Seasonal Watering Plan

2025-26







Acknowledgement of Traditional Owners

The Victorian Environmental Water Holder (VEWH) proudly acknowledges Victoria's Traditional Owners and their rich culture and pays our respect to Elders past and present, whose knowledge and wisdom have ensured the continuation of culture and traditional practices.

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 are committed to genuinely partner and meaningfully engage with Victoria's Traditional Owners and Aboriginal communities to support the protection of Country, the maintenance of spiritual and cultural practices and their broader aspirations in the 21st century and beyond. The VEWH sees the meaningful intersection between the aims of the environmental watering program healthy waterways, healthy communities—and the deep and enduring obligations Traditional Owners have to Country and to Aboriginal people. We deeply value the ongoing contribution that Traditional Owners and Aboriginal knowledge systems are making to planning and managing water for the environment. We recognise that this contribution is largely through frameworks and processes that have not been determined by Traditional Owners, and contribution does not imply endorsement of those frameworks and processes. More can be done to increase Traditional Owners' power and agency and enable progress towards self-determination within the environmental watering program.

Adequately recognising and strengthening the rights of Traditional Owners in water management is critical for achieving self-determination and healthy waterways into the future. The VEWH is committed to an active role in supporting and enabling this within its power and capability.

Cover image: Molesworth Billabong, Taungurung Biik, by Taungurung Land and Waters Council.

Acknowledgement of program partners

The VEWH acknowledges that the seasonal watering plan is based on the significant contributions and hard work of Victoria's catchment management authorities, Melbourne Water and Traditional Owner corporations in consultation with their communities.

Our program partners who contributed to the plan this year are shown below.



Between 2023 and 2025, the VEWH worked closely with five Traditional Owner Nations and together developed new guidelines for Traditional Owners making seasonal watering proposals for the use of environmental water in Victoria to heal Country. We acknowledge:

- Barapa Barapa Wamba Wemba Water for Country Steering Committee
- DJAARA (Dja Dja Wurrung Clans Aboriginal Corporation)
- First People of the Millewa-Mallee Aboriginal Corporation
- Taungurung Land and Waters Council
- Tati Tati Kaiejin.

Contents

Section 1: Introduction	2
Section 2: Gippsland region	22
Section 3: Central region	66
Section 4: Western region	130
Section 5: Northern region	182
Section 6: Further information	364

SECTION 1: Introduction

The Victorian environmental watering program is the ongoing, collaborative management of water for the environment to improve the health of Victoria's rivers and wetlands and of the native plants and animals that depend on them.

Where can I find more information about the Victorian environmental watering program?

Information about the Victorian environmental watering program is on the Victorian Environmental Water Holder's (VEWH's) website at **vewh.vic.gov.au** or available from the VEWH on (03) 9637 8951 or by email to **general.enquiries@ vewh.vic.gov.au**.

This includes general information such as:

- what water for the environment is
- why water for the environment is important
- what the environmental watering program aims to achieve
- what delivery of water for the environment involves
- how we know if water for the environment is successful
- what environmental water trading is.

2

You can get more detailed information about water for the environment in your region by contacting your local catchment management authority or Melbourne Water (waterway manager): the contact details are in **section 6.3**.

1.1 The seasonal watering plan

The seasonal watering plan is a statewide plan that guides decisions about delivering water for the environment in Victoria. It outlines how water for the environment may be used across the state under different planning scenarios and tells our program partners, stakeholders and communities what to expect during the water year.

In this section...

- 1.1.1 What 'seasonal' means
- 1.1.2 Developing the seasonal watering plan
- 1.1.3 Who contributes to the seasonal watering plan
- 1.1.4 Changes to the seasonal watering plan

1.1.5 When a formal variation to the seasonal watering plan is not required

This seasonal watering plan publicly describes all the potential watering actions that may be carried out using water available under environmental water entitlements held in Victoria. This includes water available under the VEWH's environmental water entitlements and water held by other environmental water holders for use in Victoria. Decisions about watering actions are finalised throughout the year after the approval of seasonal watering statements and watering authorisations and associated costs by the VEWH, based on water availability, climate, risk and other inputs.

The VEWH releases the seasonal watering plan for the upcoming water year by 30 June each year. The plan is valid for the whole water year from 1 July to 30 June, or until the next seasonal watering plan is released.

1.1.1 What 'seasonal' means

'Seasonal' refers to various climate conditions in a given year, including typical differences between summer, autumn, winter and spring and whether a year is estimated to be drier or wetter than average.

Seasonal conditions affect the health and needs of plants and animals, water quality, water availability and the environmental watering actions that may be delivered in a given year.

When we plan water for the environment, we consider potential seasonal conditions ranging from drought to wet and related water availability scenarios for the year.

This scenario planning enables the VEWH and waterway managers to describe potential environmental flows before the start of the water year and adapt to seasonal conditions as they occur. There is more on how seasonal conditions influence environmental flows planning and delivery in **subsection 1.2.4**.

Sections 2 to 5 of the seasonal watering plan have more details about potential watering actions that may be delivered in each river and wetland system during the year under different climatic conditions.

1.1.2 Developing the seasonal watering plan

Each year, waterway managers scope potential environmental watering actions for their region and prepare seasonal watering proposals for submission to the VEWH.

The proposals look at the priorities and values in regional waterway strategies and draw on environmental water management plans, environmental flows studies, monitoring outcomes and biocultural knowledge of Traditional Owners. Waterway managers also seek further information and advice from Traditional Owners, technical experts, stakeholders and local communities when preparing proposals.

The VEWH reviews the proposed watering actions in each seasonal watering proposal and consolidates accepted watering actions into the annual seasonal watering plan.

The different stages of environmental flows planning are shown in **Figure 1.1.1**. There is more information about environmental flows studies and environmental water management plans at **www.water.vic.gov.au/waterways**.

3

Figure 1.1.1 Victorian environmental watering program planning framework



Informs

Informs

Decisions

through

communicated



- Provide long-term environmental objectives, desired flow regimes and management arrangements
- Are developed progressively for each system or site that is identified as a long-term priority for environmental watering
- Are updated as required with new information
- Assume current water recovery commitments and targets

Forms basis of

Seasonal watering proposals

- Describe regional priorities for environmental water use in the coming year under various planning scenarios
- Are developed annually

Seasonal watering plan (this document)

- Describes statewide potential environmental watering in the coming year under various planning scenarios
- Is developed annually
- Consolidates the seasonal watering proposals the VEWH accepts
- Can be varied at any time, with the same consultative requirements as for the plan's initial development



- Environmental flows studies: expert analysis of flows components required to support environmental values and objectives
- Outcomes from monitoring programs (such as the Victorian Environmental Flows Monitoring Assessment Program)
- Traditional cultural and ecological knowledge
- Academic and consultant expertise

Community engagement

• Environmental water advisory groups, Traditional Owners, community groups, recreational users, irrigators, environment groups and other relevant stakeholders

Seasonal watering statements and watering authorisations

- Communicate decisions about watering activities to be undertaken as water availability scenarios occur throughout the year
- Authorise waterway managers to undertake watering
- Can be released at any time during the year
- May be one or multiple statements for a system

Water for the environment is delivered

1.1.3 Who contributes to the seasonal watering plan

Program partners in the environmental watering program are those with some implementation responsibility, while stakeholders are those organisations or individuals with an interest in the environmental watering program.

The VEWH's program partners include Victoria's waterway managers, the Department of Energy, Environment and Climate Action (DEECA), other environmental water holders, storage managers and land managers. Traditional Owners also increasingly partner in the environmental watering program.

Waterway managers consult and engage locally about potential actions to deliver water for the environment as seasonal watering proposals are being developed. Levels and methods of engagement vary, depending on different water systems, watering actions and stakeholders across Victoria and regional preferences. Traditional Owners, irrigators, farmers, people living close to or interested in a specific waterway and members of recreational and environmental groups are examples of stakeholders who get involved.

Some regions have formal environmental watering advisory groups for waterway managers and stakeholders to talk about potential environmental flows for the coming year. There can also be one-on-one engagement between waterway managers and interested stakeholders.

Stakeholder engagement can help inform environmental objectives and community priorities and provide advice about cultural, social, recreational and economic values and uses.

Land managers and water storage managers endorse the seasonal watering proposals. Their endorsement ensures that releases of water for the environment align with land and storage management objectives, that they can feasibly be delivered through planned system operations and that risks can be adequately managed.

1.1.4 Changes to the seasonal watering plan

Under the *Water Act 1989* (the Water Act), the VEWH can only authorise the use of water for the environment if it is consistent with the seasonal watering plan. This provides transparency about the planning and management of environmental flows.

The Water Act allows the VEWH to vary the seasonal watering plan to incorporate new knowledge or address circumstances not identified before the start of the water year. There is more information about variations, which are separate attachments to the current seasonal watering plan at www.vewh.vic.gov.au/ annual-planning-and-reporting/seasonalwatering-plan.

1.1.5 When a formal variation to the seasonal watering plan is not required

There may sometimes be an unforeseen circumstance that calls for the use of water for the environment but that does not require a variation to the seasonal watering plan. This includes:

- making a minor operational adjustment to a specific water delivery action
- using water for the environment for environmental emergency management purposes
- using a small volume of water for the environment for a technical investigation or to maintain infrastructure
- helping to deliver water for the environment held by other water holders for downstream, non-Victorian objectives.

The VEWH cannot anticipate such circumstances or include details about them in this plan. Waterway managers consult the VEWH in all situations where releases of water for the environment do not align with the seasonal watering plan.

Minor operational adjustments

There may occasionally be minor operational adjustments to actions to deliver water for the environment. The targeted river reaches, flow rates, timings, magnitudes and durations detailed in **sections 2 to 5** may need to be adjusted because of changes in predicted rainfall, other water orders, delivery infrastructure constraints, emerging environmental knowledge or the timing of specific ecological triggers (such as bird breeding).

In all cases, actions will still aim to optimise environmental outcomes to meet the seasonal watering plan's objectives.

Any changes to the timing, magnitude or length of a planned watering action must be approved by the VEWH Commission through a formal variation when the proposed action requires additional water or funding to support the delivery, or by the VEWH CEO for minor variations relating to the use of water already allocated in the seasonal watering plan.

Environmental emergency management situations

Water for the environment may be needed for an environmental emergency management situation, like mitigating a toxic water quality event. **Section 1.2.8** describes how environmental watering emergencies are managed and authorised.

Small technical investigations and maintenance

6

There may be situations where a small volume of water for the environment is used for research and development or for small-scale infrastructure testing or maintenance. These are considered on a case-by-case basis and must aim to improve knowledge and management of water for the environment. They must not compromise the potential to achieve the environmental objectives in the seasonal watering plan.

Facilitating the delivery of water held by other water holders for downstream objectives

Some water held by other water holders is stored in Victorian storages and may be required to meet downstream demands, such as for the Coorong, Lower Lakes and Murray Mouth area in South Australia. Sometimes, this water needs to be delivered at a time and flow rate not specified in **section 5** of this seasonal watering plan. The VEWH authorises and makes these deliveries possible if potential harms to Victoria's rivers, wetlands and floodplains are managed appropriately.

1.2 Implementing the seasonal watering plan

The seasonal watering plan scopes the potential delivery of water for the environment for the coming year, but many factors influence decisions about what water is committed and delivered.

In this section...

- 1.2.1 How watering decisions are made throughout the year
- 1.2.2 When the VEWH commits and authorises the use of water for the environment
- 1.2.3 How the VEWH prioritises different watering actions when there is not enough available water for the environment
- 1.2.4 How seasonal conditions affect the use of water for the environment
- 1.2.5 Traditional Owner cultural values and uses, and recreational, social and economic benefits from water for the environment
- 1.2.6 Self-determination for Traditional Owners in the environmental watering program
- 1.2.7 How risks are managed
- 1.2.8 How environmental watering emergencies are managed

Factors that influence decisions about committing and delivering water for the environment are:

- seasonal conditions, weather forecasts and catchment conditions
- river and system operations like unregulated flows, catchment inflows, storage levels, other water users' needs and potential delivery constraints
- environmental or biological factors and triggers like plant and animal responses to natural flows or temperature
- water availability
- risks or costs associated with an action to deliver water for the environment
- opportunities to deliver cultural, social, recreational or economic shared benefits.

The flexibility to respond to these different factors is important because they can greatly influence the environmental outcomes and shared benefits that we can achieve.

1.2.1 How watering decisions are made throughout the year

Many of the uncertainties about seasonal conditions, water availability and the consequential effects of system operating rules become clearer as the water year progresses. This clarity informs decisions about which environmental flows described in the seasonal watering plan go ahead and when. Many onground factors do not become clear until close to the anticipated water delivery.

The VEWH takes an adaptive management approach to deciding which watering actions to include in the seasonal watering plan by listening, learning from experience and adapting to what's happening on the ground. We consult with program partners and then review and finalise decisions about watering actions for the year so that water for the environment is used efficiently for the best environmental outcomes across Victoria.

Waterway, storage and land managers advise if watering actions can be delivered in each system during the year or if there are barriers to delivery. Environmental water holders use that information to decide which actions to authorise. All program partners have a role in identifying potential watering actions and implementing the release of water for the environment, as explained in **subsection 1.2.3**. The VEWH can ask program partners for more technical information or community perspectives if planned watering actions need to change significantly during the season to respond to unforeseen circumstances.

Updated information about recent deliveries of water for the environment is published quarterly at **vewh.vic.gov.au**.

1.2.2 When the VEWH commits and authorises the use of water for the environment

Water is committed and authorised for use through seasonal watering statements and watering authorisations that allow waterway managers to release water for the environment. These are made in line with an approved seasonal watering plan and can occur before or during the water year. They are published at **vewh.vic.gov.au** once approved by the VEWH Commission.

Depending on the nature of the system and the environmental water entitlement being used, the VEWH may make one or multiple statements for a system during the water year. The VEWH confirms with the waterway manager that the required delivery arrangements, including risk management measures, are in place and that any related costs are acceptable and funds are available before issuing a seasonal watering statement or as a condition of it.

Decisions to commit water for the environment need to consider if delivery of the water across different systems requires access to the same environmental or bulk entitlement. One river, wetland or flow component may have to be prioritised over another.

The VEWH may sometimes commit water very close to the anticipated date of release. This may be necessary because of a sudden demand for water caused by environmental, operational or weather conditions. For example, a colonial waterbird nesting event in Barmah Forest may trigger a need for water to maintain shallow flooding long enough for the birds to grow and fly from the nest. The Commonwealth Environmental Water Holder (CEWH) and the Southern Connected Basin Environmental Watering Committee (for the Living Murray program) commit water for use from their respective environmental water portfolios. The VEWH formally authorises the use of CEWH and Living Murray water through seasonal watering statements/watering authorisations. All CEWH and Living Murray water delivered in Victoria is to be used to carry out actions detailed in this seasonal watering plan, in combination with other water sources or not (see **subsection 11.5**).

Watering authorisations enable the VEWH to order water for delivery. For delivery of water held in Victoria, this includes:

- to non-Victorian sites without a designated Victorian waterway manager on behalf of the CEWH and/or the Living Murray program
- from a Victorian storage/account to a downstream demand on behalf of the CEWH and/or the Living Murray program
- where joint water orders occur with NSW delivery partners.

These authorisations generally include the same conditions and requirements as seasonal watering statements, but the water must be ordered and delivered by the VEWH instead of a waterway manager.

When environmental water holders and waterway managers can change their plans after a seasonal watering statement or watering authorisation has been issued

The VEWH can withdraw a seasonal watering statement or watering authorisation at any point during the year to address emerging risks, changes in operating conditions, changes in costs or water availability.

8

The VEWH consults with the relevant waterway manager, storage manager and any other relevant environmental water holder for that river or wetland system before withdrawing a seasonal watering statement or watering authorisation.

A waterway manager or storage manager may decide, in consultation with the VEWH, not to go ahead with delivering water for the environment after a seasonal watering statement has been issued. This could be due to environmental triggers indicating the water was no longer required, resourcing constraints or new information that the potential environmental or public risk of watering is too high.

1.2.3 How the VEWH prioritises different watering actions when there is not enough available water for the environment

Seasonal conditions can vary greatly between years, affecting the demand for water for the environment for particular sites and the supply of available water for the environment.

There can be a deficit in supply because of large, high-value demands for water for the environment or low water availability.

The VEWH may use tools like carryover and trade to avoid a deficit. If a deficit can't be avoided, the VEWH works with waterway managers and other relevant water holders to prioritise actions to deliver water for the environment. There is more information about trade in the annual VEWH allocation water trading strategy at **vewh.vic.gov.au**.

Criteria used to guide prioritisation decisions

The VEWH considers criteria, shown in **Figure 1.2.1**, when making trade-off decisions and prioritising specific watering actions. Waterway managers provide information in their seasonal watering proposals about how different watering actions meet these criteria and about opportunities for shared benefits. Figure 1.2.1 Criteria for prioritising actions to deliver water for the environment

PRIORITISATION	TYPES OF FACTORS CONSIDERED
Extent and significance of environmental benefit	 Size of the area being watered Expected ecological outcomes Expected scale of response Conservation status of the species or community that will benefit Expected contribution to regional environmental objectives
Likelihood of success	 Evidence that the desired outcomes are likely to be achieved External threats that may affect getting the desired results
Longer-term benefits	 Value added to previous watering undertaken at the site Longer-term environmental benefits expected Ability to sustain these values into the future
Urgency of watering needs	 History of watering at the site Potential for irreversible damage if the watering does not occur Risks associated with not delivering the water
Feasibility of the action	 Capacity of infrastructure to meet the delivery requirements System or operational constraints Flexibility in the timing of delivery Likelihood that planned management actions will mitigate external threats
Environmental or third-party risks	 Adverse environmental outcomes that may arise Third-party risks associated with the event Effectiveness of mitigation to manage third-party and environmental risks
Cost effectiveness of the watering action	 Likely environmental benefit compared against: costs to deliver and manage water costs of interventions to manage external threats and risks
Efficiency of water use	 Volume of water needed to achieve the desired outcomes Volume and timing of return flows that may be used at downstream sites Alternative supply options such as use of consumptive water en route or augmenting natural flows Risks of spills from storages in the upcoming water year and any carryover water that may be available
AFTER CO	NSIDERATION OF ABOVE CRITERIA
Cultural social	 Traditional Owner values and uses

culturul, social,	
recreational and	 Social and recreational values and activities
economic benefits	Economic benefits

9

When the VEWH decides how to use its available Water Holdings in any given year, it also considers:

- decisions by other water holders about the use of their water for the environment
- decisions by the Victorian and Commonwealth governments about water resource policy
- the resources, knowledge and capability of the VEWH and its program partners
- storage managers meeting their obligations to the environment as part of the right to harvest and distribute water sustainably
- complementary works and measures being undertaken
- the availability of funds to pay the costs of water delivery and/or storage
- the merit of selling available allocation water to resource activities, strategic projects, complementary works and measures, research and knowledge to improve the performance of the environmental watering program
- services associated with managing Water Holdings and delivering water for the environment.

Decision-making process for potential watering actions

Under the Water Act, the VEWH determines how the Environmental Water Holdings are used to most efficiently and effectively improve environmental values and the health of water ecosystems.

The VEWH independently considers the relative environmental benefit associated with proposed environmental watering actions and may prioritise those with the greatest benefit.

Waterway managers identify their regional priority sites and watering actions. Seasonal watering proposals developed in consultation with program partners, technical experts and the local community outline annual regional priorities for the VEWH to consider.

Waterway managers engage with stakeholders and communities and advise about the extent and significance of actions to deliver water for the environment and the highest priorities in their region.

Storage managers' advice is vital to understanding how practical it is to water at a particular time within potential operational constraints. Storage managers endorse deliveries of environmental flows through their delivery network. They advise on deliveries after considering likely operational and maintenance activities and the risks associated with the watering actions.

Land managers consent to the delivery of environmental flows on their land after considering land management activities, public access and the risks and benefits of the proposed watering actions.

1.2.4 How seasonal conditions affect the use of water for the environment

Climatic conditions influence how water for the environment is managed, just as rainfall patterns influence how people water their gardens and farmers irrigate their paddocks. As explained in **subsection 1.1.1**, seasonal conditions influence what water will be available during the water year and how that water may be best used to realise environmental objectives. Waterway managers consider a range of seasonal conditions when planning environmental watering actions for sites in their seasonal watering proposals. Seasonal planning scenarios describe the range of watering actions that could occur under conditions ranging from drought to wet.

Waterway managers work with program partners to get the best possible outcomes from water for the environment by considering:

- environmental water management objectives under each planning scenario, plus any essential needs for water for the environment
- how rainfall, natural flooding and delivering water for operational and/or consumptive use can help achieve or affect short-term management objectives and longer-term environmental objectives
- how water for the environment can build on natural flows or irrigation deliveries to meet environmental needs
- natural climatic cues that might help produce an environmental outcome: for instance, a drying wetland.

Planning scenarios are presented in the seasonal watering plan as a basis for adaptively managing environmental water use as the season unfolds. For example, watering actions may be delivered in line with a dry scenario at the start of a water year and then shift to being delivered in line with an average or wet scenario if conditions become significantly wetter. They also indicate how much water may be used at different sites and whether the VEWH may need to trade water during the season to meet identified environmental needs.

Figure 1.2.2 shows how different planning scenarios can influence decisions about how water for the environment is managed in a year.

Planning scenario		DROUGHT	DRY	AVERAGE	WET	
とくない	EXPECTED CONDITIONS	• No or negligible contributions from unregulated flows; waterways may stop flowing at times, more likely in summer & autumn	• Minor contributions from unregulated reaches and tributaries, more likely in winter & spring	• Unregulated flows provide extended low flows and multiple freshes, more likely in winter & spring; minor storage spills may occur	• Extended, unregulated high flows, multiple large storage spills and overbank flooding, more likely in winter & spring but possible at any time of the year	
たいナ	MANAGEMENT OBJECTIVES	 Protect Avoid critical loss Maintain refuges Avoid catastrophic events 	 Maintain Maintain river functioning with reduced reproductive capacity Maintain key functions of high- priority wetlands Manage within dry-spell tolerances 	 Recover Improve ecological health and resilience Improve recruitment opportunities for key plant and animal species 	 Enhance Restore key floodplain wetland linkages Maximise recruitment opportunities for key animal and plant species 	
EXAMPLE WATERING ACTIONS TO SUPPORT MANAGEMENT OBJECTIVES	JECTIVES	• Provide low flows and trigger- based freshes to maintain water quality in deep refuge pools	 Provide summer & autumn low flows to manage water quality and maintain connectivity 	 Provide year- round low flows to maintain habitat connectivity to support fish movement 	• Maintain year- round low flows and seasonal freshes to improve the quality of in-stream and bank vegetation and trigger the spawning and movement of native fish	
	E WATERING ACTI 1ANAGEMENT OB		• Extend the duration and/or magnitude of flow peaks to freshen water quality in deep refuge pools	• Extend the duration and/ or magnitude of peaks to provide spawning cues for fish	• Maintain connectivity and the exchange of nutrients between the river and floodpath	
	EXAMPLE SUPPORT N			• Provide seasonal freshes to support the establishment and maintenance of bank vegetation	• Slow the recession of natural peaks to avoid bank slumping and erosion	
					• Top up natural flows if needed, to meet targets for winter low flows and spring peaks	

Figure 1.2.2	Example pl	anning s	scenarios u	under a	range of	climatic	conditions
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1.2.5 Traditional Owner cultural values and uses, and recreational, social and economic benefits from water for the environment

When preparing their seasonal watering proposals, waterway managers work with Traditional Owners to identify cultural values and uses of waterways and discuss how waterway managers' seasonal watering proposals may contribute to cultural objectives for healthy Country.

The VEWH recognises current government frameworks for managing water for the environment have not been determined by Traditional Owners, and it is committed to progressing Traditional Owner self-determination in the environmental watering program as set out in the Victorian Government's *Water is Life: Traditional Owner Access to Water Roadmap* policy and the VEWH position statement that sets out the VEWH's commitment to progress Traditional Owner self-determination. There is more information about this in **subsection 1.2.6**.

Water delivered for the environment improves the health of rivers, wetlands and floodplains and provides many social, recreational and economic benefits. It helps to increase populations of fish species (including those popular with anglers), support bird breeding events that birdwatchers enjoy and boost experiences for the many people who gravitate to healthier waterways for relaxation and wellbeing.

Waterway managers work with Traditional Owners, stakeholders and communities to identify environmental, cultural, social, economic and recreational values and uses of waterways. They consider opportunities to support cultural, social, recreational and economic values and uses when planning environmental water deliveries, as long as the delivery does not compromise environmental outcomes. Longer-term benefits for the environment—and the community—sometimes involve short-term inconvenience. For example, floodplain watering in Hattah Lakes may limit access, which can inconvenience campers in the short term, but the environmental benefits of watering boost tourism and recreational experiences in the longer term and add to the experience of connecting with nature. Where short-term inconveniences may happen, waterway managers work with land managers to limit the disruption to users.

Values and uses considered during planning for environmental flows are shown in each system in **sections 2 to 5**. Specific watering actions planned to align with a social or recreational objective or support Aboriginal cultural values and uses are identified by the icons shown in **Figure 1.2.3**.

Figure 1.2.3 Cultural, social and recreational objectives icons



Watering planned and/or delivered in partnership with Traditional Owners will support Aboriginal cultural values and uses



Watering will also support water sports activities (e.g. canoeing, kayaking, rowing, swimming, water skiing)



Watering will also support waterbird-related recreational activities



Watering will also support angling activities



Watering will also support peaks in visitation (e.g. camping or other public activities on long weekends or school holidays)

1.2.6 Self-determination for Traditional Owners in the environmental watering program

This seasonal watering plan largely represents existing legislative requirements to consider Aboriginal cultural values when preparing seasonal watering proposals, which are currently based mainly on engagement conducted by waterway managers.

For the first time, this seasonal watering plan includes proposed watering actions submitted by Traditional Owners directly to the VEWH. This is an early outcome of the Victorian Government's 2022 *Water is Life: Traditional Owner Access to Water Roadmap*. The roadmap sets out short, medium and long-term policy actions to reform existing government frameworks and processes for the management of water on Traditional Owner Country, including water for the environment. The VEWH is working with Traditional Owners, DEECA and waterway, land and storage managers to progress *Water is Life* policy actions.

1.2.7 How risks are managed

Risk management is essential in managing water for the environment, and program partners consider risks continually during annual and longer-term planning, implementation and review.

The VEWH and its program partners have a risk management framework that addresses interagency risk, respects each partner's practices and documents roles and responsibilities for operating arrangements.

The seasonal watering proposals that are the basis for this seasonal watering plan identify potential risks with specific watering actions proposed for the coming water year. Partners jointly assess risks and identify and commit to mitigation actions when developing proposals to manage the shared risks of delivering water for the environment.

The main shared risks are shown in **Table 1.2.1**. Program partners consider and assess these and other potential risks as the season unfolds and planned watering actions are about to start.

Some risks may only happen at the time of delivery, such as forecast heavy rain that coincides with a planned environmental flow that could increase the risk of nuisance flooding. Program partners review risks immediately before a planned environmental flow and take agreed measures to reduce the risks. They identify and agree on mitigation actions through operational risk workshops and endorsement of seasonal watering proposals and/or delivery plans. Watering actions will not be carried out if unacceptable risks to the public or environment cannot be mitigated.

Type of risk	Example mitigating actions
Delivering water for the environment contributes to	 Identify and understand the capacities of water systems and monitor water levels at key locations to inform daily water release decisions to reduce potential risks.
tnira-party impacts	 Take into account the potential catchment run-off from forecast rainfall before deciding on the timing, duration and volume of releases of water for the environment.
	• Put a communication plan into action (for example, including media releases, public notices and signage) before environmental flows to make sure people are informed about significant deliveries; this includes early liaison with stakeholders who may be affected.
	 Restrict access by closing gates and tracks.
Inability to achieve or demonstrate environmental	 Do intervention monitoring with available resources to identify the environmental response and consider longer-term environmental responses.
outcomes from delivering water for	 Conduct research to better understand responses to water for the environment.
the environment	 Share the outcomes of monitoring and apply learnings to future deliveries. Identify complementary works to help achieve the environmental objectives of delivering water for the environment.
Delivering water for the environment has	• Plan the timing, frequency, length and variability of environmental flows to limit adverse effects.
adverse effects on the environment (such as bank erosion and the spread of weeds)	 Monitor the outcomes of deliveries of water for the environment and adapt future deliveries and/or scientific recommendations and learnings if necessary.

 Table 1.2.1
 Main shared risks of delivering water for the environment

Even with the best risk management controls, there may be unintended effects from environmental flows or situations where those flows cannot be delivered as planned. Program partners work together in these situations to respond to incidents and then learn and adapt their risk management. The VEWH has developed an agreed approach to incident management to help program partners report, investigate and respond to risks.

1.2.8 How environmental watering emergencies are managed

An emergency watering action is where water for the environment may be necessary to prevent, mitigate or respond to an acute environmental threat.

Common threats are:

- impacts on water quality from low oxygen levels, toxic levels of blue-green algae, high temperatures or high salinity
- falling water levels at a refuge habitat or breeding site that are an immediate risk to native aquatic plants and animals.

Acute environmental threats are unpredictable, so potential emergency watering actions may not be specified in **sections 2 to 5** of this plan. The VEWH has developed a procedure for emergency watering actions to be taken at short notice.

Emergency watering procedure

Emergency actions to deliver water for the environment are usually one or other of the following scenarios:

- the necessary watering action is not described adequately or at all in the current seasonal watering plan, but there is a valid seasonal watering statement with water available that covers other watering actions for the affected system and authorises a total volume that is enough for the proposed emergency watering action, or
- there is no authorised seasonal watering statement for the affected system, or there is not enough water available under the seasonal watering statement to cover the proposed emergency watering action.

Under the first scenario, waterway managers can re-prioritise watering actions authorised under the existing seasonal watering statement to allow the emergency watering action without affecting the overall resource.

Under the second scenario, waterway managers must ask for an emergency seasonal watering statement from the VEWH before water for the environment can be used for an emergency watering action. The VEWH has administrative processes to support emergency decisions to deliver water and to expedite requests for emergency seasonal watering statements.

16

1.3 How to read the seasonal watering plan

Four broad geographic areas—Victoria's Gippsland, central, western and northern regions—are represented in **sections 2 to 5** of the seasonal watering plan with regional overviews that include:

- a description of the region
- an acknowledgement of the Traditional Owners of the area
- a record of communities and program partners engaged
- a description of how risks are managed
- a seasonal outlook for the region.

Each region is divided into system sections for waterways and wetlands that can be supplied with water for the environment from an environmental entitlement. Each section presents the system's environmental values, environmental objectives and planned actions for the year.

The system sections include:

- a system introduction with the names of the one or more waterway managers, storage managers and/or environmental water holders for the system
- a system overview describing the system's location, its waterways and major features
- environmental values outlining the main water-dependent species, communities, ecological processes and habitats that rely on healthy waterways and form the basis for environmental objectives. Figure 1.3.1 provides a summary of the icons used in the plan and the environmental values they represent
- environmental objectives in the system, which Figure 1.3.2 shows, that summarises the outcomes sought for each environmental value in the system. Each objective usually relies on one or more continuing watering actions and complementary actions, like controlling invasive species or installing fishways
- social, recreational and economic values and uses considered in planning for environmental flows, along with opportunities to support these values

- the scope of environmental watering, which Figure 1.3.3 shows, that sets out potential actions to deliver water in 2025-26, the expected physical or biological effects of the actions and the longer-term environmental objectives they support. Achieving each environmental objective relies on one or more potential actions and their expected watering effects
- scenario planning, which Figure 1.3.4 shows, indicates in a table the range and priority of potential watering actions planned for achievement in the coming year under different planning scenarios. The text with the table describes the rationale or need for the proposed combination of potential actions under each scenario. Most systems will use the drought, dry, average and wet planning scenarios, but different combinations are occasionally used. Section 1.2.4 explains how seasonal conditions are considered in planning
- a Traditional Owner-led watering inclusion in systems where watering actions have been proposed by Traditional Owners directly to VEWH. This inclusion has a similar structure to the rest of the system section, as described here, but relates specifically to the Traditional Owner-led proposed watering actions. It includes the scope of environmental watering and scenario planning and outcomes for healthy Country being sought through watering.

Figure 1.3.1 Icons used in the plan and the environmental values they represent



Figure 1.3.2 Example environmental objectives table

Environmental objectives in the Macalister system

Čę	F1 – Increase the distribution, recruitment and abundance of all native fish, and increase copportunities for the spawning and recruitment of native migratory fish (such as Australian grayling)	environmental flows that provide optimal spawning opportunities for Australian grayling will contribute to
	G1 – Maintain the form of the riverbank and bed to provide physical habitat for aquatic animals and plants	will complementary works such as the construction of fishways to increase the habitat range for native fish
A.,	PR1 – Increase the abundance of platypus and	
	rakali (water rats)	
~ >	<	The Environmental
P.	 V1 – Maintain emergent (non-woody) and fringing (woody) vegetation in the streamside zone V2 – Reinstate submerged aquatic vegetation 	table uses an icon and a letter/number code for each objective. The icons and codes in that
Ŭ	MI1 – Increase the abundance and number of functional groups of waterbugs	table are then used in the Potential environmental watering actions, expected effects and environmental
	WQ1 – Improve water quality during periods of reduced or no passing flow from Lake Glenmaggie	objectives table to set out the environmental objectives of each
0	WQ2 – Improve water quality in the Thomson River estuary	potential action.

In this example, mental flows that optimal spawning nities for Australian will contribute to ng this objective, as plementary works the construction ays to increase the range for native fish.

18 Victorian Environmental Water Holder | Seasonal Watering Plan 2025-26

Figure 1.3.3 Example potential actions to deliver water for the environment and objectives table

Potential environmental watering actions describe the timing, magnitude, duration and frequency of environmental flows to rivers or the timing of releases to wetlands. **Subsection 1.2.3** explains how watering actions are prioritised. The seasonal watering statements issued by the VEWH authorise waterway managers to undertake environmental watering actions described in this table. **Subsection 1.2.2** explains how seasonal watering statements and watering authorisations fit into the environmental watering planning framework. **Environmental objectives**

are those listed in the environmental objectives table for each system (as the **Figure 1.3.1** example shows). Each environmental objective will be supported by one or more watering actions and functional watering objectives.

Potential environmental watering action	Expected watering effects	Environmenta objectives		
Summer/autumn low flow (125 ML/day during December to April)	 Maintain habitat and water quality in pools and riffles for waterbugs and fish Facilitate localised movement between habitat types for small-bodied native fish and platypus Prevent encroachment into the in-stream channel by invasive plants 	F1 PR1 F2 MI1		
Summer/autumn fresh(es) (one to two freshes of 230-350 ML/ day for seven days during December to March)	 Wet aquatic and fringing vegetation to maintain its condition and support its growth Wet low-lying benches to prevent encroachment by invasive plants and enable vegetation zonation Provide velocity and depth diversity and prevent sediment smothering by fine sediments When delivered in February to March (at 230 ML/day), the fresh also aligns with and supports native fish movement to: 	F1 G1 F1 G1 V1		
	 trigger downstream migration of adult short- and long-finned eel and upstream movement of juvenile Australian bass increase the water depth over riffles to facilitate local movement between habitats for large-bodied native fish 			
	^			

These example icons demonstrate which potential watering action may be modified to increase benefits to Traditional Owner values and uses or recreational opportunities, provided environmental outcomes are not compromised.

The ability of the VEWH and its partners to modify flows to deliver these benefits will depend on the weather, climate considerations, the available water and the way the system is being operated to deliver water for other purposes. An expected watering effect

is the physical, chemical, biological or behavioural effect experienced from a potential watering action. Each potential watering action will have one or more expected watering effects.

Figure 1.3.4 Example planning scenario table

The predicted		Planning scenario	Drought		Dry	Average	Wet
volumes of water for the environment that will be available under each scenario for the year. Potential watering actions that are required this year, given current onvironmental		Expected conditions	 Very low streamflow Reduction in passing flow Increased surface water loss to groundwate Irrigation releases like 	n vv O Per	 Low streamflow Some reduction in passing flow Increased surface water loss to groundwater Irrigation releases likely 	 Average streamflow Partial freshes naturally provided Some irrigation releases likely 	 Above- average streamflow Partial or full freshes naturally provided Irrigation releases unlikely Tarago Reservoir spills
conditions and the planned environmental watering strategies		Expected availability of water for the environment	• 2,100 ML		• 2,500 ML	• 3,600 ML	• 3,900 ML
unaer each planning scenario.	•••	Tarago River (targe	eting reach 2)				
The subset of watering actions the waterway manager proposes to deliver with the predicted supply under each scenario.		Potential environmental watering – tier 1 (high priorities)	• Summer/ autumn freshes (five freshes)	9	 Winter/ spring low flow (partial) Winter/ spring fresh (one fresh) Summer/ autumn low flow 	 Winter/spring low flow Winter/spring freshes (two freshes) Spring high flow Summer/ autumn low flow 	 Winter/spring low flow Winter/spring freshes (two freshes) Spring high flow Summer/ autumn low flow
The subset of watering actions that may be delivered if opportunities arise. Some of these actions can and should be delivered if more water becomes available through increased allocation or water trade or transfers, or if tier 1 actions are achieved with less environmental water than expected. Other tier 2 actions are not considered essential to deliver during the year under a planning scenario but are likely to be needed in coming years. They may be delivered during the year if environmental conditions change or to take advantage of operational circumstances.	-				• Summer/ autumn freshes (three freshes)	 Summer/ autumn freshes (five freshes) Autumn high flow 	 Summer/ autumn freshes (five freshes) Autumn high flow
		Potential environmental watering – tier 2 (additional priorities)	 Winter/ spring fresh (one fresh) Autumn high flow Summer/ autumn low flow Winter/sprint low flow Spring high flow 	n	 Winter/ spring low flow (full demand) Spring high flow Autumn high flow 	• N/A	• N/A
		Possible volume of water for the environment required to achieve objectives	 2,000 ML (tier 1) 3,100 ML (tier 2) 		 2,500 ML (tier 1) 1,800 ML (tier 2) 	• 3,065 ML (tier 1) • 0 ML (tier 2)	• 3,160 ML (tier 1) • 0 ML (tier 2)
		Priority carryover requirements for 2026-27	• 0 ML	The volume that is planned to be kept in storag to achieve high-priority watering actions the following year. For the seasonal watering plan, predictions of the volume of water available and carryover are made before the beginning of the water year and are based on best available information. They are estimates only, and the VEWH and its program partner revise the estimates continually throughout the year.			