Planning our Basin future together

VICTORIA State Government | Energy, Environment and Climate Action

We acknowledge and respect Victorian Traditional Owners as the original custodians of Victoria's land and waters, their unique ability to care for Country and deep spiritual connection to it.

We honour Elders past and present whose knowledge and wisdom has ensured the continuation of culture and traditional practices.

DEECA is committed to genuinely partnering with Victorian Traditional Owners and Victoria's Aboriginal community to progress their aspirations.

Planning our Basin future together

Catchment management in Victoria

Basin Plan and recent Commonwealth changes

Victoria's approach to the Basin Plan

Next Steps – working together

Catchment management in Victoria

- Victoria's catchment management framework helps us to achieve improvements in rivers, floodplains and catchment landscapes despite the modifications and impacts that have occurred due to developing major towns, infrastructure and agricultural industries.

Agriculture
Agricultural production is a key factor in Victoria's ongoing prosperity, with horticulture, dairy and mixed farming enterprises underpinning regional economies.

Towns and cities
Households, businesses and urban communities rely on safe, secure supplies for drinking, washing, maintaining sports grounds and open spaces, manufacturing and other industrial uses.

Environment
Healthy rivers, wetlands and floodplains are home to important plants and animals such as Murray cod, river red gums and migratory birds.

Recreation and tourism
Important recreational activities take place on or near rivers and wetlands, including fishing, water-skiing, boating, camping and picnicking. Resulting tourism supports regional economies.

Indigenous culture
The health of waterways and land remains central to Indigenous culture, particularly significant fish and bird species, plant foods and medicines.

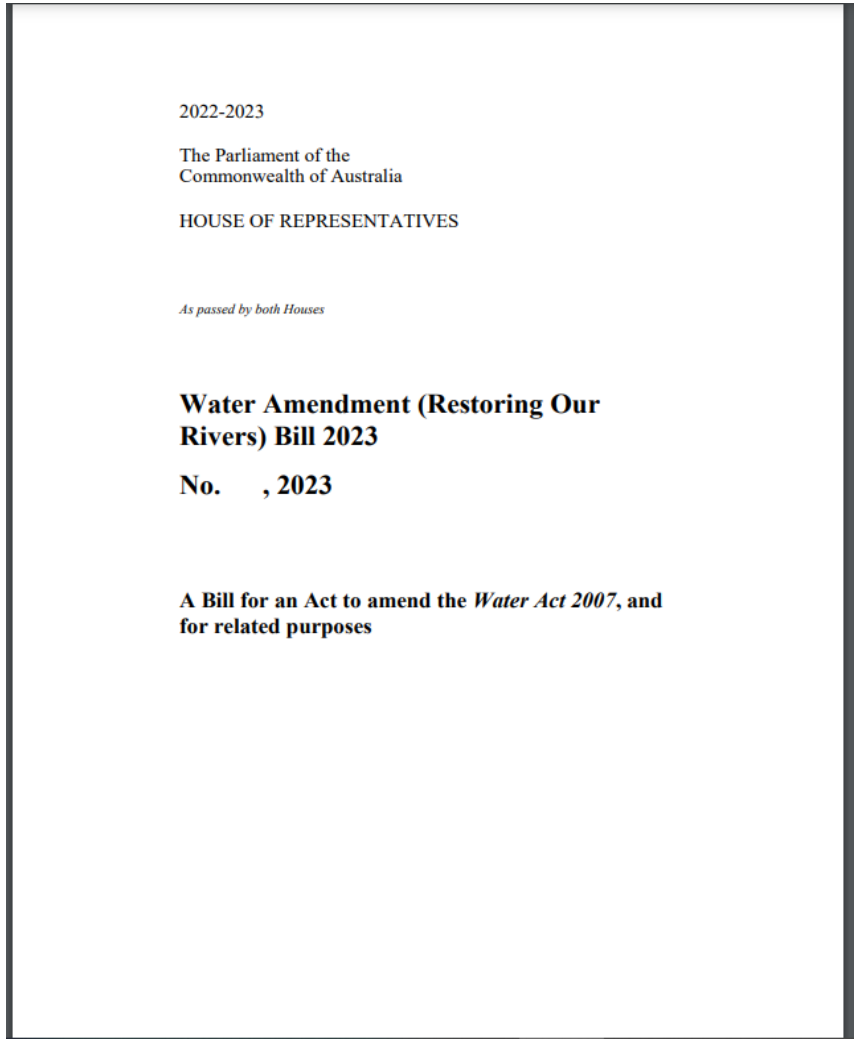
How are we going?

- Victorians love and care for their waterways, and the environmental condition of waterways underpins high environmental, economic, social and cultural values
- Victoria's objective has been to maintain or improve the environmental condition of waterways through an integrated approach
- Over last 30 years Victoria has –
  - recovered >1,200 GL of water through 45 projects
  - changed river operations to improve environmental outcomes, e.g. wetland restoration, restoration of environmental flows, improved fish passage
  - Delivered water for the environment to 120 waterways across northern Victoria
  - invested in riparian fencing, revegetation, pest control, resnagging, landholder stewardship and other catchment management activities which increase the resilience of waterways and improve responses to natural and environmental flows
- Over these years there has been a wide range of consultation approaches and activities undertaken for water recovery

Projects designed with local knowledge improve outcomes for all

What has changed for the Basin Plan?

- The ***Water Amendment (Restoring our Rivers) Act 2023*** commenced on 7 December 2023.
- Changes under the ***Restoring our Rivers Act 2023*** affecting the Murray-Darling Basin Plan include:
    - **Removed** the existing cap of 1,500 GL on Commonwealth Government water entitlement purchases
    - **Created new powers** for Commonwealth Government to purchase water towards the additional 450 GL under the Basin Plan
        - new requirements to 'minimise' socio-economic impacts, rather than existing requirement to show neutral or positive outcomes
    - **Required** development of a 'roadmap' for implementation for relaxing constraints
    - **Provided additional time** for environmental works and measures projects to be completed under the Sustainable Diversion Limit Adjustment Mechanism – SDLAM (31 December 2026)



2022-2023

The Parliament of the
Commonwealth of Australia

HOUSE OF REPRESENTATIVES

As passed by both Houses

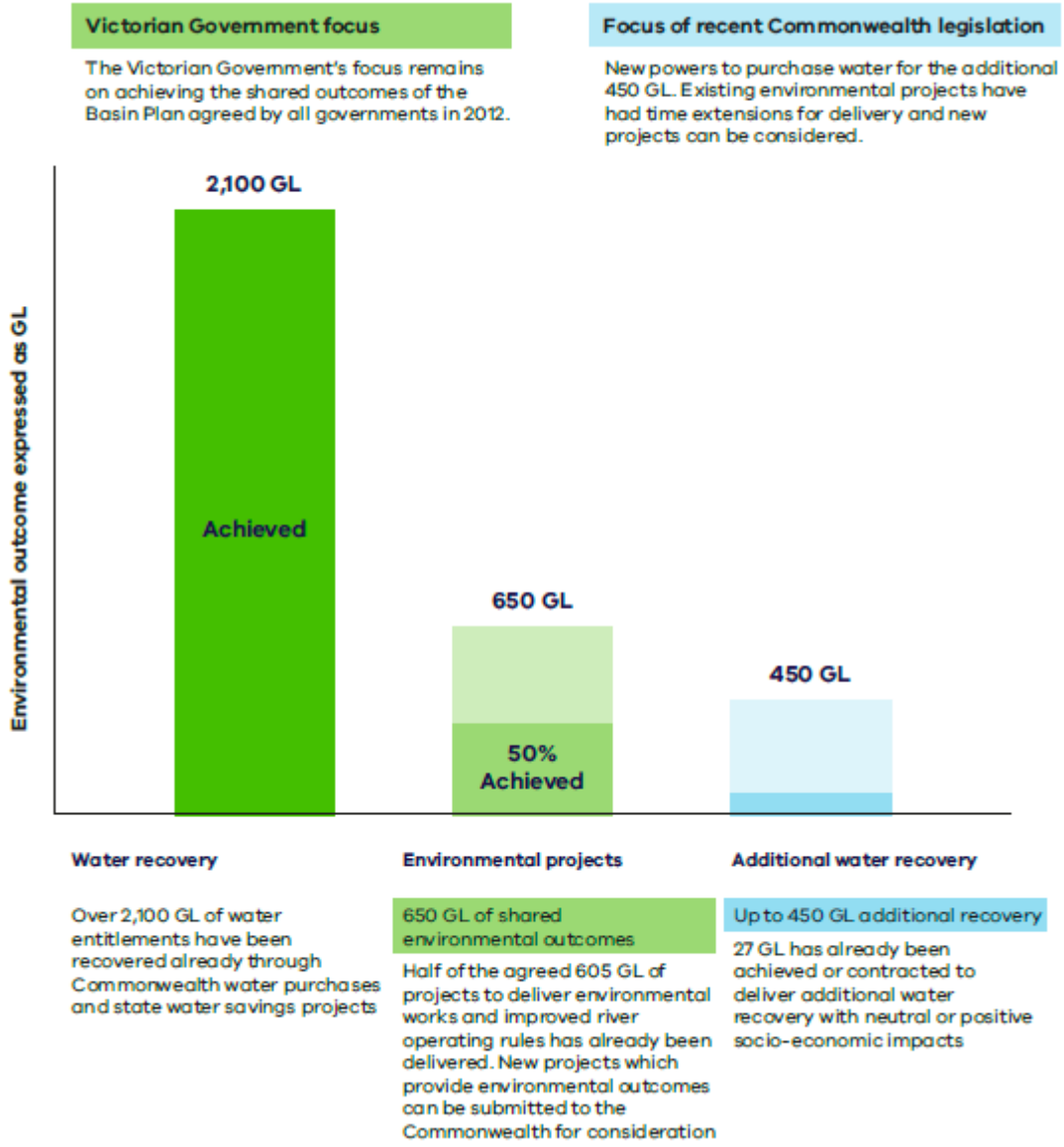
Water Amendment (Restoring Our Rivers) Bill 2023

No. , 2023

A Bill for an Act to amend the *Water Act 2007*, and for related purposes

Implementing the Basin Plan in Victoria

- The Victorian Government's approach has always been to achieve the greatest environmental outcomes in a way that minimises socio-economic impacts by:
  - investing in water recovery methods that have the least impact on the consumptive pool available to water users, and
  - maximising environmental outcomes of the water recovered for the environment – including the use of infrastructure and flexible operations.
- Our priority is to achieve the 2,750 GL target signed up to by all jurisdictions, including the critical Victorian Murray Floodplain Restoration Project.

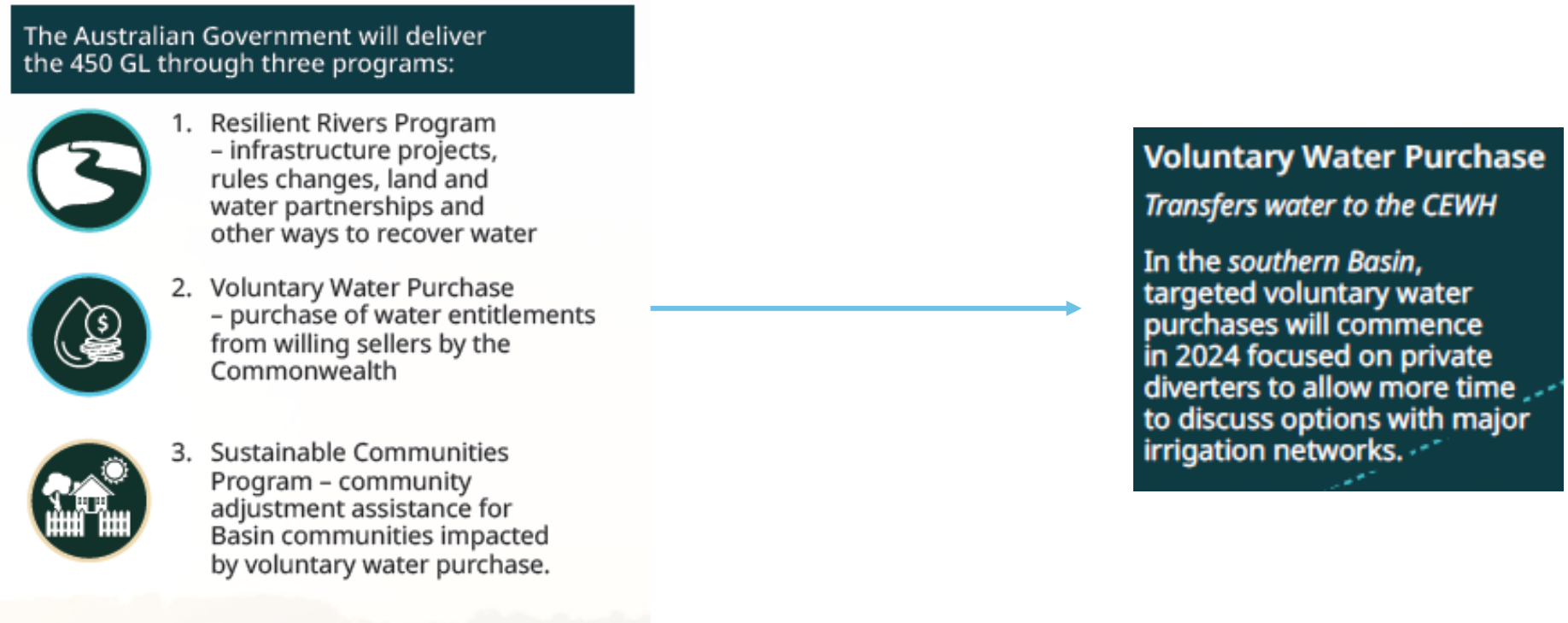


Why do environmental works matter and do they work?

Murray River	Semi-permanent & Temporary Wetland	Red Gum Forest & Lignum Shrubland	Black Box Woodland	Alluvial Plain
River flows (ML/d)	60,000	80,000	100,000	120,000+
Pre-regulation flows				
Frequency of flow events (years)	64 in 100	39 in 100	26 in 100	16 in 100
Longest interval between events (years)	3	5.5	10.6	12.6
Current flows (with environmental water entitlements)				
Frequency of flow events (years)	33 in 100	14 in 100	6 in 100	6 in 100
Longest interval between events (years)	8	18.7	20.2	30.7
Flows with Victorian Murray Floodplain Restoration Project (VMFRP) works*				
Frequency of flow events (years)	60 in 100	35 in 100	25 in 100	15 in 100
Longest interval between events (years)	3	5.5	10.6	12.6

The Commonwealth Government's proposed plan

- The Commonwealth Department of Climate Change, Energy, the Environment and Water (DCCEEW) have released a '*draft framework for delivering the 450 GL of additional environmental water*'.

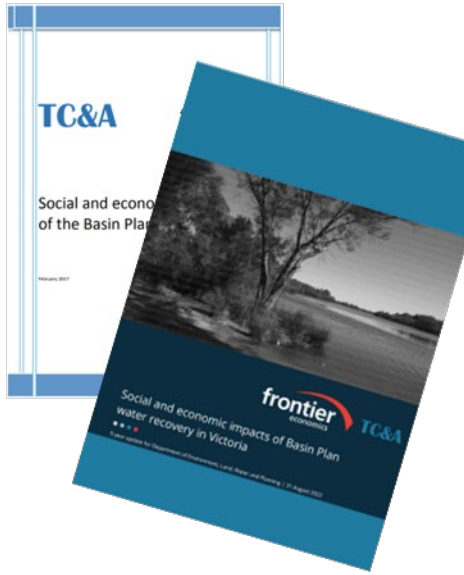


The impacts of open tender water purchase

- The Commonwealth Government may begin water purchase program this year.
- Victoria has been closely monitoring the socio-economic impacts of previous Commonwealth purchases
- Previous C'th water purchase included ~500 GL of high reliability entitlements in the Goulburn and Victorian Murray

Scenario of estimated socio-economic impacts of water purchases, Tim Cummins and Frontier 2022

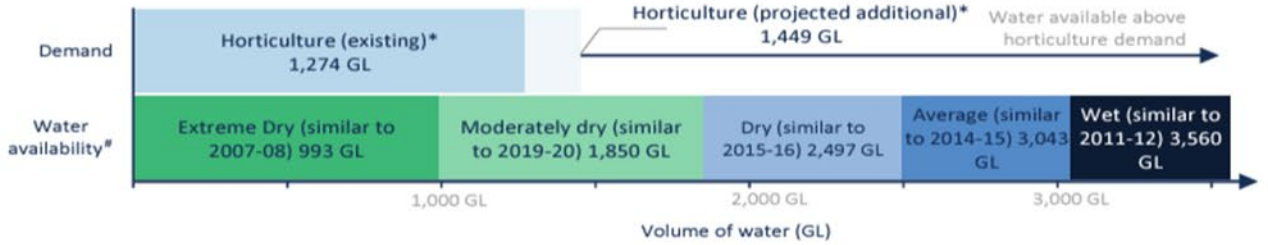
Scenario	Volume of water purchase	Equivalent volume of Victorian HRWS	Loss of Agricultural Production in sMDB	Loss of Agricultural Production in Northern Victoria	Farm jobs lost in northern Victoria	Additional perennial horticulture area dried off in a repeat of the Millennium Drought
Water purchases used recover 450GL	450 GL	192 GL	$513 million per year	$270 million per year	900	12,400 ha
Recover 605GL offset shortfall and 450GL*	Up to 750GL	Up to 325 GL	$855 million per year	$450 million per year	1500	17,400ha



What does future purchase mean for future water availability – looking back to look forward

CONNECTED MURRAY

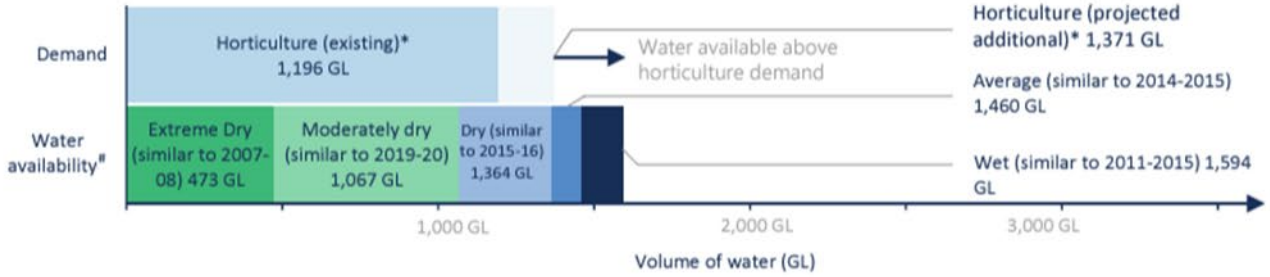
Water availability vs horticulture demand in the CONNECTED MURRAY (exc. NSW Murrumbidgee & lower Darling^)



Under extreme dry conditions (and excluding carryover) there will not be enough water available in the connected Murray to support all existing permanent horticulture, even if no water is used for other irrigation purposes. Further future increases in permanent horticulture demand may also put pressure on water availability in moderately dry conditions.

LOWER MURRAY

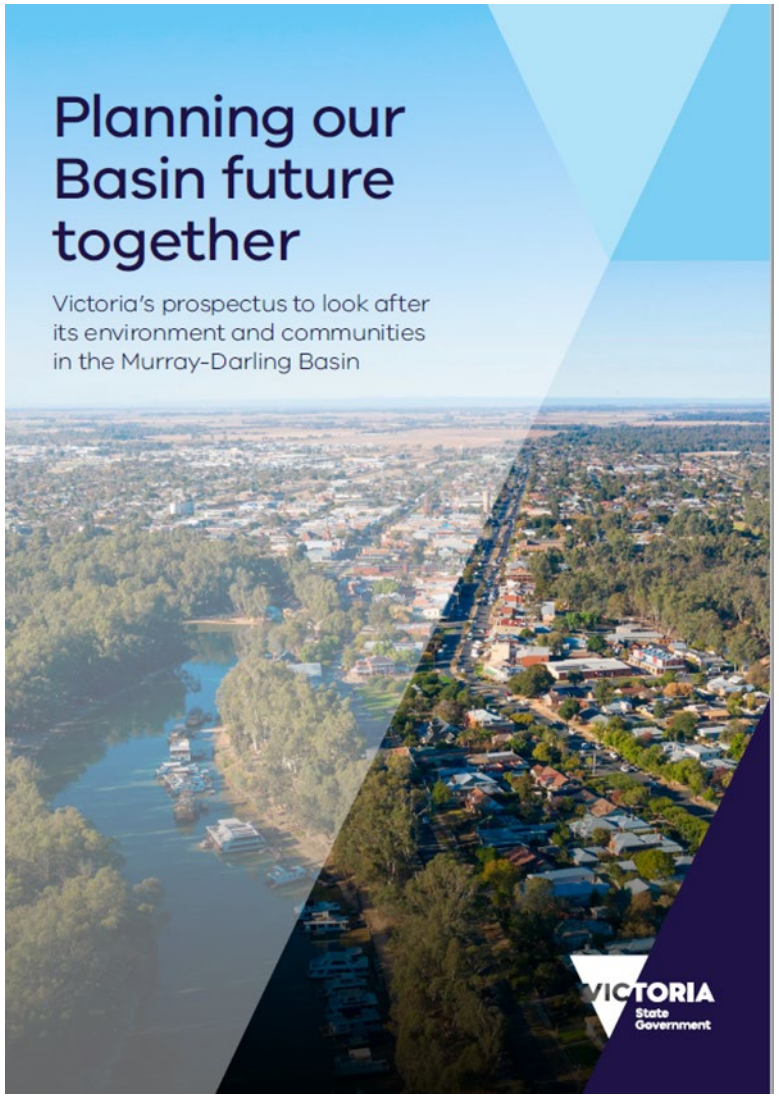
Water availability vs horticulture demand in the LOWER MURRAY



Carryover and inter-valley trade are increasingly important for water users to manage their water supply and operational risk. This is particularly in the lower Murray where existing and projected horticulture demand may exceed water available within the region in extreme dry, moderately dry and dry conditions (excluding carryover). However, trade between zones is limited by trade rules and under extreme dry conditions existing horticultural demand in the lower Murray will likely outstrip water available in the wider connected Murray.

Scenarios of water availability compared to the estimated demands of perennial horticulture, Aither 2022

Victoria's prospectus



- The Commonwealth Government now has greater ability to purchase water entitlements, with less socio-economic protections for communities.
- It is unclear what volumes of water will be targeted where, or what environmental outcomes will be achieved.
- Non-strategic, open tender purchases risk significant socio-economic impacts without certainty of how the environment will benefit.
- We know from our experiences in Victoria that the involvement and expertise of local and regional communities are critical to developing effective plans for the future.
- The prospectus outlines the opportunity to direct Commonwealth investment into water supply system changes that can restore more natural flows in Murray River tributaries, with local and downstream benefits

Our principles for further water recovery in Victoria

Principle	Why it matters
Demonstrated environmental benefits in and for Victoria	Victorian landscapes should benefit from water recovery. While progress has been made on rehabilitating our riverine landscapes, there is more to do. Our rivers are heavily regulated, and we need a strategic approach, including complementary works like fishways and removing unnecessary infrastructure. Without this, further water recovery will have little benefit for our rivers, and in some instances will pose risks for rivers, wetlands, and floodplains.
Minimised impact on water availability for towns, industries and agricultural production	Water availability for things like agriculture, industries, sports grounds and parks and urban drinking supplies is the foundation of northern Victorian communities. A strategic approach to water recovery that recognises these important values will give us the best chance of supporting strong, resilient, and thriving industries, towns and the communities they support.
Proactive structural change to support a sustainable future for irrigators and communities	As water availability and ownership changes across northern Victoria, it is more important than ever to have upfront transparency and understanding of the costs, benefits, and long-term viability of irrigated systems. This will mean that water users will have the infrastructure they need and can remain an important part of their regional economies for a long time to come. Regional development goals will be incorporated, so that the long-term benefit of any change lines up with where our regions are heading in the future.
Supports progress towards Traditional Owner self-determination in water access and management	Victoria has a commitment to supporting Traditional Owner self-determination to access water and influence water management. We need to work in partnership with Traditional Owners to ensure that when major projects or changes are considered, we incorporate Traditional Owner knowledge and outcomes up front, making the most of all opportunities.

Proposed approach

Proposed approach

The next steps of the Basin Plan implementation

01.

Establish our principles for water recovery with the community and seek community feedback on approach

Work with local stakeholders and Traditional Owners to establish principles, approach and potential water recovery projects

02.

Identify recovery areas that will have the biggest benefits and least harm

Work with local stakeholders and Traditional Owners in each river basin and irrigation districts in Victoria to discuss options and build in local knowledge

03.

Assess and analyse

Address socioeconomic impacts and identify actions to mitigate or minimise them

04.

Negotiate with the Commonwealth Government on package for delivery

Negotiate on projects that deliver the best outcomes for communities, Traditional Owners and the environment

05.

Deliver projects

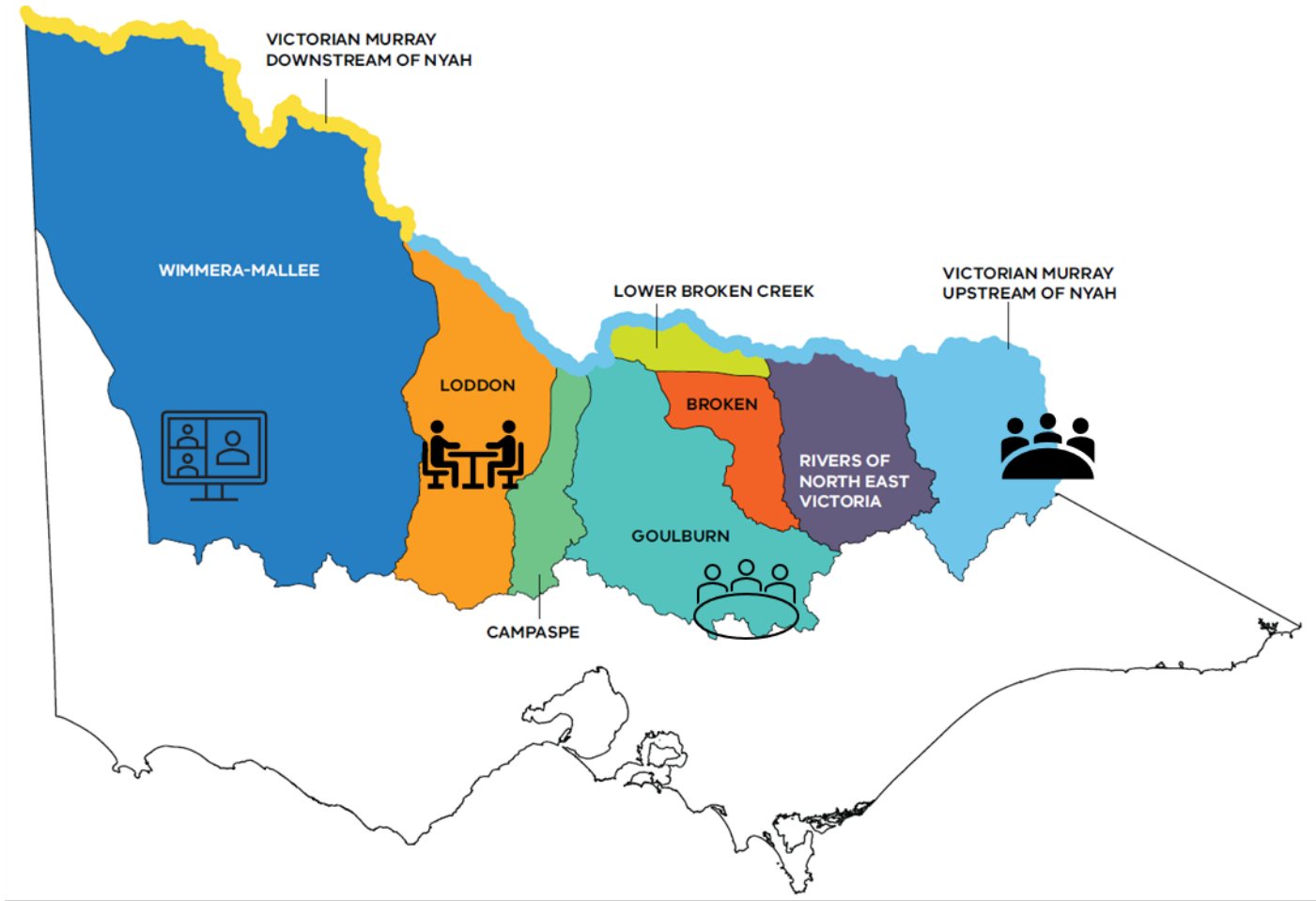
Understand dependencies and deliver projects based on agreed prioritisation and timeframe

Working at the catchment scale

Our experiences rehabilitating waterways and recovering water for the environment show that the best outcomes are achieved when projects are developed and delivered at a regional scale.

This approach:

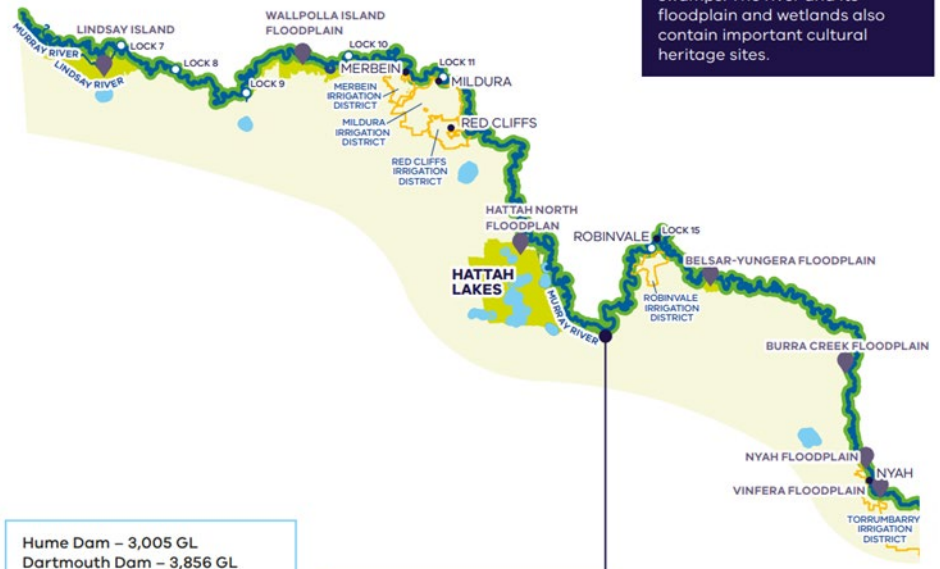
- Makes the most of local understanding of values and objectives.
- Provides meaningful ways to adapt to changes to water management and address socio-economic outcomes.
- Increases environmental benefits through coordinated actions.
- Supports partnership with Traditional Owners to understand and improve outcomes on country.



Working at the catchment scale

The Victorian Murray downstream of Nyah

The Victorian Murray downstream of Nyah is characterised by iconic river red gums along watercourses and wetlands, with black box woodlands at higher elevations and a mosaic of widely distributed lignum and nitre-goosefoot shrublands, floodplain lakes, wetlands and grassy swamps. The river and its floodplain and wetlands also contain important cultural heritage sites.



Hume Dam – 3,005 GL
Dartmouth Dam – 3,856 GL

Hume Dam is jointly managed by GMW and NSW authorities on behalf of the MDBA, while Dartmouth Dam is managed by GMW on behalf of the MDBA.

Total system entitlements (GL)[1,3]

- Private **1,189**
- Enviro **777**
- Urban **69**
- Loss / Operations **168**

Private water shares – zone 7 (GL)[4]

- LRWS **161**
- HRWS **672**

Annual private water use – downstream of Nyah (GL)[5]

Low	Average	High
404	491	572

Potential change scenarios

Water recovery range	Potential recovery method	Potential socio-economic outcomes	Potential environmental outcomes
Low **1-10 GL**	• Voluntary, targeted water purchases in small local areas • Investigate opportunities to recover additional water through efficiency upgrades to modernise remaining open channels in the region	• Any reduction in potential for irrigated production must be matched with sensible transition support • Opportunity to improve level of service for any users that benefit from supply channel upgrades	• Change in irrigation supply to specific reaches, particularly in anabranches, may support more natural local flow regime and could be complemented by restoration of local waterways and floodplains
Medium **10-20 GL**	• Voluntary, targeted water purchases in specific parts of irrigation districts or supply systems • Investigate opportunities to recover additional water through efficiency upgrades, feasible alternative water supply options and rationalisation of irrigation infrastructure	• Any reduction in potential for irrigated production must be matched with sensible transition support • Opportunities to rationalise infrastructure alongside any water purchases will be prioritised to reduce the long-term costs of infrastructure	• Potential for removal or reconfiguration of floodplain obstructions (e.g. private channels, roads) to promote floodplain connectivity and support more natural local flow regime
High **20+ GL**	• Voluntary, targeted water purchases at a regional scale • Investigate opportunities to recover additional water through changes to weir infrastructure and river operations	• Any reduction in potential for irrigated production would require regional transition support • Significant opportunity for complementary savings to reduce scale of water purchase required to achieve the same outcome	• Opportunity to reconsider weir infrastructure and river operations practices to support ecological outcomes that depend on variable water levels, and restore a more natural flow regime to parts of the Murray River

These scenarios are outlined as a conversation starter with regional communities. Importantly we will partner with Traditional Owners on the opportunities to progress self-determination in water access and management through water recovery proposals. This will include consideration of how changes to water management can protect or enhance cultural values or contribute to Traditional Owner aspirations on their Country.

Next steps

- The Department of Energy, Environment and Climate Action (DEECA) will work with water corporations and catchment management authorities to talk about Victoria's prospectus with interested stakeholders in May and June 2024.
- We are seeking feedback via the Engage Vic website up to 23 June 2024 on:
  - Our principles for further water recovery in Victoria
  - The best way to engage on opportunities in each catchment
- This feedback will inform Victoria's submission for Commonwealth funding to support the development of projects and business cases.

Having a say

The Department of Energy, Environment and Climate Action (DEECA) alongside water corporations and catchment management authorities, will be talking to communities about Victoria's approach. You are also welcome to make comments on the prospectus and our principles.

Submissions are required to be made in writing and submitted no later than 5pm on 23 June 2024 via the Engage Victoria website:

engage.vic.gov.au.

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