlands and floodplains.



Background: The Living Murray (TLM) and Basin Plan commitments

The TLM in 2002 was a joint initiative of the Federal government and Basin state governments of NSW, Victoria and South Australian designed to restore the health of the Murray floodplains. The Millennium drought (1996-2010) led to a significant ecological decline in the health of the Murray River floodplains, compounding the effect of over-extraction through river regulation threatening the long-term survival of the Murray River floodplain wetland and forest systems.

The decline of the ecological communities along the Murray's floodplain corridors are seen in the loss of plant diversity, increased numbers of threatened and endangered species and in the poor condition of both the River Red gum forests and the Black Box woodlands no longer receiving enough water to survive.

As a first step in returning water to the environment, TLM recovered and delivered an additional 500 gigalitres (GL) of water to six high-value floodplain sites: Barmah-Millewa Forest, Gunbower-Koondrook-Perricoota Forest, Hattah Lakes, Chowilla Floodplains and Lindsay-Wallpolla Islands, Lower Lakes, Coorong and Murray Mouth and River Murray Channel.

This water was recovered through improved structural and operational water management, and the decommissioning of storages and small irrigation districts.

Dying River Red gums in Hattah Lakes 'before and after' TLM environmental watering ©Parks Victoria

Pumps and regulators deliver recovered water with timing, frequency and duration needed to keep floodplain landscapes alive. Through TLM, a new and effective methodology was developed to rejuvenate floodplain landscapes. Building on the demonstrated success of TLM, VMFRP will expand the scope of environmental watering into nine priority sites in Northern Victoria, filling the gaps and targeting ecological communities not well addressed by TLM - such as the Black Box forests which are situated farthest from the river.

Pumps, works and other measures

To keep our floodplains, we now understand that water recovery alone cannot achieve the water levels necessary to maintain the ecological character of the floodplain. Managing the timing and delivery of water into the floodplains are two key aspects required to successfully reinstate the missing parts of the Murray's natural flood regimes.

The Basin Plan was adopted in 2012 by governments to impose sustainable diversion limits that would reduce the annual consumptive water use in the Murray Darling Basin by 2,750,000 ML. The Basin Plan included the Sustainable Diversion Limit Adjustment Mechanism (SDLAM) that enabled works to be implemented to provide environmental outcomes with less water. Thus, decreasing the economic and social costs to communities of transferring water from consumptive use.

The Basin Plan specially included an agreement to include a program of environmental works to better target water to high value floodplains and the *Water Act 2007* requires the Murray-Darling Basin Authority (MDBA) to consider the ecological character description of the Ramsar wetlands.

The VMFRP has been developed with the recognition that works and measures would be needed to deliver environmental outcomes across the riverine landscape.

The engineered infrastructure of the VMFRP is relatively small, affecting around 1.5% of the total 14,000 (ha) being watered. Infrastructure such as flow regulators, channels, box and pipe culverts, containment banks and tracks are very localised and aim to be unobtrusive so as not to interfere with people's experience of these areas.

All along the Murray River there are operating rules in place for the fair and efficient delivery to optimise water use, as well as reducing any flood risk to towns, private properties and community infrastructure like bridges and roads. An advantage of the VMFRP is that it can direct water to places that need it, without causing undesirable risks to infrastructure like roads, or putting floods across private land that has been cleared and is of low ecological value.

These measures ensure that big floods in the river will mainly occur where there is rainfall and flow downstream of dams, or where dam operators make 'spill releases' to mitigate flood risk for communities living downstream of the dams.

Managed environmental flows for floodplain health

Through landscape-scale restoration and managed environmental watering, Victoria's land and water managers have a unique opportunity to reverse the decline in ecological condition of the floodplains. River operating rules can also be changed to deliver flood events where they don't increase flood risk to communities while improving the condition of the floodplain. Together, rules and works will allow land and water managers to increase the floodplain landscape currently being reached a for longer, for it to thrive once again.

Seasonal environmental water is designed to improve the condition of biodiverse habitat for many *Victorian Flora and Fauna Guarantee Act 1988* (FFG Act) and *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) listed threatened species, ecological communities and the migratory birds that rely on the health of internationally and nationally-listed wetland landscapes for their habitat.

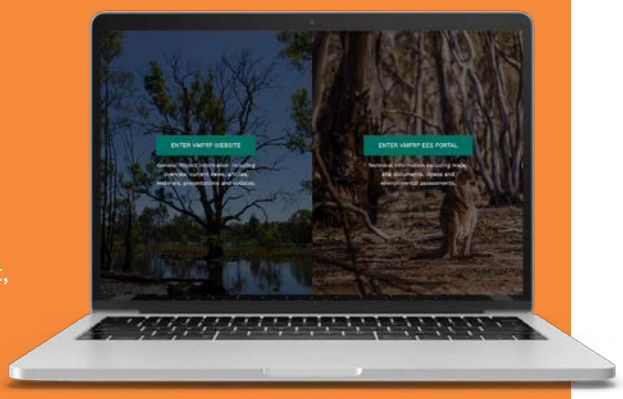
How to make a submission

Anyone can make a submission.

Submissions on this Environment Effects Statement (and the proposed Planning Scheme Amendment) must be made in writing and be received by **11:59pm on 14 November 2022.**

Each submission is a public document and will be treated as a submission on the Environment Effects Statement and the draft PSA. Only one submission is needed to address all of your views about the project, its effects and the relevant documents.

Online submissions are preferred and can be lodged via the Victorian Government's engagement website https://engage.vic.gov.au/VMFRP-SIAC-EES-Central.



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