Seasonal Watering Plan 2023-24

Section 1

VICTORIAN ENVIRONMENTAL WATER HOLDER

VICTORIA State Government

Victorian Environmental Water Holder

Seasonal Watering Plan 2023-24

Cover image:
Monitoring water for the environment via kayak in the Little Reedy Wetland Complex, Gunbower Forest during August 2022. Image by Kathryn Roosje, VEWH.

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 has 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.

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 and Melbourne Water in consultation with their communities.

CORANGAMITE CMA

EAST GIPPSLAND CATCHMENT MANAGEMENT AUTHORITY

Glenelg Hopkins CMA

GOULBURN BROKEN CATCHMENT MANAGEMENT AUTHORITY

mallee catchment management authority

Melbourne Water

NORTH CENTRAL Catchment Management Authority
Connecting Rivers, Landscapes, People

NORTH EAST CATCHMENT MANAGEMENT AUTHORITY

West Gippsland Catchment Management Authority

Wimmera CMA

Section 1 – Introduction

The Victorian environmental watering program is the ongoing, collaborative management of water for the environment used 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.

You can get more detailed information about water for the environment in your region by contacting your local 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 is likely to be used across the state under different climate scenarios and therefore tells our program partners, stakeholders and communities what to expect during the water year.

In this section ...

This plan publicly describes all the potential watering actions that could be carried out using water available under all 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.

The VEWH releases the seasonal watering plan for the upcoming water year by 30 June each year. The plan and any variations are valid for the whole water year, which runs 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 normal differences between summer, autumn, winter and spring and whether a year is estimated to be drier or wetter than average.

Return to start of section

Seasonal conditions can affect environmental objectives and water availability. When we plan water for the environment, it is important to consider potential conditions ranging from drought to wet and related water availability scenarios that may unfold during the year.

This scenario planning guides the VEWH and waterway managers when deciding what environmental flows to deliver throughout the year. There is more on how seasonal conditions influence environmental flows planning in subsection 1.2.4.

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

1.1.2 How the seasonal watering plan fits into planning environmental flows

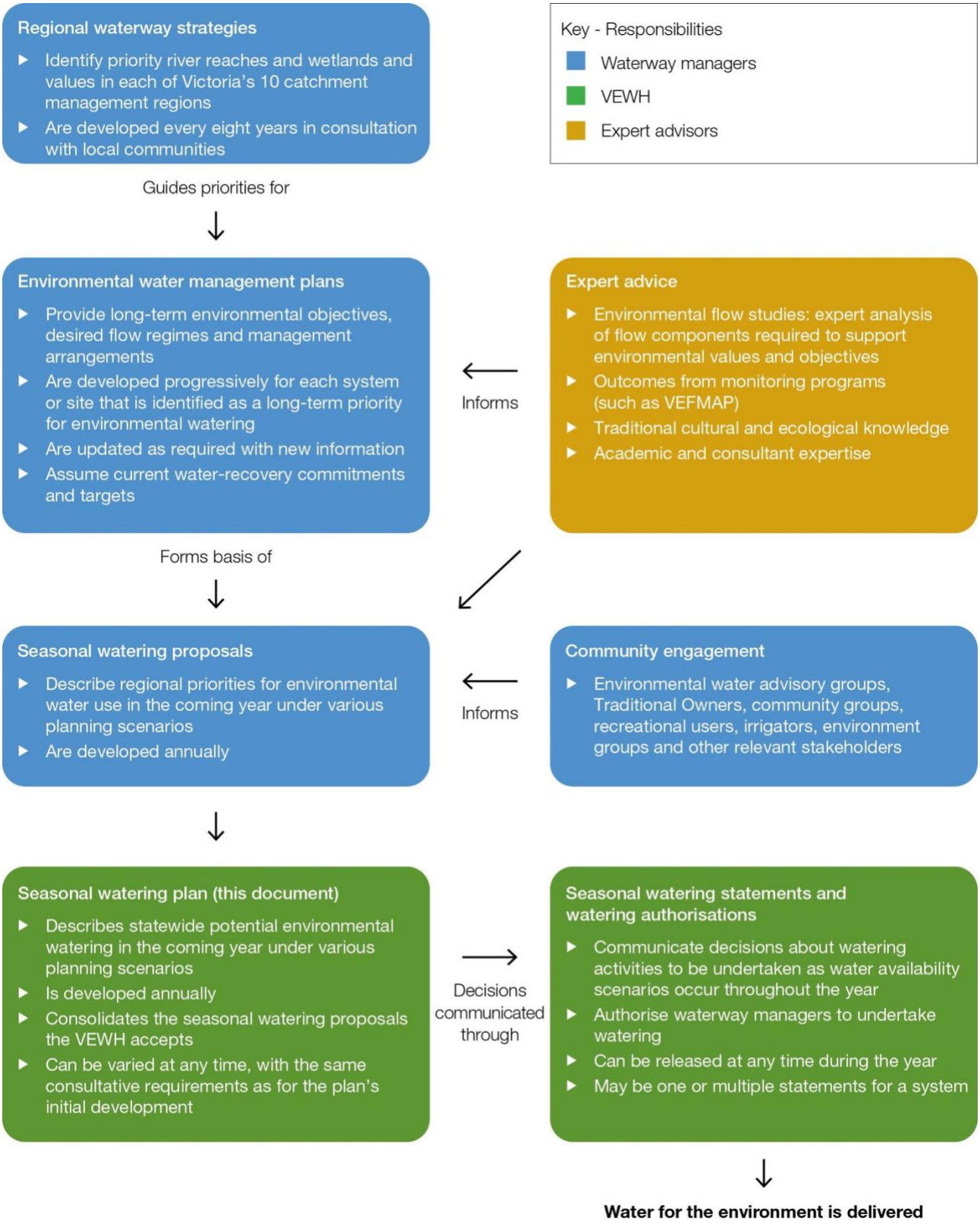
Waterway managers scope the potential actions in their seasonal watering proposals to deliver water for the environment in their regions for the coming year. These proposals draw on environmental flow studies and longer-term plans like environmental water management plans, regional waterway strategies and regional catchment strategies. Proposals include information and advice from local communities and Traditional Owners.

The VEWH reviews the proposed watering actions in each seasonal watering proposal and works with waterway managers to identify the potential watering actions for each region and across the state. This seasonal watering plan is a collated summary of agreed actions from all the seasonal watering proposals.

The different stages of environmental flows planning are shown in Figure 1.1.1. More information about the strategies and plans in the figure (such as environmental flows studies and environmental water management plans for Victorian waterways) is available at vewh.vic.gov.au. Waterway strategies and regional catchment strategies are published on the relevant waterway manager's website.

Return to start of section

Figure 1.1.1 Victorian environmental watering program planning framework



1.1.3 Who contributes to the seasonal watering plan

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 partners include Victoria's waterway managers (catchment management authorities and Melbourne Water), 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.

Return to start of section

Many stakeholders are engaged in discussions 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[1], irrigators, farmers, people living close to or interested in a specific waterway and members of recreational and environmental groups are among the stakeholders who get involved.

There are formal environmental watering advisory groups in some regions for waterway managers and community members to talk about potential environmental flows in their system or locality for the coming year. In other systems, there is one-on-one engagement between waterway managers and interested stakeholders. Land managers and storage managers endorse or give written support for seasonal watering proposals. This makes sure that releases of water for the environment align with land and storage management objectives, can feasibly be delivered through planned system operations, and risks can be adequately managed.

1.1.4 Changes to the seasonal watering plan

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

The Act allows the VEWH to vary any section of the seasonal watering plan to incorporate new knowledge or address circumstances that were not identified before the start of the water year. This enables flexibility to adapt to changing conditions. Any variations are publicly available at vewh.vic.gov.au as separate attachments to the current seasonal watering plan.

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

Sometimes there may be unforeseen circumstances that call for the use of water for the environment that does not require a variation to the seasonal watering plan. These include:

- minor operational adjustments to specific water delivery actions
- water for the environment being used for environmental emergency management purposes
- small volumes of water for the environment being used for technical investigations or infrastructure maintenance
- assisting the delivery of water for the environment held by other water holders for downstream, non-Victorian objectives.

The VEWH cannot anticipate these specific circumstances or include details about them in this plan. Waterway managers must 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 slight adjustments because of changes in predicted rainfall, other water orders, delivery infrastructure constraints, emerging ecological 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 CEO or Commission through a formal variation.

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

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 beyond the scope of this plan (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 that was not scoped in the seasonal watering plan. The VEWH authorises and makes these deliveries possible as long as risks like potential harm to Victoria's rivers, wetlands and floodplains are managed appropriately.

1 In the context of the Victorian Government commitment to self-determination for First Nations, partners in the environmental watering program are committed to strengthening the role of Traditional Owners as program partners into the future and supporting self-determination within and beyond the program.

Return to start of section

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…

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
- ecological 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
- the opportunity to deliver shared benefits, such as for Traditional Owner and recreational values.

It is important there is flexibility to respond to these different factors because they can have a big influence on 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 impacts of system operating rules become clearer as the season unfolds. This clarity informs decisions about which environmental flows go ahead and when. Many on-ground factors do not become clear until much closer to the anticipated water delivery.

The VEWH takes a flexible and adaptive approach to decisions with relevant stakeholders, then reviews and adjusts them so that water for the environment is used efficiently for the best environmental outcomes across Victoria.

Waterway, storage and land managers advise the necessary watering actions that can be delivered in each region during the year. Environmental water holders use that information to decide which actions to authorise. All program partners have a role in identifying potential watering actions and enabling the release of water for the environment, as explained in subsection 1.2.3.

The VEWH can also ask for more scientific or community contributions if planned watering actions need to change significantly during the season to respond to unforeseen circumstances.

Updated information about current and anticipated deliveries of water for the environment is published regularly at vewh.vic.gov.au.

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

The VEWH aims to commit as much water as realistically and as early as possible to give waterway managers certainty to go ahead with planned actions to deliver water for the environment.

The VEWH can commit its water at any point before or during the water year. It commits this water through seasonal watering statements that authorise waterway managers to release water for the environment and are published at vewh.vic.gov.au.

Depending on the nature of the system and the entitlement being used, the VEWH may make one or multiple statements for a system during the water year. Before issuing a seasonal watering statement, the VEWH must be sure the required delivery arrangements, including risk management measures, are in place and that any related costs are acceptable.

Decisions to commit water for the environment may need more thorough consideration 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.

Return to start of section

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 fledge or grow and fly from the nest.

The Commonwealth Environmental Water Office (CEWH) and the Southern Connected Basin Environmental Watering Committee (for the Living Murray program) commit water for use in Victoria, and the VEWH formally authorises that use through seasonal watering statements.

When water in Victorian accounts held by the CEWH and the Living Murray program needs to be delivered to non-Victorian sites, the VEWH enables that use through a watering authorisation. 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 or changes in operating conditions or water availability. It consults with the relevant environmental water holders, waterway manager and storage manager 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

The VEWH works with its program partners to decide where available water for the environment and funding are used and where water is carried over or traded to get the best possible outcomes for the health of Victoria's rivers, wetlands, estuaries and floodplains.

It is essential to recognise the dynamic nature of delivering water for the environment when putting the program into action. 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, it works with waterway managers and other relevant water holders to prioritise actions to deliver water for the environment. More information about trade is provided in VEWH's *Water Allocation Trading Strategy* which is published at vewh.vic.gov.au

Criteria used to guide prioritisation decisions

The VEWH considers certain criteria, which Figure 1.2.1 shows, 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.

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

- decisions by other water holders about the use of their water for the environment
- Victorian and Commonwealth Government decisions 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 water allocation to fund works or technical investigations to improve environmental outcomes
- services associated with managing Water Holdings and delivering water for the environment.

Return to start of section

Figure 1.2.1 Criteria for prioritising actions to deliver water for the environment

Return to start of section

Who is involved in the prioritisation process

Waterway managers, environmental water holders, storage managers, land managers, Traditional Owners, stakeholders, communities including recreational users, environmental and farming groups and interested landholders and community members all have a role in prioritising actions to deliver water for the environment, depending on the nature and scale of the decisions being made.

Waterway managers undertake stakeholder and community engagement and advise about the extent and significance of actions to deliver water for the environment and the highest priorities in their region.

The VEWH and other environmental water holders determine the highest watering priorities across regions. The VEWH collaborates with waterway managers and other program partners to decide on the best possible environmental outcomes for Victoria. Storage managers' advice is important to help understand how practical it is to water at a particular time within potential operational constraints.

Land managers consent to the delivery of environmental flows on their land. They advise about this after considering land management activities, public access and the risks and benefits of the watering action.

Waterway managers consult with local communities each year about prioritising sites for watering. These consultations are informed by longer-term planning detailed in plans, including regional catchment strategies, regional waterway strategies and environmental water management plans. They draw on a breadth of local and specialist knowledge and, as well as seeking to achieve the environmental outcome aims, also seek to prioritise sites for watering and other river health activities that have high environmental, economic, social and Traditional Owner cultural values.

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

Different climatic conditions influence how water for the environment is managed, just as rainfall patterns influence how we water our gardens or paddocks. Seasonal conditions, as explained in subsection 1.1.1, influence what water will be available during the water year and the environmental objectives to work towards. Waterway managers take seasonal conditions into account when prioritising the water for the environment needed at each site. Seasonal planning scenarios describe the range of watering actions that could occur, depending on drought to very wet conditions.

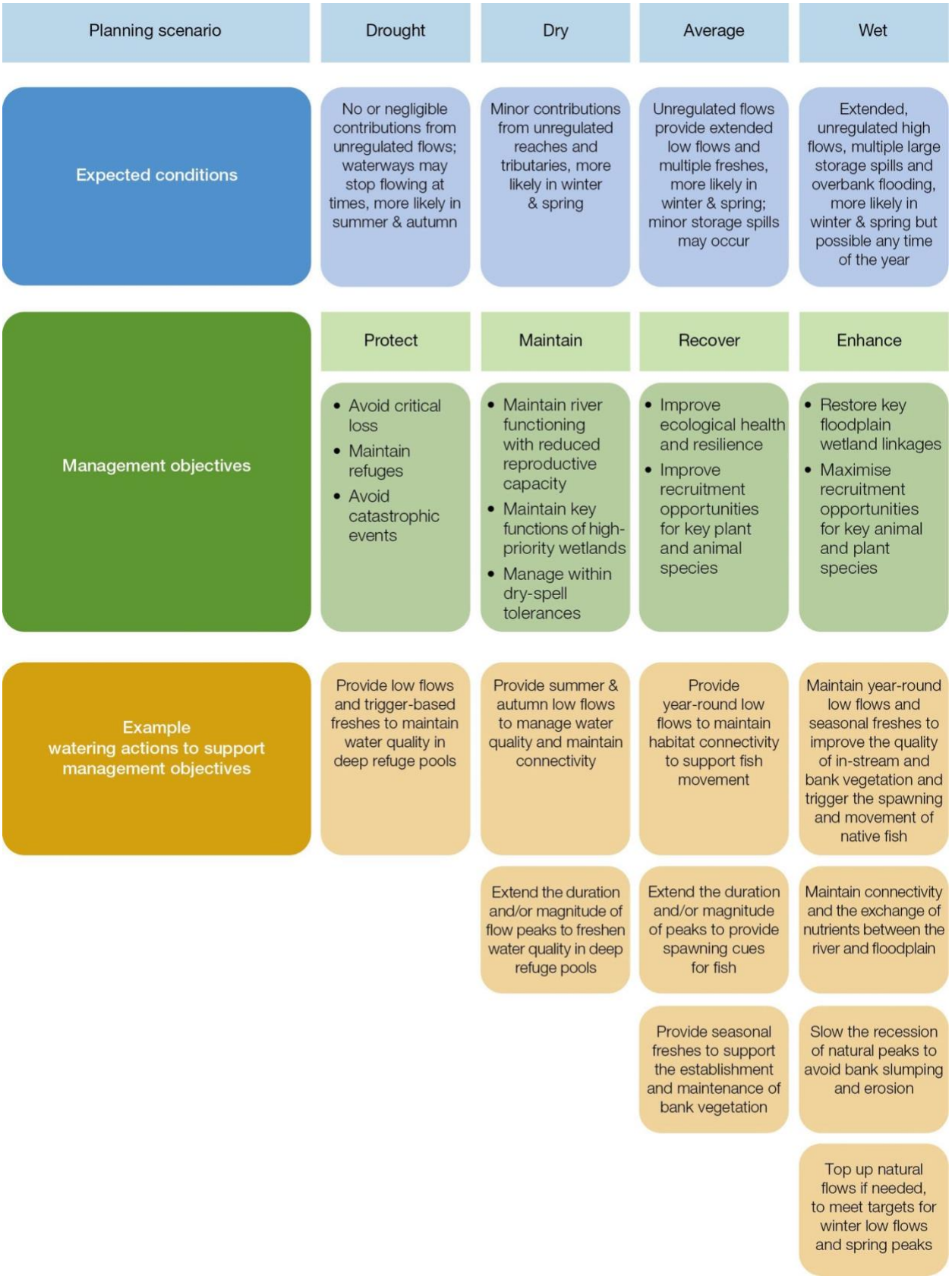
Waterway managers work with the program partners to get the best possible outcomes from water for the environment by considering:

- environmental objectives under each climatic 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 to achieve environmental objectives
- how water for the environment can be used to build on natural flows or irrigation deliveries to meet the environment's needs
- natural climatic cues that might help produce an ecological outcome: for instance, a drying wetland.

Planning scenarios are presented in the seasonal watering plan as a basis for adaptively managing water use as the season unfolds. They also give an early indication of 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.

Return to start of section

Figure 1.2.2 Example planning scenarios under a range of climatic conditions



Return to start of section

1.2.5 How economic, recreational, social and Traditional Owner cultural values and uses are considered in decisions to deliver water for the environment

Water delivered for the environment provides many direct benefits to the community by improving the health of rivers, wetlands and floodplains. It benefits places where people visit to relax, play and connect with nature. Water for the environment helps to increase populations of fish species popular with anglers, maintain healthy Country for Aboriginal communities and improve the quality of water available to irrigators.

Waterway managers engage with Traditional Owners regarding cultural values and uses of waterways and how the environmental watering program can contribute to realising cultural objectives for Country. The VEWH recognises the government frameworks and processes for managing water for the environment have not been determined by Traditional Owners. The VEWH is committed to progressing Traditional Owner self-determination in the environmental watering program and has started working with Traditional Owners and the government toward establishing Traditional Owner-led seasonal watering proposals, as subsection 1.2.6 explains.

Waterway managers work with communities to identify environmental, social, economic and recreational values and uses of waterways, including through regional catchment strategies, regional waterway strategies, environmental water management plans and seasonal watering proposals. Opportunities to support these values and uses are taken up in deliveries of water for the environment wherever possible, as long as the delivery does not compromise environmental outcomes.

Longer-term community benefits 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 the watering are likely to boost tourism and recreational opportunities in the longer term and enhance the experience of connecting with nature. If short-term inconveniences happen, waterway managers work closely with land managers to limit the disruption to users as much as possible.

Values and uses considered during planning for environmental flows are summarised in each system shown in sections 2 to 5. Specific watering actions planned to align with a social or recreational objective or be delivered in partnership with Traditional Owners to 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

Icon	Objective
	Watering planned and/or delivered in partnership with Traditional Owners to support Aboriginal cultural values and uses
	Watering planned to support water sports activities (e.g. canoeing, kayaking, rowing, swimming, water skiing)
	Watering planned to support waterbird-related recreational activities
	Watering planned to support angling activities
	Watering planned to 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 management of water for the environment

The *Seasonal Watering Plan 2023-24* represents existing legislative requirements to take Aboriginal cultural values into account in the formation of seasonal watering proposals, based mainly on engagement with waterway managers. However, the VEWH is committed to increasing the agency and self-determination of Traditional Owners in the Victorian environmental watering program and to supporting Traditional Owners to access and manage water on their own terms.

Early in 2022, the VEWH published its position statement outlining its commitment to progress Traditional Owner self-determination. The Victorian Government's 2022 *Water is Life: Traditional Owner Access to Water 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 these policy actions. Early work includes starting trials for Traditional Owner-led seasonal watering proposals. Additional watering actions that may result from the trials can be approved by the VEWH CEO or Commission through a variation to the seasonal watering plan.

Return to start of section

1.2.7 How risks are managed

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

The VEWH and its program partners have developed 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 they develop the proposals so they can 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 reassess 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 measures to mitigate the risks, as the partners have agreed. Watering actions will not be carried out if unacceptable risks to the public or environment cannot be mitigated.

Table 1.2.1 Main shared risks of delivering water for the environment

Type of risk	Example mitigating actions
Delivering water for the environment contributes to third-party impacts	Identify and understand the capacities of water systems and monitor water levels at key locations to inform daily water release decisions to make sure impacts do not eventuate. Consider potential catchment run-off from forecast rainfall before deciding on the timing of releases of water for the environment. Put a communication strategy into action that may include media releases, public notices and signage before environmental flows to make sure people are informed about significant deliveries and can adjust their behaviour. This includes early liaison with stakeholders who may be affected. Restrict access by closing gates and tracks.
Inability to achieve or demonstrate ecological outcomes from delivering water for the environment	Do intervention monitoring with available resources to identify the ecological response. Do research to better understand responses to water for the environment. Communicate the outcomes of monitoring and apply learnings to future deliveries. Consider the need for complementary works to help achieve the environmental objectives of delivering water for the environment as part of integrated catchment management. Factor in the likely time it will take for ecological responses to be observed.
Delivering water for the environment has negative effects on the environment (like bank erosion and the spread of weeds)	Plan the timing, frequency, length and variability of environmental flows to limit negative effects. Monitor the outcomes of deliveries of water for the environment and adapt future deliveries and/or scientific recommendations if necessary.

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. In these situations, program partners work together 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.

Return to start of section

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 reprioritise watering actions authorised under the existing seasonal watering statement to allow the emergency watering action to be taken without impacting 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.

1.3 How to read the seasonal watering plan

Under the Victorian *Water Act 1989*, the VEWH can only authorise the use of water for the environment where it is consistent with a seasonal watering plan. This is to maintain transparency about the planning and management of environmental flows.

The plan must make sure that the scope, objectives and potential watering activities for each waterway are clear and that decisions about possible water use are made effectively and transparently.

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

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

Each region is divided into system sections for waterways and wetlands 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.

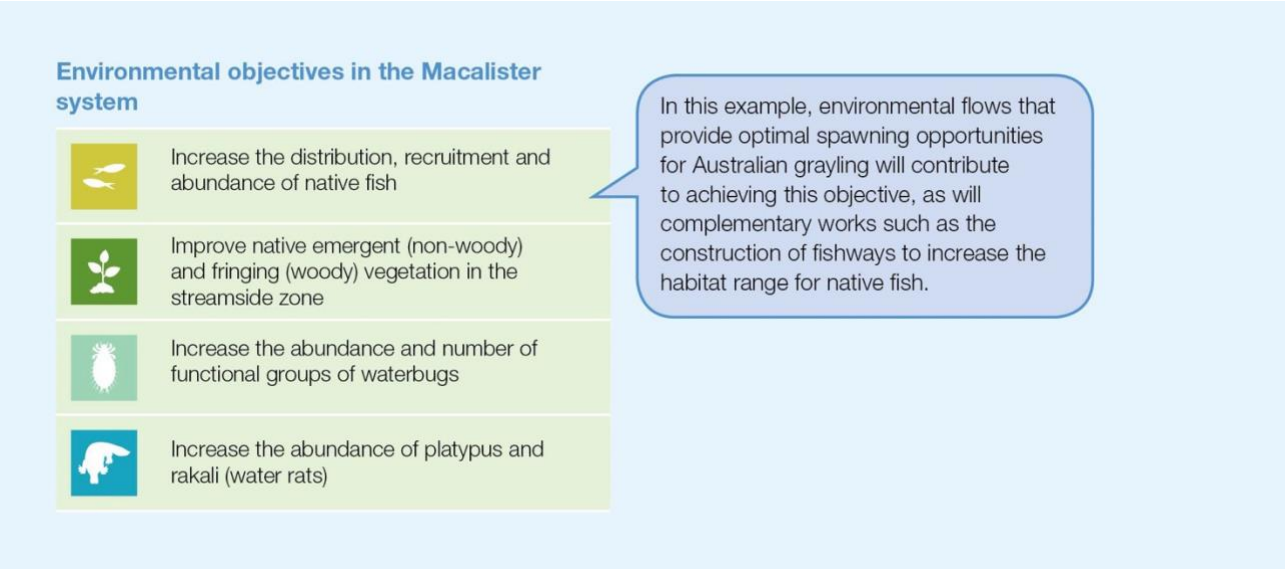
The system sections include:

- **a system introduction page** with:
  - the names of the one or more waterway managers, storage managers and/or environmental water holders for the system
  - a pie chart showing the proportion of water entitlements in the system for environmental, urban, industry and irrigation uses, where available
- **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
- **environmental objectives in the system**, which Figure 1.3.1 shows, that summarises the measurable 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. It may take years or several decades to achieve targeted outcomes
- **Traditional Owner and recreational values** considered in planning for environmental flows, along with opportunities to support these values, as long as environmental outcomes are not compromised
- **the scope of deliveries of water for the environment**, which Figure 1.3.2 shows, that sets out potential actions to deliver water in 2023-24, 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

Return to start of section

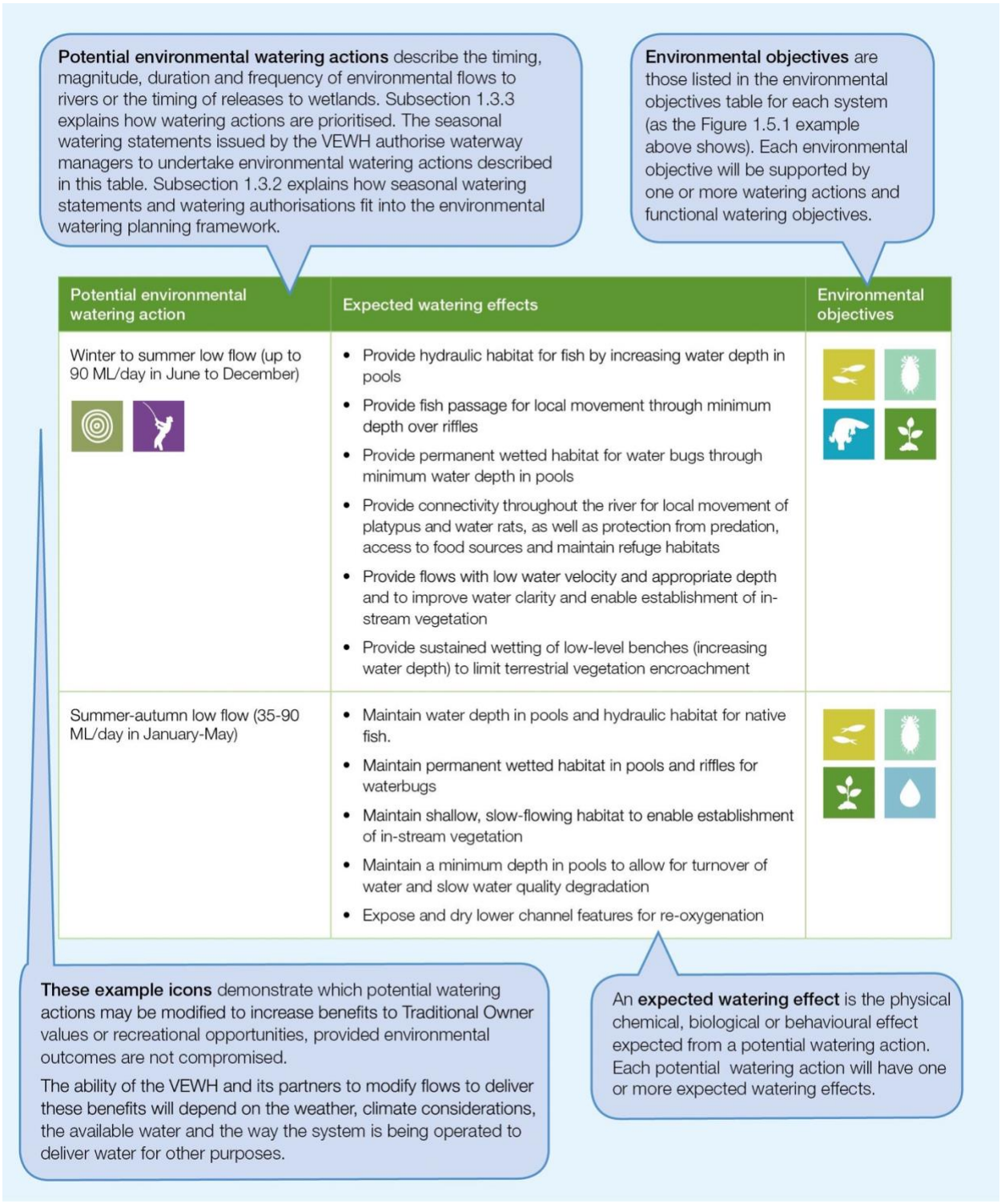
- **scenario planning**, which Figure 1.3.3 shows, indicating in a table the range and priority of potential actions to deliver water for the environment in the coming year under different climate and water availability scenarios. The text with the table describes the rationale or need for the proposed combination of potential actions under each scenario. Climate scenarios considered are mostly drought, dry, average and wet, but occasionally more or fewer scenarios are used. Section 1.2.4 explains how seasonal conditions are considered in planning.

Figure 1.3.1 Example environmental objectives table



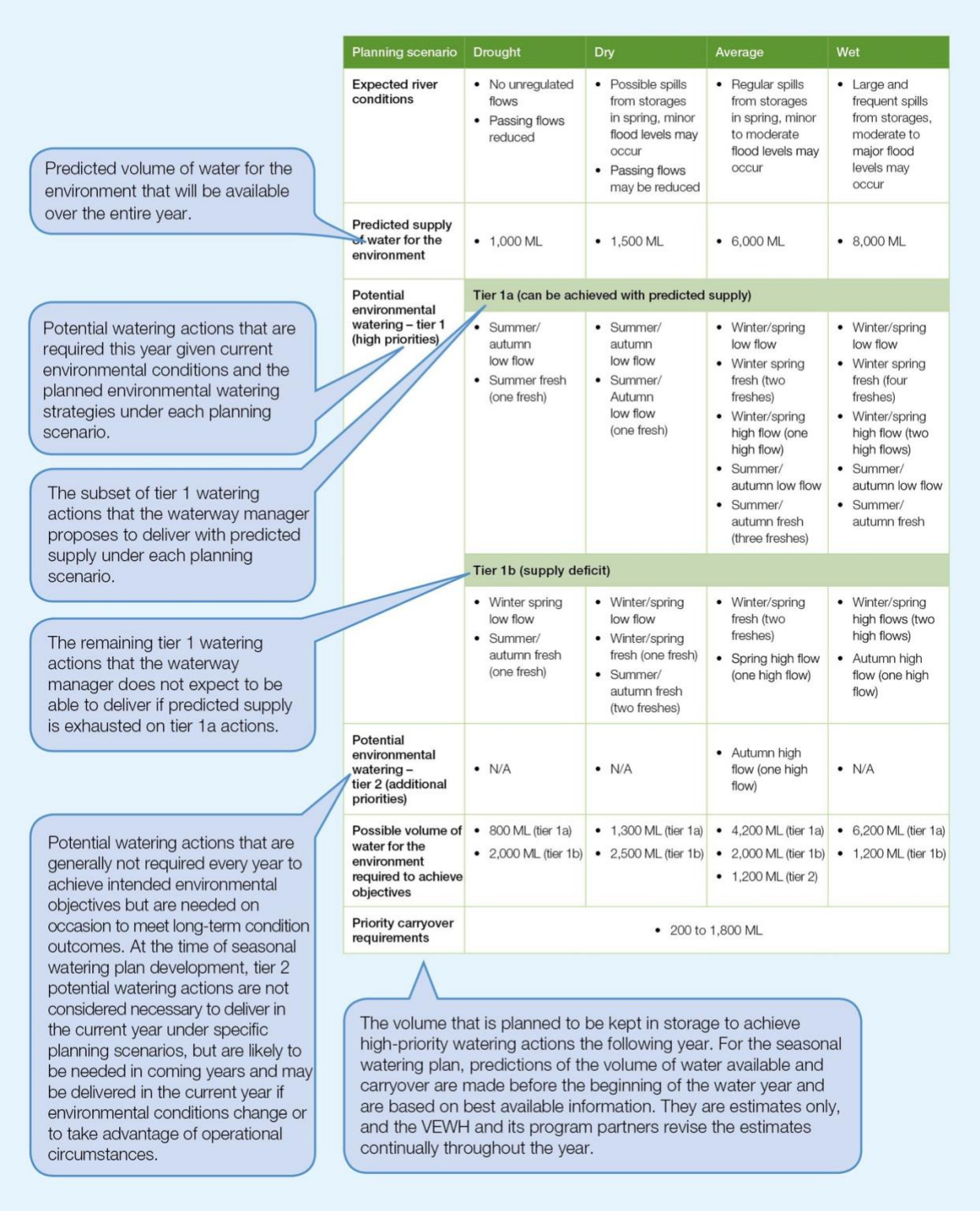
Return to start of section

Figure 1.3.2 Example potential actions to deliver water for the environment and objectives table



Return to start of section

Figure 1.3.3 Example scenario planning table



Planning scenario	Drought	Dry	Average	Wet
Expected river conditions	• No unregulated flows • Passing flows reduced	• Possible spills from storages in spring, minor flood levels may occur • Passing flows may be reduced	• Regular spills from storages in spring, minor to moderate flood levels may occur	• Large and frequent spills from storages, moderate to major flood levels may occur
Predicted supply of water for the environment	• 1,000 ML	• 1,500 ML	• 6,000 ML	• 8,000 ML
Potential environmental watering – tier 1 (high priorities)	**Tier 1a (can be achieved with predicted supply)**			
	• Summer/ autumn low flow • Summer fresh (one fresh)	• Summer/ autumn low flow • Summer/ Autumn low flow (one fresh)	• Winter/spring low flow • Winter spring fresh (two freshes) • Winter/spring high flow (one high flow) • Summer/ autumn low flow • Summer/ autumn fresh (three freshes)	• Winter/spring low flow • Winter spring fresh (four freshes) • Winter/spring high flow (two high flows) • Summer/ autumn low flow • Summer/ autumn fresh
	Tier 1b (supply deficit)			
	• Winter spring low flow • Summer/ autumn fresh (one fresh)	• Winter/spring low flow • Winter/spring fresh (one fresh) • Summer/ autumn fresh (two freshes)	• Winter/spring fresh (two freshes) • Spring high flow (one high flow)	• Winter/spring high flows (two high flows) • Autumn high flow (one high flow)
Potential environmental watering – tier 2 (additional priorities)	• N/A	• N/A	• Autumn high flow (one high flow)	• N/A
Possible volume of water for the environment required to achieve objectives	• 800 ML (tier 1a) • 2,000 ML (tier 1b)	• 1,300 ML (tier 1a) • 2,500 ML (tier 1b)	• 4,200 ML (tier 1a) • 2,000 ML (tier 1b) • 1,200 ML (tier 2)	• 6,200 ML (tier 1a) • 1,200 ML (tier 1b)
Priority carryover requirements	• 200 to 1,800 ML			

Return to start of section