4. Sharing water for multiple benefits

Image: Lake Guthridge, Sale, Gunaikurnai Country

We will improve how we share the benefits of our limited water resources, without compromising the needs of our cities and towns, farmers, Traditional Owners, the environment or other water users. By changing how we source, share, store and deliver water, we can meet some of the immediate urban water needs of our cities and towns and return water to Traditional Owners and the environment. Over the longer-term, as we transition to using more manufactured to secure urban water needs, there will be further opportunities to improve water sharing for all uses and values.

4.1 Reducing our reliance on rivers to meet the needs of our cities and towns

Our plan:

- meet growing water demands without issuing additional entitlements from rivers or groundwater resources that are already stressed
- prioritise water savings and manufacture more of our water supplies to meet demand and help free up river water to return to the environment and to Traditional Owners

Caps on extractions from rivers and groundwater

Our drying climate means that less water is flowing into our rivers and so less water can be captured in our water storages. Over time, we need to reduce our dependence on river water to:

- strengthen the resilience of our water supplies in the face of climate change
- sustain river water and support the health of waterways
- maintain waterway recreational activities
- recover water to be returned to Traditional Owners.

This Strategy outlines our commitment to prioritising water savings, through water efficiency measures and investment in manufacturing more of our water supplies – for example, increased use of desalinated and recycled water where it is fit-for-purpose, as well as better capture and use of rainfall in our cities

and towns. Over time, these measures will help free up some river water for improved environmental outcomes and for the return of water entitlements to Traditional Owners.

Caps limit the amount of water that can be extracted from each river basin and aquifer for consumptive purposes. These caps are put in place to limit negative outcomes from over-allocation of water resources (such as impacts on other users or the environment). Where water corporations require additional access to river water or groundwater, they need to access existing entitlements through trade, reallocation of entitlements that are no longer required or apply for specific volumes of unallocated water where it exists.

Where water is recovered for rivers to meet identified environmental targets, this will reduce the volume of consumptive entitlements from a given river system and the relevant cap on consumptive take. It can also increase the volume of environmental entitlements.

Policy 4-1: Maintaining strong caps on extraction of river water and groundwater

Where additional river water or groundwater is needed to meet growing demands, this will be met by accessing existing entitlements through trade, reallocation of entitlements that are no longer required or applications for unallocated water where it exists.

Returning water to rivers and Traditional Owners through water efficiency measures, IWM and substituting river water with manufactured water

We will continue to invest in water efficiency measures and IWM to reduce the demand for drinking water and will add more manufactured water to secure our urban water supplies (see **Chapter 2** and **Chapter 3**). This will bring opportunities to return some river water entitlements (held by water corporations) to the environment and to Traditional Owners.

River water can be substituted with other water sources that are fit-for-purpose (see **Figure 4.1**). Substitution doesn't reduce the amount of water required, it just changes where the water comes from. For example, additional desalinated water supplies could be used to supply drinking water instead of water diverted from rivers. This would free up some of the existing river water that was previously used for drinking to be used for another purpose. Substitution arrangements, by agreement, are possible across most of the region because of the connections through Victoria's water grid (see **Figure 1.5**). Data on our projected urban water needs and consultation with existing entitlement holders and potential future water users will be required to determine if substitution is feasible, on a case-by-case basis.

Substitution means swapping one source of water for another that is fit-for-purpose. For example, using water from a rainwater tank instead of the tap to water the garden. This helps save drinking water for other purposes.

Public co-investment with the water sector may be considered if a project provides wider benefit to the public and funding is available. For example, a water efficiency project where the savings enable the recovery of water entitlements that can be used to achieve improved environmental or cultural outcomes. Another example is where a shift to a manufactured water supply option, that frees up some river water for other uses, incurs more costs because the initial and ongoing costs of manufactured water are relatively high compared to existing river water or groundwater sources. This is the same approach that has been applied to rural water infrastructure modernisation, where public co-investment has allowed a portion of the water saved to be recovered for environmental entitlements. Principles for public co-investment in water infrastructure are set out in **Action 9-6**. The scale and timing of investment in these projects will determine how quickly we can reduce our reliance on river water.

Decisions will need thorough consultation with water corporations, their customers and the community. Traditional Owners, waterway managers and the Victorian Environmental Water Holder will provide advice on options for returning water to Traditional Owners and the environment.

Policy 4-2:
Water efficiency measures and IWM projects will contribute to water recovery for the environment and Traditional Owners

The Victorian Government will consider future investment in water efficiency measures and IWM projects where water can be recovered for the environment and Traditional Owners and provide a net public benefit, aligned with principles for government investment (see **Action 9-6**).

Policy 4-3:
Substituting river water with manufactured water in the longer-term

The Victorian Government and water corporations will invest in manufactured water, including desalinated water, recycled water and treated stormwater, to meet growing urban water needs. This will free up some river water for other uses and values in the longer-term.

There will be opportunities to return some water to rivers and Traditional Owners (from river water entitlements held by water corporations) as we bring on regionally significant manufactured water sources to meet the needs of the cities and towns that are connected to the south-central system (**Figure 4.2**). This will be possible when a project can deliver above what is needed to meet the needs of our cities and towns at a given time. Early planning will start on near-term options to ensure that new water supplies are ready for construction and delivery when they are needed and to further progress opportunities for substitution (see **Section 9.1**).

Action 4-1:
Investigate options to return water to the environment and Traditional Owners as regional-scale manufactured water sources are planned for Greater Melbourne and Geelong

Ongoing

The Victorian Government, in partnership with the water industry, will investigate options to return water to the Birrarung (Yarra River), Carran Carran (Thomson River), Mirrangbamurn (Maribyrnong River), Wirribi Yaluk (Werribee River), Moorabool Yulluk (Moorabool River) and Barwon River and Traditional Owners, whose Country these rivers are part of, when new regional-scale manufactured sources of water are brought online for Greater Melbourne and Geelong. Projects will be progressed via the Water Grid Plan (see **Action 9-2**), and costs and water sharing arrangements will be considered on a case-by-case basis through the development of a business case using a quadruple-bottom-line assessment.

Smaller but important local projects will be progressed by urban water corporations through urban water strategies or through the IWM forums. These local projects will also provide opportunities to return some river water (from water corporation entitlements) to Traditional Owners and the environment.

Action 4-2:
Commitment to consider how river entitlements can be reduced via water efficiency, IWM and substitution with manufactured water sources

Ongoing, proposals due by 2023

Urban water corporations will consider how to reduce their reliance on river water for urban water security to enable river water to be returned to the environment and Traditional Owners across the region as they invest in water efficiency measures, IWM and reconfiguration of existing supply infrastructure, and as manufactured supplies come online.

Each urban water corporation across the region will investigate options for reducing reliance on river water, and will work with the Department of Environment, Land, Water and Planning to, by the end of 2023, identify a volume of water that could be returned by 2032. The local options and volumes proposed will be considered alongside regional options identified in the Water Grid Plan, using a preliminary quadruple-bottom-line assessment by the Department of Environment, Land, Water and Planning to inform planning under **Policy 9-1**. The most cost-effective package of incentives across the region that will meet urban water security, Traditional Owner and environmental water needs will progress with appropriate funding sources to enable implementation from 2024–25 onwards (in line with **Action 9-6**). Related targets for each urban water corporation will be developed, in line with funding and financing arrangements, and embedded in the Statement of Obligations.

Image: Wangangarra / WyYung (Mitchell River)

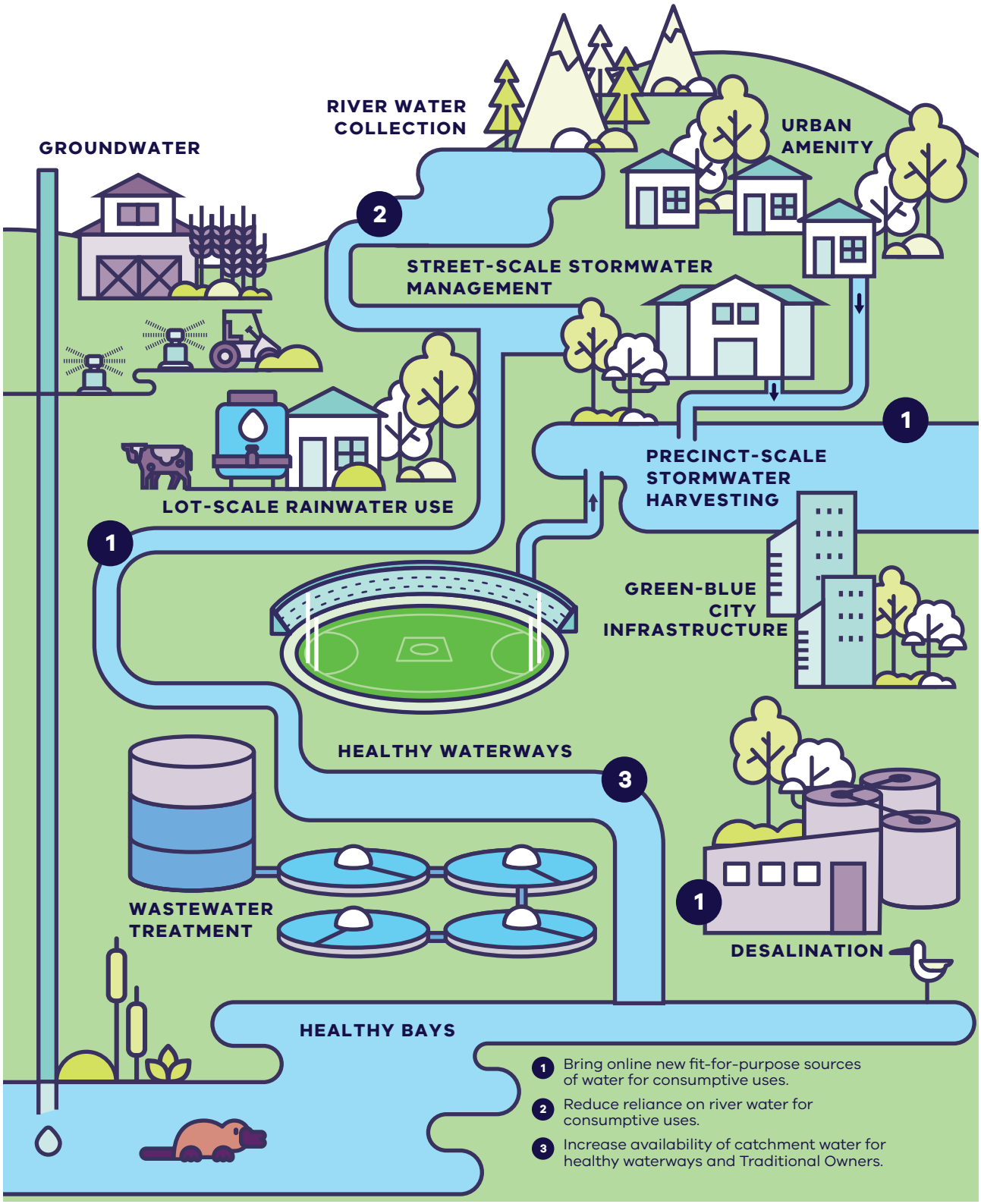

Figure 4.1: Example of substitution where one user's needs are met by other uses and values accessing new water sources

Reduce reliance on local river systems supplying Gisborne, Mt Macedon, Riddells Creek, Sunbury and surrounding towns to:

- increase environmental flows in the Mirrangbamurn (Maribyrnong River)
- return water to Wurundjeri Woi-wurrung and Bunurong

Reduce reliance on local river systems supplying Greater Melbourne to:

- increase environmental flows in the Birrarung (Yarra River)
- return water to Wurundjeri Woi-wurrung and Bunurong

Reduce reliance on river systems supplying Greater Melbourne to:

- increase environmental flows in the Carran Carran (Thomson River) below the Thomson Reservoir
- return water to Gunaikurnai

Reduce reliance on local river systems supplying Geelong to:

- increase environmental flows in the Moorabool Yulluk (Moorabool River) downstream of Lal Lal Reservoir and Bostock Reservoir
- return water to Wadawurrung

Reduce reliance on local river systems supplying Geelong to:

- increase environmental flows in the Barwon River downstream of West Barwon Reservoir
- return water to Eastern Maar and Wadawurrung

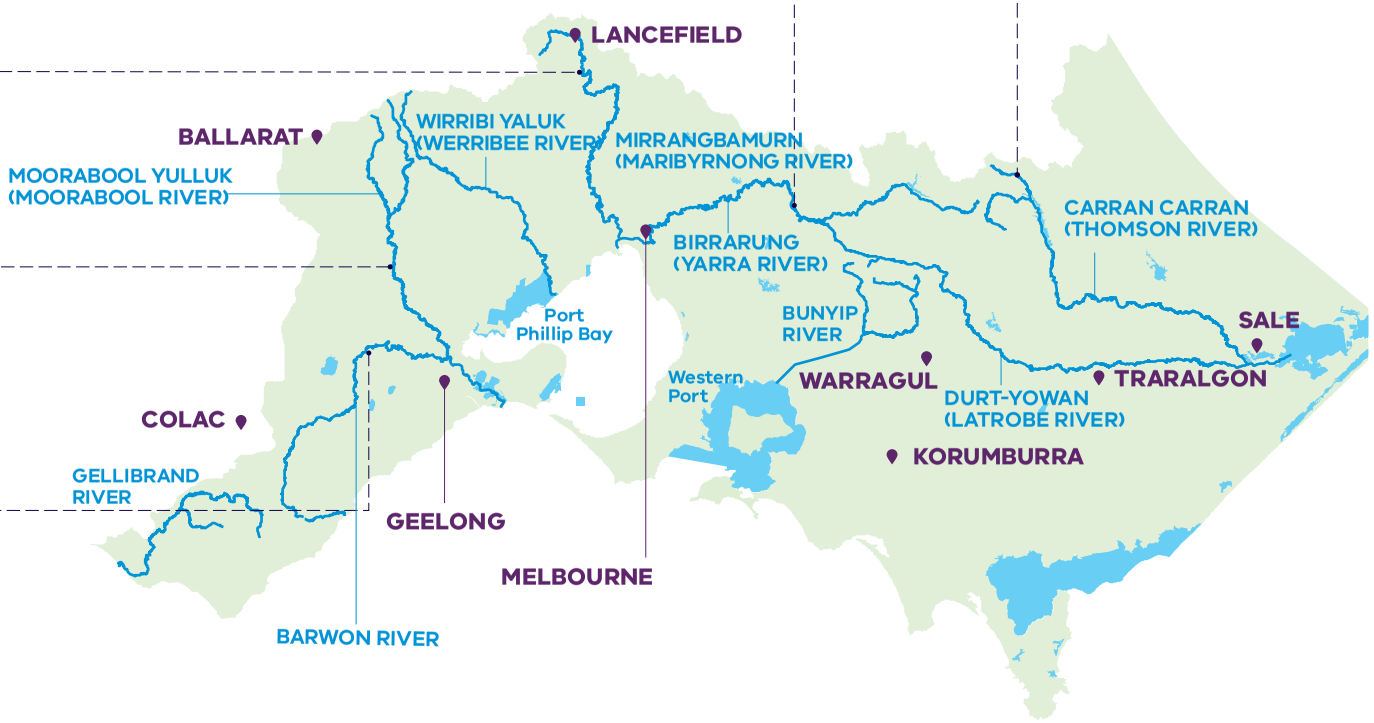

Figure 4.2: Potential opportunities to return water to Traditional Owners and the environment with the next major augmentation of the south-central system

4.2 Allowing water to move around the Victorian water grid

Our plan:

- move water around the Victorian water grid over the next five years to meet the immediate priorities of some of the region's fastest-growing areas, including Geelong, Warragul and Drouin, and flow-stressed rivers such as the Moorabool Yulluk (Moorabool River)
- improve how water is shared between urban water corporations connected to the south-central system so that more people benefit from the Victorian Desalination Project

Upgrades to the Melbourne-to-Geelong pipeline

The Moorabool Yulluk (Moorabool River) is a source of drinking water for Geelong and Ballarat and provides a small amount of water for local agriculture. The river also provides a natural habitat for native species including endangered plants, platypus, fish and bird populations. It is one of the most flow-stressed rivers in the state, due to its relatively small size, diversions from the river and a drying climate. It is therefore very dependent on seasonal rainfall and its limited entitlement for water for the environment. **Chapter 8** sets out targets for returning critical volumes of environmental water to the Moorabool Yulluk (Moorabool River).

Recently Barwon Water identified that the best option for securing supply to meet its urban water demands over the next decade is to access a share of the next major augmentation of the south-central system. Barwon Water has also identified an opportunity to return a portion of its Moorabool water entitlements in advance of receiving additional supply. This can be achieved by increasing its use of existing water entitlements and using trade in the south-central system.

Over the next five years, proposed upgrades to the Melbourne-to-Geelong pipeline would provide an increase in water security for Geelong that would help return water from the Moorabool Yulluk (Moorabool River) to the environment and to the Wadawurrung for their self-determined use. In the longer-term this action will rely on Barwon Water increasing its supply of manufactured water from the south-central system to maintain Geelong's urban water security. These future demands are incorporated into the demand projections for the Greater Melbourne supply system and will be considered in the planning and decision-making for the next major augmentation of the south-central supply system via the Water Grid Plan (**Chapter 9**).

Image: Moorabool Yulluk (Moorabool River), Wadawurrung Country (photo supplied by Michael Cook)

Action 4-3:
Securing additional water for Geelong and the Moorabool Yulluk (Moorabool River)

The Victorian Government and Barwon Water will co-invest in works to enable the return of 3.7 gigalitres per year of long-term average equivalent Moorabool water entitlement to be shared between the environment, the Wadawurrung for their self-determined use and to increase urban water security for Geelong over the long-term to:

a. upgrade pumps and extend the reach of the Melbourne-to-Geelong pipeline to increase capacity of the pipeline from 16 gigalitres to 22 gigalitres per year by 2025
b. transfer a long-term average equivalent of 3 gigalitres per year of Barwon Water's Lal Lal bulk entitlement[15] and 0.7 gigalitres per year of Barwon Water's Upper East Moorabool bulk entitlement in the Bostock Reservoir[16] to the Wadawurrung and to the Victorian Environmental Water Holder by 2025
c. prioritise the creation of a south-central pooled resource and associated reforms (**Action 9-3**), while ensuring a short-term agreement between Barwon Water and the metropolitan water corporations is in place by 2025. This is dependent on if **Action 9-3** is still in progress, which will specify water sharing such that Barwon Water can operate the augmented Melbourne-to-Geelong pipeline at up to 22 gigalitres per year if needed once Barwon Water's existing carryover in the Melbourne system has been used
d. factor Barwon Water's required water entitlement volume into the planning and decision-making for the south-central system's next major augmentation, to increase Geelong's urban water security.

By 2025

Action 4-4:
Determine how water returned to the Moorabool Yulluk (Moorabool River) will be shared between Wadawurrung and the environment

The Victorian Government, in partnership with the Wadawurrung Traditional Owners Aboriginal Corporation, Victorian Environmental Water Holder and Corangamite CMA, will determine the respective share of water that will be issued to Wadawurrung and the Victorian Environmental Water Holder under **Action 4-3**, and remove barriers to Wadawurrung Traditional Owners Aboriginal Corporation accessing water (see actions in **Section 6.5** and **Section 6.6**).

By 2025

Securing Warragul and Drouin's urban water supply

High levels of sustained population growth in Warragul and Drouin are increasing the demand for urban water. These townships already rely on temporary access to water in neighbouring supply systems. To better address current demand and to meet future growth requirements, Warragul and Drouin will receive an additional 3.33 gigalitres per year of water entitlement from the Tarago Reservoir. This will provide a cost-effective boost to water security for Gippsland Water customers from a neighbouring storage via trade of existing entitlements. The additional water entitlements will be sourced without the need for new infrastructure and without any adverse material impacts to other water users or the environment because, through this arrangement, there will be no net increase in urban entitlement volume. This measure is required urgently to secure urban supplies ahead of meeting environmental water recovery targets, and avoids relying on more costly options which may have more adverse effects.

15 Using 1975 adjusted baseline inflows this is equivalent to about 44.1% of Barwon Water's share of Lal Lal Reservoir inflows and storage.

16 Using 1975 adjusted baseline inflows this is equivalent to about 15% of Barwon Water's share of Bostock Reservoir inflows and storage.

Action 4-5: Securing Warragul and Drouin's urban water supply

The Victorian Government will secure Warragul and Drouin's urban water supply by increasing Gippsland Water's access to water from Tarago Reservoir by transferring 3.33 gigalitres of entitlement in the Yarra–Thomson system to Gippsland Water.

By 2023

Temporary trade

When urban water corporations have surplus water, for example due to wet weather conditions, temporary trade can be used to boost water for the environment in a river system or to provide Traditional Owners with water. Temporary trade is already available across the Central and Gippsland Region when conditions and connections allow and where there are parties willing to trade. However, establishing the process and any agreements required before suitable conditions arise will help to streamline the temporary trade process and make it easier to maximise opportunities as they surface. In some circumstances where a trade from a bulk entitlement is more likely than trade in an irrigation district, agreements will be required between parties to facilitate delivery. This strategy also includes actions to help farmers capitalise on water markets (see **Chapter 7**).

Temporary trades have already helped to realise environmental and cultural benefits: In 2018–19, 500 megalitres of additional water was delivered to the Moorabool Yulluk (Moorabool River) through a substitution arrangement between Central Highlands Water, the Victorian Environmental Water Holder in partnership with Wadawurrung Traditional Owners Aboriginal Corporation and Corangamite Catchment Management Authority (CMA). The flow filled refuge pools and linked habitats for native fish survival, while also preserving locations on the river that are culturally significant for meeting, ceremonies and trade. This was supplemented by Barwon Water, which timed a drinking water release to increase the amount of flow in the river.

Central Highlands Water is working with Corangamite CMA, the Victorian Environmental Water Holder and the Wadawurrung Traditional Owners Aboriginal Corporation to develop agreements to deliver temporary water transfers to the Moorabool system at Lal Lal Reservoir, when conditions allow. Temporary water transfer can improve river flow, build waterway resilience and support Traditional Owner cultural values. This process will incorporate lessons learnt from the previous agreement with the Victorian Environmental Water Holder and consider how water can be made available to the Wadawurrung Traditional Owners Aboriginal Corporation.

Overall, this process can be used as a case study to help encourage more urban water corporations across the region to temporarily trade water to Traditional Owners and the environment where the opportunity arises. It will facilitate a learning-by-doing approach in preparation for more permanent returns of water entitlement to Traditional Owners.

Action 4-6: Streamlining temporary water trades

Central Highlands Water, the Wadawurrung Traditional Owners Aboriginal Corporation, the Victorian Environmental Water Holder and the Corangamite CMA will work together to develop agreements to support temporary water trade in the Moorabool system, when conditions allow, from Central Highlands Water to the Wadawurrung and environment, at Lal Lal Reservoir. This will include consideration of how water can be made available to the Wadawurrung Traditional Owners Aboriginal Corporation.

Lessons from this case study can be used across the region to make it easier for similar trades to occur for other rivers.

By 2027

4.3 Unallocated water and entitlements available for reallocation

Our plan:

- explicitly consider water for Traditional Owners and water to meet critical human needs when making decisions about using unallocated water
- progress opportunities to reallocate water held by public agencies that is no longer needed for its intended purpose

Unallocated water is water that can still be issued for use without exceeding the limits, or caps, on how much water can be extracted from a waterway or groundwater system. This differs from 'unused water', which is water that has already been allocated, but is not being used because it is no longer needed for its intended purpose.

Sharing the benefits of unallocated water

There is a limit or cap on how much water can be extracted from waterways and groundwater systems. These caps do not account for water that is left in a waterway or in groundwater (without entitlement) for environmental purposes. Most of the region's river water and accessible groundwater supplies are already allocated to users for consumptive purposes or to support waterway health. There are some small volumes of water under local caps which remain available for allocation. This is called unallocated water (**Figure 4.3** and **Figure 4.4**).

In the past, some of this water has been sold to users through market processes – usually going to parties who are best resourced to pay for it. However, unallocated water is generally in areas where there is low commercial demand for water, and capacity to pay does not always reflect the greatest need or benefit.

We are committed to returning water to Traditional Owners. Access to unallocated water, where it exists, is one pathway to achieving this. We will work with Traditional Owners proactively to ensure that they have the information and support they need to apply for unallocated water across the region and to resolve issues that are limiting the ability of Traditional Owners to hold and use water (see **Section 6.5**). There are recent examples where this has already taken place and water entitlements have been issued from unallocated water in the Wangangarra / WyYung (Mitchell River) and the Fitzroy River.

Figure 4.5 has been developed to guide water corporation decision-making. Over the next 12 months, further guidance will be developed to improve how applications for unallocated water are assessed so that all potential uses are considered.

In the meantime, subject to applications, unallocated water can be applied for and issued now. The guidance will build on existing processes that ensure unallocated water is only made available where there are no unacceptable impacts on the environment and existing entitlement holders. When an application for unallocated water is assessed, all potential water uses including commercial use (such as for irrigation) will be considered, with explicit consideration given to meeting critical human needs during periods of low water availability, and access to water for Traditional Owners.

Decisions about using unallocated water will be transparent and clear about how competing interests are managed. After any water is allocated, public information on water availability will be updated. Depending on local conditions, this may identify volumes of water to be set aside for future applications or made available for release on the market.

Notes: The volume of unallocated river water is the total volume of unallocated water available across the catchment area. The distribution of available water within each catchment will vary, and a local assessment is required to determine if there is any unallocated water available at any particular location.

For catchments in the Central and Gippsland Region Sustainable Water Strategy area that were outside the 2011 Gippsland and Western Region Sustainable Water Strategy areas, including the Bass River and Lang Lang River catchments, the volumes of unallocated river water available have been revised, consistent with the approach taken in the 2011 strategies. This includes consideration of the risks posed by climate change, and a range of sustainability principles (refer to Policy 3.1 of the 2011 Gippsland Region Sustainable Water Strategy). The revised volume available is 300 ML in the Bass River catchment, 200 ML for French Island and 100 ML for the coastal catchment between Lang Lang River and Bass River catchments. The revised volume available in the Lang Lang River catchment is proposed to be 500 ML.

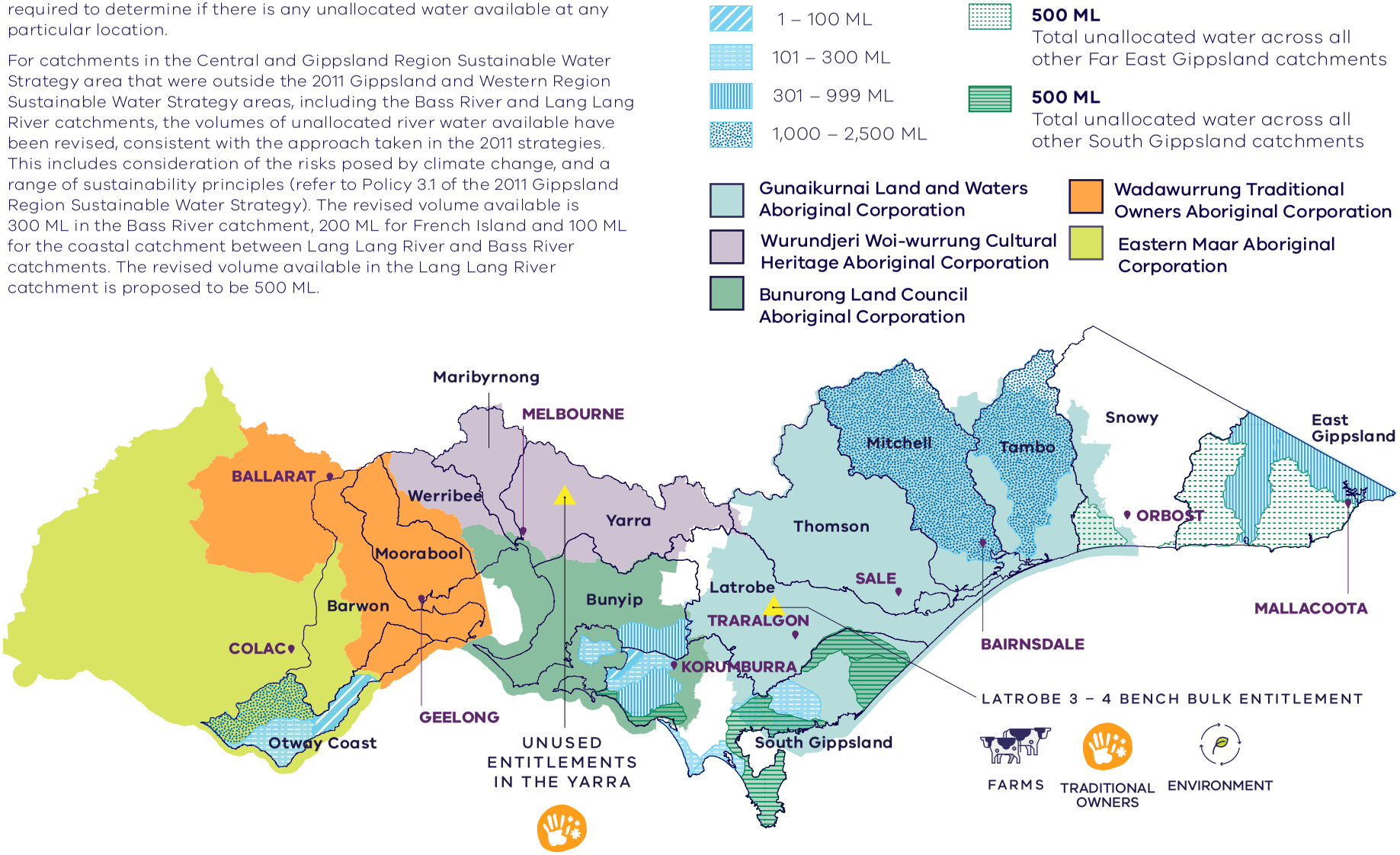

Figure 4.3: Unallocated river water in each river basin across the Central and Gippsland Region and the location of water entitlements (held by public agencies) that are no longer needed for their current purposes

Notes: RAP boundaries are valid as of June 2022 and May change with any updates to RAP status.

- Gunaikurnai Land and Waters Aboriginal Corporation
- Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation
- Bunurong Land Council Aboriginal Corporation
- Wadawurrung Traditional Owners Aboriginal Corporation
- Eastern Maar Aboriginal Corporation

GROUNDWATER MANAGEMENT UNIT UNALLOCATED VOLUME

- < 300 ML
- 301 – 1,000 ML
- 1,001 – 3,000 ML
- 3,001 – 6,000 ML
- 6,001 – 10,000 ML

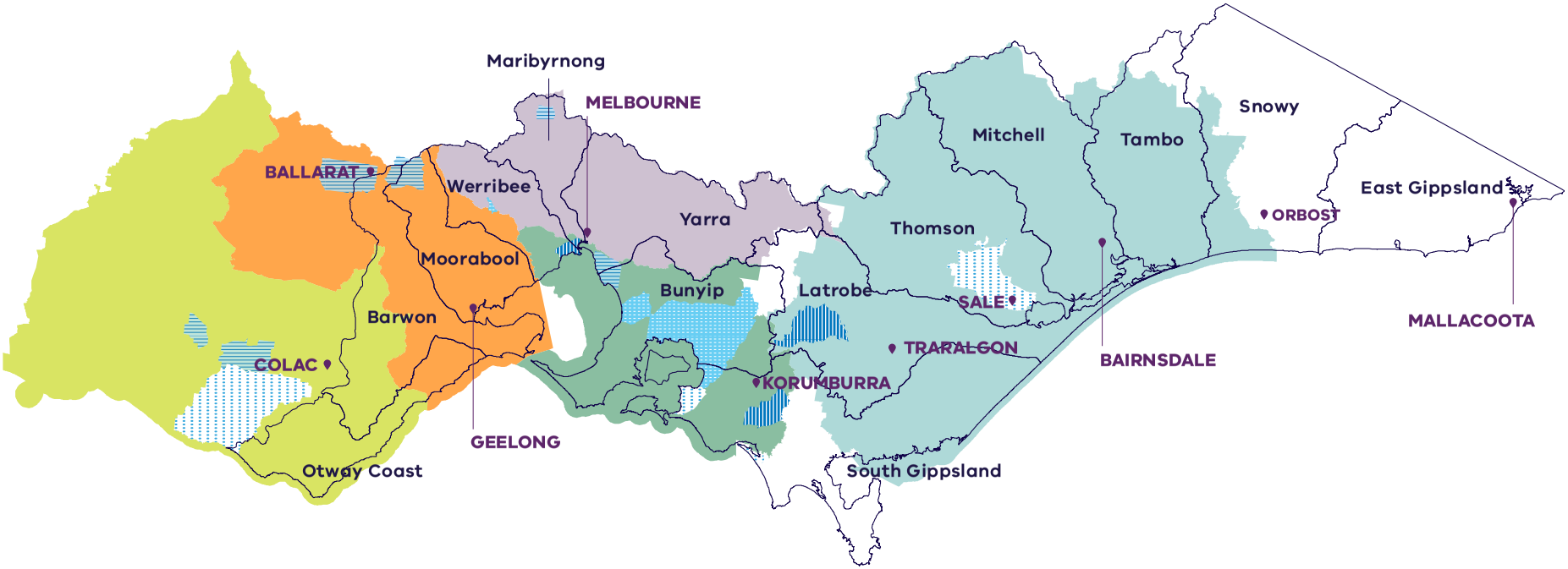

Figure 4.4: Unallocated groundwater across the Central and Gippsland Region

Figure 4.5: Decision-making steps for unallocated water

Action 4-7: Guidance for decisions about unallocated water

The Victorian Government will publish guidance for licensing authorities' decisions about unallocated water, to provide clarity and transparency on how all uses of water will be considered, including access to water for Traditional Owners.

By 2023

Water entitlements available for reallocation

In some specific areas, some water held by public agencies is no longer required for the original intended purposes and could be made available to meet environmental water recovery targets, return water to Traditional Owners or meet other demands in the future. Over the next five years, we will progress investigations and community consultation about how to maximise the use of these water resources in the future for greatest community benefit.

Latrobe 3 — 4 Bench bulk entitlement

The Victorian Government holds a water entitlement of up to 25 gigalitres per year in the Latrobe system, commonly referred to as the Latrobe 3 – 4 Bench bulk entitlement. The entitlement is currently unused and was originally intended to support the expansion of coal-fired electricity generation. As Victoria transitions to new, less water-intensive and renewable forms of energy generation, there is an opportunity to re-allocate some water from the Latrobe 3 – 4 Bench bulk entitlement.

By 2024, around two-thirds (or about 16 gigalitres) of this bulk entitlement will be permanently reallocated to deliver three key outcomes:

- providing priority environmental flows to support native fish species, macroinvertebrates and platypus, as well as contributing to the many values and uses of the connected Gippsland Lakes system and Ramsar-listed wetlands, such as nature-based tourism which contributes to the visitor economy;
- returning water to Gunaikurnai Land and Waters Aboriginal Corporation to support cultural values and self-determined outcomes for Gunaikurnai Traditional Owners; and
- underpinning the climate resilience of irrigated agriculture and supporting farmers to grow their businesses.

The State will work with stakeholders to consider how to allocate the approximately 16 gigalitres of water from this entitlement to optimise these three outcomes for the Latrobe Valley community, the health of the Durt-Yowan (Latrobe River) and Gippsland Lakes system, and for the Gunaikurnai Traditional Owners.

Water made available to support irrigated agriculture will be in addition to the 1 per cent inflow and storage share of Blue Rock Reservoir ring-fenced for irrigators in the Gippsland Region Sustainable Water Strategy (DSE 2011).

Maintaining flexibility is also important during the significant transition underway in the Latrobe Valley to help the region to progressively respond to emerging water needs and climate change. For this reason, some water from the Latrobe 3 – 4 Bench bulk entitlement will not be permanently reallocated to a specific purpose in the short-term, but could be made available on a temporary basis.

Action 4-8:
Reallocation of the Latrobe 3 – 4 Bench bulk entitlement

By 2024

The Victorian Government proposes that water from the 25 gigalitre Latrobe 3 – 4 Bench bulk entitlement will be made available to support the region's socio-economic transition and build its resilience to climate change. Three key outcomes will be achieved using two-thirds (around 16 gigalitres) of the entitlement to:

- provide priority environmental flows to support native fish species, macroinvertebrates, and platypus as well as supporting the many values and uses of the connected Gippsland Lakes system and Ramsar-listed wetlands
- support cultural values and self-determined outcomes for Gunaikurnai Traditional Owners
- underpin the continued resilience and future growth of irrigated agriculture.

A consultative process with key stakeholders, will establish how the benefits could best be shared to maximise the outcomes of this critical resource for the community.

The remaining one-third of the entitlement (or up to 9 gigalitres) will be retained by government to provide continued flexibility to respond to emerging needs, including Victoria's future energy needs.

Image: Durt-Yowan (Latrobe River), Sale, Gunaikurnai Country

Returning water to Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation

The Victorian Government supports the return of water entitlements for the Birrarung (Yarra River) to the Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation, in recognition of the deep connection between Traditional Owners and waterways.

Action 4-9: Returning water to the Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation

The Victorian Government supports an application to return water to the Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation through the transfer of a 1.4 gigalitre water licence in the Birrarung (Yarra River), formerly used by the Amcor Paper Mills and now held by the Victorian Government.

By 2022

4.4 Optimising river system management for multiple benefits

Our plan:

- develop a business case to transform how water is used and shared in the Werribee system
- review and improve management arrangements in the Wangangarra / WyYung (Mitchell River)
- review how water is used and monitored in small, dry, peri-urban catchments
- support the Latrobe Valley transition through a new vision and plan for the future of the Latrobe water-supply system and a review of the Latrobe Reserve.

Reconfiguring the Werribee system

Planning will start on options to transform how we use and share water sources in the Werribee system to meet the unique challenges of this growing area. The Werribee Catchment is the driest in southern Victoria. Long-term water availability has declined by about 18 gigalitres per year. At the same time, the catchment is experiencing some of the fastest population growth in Australia while also supporting high-value irrigation districts that are vital to Victoria's food security. By 2050 the catchment will need an additional 25 gigalitres of drinking water per year and generate an extra 25 gigalitres of wastewater and 40 gigalitres of stormwater per year from increased population growth and urban development.

Rethinking how we manage the Werribee catchment by using IWM will help to better plan for, store and deliver water (river water, recycled water and stormwater) to meet growing demands (irrigation, environment, Traditional Owner and urban). This will involve reconfiguring how and where water is supplied and delivered in the Werribee catchment, with potential for river water to be substituted for manufactured water for some uses by agreement.

Options to reconfigure the Werribee system will prioritise:

- affordable and cost-effective water supplies for urban use (drinking and non-drinking uses)
- a secure future for agriculture through more reliable water supplies and improved water quality (including managing salinity levels)
- healthier waterways by returning more water to the environment and capturing and re-using more stormwater (which can damage receiving waterways)
- water justice for Traditional Owners through returned river water entitlements
- greater use of recycled water and reducing the amount of treated wastewater discharged into the bay.

Action 4-10:
Reconfiguring the Werribee system

The Victorian Government will confirm feasibility and the preferred infrastructure plan by mid-2023. A business case will be developed to reconfigure the Werribee system to provide more climate-resilient water sources for non-drinking purposes and make better use of all sources of water and reservoirs in the local system.

The project will consider the best combination of water supply options to meet the region's multiple demands and values, including:

- providing fit-for-purpose recycled water (including appropriate salinity levels) for the Werribee and Bacchus Marsh irrigation districts, including the opportunity for irrigation expansion
- harvesting stormwater from the Melton growth area for re-use, which will also protect local waterways
- supplying recycled water from the Western Irrigation Network's Sunbury-to-Melton pipeline to irrigate open space and schools in the Melton growth area
- using returned river entitlements to provide for environmental water recovery; water justice for the Bunurong, Wadawurrung and Wurundjeri Woi-wurrung Traditional Owners; and urban supply
- improving waterway health through complementary works at Werribee weir (see **Action 8-10**).

By 2024

Optimisation of passing flow arrangements

A passing flow is the minimum volume of river water that must be released from a reservoir or allowed to pass a diversion weir before water can be extracted for other uses.[17] Passing flows have multiple purposes including meeting stock and domestic needs, supporting ecological values and healthy rivers for tourism and recreation and supporting delivery of consumptive water downstream. They may also support Traditional Owner cultural values, such as aquatic species of cultural value.

Sustained provision of winter/spring baseflow in the Watts River in the Yarra catchment is important to provide good foraging conditions when female platypus are gaining weight in preparation for breeding.

There may be opportunities to achieve better environmental outcomes from passing flows in the Watts River below Maroondah Reservoir without negative impacts on the reliability of existing entitlements by modifying the timing and volume of releases for passing flows throughout the season. This could improve conditions for platypus breeding by increasing passing flow releases in early winter to provide more sustained good foraging conditions and a more natural flow regime below the reservoir.

Any proposed change to passing flow arrangements will require in-depth consultation with relevant entitlement holders, Traditional Owners, waterway managers and local stakeholders before finalisation.

Action 4-11:
Investigating optimisation of Yarra system passing flow arrangements

The Victorian Government will investigate optimisation of passing flow arrangements for the Yarra system at Watts River below Maroondah Reservoir to identify opportunities to increase the benefits of passing flows for all users without reducing the reliability of existing entitlements.

By 2024

17 Passing flows are an obligation in bulk entitlements held by water corporations or environmental entitlements held by the Victorian Environmental Water Holder.

Reviewing water management in the Wangangarra / WyYung (Mitchell River)

The Wangangarra / WyYung (Mitchell River) is an unregulated system, with large flow volumes during winter and lower flows during the summer period. A small proportion of annual flow (less than 3 per cent) is allocated for consumptive use, comprising irrigated agriculture and supply to towns (including Bairnsdale, Paynesville and Lakes Entrance).

Current water management arrangements in the Mitchell system go some way to protecting low flows over summer through the use of passing flows and irrigation rosters and restrictions. However, summer flow stress is an issue and the impacts of climate change on water availability over summer, especially during droughts, mean that current arrangements may not adequately protect low flows over summer now and into the future. Arrangements also require updating to become consistent with other unregulated systems across the state. We will work with Southern Rural Water, local entitlement holders and key stakeholders to review how the current arrangements are working.

Any proposed changes in the Mitchell system, following the review, will ensure that management arrangements are fit-for-purpose – providing clarity and consistency to entitlement holders and addressing the protection of environmental and cultural values.

There is some unallocated water currently available in the Wangangarra / WyYung (Mitchell River) as winterfill licences. Further work will be undertaken to determine whether any additional entitlements could be allocated for future consumptive use without impacting on environmental and cultural values. In addition, opportunities to address low flows during summer will be considered.

Action 4-12: Reviewing management arrangements for the Wangangarra / WyYung (Mitchell River) for all water users

The Victorian Government will review the current management arrangements for the Wangangarra / WyYung (Mitchell River) to ensure that arrangements are fit-for-purpose and consistent with other systems across the state. Investigations will be made into whether additional entitlements could be made available to support additional consumptive use without compromising environmental and cultural values and where possible improve low flows during summer.

By 2024

Reviewing how water is used and monitored in small, dry, peri-urban catchments

Peri-urban catchments with small-scale agricultural enterprises and changing land use with increasing urban development are facing unique challenges to water resource availability and climate change adaptation. The upper Maribyrnong and upper Moorabool catchments are identified hotspots where land uses are changing between agriculture and urbanisation. Streamflows have reduced, partly due to the effects of climate change, many small-volume river water licences and a high number of small catchment dams and groundwater bores.

Water corporations are responsible for monitoring changing resource risks and taking action where it is needed, such as increased communication and education on rules. There is a need to create a transparent approach to understanding and managing the cumulative effect of small catchment dams on water supplies in these identified hotspots. This is in the context of all other water use, including groundwater.

Action 4-13:
Review of water resource risks in small, dry, peri-urban catchments

Southern Rural Water will lead a project over two years to review resource risk and share evidence and reporting to build a shared understanding with communities on the risks, consequences and mitigation options we can use to address the increasing effects of small catchment dams.

This project will focus on the upper Maribyrnong and upper Moorabool catchments (including tributaries) as identified hotspots, but recommendations from this review may be relevant to other catchments.

By 2024

Reviewing the Latrobe Reserve

The Latrobe system provides a reliable supply of water to the coal-fired power generators which are the largest consumptive users of water in the Latrobe Valley. The Latrobe Reserve (held under a bulk entitlement by Southern Rural Water) sets aside water for periods of water shortages and drought to underpin the reliability of water supply in the Latrobe system. This is essential to protect Victoria's energy security, because coal-fired electricity generation requires a water supply of the highest possible reliability. The reserve also supports water-based recreation in Lake Narracan (mainly for waterskiing) by offsetting any water losses for power generators arising from operating rules to support waterskiing events on Lake Narracan.

For as long as coal-fired electricity generation continues in the Latrobe Valley, the Latrobe Reserve will remain an important safeguard to protect electricity generation and industry. At the same time, as the region transitions away from coal-fired electricity, there is an opportunity to consider how this reserve could be used in the future to support the region's socio-economic transition, deliver outcomes that contribute to the environmental and cultural values of the Durt-Yowan (Latrobe River) and Gippsland Lakes system, and build its resilience to climate change.

Image: Farm dam on rural property, Elaine, Wadawurrung Country

Action 4-14: Reviewing the Latrobe Reserve

The Victorian Government will review the future need for the Latrobe Reserve as the Latrobe Valley transitions away from coal-fired electricity generation. The timing of the review aligns with the expected closure of the Yallourn Power Station in 2028. The review will consider how to adapt to changes in water use in the Latrobe system, including the consequences of the closure of power stations, and to water availability due to a drying climate. The review will make recommendations for any entitlement rule changes.

By 2028

The Victorian Government recommits to the Latrobe Reserve arrangements continuing to support recreational uses of Lake Narracan for waterskiing. These arrangements will be considered as part of the review of the Latrobe Reserve by 2028.

A staged, broad-scale redesign of the Latrobe water supply system

The Latrobe Valley's water supply system has been designed to provide large volumes of high-reliability water for coal-fired electricity generation, as well as other industrial needs and drinking water for around 60,000 people. The transition away from coal-fired electricity generation presents a unique opportunity for a staged, broad-scale redesign of the Latrobe system to support the region's changing needs and values over coming decades.

Together with the Latrobe Valley community, the West Gippsland water sector stakeholders – West Gippsland Catchment Management Authority, Gippsland Water and Southern Rural Water, and the Gunaikurnai Land and Waters Corporation – will develop a vision and plan for the water future of the Latrobe Valley that will deliver positive and enduring outcomes. The vision will guide investment and action to protect and improve the region's waterways and support jobs, the environment, Traditional Owners, farmers and tourism. While this action is focused on the Latrobe Valley's water future, the vision will inform broader policy development, such as the 2023 review of the Latrobe Valley Regional Rehabilitation Strategy.

A strong understanding of emerging water demands is critical to inform redesign of the Latrobe water supply system. Much work has already been done to understand the future water needs of the Latrobe Valley community, including:

- setting of environmental water recovery targets (see **Section 8.5** and **Appendix D**)
- exploring future irrigation needs (for example, the Southern Victorian Irrigation Development Project)
- forecasting future urban and industrial demands (for example, Gippsland Water's Urban Water Strategy)
- understanding Gunaikurnai objectives
- understanding potential water needs for future power generation and coal mine rehabilitation.

To ensure the best value outcomes from this unique opportunity, it is crucial that future infrastructure planning takes a whole-of-system approach to both water resources and the known and emerging future demands.

Underpinning the vision will be a quadruple-bottom-line assessment of how the water supply system could be redesigned to best meet future water needs. This will identify beneficiaries and funding arrangements for any infrastructure to be built. The assessment will consider:

- The options that together will optimise the water supply system, for example:
  - a pipeline between Blue Rock Reservoir and the Latrobe Valley
  - increased outlet capacity at Blue Rock and Moondarra reservoirs
  - the future of infrastructure designed specifically to meet the needs of coal-fired power generation
  - opportunities for new irrigation development along the lower Latrobe (see **Section 7.4**).
- Critical works to build the ecological resilience of the overall system, such as:
  - upgrading watering infrastructure at the lower Latrobe wetlands to improve inflows and help protect this vital gateway to the Gippsland Lakes (see **Action 8-17**)
  - improving the delivery of environmental water in the Durt-Yowan (Latrobe River) downstream of Rosedale (see **Action 8-16**)
  - improving fish passage in the Tyers River below Moondarra Reservoir (see **Action 8-18**)
  - riparian, floodplain and river channel protection, enhancement and rehabilitation works (for example, West Gippsland Waterway Strategy).

Action 4-15: Developing a vision and plan for the water future of the Latrobe Valley

The West Gippsland water sector and Gunaikurnai Land and Waters Aboriginal Corporation will work with the Victorian Government and the Latrobe Valley community and stakeholders to develop and implement a collaborative vision and works plan for the water future of the Latrobe Valley and its waterways. The plan will determine the optimal water infrastructure arrangements to meet emerging environmental, cultural, economic and social water demands.

Vision and plan for short-term actions: by 2023

Plan for medium to long-term actions: by 2025

Implementation: ongoing

Hazelwood environment effects statement

In February 2022, the Minister for Planning determined that an environment effects statement (EES) is required for the Hazelwood Mine Rehabilitation Project. The project requires an EES to be undertaken due to the potential for significant impacts on environmental values, including effects on river and groundwater resources, land-use and landscape values, the Gippsland Lakes Ramsar site, native vegetation and listed ecological communities, and Aboriginal and non-Aboriginal heritage values. The project also has potential for cumulative adverse effects on the environment.

The Hazelwood Rehabilitation Project is proposing to fill the mine void with water to create a full waterbody. To achieve this scenario, a number of sources of water would be required, which may include groundwater and river water. The project would also consider the re-establishment of the original course of the Morwell River through the site once the full waterbody is assured.

ENGIE Hazelwood is responsible for preparing the EES and undertaking the necessary technical studies, assessments and investigations. The proponent is also responsible for consulting with stakeholders and the community.

The EES process will provide an integrated and transparent assessment of the project's potential environmental impacts and how they can best be managed. In turn, this will inform decision-making for required approvals.

Image: Latrobe River Swing Bridge, Sale, Gunaikurnai" Country

Mine rehabilitation in the Latrobe Valley

The Victorian Government's Latrobe Valley Regional Rehabilitation Strategy is a regional-scale blueprint to guide the Latrobe Valley electricity generators/mine licensees, government and the community in transforming the Latrobe Valley coal mines and adjacent lands to safe, stable and sustainable landforms.

The Victorian Government, in collaboration with the Latrobe Valley electricity generators/mine licensees, is continuing to investigate regional-scale rehabilitation options, including water-based options. Because rehabilitation will be undertaken as each mine closes, the volume of any water required will vary over time and for each location. If water is to be used, rehabilitation could take many decades and may require a range of water sources – including river water, groundwater and manufactured water sources.

Electricity generators and mine licensees have been clear that – from their perspective – water is the only practicable option for mine rehabilitation (DJPR and DELWP 2020). The Latrobe Valley Regional Rehabilitation Strategy outlines principles and outcomes to guide mine rehabilitation. These principles include that decisions about using water for mine rehabilitation will need to take into account the availability of different water sources and a drying climate, and should not negatively impact on Traditional Owners' values, environmental values of the Latrobe system and the rights of other existing water users (**Figure 4.6**). Measures to protect other uses and values of water in the Latrobe system are being investigated, including limiting the volumes available for mine rehabilitation, and restricting the taking of water to wet periods only, when competition for water is low and the river is least flow-stressed.

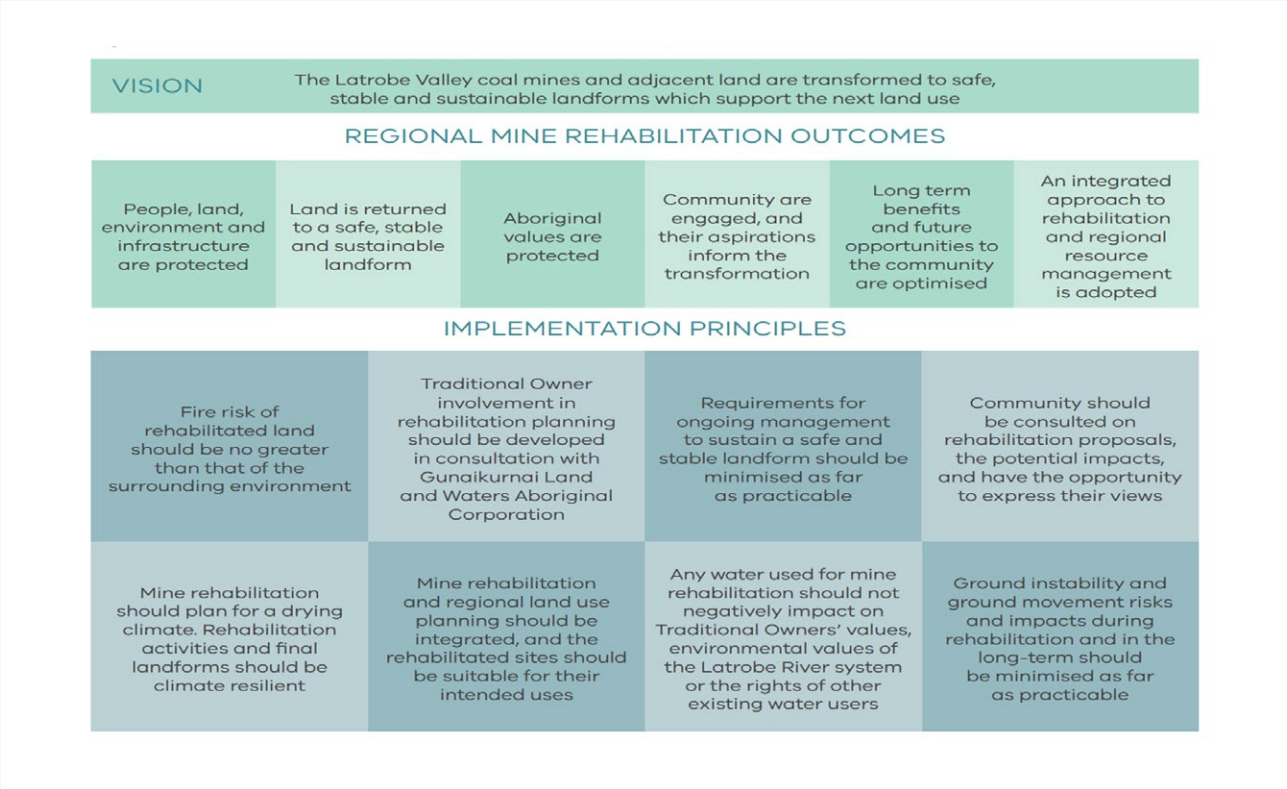

Figure 4.6: Vision, outcomes and principles of the Latrobe Valley Regional Rehabilitation Strategy (DJPR and DELWP 2020)

Options for mine rehabilitation that do not rely on water from the Latrobe system are also being considered. For example, the Victorian Government is exploring the feasibility of using manufactured water, such as recycled water, as well as non-water-based options.

The first review of the Latrobe Valley Regional Rehabilitation Strategy is to be completed in June 2023. It will take into account new knowledge gained through implementation of the first Strategy, together with any preliminary findings from the Hazelwood EES that are relevant to regional rehabilitation.

This increased knowledge base is being complemented with enhancements to the regulatory framework to ensure that mine licensees' responsibilities for rehabilitation are clear and enforceable, regardless of any corporate changes. These enhancements include:

This includes amendments to Victoria's *Mineral Resources (Sustainable Development) Act 1990* to ensure rehabilitation liabilities remain the responsibility of the coal mining industry. This trailing liability regime will allow the State's mining monitors to issue remedial directions to former title holders for any required future remediation works.

Image: Loy Yang power Station, Gunaikurnai country

4.5 Providing shared benefits and flexible water sharing arrangements

Our plan:

- provide shared benefits through flexible water sharing arrangements and temporary trades
- apply new principles guiding the use of water storages for recreation

Water managers can be innovative in the way they meet the needs of all users, including Traditional Owners, and in some cases can provide social and environmental benefits without requiring additional water.

Policy 4-4: Managing water resources for shared benefits

Water supply systems and waterways will be managed to deliver shared benefits to all water users and values where possible.

CASE STUDY

Multiple benefits of water storage at Woodglen on the Wangangarra / WyYung (Mitchell River)

East Gippsland Water, in partnership with the Gunaikurnai Land and Waters Aboriginal Corporation, is investigating an option to create a Wangangarra / WyYung (Mitchell River) off-stream multiple-benefit water storage at Woodglen. Integral to the project are identifying and embedding ways to provide cultural, environmental and social benefits, with providing maximum flexibility to Gunaikurnai Land and Waters Aboriginal Corporation's Wangangarra / WyYung (Mitchell River) water a key objective, in conjunction with urban water security.

Project opportunity for Traditional Owners

In late 2020, 2 gigalitres of water in the Wangangarra / WyYung (Mitchell River) was granted to Gunaikurnai Land and Waters Aboriginal Corporation. This was the first time under the Water Act that water has been issued to Traditional Owners. The Woodglen project would give the Gunaikurnai Land and Waters Aboriginal Corporation the ability to access and store cultural water in the new water storage for self-determined use.

The business case

East Gippsland Water and the Gunaikurnai Land and Waters Aboriginal Corporation are working together to further develop this project. This includes producing a simple prospectus, creating a project partnership plan and designing a business case. Operational logistics will be determined by the business case and will be guided by the Traditional Owner Cultural Water Benefits Framework, to achieve the best outcomes for water security, Gunaikurnai, and the environment.

Improving water management to deliver shared benefits

The Victorian Environmental Water Holder already works with waterway managers and Traditional Owners to maximise the shared benefits of environmental water releases, and this work will continue. While Traditional Owner values have started to be considered through environmental water management, there is still much work required. More can also be done to provide multiple benefits when we store and deliver water for consumptive use.

Action 4-16: Improving water management to deliver shared benefits

The Victorian Government will work with Traditional Owners, water corporations, waterway managers and the Victorian Environmental Water Holder to deliver improvements to water management in rivers, to benefit the environment and to support Traditional Owner cultural values and other shared benefits.

This could be achieved through a combination of more flexible and efficient operations: the flexible use of passing flows (where appropriate), using consumptive water en route, temporary trades (see **Action 4-6**) and building greater flexibility into environmental entitlements (where there are no adverse impacts on other existing entitlement holders).

Ongoing

Principles guiding the use of water storages for recreation

Waterways and water storages in the region are highly valued by Victorians for the wide range of recreational activities they offer and their contribution to the health, wellbeing and social fabric of communities, which support tourism and provide important economic benefits.

Water storages provide recreational facilities for community use. For example, near Ballarat, visitors can enjoy picnic areas, walking tracks, bike trails and barbecues at Kirks, Gong Gong and Moorabool reservoirs, while further east, water storages such as Lake Glenmaggie, Lake Narracan and Blue Rock Lake are popular for power-boating, fishing and swimming.

Some community groups want greater access, including on-water access, to reservoirs in the region. Recreational activities increase the risk to drinking water supplies by introducing contaminants and increasing the potential for outbreaks of waterborne diseases.

Water storages used for the purposes of drinking water supply are critical assets. Water corporations take a risk-based approach, using multiple barriers to protect against potential contaminants, including source water protection. However, even with robust water treatment processes in place, some risks to the drinking water supply remain. Augmenting water treatment systems to reduce contamination risk may increase water supply costs for customers.

We will provide greater clarity to the community about the risks of recreational access to drinking water storages, and measures that must be in place to reduce those risks. We will be transparent about the increased risks, the reliability of measures to reduce that risk and the associated ongoing costs to consumers.

New principles have been developed to guide decision-making about opening drinking water storages for water-based recreation. The principles set out how we aim to support the health, social and economic benefits of water-based recreation while continuing to reduce the risks to drinking water supply, and protect Aboriginal cultural heritage and environmental values.

Policy 4-5:
Principles for deciding whether to permit water-based recreation at drinking water storages

The Victorian Government will apply the following principles when deciding whether to permit water-based recreation at drinking water storages. Permitting access to drinking water storages for water-based recreation will consider where the recreational benefits are the greatest and outweigh the risks and the costs, including to consumers of drinking water. Where the risks and benefits are not clear, the precautionary principle will be applied to decision-making: tipping the balance in favour of protecting our drinking water quality in the absence of certainty.

New recreational access proposals must articulate:

- which water bodies in the region are currently accessible for recreation, and whether alternative water storages not used for drinking water supply have been exhausted
- the facilities, infrastructure and surveillance programs required to support recreational access in a way that is safe for the public and maximises community benefits
- how risks to drinking water quality and human health have been assessed by water agencies, including against legislative responsibilities and the Australian Drinking Water Guidelines;
- the measures necessary to reduce risks to as low as reasonably practicable, including the robustness and reliability of these measures
- the extent of Traditional Owner support, and any considerations for the protection of cultural values
- the extent of the support of those consumers whose drinking water is supplied by these water storages
- any measures necessary to protect environmental values.

Proposals need to demonstrate how the community will benefit and how consumers of drinking water may be affected, through a robust cost–benefit analysis from the perspective of those using storages for recreation and those of supply customers

Proposals need to verify that consumers of the drinking water supply have been directly consulted about the risk and ongoing costs to the community.

Proposals must be assessed against obligations under the general environmental duty provisions of the *Environment Protection Act 2017*, obligations under the Safe *Drinking Water Act 2003* for the provision of safe drinking water supply, and any other legislation relating to the protection and security of critical assets and maintaining water quality, and the reliability and quality of water supply.

Investment decisions will ultimately be made on the basis of the above information, where the benefits outweigh the costs and risks to water quality. Cost-sharing arrangements will be agreed as part of the investment decision and will take into account the relative beneficiaries of the project

Water corporations will report annually on work programs to manage the recreational value of water storages.

Image: Windsurfer, Lake Wendouree, Ballarat, Wadawurrung Country

4.6 Tracking and understanding interception activities

Our plan:

- continue to track interception activities such as small catchment dams and plantations
- assess the impact of interception activities on water resources, while recognising the broader benefits of these activities

A study commissioned for the Strategy found that the proportion of runoff intercepted by catchment dams in a tributary of the Moorabool catchment could increase from 17 to 32 per cent in a dry year (based on a scenario of moderate growth and climate change).

Monitoring the range of different water uses helps to improve our understanding of the potential challenges for water resource management. This includes major water uses that do not currently require a licence, such as small catchment dams, plantations and other large-scale tree plantings (for instance, for carbon or biodiversity benefits). These activities can affect water availability by intercepting water that would otherwise reach waterways and aquifers. However, some tree-planting activities can have benefits for waterways, including reducing erosion and improving water quality.

Better information and data on these interception activities will help to identify emerging risks to water resources, and any controls that may be required. Small catchment dams and plantations have a range of social and economic benefits for regional communities and economies, which must form part of any future decision-making. By building our understanding of the impacts of interception activities and recognising the broader benefits of plantations and small catchment dams for the community, we will be prepared should future issues arise.

Action 4-17:
Tracking and improving our understanding of interception activities, including small catchment dams and plantations

Ongoing

The Victorian Government will track and improve the understanding of unlicensed water uses in the region, including small catchment dams and plantations, by:

- continuing to monitor and report on the total volume of, and estimated take from, small catchment dams, including identification of emerging risks to water resources
- monitoring plantation and other large-scale tree-planting activities and assessing impacts on water resources.

Timber harvesting in water supply catchments

A key part of the Government's Victorian Forestry Plan is the phasing out of timber harvesting in native forests by the year 2030. Currently, timber harvesting is allowed in Melbourne's water catchments in limited areas under strict environmental guidelines. A study funded by the Department of Environment, Land, Water and Planning in 2020 supported earlier findings that, in the near term, little additional water would be gained if timber harvesting in Melbourne's catchments ceased (Jordan et al. 2020). The earlier findings also demonstrated that climate change and bushfires posed greater risks to water yields than timber harvesting in water supply catchments.

4.7 Sustainable use of groundwater

Our plan:

- Taking a statewide approach, the Department of Environment, Land, Water and Planning and rural water corporations will partner with Victoria's Traditional Owners and key stakeholders to improve groundwater management and licensing through to 2030. *Groundwater Management 2030* will outline priority areas and be published in the second half of 2022. The initial focus will be on building a stronger common understanding of groundwater systems and management and working together with Traditional Owners and key stakeholders to further shape and address key outcomes and priority areas.

Enhancing groundwater management and licencing

Groundwater is vital to maintaining healthy environments and is a recognised and valued part of Country for Traditional Owners. It is a significant natural resource that must be well managed now and for the future for all Victorians. Groundwater already supplies about 15 per cent of Victoria's consumptive water needs, including to cities and towns and farms.

The Victorian Government is committed to the equitable participation of Victoria's Traditional Owners in the management of the state's water resources through *Water for Victoria* (DELWP 2016b), this strategy, and draft *Water is Life* (DELWP 2022e). Traditional Owners will be actively invited to partner in shaping and addressing priority areas and determining how this will be achieved. Working with water users, key stakeholders and the community will also be critical.

The Department of Environment, Land, Water and Planning and rural water corporations are committed to the sustainable use of groundwater that supports existing and new uses, protects ecosystems and supports living cultural landscapes. To deliver this, priorities will be delivered linked to the following three outcomes by 2030:

1. Having the best available information and science

Having good-quality, timely groundwater information is essential for the management and licensing frameworks to work effectively. Better information and the inclusion of Traditional Owner cultural knowledge and understanding will help us understand groundwater systems, how groundwater is used and how it supports cultural and environmental values. This will lead to improved management and licensing controls. This will ensure it is protected now and into the future in the face of declining river water availability and a changing climate.

2. Having the right management tools in our framework

The foundations of groundwater management were developed to be enabling for consumptive use, aiming for flexibility and to respond to new information about the state of the resource. While we continue to take a precautionary approach when managing groundwater, our work will ensure that we have the tools to support sustainable groundwater management and licensing decisions into the future.

3. Improving licensing

Victoria's groundwater management approach, including the licensing framework, has not fundamentally changed since the introduction of the Water Act, more than 30 years ago. Our work will ensure that we can capitalise on, and respond to, the latest cultural knowledge, monitoring information and science to improve sustainable groundwater management.

Action 4-18:
Updating groundwater management arrangements and implementing priorities for reform

The Department of Environment, Land, Water and Planning and rural water corporations will lead a staged approach to improve statewide groundwater management and licensing for the future.

Priority areas of reform will be addressed with the active participation of Traditional Owners and key stakeholders including existing entitlement holders and the community.

Ongoing

4.8 Continuing our focus on information, monitoring and compliance

Our plan:

- continue the zero-tolerance approach to the unauthorised extraction of water
- improve access to information about water licence rules, rosters, restrictions and bans so everyone can understand the rules that are in place to govern water use.

Effective and strong compliance around the take and use of water helps maintain fair access to our limited water resources. It supports community confidence in the water entitlement framework and water trading and deters people from taking and using water illegally. Water theft is a crime that undermines the health of our environment and impacts other water uses and values. While most instances of unauthorised take are small, the collective amount of water taken without authorisation can add up.

Victoria is committed to a strong compliance record to protect water entitlements the environment. The *Water and Catchment Legislation Amendment Act 2019* strengthened penalties and enforcement measures, making it easier to prosecute offences. Proactive monitoring by water corporations is also critical to an effective and strong compliance regime. Ongoing improvements to access to information about water licence rules, rosters, restrictions and bans are helping water users to manage their own risks and improve compliance.

Policy 4-6:
Continuing to improve information about water management rules and compliance

The Victorian Government will work with Melbourne Water and Southern Rural Water to ensure that licence holders and the community have access to consistent and accessible information about water management rules, including licensing and compliance arrangements, so that the framework for managing water resources in specific systems is clear.

Image: Modern residential tap, Werribee, Wadawurrung Country