Seasonal Watering Proposal

Coundons Wetland

2025-26

Wimmera Mallee Pipeline

mallee
catchment management authority

Document Control

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Draft	1.1	Mallee CMA	28/02/2025	Drafted content submitted to VEWH.
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Acknowledgement of Country

Mallee Catchment Management Authority (CMA) acknowledges and respects Traditional Owners, Aboriginal communities and organisations. We recognise the diversity of their cultures and the deep connections they have with Victoria's lands and waters.

We value partnerships with them for the health of people and country.

Mallee CMA Board, management and staff pay their respects to Elders past, present and emerging and recognise the primacy of Traditional Owners' obligations, rights and responsibilities to use and care for their traditional lands and waters.

Cover image: Coundons Wetland

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1 Context

Mallee Catchment Management Authority (CMA) is pleased to present the final 2025-26 Wimmera Mallee Pipeline Seasonal Watering Proposal (SWP).

This SWP outlines the Mallee CMA's proposed priorities for the use of environmental water at the Wimmera Mallee Pipeline (WMP) wetlands in 2025-26.

This SWP is required under section 192A of the Water Act 1989. Information from this document has informed development of the Seasonal Watering Plan 2025-26, available on the Victorian Environmental Water Holder's (VEWH's) website from 30 June 2025. The Seasonal Watering Plan is the state-wide plan outlining where, when, and why water for the environment can be delivered throughout Victorian waterways, including the WMP.

The actions outlined in this proposal are informed by ecological objectives and management goals outlined in the site specific, Environmental Water Management Plan (EWMP). It identifies the wetland values, ecological objectives and the required hydrological regime. The EWMP is the primary information source in developing the SWP. Other environmental themes guiding site selection include providing and supporting refuge and habitat, maintaining site condition and creating resilience. This ensures the ability of sites to 'bounce back' and respond when conditions become more favourable. Target flora and fauna include inundation dependent wetland vegetation species as well as waterbirds, fish, and frogs. Other factors such as habitat and food resources are also a focus.

In addition to providing water for environmental benefit, delivery of water to the wetlands also supports cultural, social and economic values. These are captured in feedback received from Aboriginal Community, stakeholders and local community members.

The Wimmera Mallee Pipeline supplies a total of 52 wetlands, of which 32 are managed by the Mallee CMA (Figure 1.1). These 32 wetlands are dispersed across the southern part of the Mallee region, with the majority of these supplied by the Wimmera Mallee Pipeline. A small cohort of sites on the eastern side of the township of Nullawil are watered through a Supply System 5 agreement, which sources the water from the Murray River.

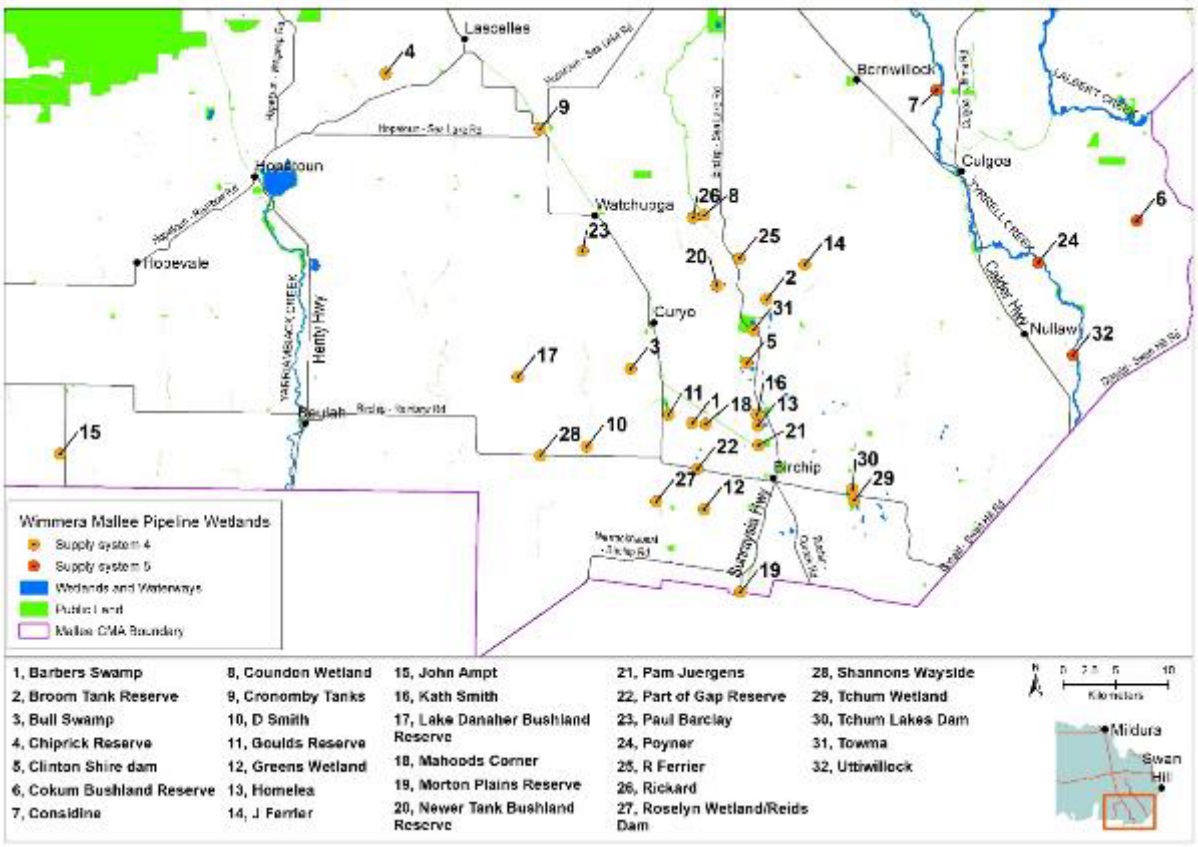


Figure 1.1 Map of all 32 Mallee CMA managed Wimmera Mallee Pipeline Sites

Key areas of the proposal are detailed below:

- Scope of environmental watering – Describes the range of potential watering actions which may be delivered during 2025-26 (a summary of these actions is provided in section 7. Scope of Environmental Watering).
- Environmental water delivered to WMP wetlands in 2024-25 met environmental targets with waterbird breeding and delivery to Tchum Lake (wetland) building capacity for future water delivery events. The 2025-26 focus will be to maintain the current condition of flora and fauna and provide drought refuge across an otherwise dry landscape. Under an average scenario, 176 ML of environmental water is proposed to be delivered to 31 of the 32 wetlands contributing towards achieving ecological objectives. The delivery will focus on providing refuge and in some cases larger inundations will be provided to improve water dependent values and opportunities at the wetlands and in some cases surrounding floodplain.

Table 1.1 Wetland sites and their respective land manager and public reserve (where applicable).

Wetland Site	Land manager	Park reserve name
Barbers Swamp	Private	N/A
Broom Tank	Parks Victoria (Public)	Marlbed Bushland Reserve
Bull Swamp	Parks Victoria/ Private (Public)	Bulls Swamp Water Reserve
Chiprick	Parks Victoria (Public)	Chiprick Bushland Reserve
Clinton Shire Dam	Parks Victoria (Public)	Towma Bushland Reserve
Cokum	Parks Victoria (Public)	Cokum Bushland Reserve
Considine	Private	N/A
Coundon Wetland	Private	N/A
Cronomby Tanks	Parks Victoria/ Private (Public)	Cronomby Campground
D Smith	Private	N/A

Wetland Site	Land manager	Park reserve name
Goulds Reserve	Parks Victoria (Public)	Box Swamp Bushland Reserve
Greens Wetland	Private	N/A
Homelea	Private	N/A
J Ferrier Wetland	Private	N/A
John Ampt	Private	N/A
Kath Smith	Private	N/A
Lake Danaher Bushland Reserve	Parks Victoria (Public)	Lake Danaher Bushland Reserve
Mahoods Corner	Private	N/A
Morton Plains Reserve	DEECA (Public)	Other Reserves and Public Land
Newer Tank	Parks Victoria (Public)	Round Swamp Bushland Reserve
Pam Juergens	Private	N/A
Part of Gap Reserve	Private	N/A
Paul Barclay	Private	N/A
Poyner	Private	N/A
R Ferrier	Private	N/A
Rickard Glenys	Private	N/A
Roselyn Wetland/Reids Dam	Private	N/A
Shannons Wayside	GWMWater (Public)	Public Tanks and Bores
Tchum Lake North (Wetland)	Parks Victoria (Public)	Tchum Lakes Lake Reserve
Tchum Lake North (Pool)	Parks Victoria (Public)	Tchum Lakes Lake Reserve
Towma (Lake Marlbed)	Parks Victoria (Public)	Towma (Lake Marlbed) Flora and Fauna Reserve
Uttiwillock	DEECA (Public)	Other Reserves and Public Land

- Scenario planning – Describes how the combination of actions may change depending on the climate scenario.
- Risk management – This is an important chapter of the proposal and will be based on the outcomes from the 2025 Shared Operational Risk Workshop – in particular the risk management table.

This document has been developed in consultation with Barengi Gadjin Land Council Aboriginal Corporation, Grampians Wimmera Mallee Water (GWMWater), Parks Victoria, the Department of Energy, Environment and Climate Action (DEECA) and Victorian Environmental Water Holder (VEWH). We are grateful for their time and input.

2 System Overview

The Wimmera-Mallee wetlands include 52 sites on public and private land spread across north-west Victoria (Figure 2.1). From the early 20th century until the construction of the Wimmera-Mallee Pipeline Project (WMPP) in 2010, the deeper areas of these wetlands received water most years from the open channels associated with the Wimmera Mallee Domestic and Stock Channel System.

The WMPP replaced stock and domestic supply dams with tanks, and the open-channel distribution system with pipelines, to improve water efficiency. A portion of the water savings from the WMPP was converted to an environmental entitlement to improve the condition of the area's flow-stressed rivers, creeks and wetlands; the rest was used to create regional development opportunities and boost supply reliability for other users. The WMPP reduced the amount of open-water habitat in largely agricultural areas formerly supplied by the open-channel system, so a separate 1,000 ML environmental entitlement was created to water some of the wetlands that were previously supplied through the channel system. As a result, fifty-two wetlands can receive water from this environmental entitlement. The full allocation is available only in a Wet climatic scenario and 25% available in Average. Both Dry and Drought scenarios rely on carryover from previous years. Details on the allocation and rationale for each scenario can be found in section 8.Scenario Planning.

Water for the environment can only be delivered to the wetlands when there is sufficient capacity in the Wimmera-Mallee Pipeline system, which can be affected by demand from other pipeline customers. The North Central, Mallee and Wimmera CMAs work closely with GWM Water and land managers (including Parks Victoria, DEECA and private landowners) to take account of pipeline capacity constraints when ordering environmental deliveries to wetlands.

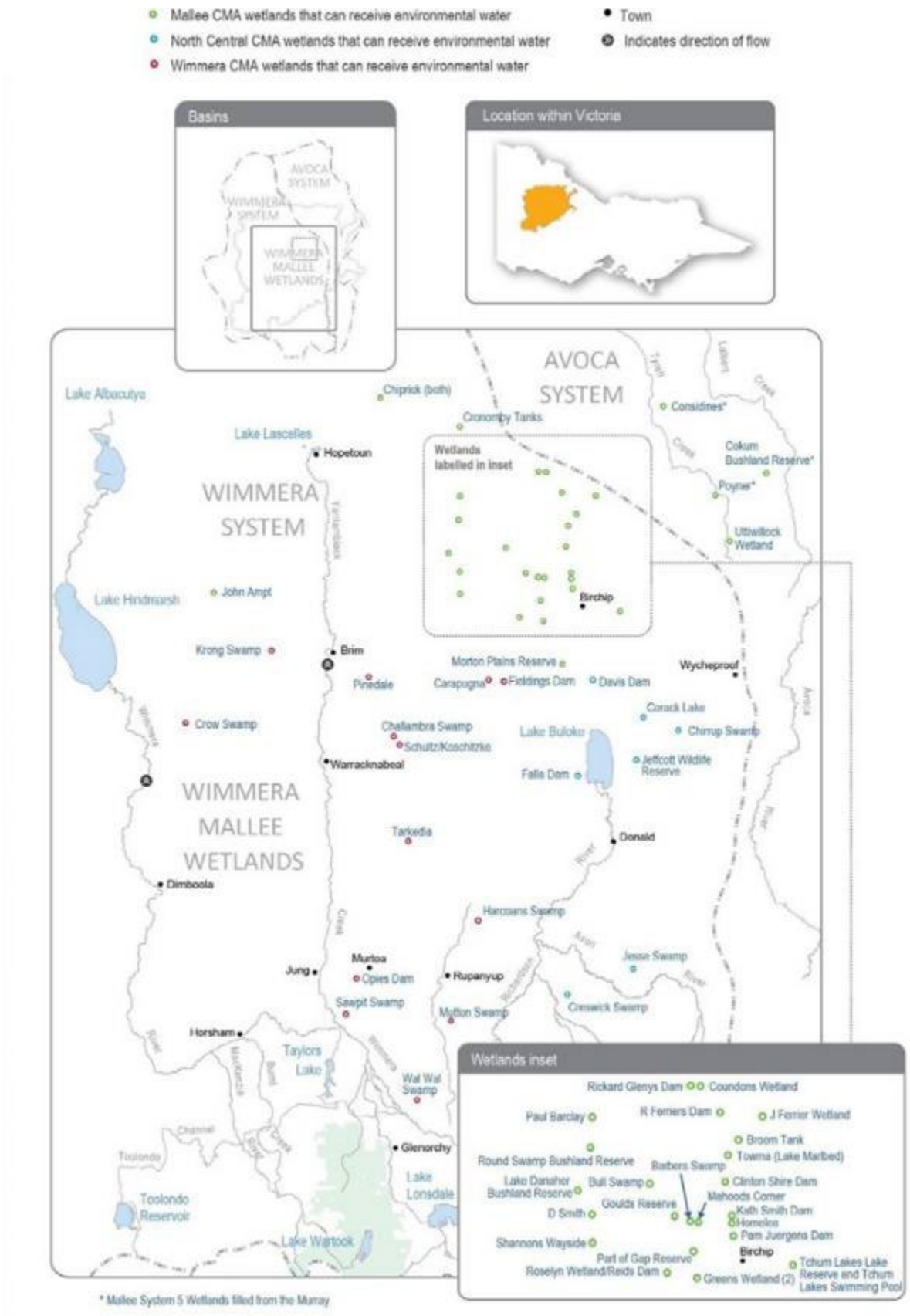


Figure 2.1 The Wimmera-Mallee Pipeline wetlands

3 Traditional Owner Cultural Values and Uses

The broad geographic area that includes the Wimmera-Mallee wetlands has a longstanding cultural connection for the Traditional Owners of the region, including groups represented by the Barengi Gadjin Land Council (BGLC), Dja Dja Wurrung Clans Aboriginal Corporation, Wamba Wemba and Barapa Barapa Traditional Owners. Some sites have artefacts and scar trees recorded in or adjacent to them, and further cultural surveys could better inform the management of water for the environment at those sites.

BGLC is the Registered Aboriginal Party for a significant land area of the Wimmera-Mallee wetlands and represents the Wotjobaluk, Jaadwa, Jadawadjali, Wergaia and Jupagalk peoples.

Engagement with the BGLC has been maintained during the previous six months. The engagement included site visits held at Goyura, Ranch Billabong and Yallamjip – Walpeup Wetland and included discussions on possible Water is Life trial sites, environmental watering opportunities, aspirations and projects that facilitate reconnection with and healing of Country.

BGLC has discussed the significance of the wetlands located within the RAP area and their aspirations to undertake work at these sites in future. This statement was provided to the Mallee CMA while discussing environmental watering:

> "The Wimmera-Mallee is living cultural landscape and there is a lack of recorded data regarding the cultural values over many sections of the Wimmera-Mallee Pipeline. Several highly significant places are outlined through our Country Plan, but like all places across our Country, the rivers, creeks, lakes, wetlands and swamps, and all other landscape features in this area are of high cultural significance. We wish to care for Country again through our traditional land management practices and revive and share the ancient narrative of this area. Mapping the cultural values of places along the Wimmera- Mallee Pipeline will be essential in contributing to integrated catchment management.
>
> "We are currently identifying places of particular cultural values and uses with more confidence as we continue to make progress with Aboriginal Water Assessment/ Cultural Heritage Surveys which are systematically undertaken across Wimmera-Mallee Pipeline sites. All the swamps, wetlands and soaks of this area are of high cultural significance as they are linked to Traditional trading routes that extend in all directions. It is essential that all of these places are managed correctly, and water quality and biodiversity are improved." These comments were re-endorsed by the Barengi Gadjin Aboriginal Land Council during recent engagement events."

Mallee CMA held an engagement event with BGLC at Ranch Billabong on 1 October 2024 to discuss planning for environmental water deliveries across 2025-26. On 17 December 2024 Mallee CMA and BGLC visited Lake Danaher and Greens Wetland to discuss the cultural values and uses of these sites. During these discussions, BGLC talked about the importance of revegetation and traditional plants, bush food and medical plants at the Wimmera Mallee Pipeline Wetlands. They expressed interest in encouraging the growth of ice crystal plant and black box, and the protection of turtles from being hunted by pest species including foxes and cats. Discussions were also held around the importance of cultural burning to allow plants and trees to germinate.

A draft of proposed watering sites for 2025-26 was provided to BGLC during an Aboriginal Reference Group meeting on 5 February 2025 as part of feedback from earlier discussions in October and December. BGLC staff were happy with the sites planned to receive water and expressed interest in expanding the existing sites to include Goyura Wetland where they can dedicate flora and fauna protection works.

Table 3.1: Cultural objectives relevant to the Wimmera-Mallee Pipeline Wetlands.

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

4 Social, Recreational and Economic Values and Uses

In planning the potential environmental watering actions in Table 7.1, Mallee CMA has also considered how environmental flows could support other values and uses at the Wimmera Mallee Pipeline wetlands, including:

- water-based recreation (such as kayaking, fishing, swimming and yabbying)
- riverside recreation and amenity (such as birdwatching, photography, camping, picnicking and walking)
- community events and tourism (such as orienteering and citizen science, including collecting data about bird species and abundance, frog species and microbat recordings).

The recreational and economical values of wetlands and dams is extremely important to the surrounding community in the Wimmera Mallee Pipeline region. In planning the potential environmental watering actions in Table 4.1, Mallee CMA considered how environmental water delivery could support these values and uses.

Table 4.1 Recreational objectives of Wimmera Mallee Pipeline

	Environmental watering planned to support water sports activities (e.g. canoeing, kayaking and swimming)
	Environmental watering planned to support waterbird-related recreational activities (e.g., birdwatching and photography)
	Environmental watering planned to support fishing activities
	Environmental watering planned to support peaks in visitation (e.g., camping, or other public activities on long weekends or school holidays)

Figure 4.1 Significant values identified by community members

Water for the environment in the Wimmera Mallee Pipeline region plays a vital role in protecting the ecosystems, flora and fauna that are unique to this region. A secondary and equally important role this water plays is in providing natural green spaces for local community. In an otherwise dry environment, water is a major focal point for community and visitors alike. Therefore, it is important to preserve these landscapes and continue to understand how these spaces are used by the community and tourists to fully understand their value.

Face-to-face, online communication and community surveys indicate a high level of use of local wetlands and creeks, with a greater connection when water is present. Data collected through these engagement events indicated that community members regularly enjoyed recreational activities at the wetlands that are proposed to receive watering for 2025-26. Activities and values associated with watering that were commonly mentioned by local community include water, bird watching, picnics, photography and nature walks. At some of the larger sites community members also indicated that they liked to participate in boating, kayaking, fishing, swimming and camping. Waterbodies which are frequently listed by community as 'favourites' include Barbers Swamp, Rickard Glenys, Lake Danaher and Tchum Lake Reserve. However, the list isn't just limited to the sites that receive environmental water annually, sites watered less frequently receive great community support when environmental water is being proposed and delivered in these locations as the benefits of having environmental water present can be seen long after the watering has occurred.

Whilst social, recreational and economic drivers are not the deciding factors when selecting and prioritising sites to receive water, community support can be an important factor in the success of a watering event. Feedback from the community highlights the importance of these landscapes to the community and the additional benefits of delivering environmental water.

The Wimmera Mallee Pipeline also plays a vital role in bringing tourism to the local area. In 2019, residents of Woomelang were asked what role they believed 'Cronomby Tanks' played in their community. The residents said that the wetlands played an important role in generating economic activity. Economic activity includes 1000 vans and camper vehicles visiting the Cronomby tanks each year, which supports the local Woomelang General Store. (Mallee CMA, 2023).

A breakdown of shared benefits, generally across all sites, is provided in Table 4.2.

Table 4.2 Shared benefit considerations for 2025-26

Waterway	Beneficiary	Connection to the waterway	Values/ Uses/ Objectives/ Opportunities	How have these benefits been considered?
Chiprick Reserve	Bushwalkers and bird watchers. Citizen science – bird monitoring.	Local community and visitors to these locations have a healthy appreciation of the environment. They value the calming effect of being in a natural landscape, around water, and value the recreational opportunities provided by these assets.	Public amenity	These various waterways across the Wimmera Mallee wetlands will continue to provide shared benefits for the community by way of varying recreational pursuits and places where community can gather.
Tchum Lakes	Bushwalkers, kayakers and bird watchers.		Public amenity Landcare group present. Public walking track present	
Barber's Swamp	Bushwalkers, kayakers and bird watchers.		Private amenity Walking track	
Considine	Relaxation and personal monitoring of wildlife		Private amenity Walking track and swing chair	
Coundon Wetland	Relaxation and personal monitoring of wildlife		Private amenity Landholder visits the wetland	
Lake Danaher	Citizen science – bird monitoring		Public amenity	
Cronomby Tanks	Citizen science – bird monitoring		Public amenity	
J. Ferrier Wetland	Relaxation and personal enjoyment of wetland.		Private amenity	
John Ampt	Relaxation and personal enjoyment of wetland.		Private amenity	
Poyner	Bushwalkers, bird watchers and people who like to picnic.		Private amenity	
R. Ferrier Dam	Bushwalkers and bird watchers Citizen science – bird monitoring		Private amenity Site of past Landcare actions	

Cokum	Community		Public amenity Sanctuary for reflection	
Uttiwillock	Local community Bird watchers Landcare group		Public amenity Public venue for functions, clubs, educational activities Activities including fishing, swimming, kayaking and recreation	Strong Landcare Group support resulting in the wetland being fenced to protect from domestic stock. Wetland provides a focal point for the community with it being used for social events and BBQ's. Watering will continue to attract birds and other fauna to the site which can inhabit nest boxes installed by the community.
Morton Plains	Community, bird watchers and bushwalkers. Citizen science – bird monitoring. Landcare group		Public amenity Recreation Landcare group	The Birchip Landcare Group have an interest in this site and will continue to support environmental water delivery through on-ground works.
Roselyn Wetland	Bushwalkers and bird watchers Citizen science – bird monitoring Landcare group		Private amenity- Pontoon Strong landholder participation Landcare group projects	The Birchip Landcare Group have undertaken and will continue to undertake wetland enhancement projects at this site. These actions will support outcomes being achieved by the environmental watering program

5 Environmental Values and Objectives

There are many wetland types in the Wimmera-Mallee wetlands system, including freshwater meadows, deep open freshwater wetlands and sites that are largely terrestrial but encompass dam structures, which provide important refuge habitat.

This diversity provides various wetland habitats for plants and animals across the Wimmera- Mallee region. The wetlands support black box, lignum and cane grass vegetation communities which offer perching, feeding, and breeding habitat for many species of native aquatic and terrestrial fauna.

Several water-dependent fauna species have been recorded at Wimmera Mallee Pipeline Sites, including the listed freshwater catfish (Tandanus tandanus), the Murray River turtle (Emydura macquarii), hardhead (Aythya australis) and eastern great egret (Ardea modesta). Several listed terrestrial fauna species have also been recorded using the wetlands as drought refuges and drinking holes including the indirectly water-dependent regent parrot (Polytelis anthopeplus), the carpet python (Morelia spilota metcalfei) and the vulnerable growling grass frog.

Rare and vulnerable vegetation species (such as spiny lignum, ridged water-milfoil, chariot wheels and cane grass) are also present in some wetlands.

Table 5.1 Environmental values and objectives

Environmental objectives in the Wimmera-Mallee wetlands	Environmental Water Management Plan Objectives
F1 - Maintain populations of resident fish species	N/A
A1 - Maintain populations of frogs	**WMP2a:** By 2030, maintain self-sustain population of frogs at Wimmera Mallee Pipeline wetlands in 80% of years in which water is present.
T1 - Maintain populations of turtles	**WMP2b:** By 2030, maintain self-sustaining population of turtles at Wimmera Pipeline wetlands in 80% of years in which water is present.
TA1 - Provide watering holes for native animals and terrestrial birds across the landscape	To maintain and enhance a network of wetland habitats and refuges for aquatic and terrestrial fauna across the Wimmera Mallee landscape
V1 - Maintain the condition of aquatic and fringing plants, including lignum, river red gum and black box communities Improve the diversity of wetland vegetation communities	**WMP3:** By 2030, improve condition and maintain extent from baseline levels of River red gum (Eucalyptus camaldulensis), Black box (E. largiflorens) and Lignum (Duma florulenta) to sustain communities and processes typical of such communities at Wimmera Mallee Pipeline assets.
B1 - Maintain populations of waterbirds and other native birds by providing resting, feeding and breeding habitat	**WMP4a:** By 2030, maintain representative populations of shallow-water and deep-water feeding guilds of waterbird (F2 and F3, respectively, after Jaensch 2002) at the Wimmera-Mallee Pipeline wetlands asset, by maintaining a mixture of shallow and deep-water habitats. **WMP4b:** By 2030, maintain nesting and recruitment of non-

	colonial waterbirds (N1, N2, N3 and N4, after Jaensch 2002) at the Wimmera-Mallee Pipeline wetlands asset, by maintaining a mixture of tree, low vegetation/shrubs, and ground/islet nesting habitat.

6 Engagement

Mallee CMA engages with a diverse range of project stakeholders in the development of the SWP. Engagement has included face to face meetings with community members and groups, formal meetings with program partners, media releases and newsletter articles, digital content through website and social media, distribution of the key area flyers and online community values surveys.
(Table 7.1).

In developing the 2025/26 SWP engagement plan, Mallee CMA continued to review and build on previous years' engagement efforts, documenting the lessons learned and implementing key changes. In 2023-24 Mallee CMA begun implementing earlier engagement of Traditional Owners and community members in the annual environmental water planning process. This approach meant the values and perspectives of Traditional Owners and community members informed preliminary planning and discussions, rather than being incorporated later in the planning phase as had previously been done. This approach facilitated more meaningful engagement and has helped further build trust between Traditional Owners, community members and the Mallee CMA.

SWP engagement activities commenced in September-November 2024, with all engagement mapped against the International Association for Public Participation (IAP2) Spectrum. This ensured all engagement recognised stakeholders' levels of concern in environmental water planning, and clearly stated the promise being made to stakeholders at each participation level.

One method used to engage Traditional Owners and community members was the 'Pins in Maps' activity. Participants were asked to place a coloured pin in a map to represent their values/uses at the various wetlands. The coloured pins corresponded to four categories: recreation, flora/fauna, water, and other (Figure.4). More than 300 responses were collected by undertaking this activity at a wide range of community engagement events including on-Country visits, drop-in sessions, citizen science activities, and local markets. Additionally, the 'Pins in Maps' activity proved to be an engaging method to initiate place-based conversations about environmental water.

Figure 6.1 Community members participating in the Pins in Map activity at the Wimmera Mallee Pipeline Community Field Trip

Further targeted consultation and engagement activities have been undertaken with relevant stakeholders to inform development of the delivery plan. Ongoing engagement and a high level of communication have been pivotal to aligning management of these wetland sites with community expectations, particularly due to the high public interest. Many sites within the Wimmera-Mallee Pipeline are on private land or are focal points for local community. Attendance at community field trips to visit the wetland sites provided the opportunity for face-to-face discussions and to gather valuable input from the community.

Supporting materials have been produced which outline the proposed actions for waterbodies in 2025-26 and offer the community opportunities to provide further feedback and input to inform our water management planning and delivery. The supporting collateral included factsheets, social media campaigns, online surveys, web-based information and an online interactive map. The key messages in communicating the SWP to these stakeholders were:

- Sites have been identified through careful monitoring and feedback from key stakeholders to prioritise water delivery.
- The important ecological outcomes expected at the proposed sites.
- Identification of the proposed watering and drying actions for the season (2025-26).
- Delivery of environmental water at sites within the Wimmera will align with current seasonal climatic conditions within the catchment.

Further targeted consultation and engagement activities will continue throughout 2025-26 with relevant community and stakeholders, particularly prior to the development of the delivery plan. This will offer the opportunity for an in-depth and detailed delivery plan that meets the needs of the environment and our community.

Following completion of this SWP, Mallee CMA will utilise VEWH's Seasonal Watering Plan to produce informative flyers and website updates to outline the environmental watering/drying actions to be undertaken across the catchment in 2025-26. Targeted consultation and engagement activities will be undertaken with relevant community and stakeholders to provide the opportunity for further in-depth and detailed discussions to help to "close the loop" and demonstrate how their feedback informed planning.

Table 6.1 Summary of stakeholder engagement that informed this SWP.

Category	Stakeholder(s)	IAP2 Level of Engagement	Engagement method	Engagement purpose
Community groups and environmental groups	Mallee CMA Land and Water Advisory Committee	Consult	• Presentation and discussion of proposed watering sites (13/03/2025).	Discussion with the Committee as to the extent and location of proposed watering sites for the coming year and answer any questions.
	Mallee CMA Aboriginal Reference Group	Consult	• Presentation and discussion of proposed watering sites (05/02/2025).	Discussion with the Committee as to the extent and location of proposed watering sites for the coming year and answer any questions.
	Wimmera Glenelg Storage Manager Reference Group	Inform	• Discussion of proposed watering sites (16/01/2025).	Discussion with the Committee as to the extent and location of proposed watering sites for 2025-26 and answer any questions.
	Wimmera Mallee Wetland Prioritisation Advisory Group	Collaborate	• Discussion of proposed watering sites (11/02/2025).	Discussion with the Committee as to the extent and location of proposed watering sites for 2025-26 and answer any questions.
	Birchip Landcare Group	Inform	• Email to Landcare Facilitator (Southern Mallee) to distribute factsheet. • Fact sheet, social media to capture community values for the site and better inform future watering plans. • Discussion of proposed watering sites	Determine Landcare on-ground activities and align watering to support these actions. Provide information about the planning and delivery of water for the environment and create opportunities for groups to provide important information about site values and uses.

			(27/09/2024)	
	Wider Community	Inform	• Online – web based and social media • Wimmera Mallee Wetland Community Field Trip Day (28/10/2024).	To provide information to the community about the benefits of water for the environment, capture community values for sites and offer the opportunity to provide feedback.
Government agencies	Victorian Environmental Water Holder (VEWH)	Collaborate	• Discussion of SWP guidelines (14/01/2025) • Risk workshop and discussion of proposed sites (13/02/2025).	Ongoing planning and consultation with input from VEWH regarding water availability, current and forecast water condition conditions, risk planning and feasibility.
	Parks Victoria (PV)	Collaborate	• Discussion with key local Parks Victoria Staff regarding proposed sites and see advice on what they would like to see across their areas of responsibility and any issues with practical logistics. • Mallee CMA meets monthly with PV. • Annual risk assessment workshop (13/02/2025).	Review and update the risk tables relevant to the proposed watering program for 25/26. Ongoing planning and consultation with input from PV around on-ground management activities, risk planning and site feasibility.
	Grampians Wimmera Mallee Water	Collaborate	• Annual risk assessment workshop coordinated by VEWH (13/02/2025).	Ongoing planning and consultation with input from GWM Water regarding water availability, current and forecast water condition conditions, risk planning and feasibility.

			• Email. • Storage Reference Group meeting monthly.	
	Department of Energy, Environment and Climate Action (DEECA) (Crown Land Management)	Inform	• Annual risk assessment workshop coordinated by VEWH (13/02/2025). • Email.	Share planning and provide opportunity for feedback and comment regarding any operation and/or on-ground works being or planned to be undertaken over the coming year.
	Buloke Shire Council	Inform	• Regular formal and informal conversations through various meetings and face-to-face interactions.	Share planning and provide opportunity for feedback and comment regarding any operation and/or on-ground works being or planned to be undertaken over the coming year.
	Yarriambiack Shire Council	Inform	• Regular formal and informal conversations through various meetings and face-to-face interactions.	Share planning and provide opportunity for feedback and comment regarding any operation and/or on-ground works being or planned to be undertaken over the coming year.
Landholders/farmers	Private landholders	Collaborate	• Face-to-face meetings where possible, telephone conversations, email. • Wimmera Mallee Wetland Community Field Trip Day (28/10/2024).	Discuss watering sites for coming year. Talk through risks or concerns for sites and landholders. Each site has a Management Agreement, this document sets out the rules and conditions around environmental watering being delivered to the site. This document helps to sustain a collaborative relationship as it builds the boundaries in which the relationship works within.
Recreational users	Local community	Inform	• Web based information. • Wimmera Mallee Wetland	To inform the community of the development of the plan and how input can be provided to Mallee CMA.

			Community Field Trip Day (28/10/2024).	
Traditional Owners	Barengi Gadjin Land Council	Collaborate	• Face to face meetings with BGLC (1/10/24, 17/12/24, 5/02/25) • Site visits to BGLC owned land as possible project sites, revegetation, watering opportunities, infrastructure options (1/10/24) • Site visits with BGLC (17/12/24) • Presentation and discussion of proposed watering sites (05/02/2025).	Work with Traditional Owners to identify any known values and see if environmental water can continue to contribute to the protection and improvement of those values.

7 Scope of Environmental Watering

Water for the Wimmera Mallee Pipeline (WMP) wetlands are sourced from the Wimmera and Glenelg Rivers Environmental Entitlement 2010 (Wetland product). The entitlement includes up to 1,000 ML shared across the 52 WMP sites annually.

The Victorian Environmental Water Holder (VEWH) holds the wetland entitlement and determines the sharing of available allocations between the Mallee (32), North Central (7) and Wimmera (13) Catchment Management Authority's.

The priority setting for each wetland is based on the capacity to deliver to both the wetland and the adjacent floodplain area, the topography of the wetland and its ability to retain water over the summer months (high water holding capacity), environmental values at the site as described in the Wimmera-Mallee Pipeline Environmental Water Management Plan (EWMP), the proximity to other wetlands, and the amount of water required to fill the floodplain area of the wetland.

Allocations of 0 percent (from 2018-2021), 6 percent 2021-22, 100 percent 2022-23, 49 percent in 2023-24 and 0 percent in 2024-25 against the entitlement have been received in recent years (Grampians Wimmera Mallee Water, 2024). Environmental water delivery during the years of 0% allocation was only possible due to the availability of carry-over from previous watering years. At this time, the outlook for 2025-26 is forecast to be for near average rainfall and a continuation of above average temperatures (Bureau of Meteorology, 2025). The VEWH are expecting to carry over sufficient water into the 2025-26 water year to comfortably support watering demands under an 'average' climate scenario for the 2025-26 water year while maintaining carryover to protect values if we enter a prolonged dry phase. Rainfall may locally contribute to wetland water levels, and water requirements might be lower than anticipated for some lower volume sites.

Sites identified in the proposal for 2025-26 have been prioritised based on ecological values recorded and their proximity to other water bodies. Providing refuge sites are considered the highest priority during drought and dry conditions.

Mallee CMA has indicated a total allocation required for the sites identified for receiving environmental water in 2025-26. Adaptive management will be used throughout the year to allow for changing conditions and to target events such as waterbird breeding. Timing and individual delivery volumes will be detailed in the Delivery Plan and Water Order.

Potential Watering Actions listed in Table 7.1 outline the rationale for watering specific wetlands.

Table 7.1 Potential Watering Actions in 2025-26.

Adaptive management will be used throughout the year. Timing and individual delivery volumes will be detailed in the Delivery Plan and Water Order.

Wetland	Potential watering action	Climatic Scenario	Expected watering effects	Rationale	EWMP Values	EWMP environmental objectives	VEWH environmental objectives
Barbers Swamp	Top up in Spring	Drought Dry Average Wet	Top up wetland to: • Provide watering points for terrestrial fauna and woodland birds • Provide foraging, refuge and breeding habitat for target species including waterbirds, eastern long-necked turtles and frogs • Improve or maintain the health of fringing Lignum and Black box communities	Water was last delivered to Barbers Swamp in Spring 2024. The wetland was able to draw down slightly over the summer period to promote growth of aquatic vegetation. The primary purpose of watering Barber's Swamp in Spring 25/26 is to provide a refuge watering point for terrestrial and semi aquatic fauna, woodland birds, waterbirds, as well as supporting water dependant vegetation communities. To meet these requirements, water is required every year. In addition, the large volume of the main wetland body, if filled, can retain water over a long period of time. This provides a more secure, permanent watering point during dry periods.	Black box, waterbirds, frogs, eastern long-necked turtle	WMP2a WMP2b WMP3 WMP4a WMP4b	V1 B1 A1 T1
Broom Tank	Fill in Spring	Dry Average Wet	Fill wetland to: • Provide water as a refuge to target fauna species including carpet pythons, frogs and microbats. • Improve or maintain the health of surrounding targeted vegetation species black box and spiny lignum	Broom Tank was overtopped in Spring 2024/25. In Spring 2025/26 we plan to fill the wetland to meet environmental objectives for the surrounding cane grass and frog populations. It is important that water is delivered to the wetland most years. Although it is shallower compared to some other WMP sites, it is still important to include as an additional watering site in Dry scenarios due to its close proximity to wetlands with longer inundation timeframes, which provides better connectivity for fauna across the landscape.	Black box, spiny lignum, cane grass, carpet python, frogs, microbats	WMP2a WMP3	V1 A1
Bull Swamp	Overtop in Autumn	Drought Dry	Top up wetland to • Maintain surrounding black box	Bull Swamp is planned to be overtopped in Autumn 2025-26. This will connect the two wetland bodies and provide a refuge watering	Black box, lignum, waterbirds,	WMP2b WMP3	V1 B1

		Average Wet	• Provide foraging, refuge and breeding habitat for target species including waterbirds and eastern long-necked turtle.	point for terrestrial and semi aquatic fauna, woodland birds, waterbirds, as well as support the surrounding black box and lignum communities. To meet these requirements, water is required every year. In addition, the large volume of the main wetland body, if filled, can retain water over a long period of time. This provides a more secure, permanent watering point during dry periods and increased the connectivity of habitat across the landscape.	eastern long-necked turtle	WMP4a WMP4b	T1 
Chiprick Bushland Reserve	Overtop in Spring	Dry Average Wet	Overtop wetland to: • Provide water as a refuge to woodland birds and a source to surrounding vegetation.	Chiprick was last watered in Spring 2024-25. In recent years a large increase in wetland vegetation has been observed within the wetland and in the surrounding floodplain. In 2025/26 the wetland is planned to be overtopped to build on this recruitment. Chiprick Wetland is also valuable as a refuge site, particularly in dryer scenarios and helps to provide better connectivity for fauna across the landscape.	Woodland birds, wetland vegetation		TA1 
Clinton Shire dam	Overtop in Autumn	Drought Dry Average Wet	Fill wetland to: • Maintain surrounding black box vegetation • Provide water as a refuge to terrestrial species, including woodland birds • Support areas of EVCs which meet the criteria for the EPBC listed Plains woodland/ Herb-rich Gilgai Wetland Complex	Clinton Shire Dam is planned to be overtopped in Autumn. This will provide a refuge watering point for terrestrial and semi aquatic fauna, woodland birds, waterbirds. Overtopping the wetland will support the surrounding black box communities. To meet the ecological requirements of this wetland, water is required most years. In addition, the large volume of the main wetland body, if filled, can retain water over a long period of time. This provides a more secure, permanent watering point during dry periods.	Black box, cane grass, woodland birds	WMP2b WMP3	V1 
Cokum Bushland Reserve	Top up in Spring	Drought Dry Average Wet	Top up wetland to: • Support surrounding black box • Provide foraging, refuge and breeding habitat for	Cokum Bushland Reserve Wetland was overtopped in spring 2024-25 to promote recruitment of the surrounding black box community and wetland flora species. It is planned to receive a top up in Spring to build	Black box, waterbirds, eastern long-necked turtles, frogs, fish,	WMP2a WMP2b WMP3 WMP4a WMP4b	V1  B1 

			target species including waterbirds, eastern long-necked turtles and frogs.	on the positive effects of this delivery and to help maintain the condition of the wetland flora species. Cokum is important as a refuge watering point for terrestrial and semi aquatic fauna, woodland birds and waterbirds. Water is required each year to meet the ecological requirements of this site. The main wetland body can hold a large volume of water and if filled, can retain water over a long period of time. This provides a more secure, permanent watering point during dry periods and increased habitat connectivity across the landscape.	wetland vegetation		T1  A1
Considines	Top up in Autumn	Drought Dry Average Wet	Top up wetland to: • Provide foraging, refuge and breeding habitat for target species including eastern long-necked turtles and frogs • Provide water as a refuge to terrestrial species, including woodland birds and carpet pythons	The primary purpose of watering Considines wetland is to provide a refuge watering point for terrestrial and semi aquatic fauna, woodland birds and waterbirds. To meet these ecological objectives, water is required every year. In addition, the large volume of the main wetland body, if filled, can retain water over a long period of time. This provides a more secure, permanent watering point during dry periods and increased habitat connectivity across the landscape.	Carpet python, eastern long-necked turtles, woodland birds, frogs	WMP2a WMP2b	T1  A1
Coundons Wetland	Overtop in Spring	Dry Average Wet	Partial fill wetland to: • Provide water as a refuge to terrestrial fauna and a source to maintain surrounding vegetation. • Provide foraging, refuge and breeding habitat for target species including; eastern long-necked turtles.	Coundons Wetland is planned to be overtopped in Spring 25-26. This will support and promote recruitment in the surrounding black box and cane grass communities. Delivering environmental water at Coundons Wetland will provide a refuge watering point for semi aquatic fauna and woodland birds. The wetland is valuable as a watering site particularly in Dry scenarios due to its close proximity to wetlands with longer inundation timeframes, which provides better connectivity for fauna across the landscape.	Black box, cane grass, eastern long-necked turtles, woodland birds	WMP2b WMP3	T1  V1 

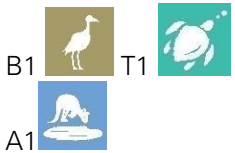
Cronomby Tanks	Fill in Spring	Drought Dry Average Wet	Fill wetland to: • Provide water as a refuge to terrestrial fauna and a source to maintain surrounding vegetation. • Provide foraging, refuge and breeding habitat for target species including; eastern long-necked turtles, Murray River turtles and freshwater catfish	Delivering water to Cronomby Tanks will provide a refuge watering point for terrestrial and semi aquatic fauna, woodland birds, waterbirds and support water dependant vegetation communities. To meet these requirements, water is required every year. As Cronomby Tanks is located in an area with fewer watering points, it is important to include in all scenarios to provides a secure, permanent watering point during dry periods. Cronomby Tanks is also a significant recreational site for the surrounding community and provides a water-based amenity for campers at the adjacent campsite.	Woodland birds, eastern long-necked turtles, Murray River turtles, freshwater catfish	WMP2b	T1  F1
D Smith Wetland	Top up in Spring	Drought Dry Average Wet	Fill wetland to: • Provide water as a refuge to terrestrial species, including woodland birds, particularly in times of drought • Promote growth of aquatic vegetation	In recent years, there has been a significant uptake of ruppia at D Smith. Delivering environmental water in Spring will help to promote further growth. The delivery will also help to provide a refuge watering point for terrestrial and semi aquatic fauna, woodland birds and waterbirds. To meet the ecological requirements of this site, water is required every year. D Smith Wetland is valuable as a permanent watering point and aids in increasing habitat connectivity for water dependant and terrestrial species across a dry landscape.	Woodland birds, drought refuge, wetland vegetation		TA1 
Goulds Reserve	Fill in Spring	Average Wet	Overtop wetland to: • Improve condition of surrounding target vegetation species which include black box, cane grass and spiny lignum • Provide foraging, refuge and breeding habitat for waterbirds • Provide refuge for	Overtopping Goulds Reserve will improve the condition and increase recruitment of surrounding target cane grass, black box and spiny lignum communities. The large volume of the main wetland body if filled, can retain water over a long period of time. This provides a more secure, permanent watering point under dry periods and provide ongoing habitat connectivity for other fauna species across the landscape.	Black box, cane grass, spiny lignum, waterbirds, woodland birds, wetland vegetation	WMP3 WMP4a WMP4b	V1  B1 

			terrestrial species including woodland birds				
Greens Wetland	Overtop in Autumn	Drought Dry Average Wet	Fill wetland to: • Support surrounding black box communities • Provide foraging, refuge and breeding habitat for waterbirds and eastern long-necked turtle • Provide refuge for terrestrial species including woodland birds • Support areas of EVCs which meet the criteria for the EPBC listed Plains woodland / Herb-rich Gilgai Wetland Complex	Greens Wetland has experienced a large amount of black box recruitment in the surrounding floodplain as a result of the most recent wet years. BGLC have expressed interest in seeing the wetland overtopped to support these black box saplings and promote further recruitment. The wetland also provides a refuge watering point for terrestrial and semi aquatic fauna, woodland birds and waterbirds. To meet the ecological requirements of this site, water is required every year. In addition, the large volume of the main wetland body, if filled, can retain water over a long period of time. This provides a more secure, permanent watering point during dry periods.	Black box, waterbirds, woodland birds, eastern long-necked turtle	WMP2b WMP3 WMP4 WMP4b	V1  B1  T1 
Homelea	Fill in Spring	Dry Average Wet	Fill wetland to: • Provide water as a refuge, particularly in times of drought to terrestrial species, including woodland birds	The primary purpose of watering Homelea is to provide a refuge watering point for terrestrial fauna including woodland birds, reptiles and mammals. The water will also provide habitat connectivity across the landscape.	Woodland birds, drought refuge		A1 
J Ferrier Wetland	Fill in Spring	Drought Dry Average Wet	Fill wetland to: • Support fringing black box communities • Provide foraging, refuge and breeding habitat for waterbirds.	The primary purpose of watering J Ferrier Wetland is to provide a refuge watering point for terrestrial and semi aquatic fauna, woodland birds, waterbirds, as well as supporting water dependant vegetation communities. To meet these requirements, water is required every year. In addition, the large volume of the main wetland body, if filled, can retain water over a long period of time. This provides a more secure, permanent watering point during dry periods.	Black box, wetland birds	WMP3	V1  B1 

Kath Smith Dam	Fill in Spring	Dry Average Wet	Fill wetland to: • Provide water as a refuge, particularly in times of drought to terrestrial species, including woodland birds	The primary purpose of watering Kath Smith is to provide a refuge watering point for terrestrial fauna including woodland birds, reptiles and mammals. The water will also provide habitat connectivity across the landscape.	Woodland birds, drought refuge		TA1 
John Ampt (House Dam)	Top up in Autumn	Drought Dry Average Wet	Partial fill to: • Provide water as a refuge, particularly in times of drought to terrestrial species, including wetland and woodland birds	John Ampt Wetland functions as a refuge watering point for terrestrial and semi aquatic fauna, woodland birds, waterbirds and supports water dependant vegetation communities. To meet these requirements, water is required every year. John Ampt retains water over a long period of time and is located in a dry area with few permanent water sites, so it is valuable as a refuge site, particularly in Drought or Dry scenarios.	Wetland and woodland birds, drought refuge		TA1 
Lake Danaher	Top up across Spring and Autumn	Drought Dry Average Wet	Fill wetland to: • Support vegetation species including lakebed herbs and salt paperbark • Provide refuge and watering site for woodland birds • Provide foraging, refuge and breeding habitat for eastern long-necked turtles and frogs.	Due to its slow delivery rate, Lake Danaher will be delivered across Spring and Autumn. When filled, it provides an additional watering point across the landscape for woodland birds and waterbirds, as well as helping to achieve the vegetation, turtles and frog ecological objectives for the Wimmera Mallee Pipeline. Lake Danaher is an important recreational site for local Birchip community, with locals participating in fishing and camping at the site.	Lakebed herbs, salt paperbark, woodland birds, eastern long-necked turtles, frogs	WMP2a WMP2b WMP3	V1  T1  A1
Mahoods Corner	Fill in Autumn	Drought Dry Average Wet	Fill wetland to: • Provide foraging, refuge and breeding habitat for water birds and eastern long-necked turtles • Provide refuge and watering point for carpet	Delivering water to Mahoods Corner will help provide a refuge watering point for terrestrial and semi aquatic fauna, woodland birds and waterbirds. To meet these requirements, water is required at this site every year. In drier periods it is valuable as an additional watering site due to its close proximity to	Carpet pythons, waterbirds, woodland birds, Eastern long-necked turtles	WMP2b WMP4a WMP4b	B1  T1 

			pythons and woodland birds	wetlands with longer inundation timeframes, which provides better connectivity for fauna across the landscape..			
Morton Plains Reserve	Fill in Spring	Drought Dry Average Wet	Partial fill wetland to: • Improve or maintain the health of surrounding black box, spiny lignum, cane grass • Provide foraging, refuge and breeding habitat for water birds waterbirds	Morton Plains provides a refuge watering point for terrestrial fauna and woodland birds. The wetland also supports important water dependant vegetation communities, including spiny lignum and cane grass. In drier periods it is valuable as an additional watering site due to its close proximity to wetlands with longer inundation timeframes, which provides better connectivity for fauna across the landscape.	Black box, spiny lignum, cane grass, waterbirds	WMP3 WMP4a WMP4b	V1 B1
Pam Juergens dam	Fill in Spring	Drought Dry Average Wet	Fill wetland to: • Support, provide refuge and breeding habitat for frog species • Provide refuge to terrestrial fauna and woodland birds	Watering Pam Jurgens Dam will support ecological objectives for frog populations. This site is shallower and therefore tends not retain water for more than a few months, especially during summer. However, under a Dry scenario it is still valuable as an additional watering site due to its close proximity to wetlands with longer inundation timeframes, which provides better connectivity for fauna across the landscape.	Woodland birds, frogs, wetland vegetation	WMP2a	A1 TA1
Part of Gap Reserve	Overtop in Spring	Dry Average Wet	Fill wetland to: • Support and maintain fringing black box communities • Provide refuge and watering points for terrestrial fauna and woodland birds	Delivering water to Part of Gap will maintain the fringing black box communities while providing refuge and watering points for terrestrial fauna and woodland birds. Under a Dry scenario it is valuable as an additional watering site due to its close proximity to wetlands with longer inundation timeframes, which provides better connectivity for fauna across the landscape.	Black box, woodland birds	WMP3	V1 TA1
Paul Barclay	Fill in Spring	Drought Dry Average Wet	Partial fill wetland to: • Support and maintain fringing black box and tangled lignum • Provide water as a refuge, particularly in	Paul Barclay functions as an important refuge watering point for terrestrial and semi aquatic fauna, woodland birds, waterbirds and supports water dependant vegetation communities. To meet these objectives water is required every year. The main wetland body can retain water for a large period of time once	Woodland birds, drought refuge, black box, lignum		TA1

			times of drought to terrestrial species, including woodland birds	filled and provides a more secure, permanent watering point during dry periods and increases the connectivity of habitats across the landscape.			
Poyner	Partial fill in Spring	Drought Dry Average Wet	Partial fill to: • Support and maintain fringing black box and tangled lignum • Provide water as a refuge, particularly in times of drought to terrestrial species, including woodland birds • Support wetland vegetation	Poyner Wetland functions as an important refuge watering point for terrestrial and semi aquatic fauna, woodland birds, waterbirds and supports fringing water dependant vegetation communities. To meet these objectives water is required every year. The main wetland body can retain water for a large period of time once filled and provides a more secure, permanent watering point during dry periods and increases the connectivity of habitats across the landscape.	Woodland birds, black box	WMP3	V1 
R Ferriers Dam	Fill in Autumn	Drought Dry Average Wet	Fill wetland to: • Support, provide refuge and breeding habitat to waterbirds and eastern long-necked turtles • Provide water as a refuge, particularly in times of drought to terrestrial species, including woodland birds	The primary purpose of watering R Ferrier is to provide a refuge watering point for terrestrial and semi aquatic fauna, woodland birds and. To meet these objectives water is required every year. The wetland can retain water for a large period of time once filled and provides a more secure, permanent watering point during dry periods and increases the connectivity of habitats across the landscape.	Waterbirds, woodland birds, drought refuge, eastern long-necked turtles	WMP2b WMP4a WMP4b	B1  T1 
Rickard Glenys Dam	Fill in Spring	Drought Dry Average Wet	Fill wetland to: • Support, provide refuge and breeding habitat to waterbirds and eastern long-necked turtles • Provide water as a refuge, particularly in times of drought to terrestrial species, including woodland birds	Delivering water to Rickard Glenys Dam will provide a refuge watering point for terrestrial and semi aquatic fauna, woodland birds and waterbirds. To meet these ecological requirements, water is required every year. The wetland can retain water for a large period of time once filled and provides a more secure, permanent watering point during dry periods and increases the connectivity of habitats across the landscape.	Eastern long-necked turtles, waterbirds, woodland birds	WMP2a WMP4a	B1  T1 

Round Swamp Bushland Reserve	Fill in Spring	Drought Dry Average Wet	Fill wetland to: • Improve condition and maintain extent of black box, spiny lignum and cane grass communities.	Round Swamp provides a refuge watering point for terrestrial fauna and woodland birds. The wetland also supports important water dependant vegetation communities, including spiny lignum and cane grass. The wetland can retain water for a large period of time once filled and provides a more secure, permanent watering point during dry periods and increases the connectivity of habitats across the landscape.	Black box, spiny lignum, cane grass	WMP3	
Roselyn Wetland/Reids Dam	Overtop in Spring	Drought Dry Average Wet	Fill wetland to: • Improve condition and maintain extent of black box and wetland vegetation • Provide water as a refuge, particularly in times of drought to terrestrial species, including woodland birds • Support, provide refuge and breeding habitat to waterbirds, eastern long-necked turtles and frog species	Roselyn Wetland/ Reids Dam functions as a refuge watering point for terrestrial and semi aquatic fauna, woodland birds and waterbirds. Overtopping the wetland will support the surrounding water dependant vegetation communities. To meet the ecological requirements of this site, water is required every year. The main wetland body can retain water for a long period of time which provides a more secure, permanent watering point during dry periods.	Black box, eastern long-necked turtles, waterbirds, woodland birds, frogs	WMP2a WMP2b WMP3 WMP4a WMP4b	
Shannons Wayside	Fill in Spring	Dry Average Wet	Fill wetland to: • Provide water as a refuge, particularly in times of drought to terrestrial species, including woodland birds • Support, provide refuge and breeding habitat to waterbirds and eastern long-necked turtles species	Delivering water to Shannons Wayside will support waterbirds and turtles while also providing refuge to terrestrial species. It is valuable as an additional watering site, particularly in Dry scenarios due to its close proximity to wetlands with longer inundation timeframes, which provides better connectivity for fauna across the landscape.	Waterbirds, woodland birds, eastern long-necked turtles	WMP2b WMP4a WMP4b	

Tchum Lake - Dam (Tchum Lakes Lake Reserve)	Fill in Spring	Dry Average Wet	Fill wetland to: • Provide refuge to terrestrial fauna and woodland birds • Improve condition and maintain extent of black box, spiny lignum and cane grass. • Support, provide refuge and breeding habitat to waterbirds, and frog species	Tchum Lake – Dam is an important fauna refuge site, particularly in times when Tchum Lake - Wetland cannot be filled due to smaller watering allocations. The watering also supports environmental objectives for surrounding vegetation communities, waterbirds and frog species. Although the site is shallower and therefore tends not retain water for more than a few months, it is still valuable as an additional watering site due to its close proximity to wetlands with longer inundation timeframes, which provides better connectivity for fauna across the landscape.	Black box, spiny lignum, cane grass, waterbirds, woodland birds, eastern long-necked turtles, frogs	WMP2a WMP2b WMP3 WMP4a WMP4b	
Tchum Lake - Wetland (Tchum Lakes Lake Reserve)	Drawdown	Average Wet	Drawdown wetland to: • Support feeding and breeding habitat for shorebirds • Promote growth of mudflat vegetation species and lakebed herbland	No water will be delivered to Tchum Lake – Wetland in 25-26. The wetland has received water in the past two years so it will be allowed to drawdown to provide a mosaic of different habitats across the landscape. This will promote favourable conditions and support a wider range of species that favour mudflats which includes shorebirds and mudflat vegetation.	Black box, spiny lignum, cane grass, waterbirds, woodland birds, eastern long-necked turtles, frogs	WMP2a WMP2b WMP3 WMP4a WMP4b	
Towma (Lake Marlbed)	Fill in Spring	Drought Dry Average Wet	Fill wetland to: • Support black box, tangled lignum, carpet python, eastern long-necked turtles, woodland birds	The primary purpose of watering Towma is to provide a refuge watering point for terrestrial and semi aquatic fauna and maintain the surrounding community of black box and tangled lignum. The large volume of the main wetland body can retain water over a long period of time if filled. This provides a more secure, permanent watering point under dry periods.	Black box, tangled lignum, carpet python, eastern long-necked turtles, woodland birds	WMP2b WMP3	
Uttiwillock Wetland	Overtop in Spring	Drought Dry Average Wet	Fill wetland to: • Support and provide recruitment opportunities for black box, tangled lignum • Carpet python, eastern long-necked turtles,	Environmental water was delivered to Uttiwillock Wetland in Spring 24/25. By filling the wetland up in Spring, it will provide a refuge watering point for terrestrial and semi aquatic fauna and maintain surrounding lignum community. By allowing Uttiwillock to drawdown slightly before receiving water	Black box, pale spike-sedge, waterbirds, woodland birds, carpet pythons	WMP2a WMP2b WMP3 WMP4a WMP4b	

			woodland birds.	again, further aquatic vegetation growth will be promoted. To meet environmental objectives at Uttiwillock Wetland, water is required every year. The large volume of the main wetland body, if filled can retain water over a long period of time. This provides a more secure, permanent watering point in drier periods.			

8. Scenario Planning

The key objective of providing refuge water points for many of the WMP sites requires that environmental water is delivered annually. The required depths and the associated volumes vary depending on climatic conditions and consider the historical watering regime for each site. The rationale for selection of watering sites under each climate scenario is summarised in Table 7.1. Depending on the ecological objectives being targeted, water may be delivered to fill or top up the wetland body only or continue to overtop the wetland body and inundate the surrounding floodplain where possible and appropriate. Adaptive management has resulted in some changes to the ecological and hydrological objectives and the volumes assigned to the WMP sites, to that of previous watering years.

Based on current water allocation and forecasts for the 2025-26 water year, it is known that the most likely water scenario will be under an average outlook. The forecast outlook becomes more certain throughout the year and will provide more clarity on the most likely water scenario. Planning for each of the possible scenarios in 2025-26 is outlined below.

8.1 Drought

Zero allocation, carryover only

Under a Drought scenario there is no allocation and environmental watering relies on carryover from the previous year. A Drought scenario follows consecutive years of dry climate conditions leading up to the watering period. The recommended watering actions against this climate scenario will be prioritised based upon the ecological values recorded at each wetland, proximity to other water bodies and water holding capacity of the wetland.

A total of 22 wetlands have been identified to receive up to 69 Megalitres (ML) of environmental water under this climate scenario in 2025-26 (Table 8.1).

The priority watering actions in the Drought scenario seek to provide critical refuges of permanent water for fauna. The sites included are those where the inundation extent can be contained within dams that are deep enough to retain the majority of environmental water delivered throughout the summer months.

8.2 Dry

Zero allocation, carryover only

In a Dry scenario, the environmental objectives are to maintain wetland function while managing within the species tolerance for turtles, water birds and frogs, and maintain water-dependent vegetation. A total of 30 wetland sites have been identified to receive up to 83 ML of environmental water under this climate scenario (Table 8.1).

In a dry scenario, a total of 2 wetlands, Goulds Reserve and Tchum Lake Wetland will undergo a drawdown over 2025-26.

The inundation extent of all sites listed under a Dry scenario is to be contained within the dams. There is no floodplain inundation under the dry scenario at any sites (Table 8.1).

8.3 Average

25% allocation plus carryover

Under an Average water scenario, watering actions would include up to 176 ML of environmental water across 32 wetlands (Table 8.1.). Environmental objectives would target those listed above in addition to supporting the growth and recruitment of native flora and support breeding of waterbirds. These objectives

will be met by filling all of the dams combined with providing overflows into the surrounding floodplain at 9 sites where higher allocations will allow for inundation onto surrounding floodplain. (Table 7.1).

8.4 Wet

100% allocation plus carryover

Under a Wet scenario, more wetlands can be targeted to maintain condition from previous watering events and to build up ecological resilience for future dry and drought events. The larger allocation can also support more turtle, waterbird and frog recruitment and improve waterbird habitat. Floodplain inundation can occur to inundate black box and support recruitment.

32 wetlands are scheduled to receive up to 276 ML of environmental water under a Wet scenario. Delivery will target inundation of wetlands as well as inundation of surrounding floodplain. Under a Wet scenario Tchum Lakes Reserve Wetland will receive 55ML. Floodplain inundation will assist in addressing each of the targeted environmental objectives across 13 sites (Table 7.1).

Table 8.1 Potential environmental watering actions for Wimmera Mallee Pipeline wetlands under each climatic scenario 2025-26.

Climatic scenario	Drought	Dry	Average	Wet
Expected conditions	• No natural inflow to any sites • Little to no inflow to headworks storages • No allocation to entitlement • Significant competing demand on pipeline capacity	• Natural inflow to sites limited. • Limited inflows to headworks storages • Limited allocation to entitlement • Competing demand on pipeline capacity during summer/autumn	• Some natural inflow to most sites • Increased inflows to headworks storages • Increasing allocation to entitlement • Competing demand on pipeline capacity during summer/autumn	• Natural inflows to most if not all sites • High inflows to headworks storages • Full allocation to entitlement • Limited competing demand on pipeline capacity
Expected water availability (ML): allocations against entitlement expected including carryover	61	98	155	221
Wetland Name	ML	ML	ML	ML
Barbers Swamp				
Broom Tank	0			
Bull Swamp				
Chiprick Bushland Reserve	0			
Clinton Shire Dam				
Cokum Bushland Reserve				
Considines				
Coundons Wetland	0			
Cronomby Tanks				
D Smith Wetland				
Goulds Reserve	0	0		
Greens Wetland				
Homelea	0			
J Ferrier Wetland				
John Ampt (House Dam)				

Kath Smith Dam	0			
Lake Danaher Bushland Reserve				
Mahoods Corner				
Morton Plains Reserve				
Round Swamp Bushland Reserve (Marlbed Lake Swamp/Newer Swamp)				
Pam Juergens Dam				
Part of Gap Reserve (Stephen Smith Dam)	0			
Paul Barclay				
Poyner				
R Ferriers Dam				
Rickard Glenys Dam				
Roselyn Wetland/Reids Dam				
Shannons Wayside	0			
Tchum Lake - Dam (Tchum Lakes Lake Reserve)	0			
Tchum Lake - Wetland (Tchum Lakes Lake Reserve)	0	0		
Towma (Lake Marlbed)				
Uttiwillock Wetland				
Possible volume of water required to achieve objectives	69	107	176	276

Key to Wetland Inundation: No Delivery Planned; Inundation contained within wetland/dam site; Inundation of wetland/dam and surrounding floodplain

9 Risk Management

The risk management section is specifically targeted at the proposals for watering discussed earlier and should be reassessed if changes are made to the watering schedule.

Table 9.1 Risk assessment of watering the Wimmera Mallee Pipeline for 2025-26.

Risk category	Risk description	Pre-Mitigation Risk			Mitigation actions	Lead organisation for action	Residual Risk Rating	Risk type Static or Dynamic
		Likelihood	Consequence	Risk Rating				
Environment	Insufficient water available for proposed watering actions to meet environmental objectives. *Note: there is a need to be alert to cumulative impacts of multiple dry years, and impacts on recovery due to back-to-back dry years. Wetlands are in drought refuge mode and have been for some years - relying on carry-over and significant vegetation impacts are threatening*	Possible	Moderate	Medium	• Adaptively prioritise and revise watering actions to optimise outcomes from water available considering seasonal conditions, including consideration the need to reserve contingency volumes for the following season. • Identify any reservoir release constraints due to low water levels and adapt plans accordingly • Maximise use of consumptive water en-route for environmental benefit. • Communicate with community and stakeholders around planned watering actions and any revisions required. • Undertake extra monitoring to guide complementary actions (e.g. carp removal, fencing). • Look for water savings to build up a "water bank" for reducing stress in subsequent years	CMA/WRAG GWMWater CMA VEWH/WRAG	Low	Dynamic

Risk category	Risk description	Pre-Mitigation Risk			Mitigation actions	Lead organisation for action	Residual Risk Rating	Risk type Static or Dynamic
		Likelihood	Consequence	Risk Rating				
Environment	Environmental water deliveries may generate or mobilise poor quality water (e.g. blackwater, BGA, salinity, bushfire ash and sediments), with adverse water quality and environmental outcomes; or Areas not targeted for environmental watering actions experience poor quality water (e.g. blackwater, BGA), with adverse water quality and environmental outcomes	Likely	Minor	Low	• Ongoing monitoring to inform water deliveries. • Adapt flow management based on antecedent conditions and local knowledge. • Maximise use of consumptive water en route for environmental benefit. • Communicate around current conditions and revised objectives. • Undertake complementary actions, including provision of information to the community	CMA GWMWater CMA	Low	Static
Environment	Environmental deliveries create improved conditions for non-native species (e.g. carp, invasive weeds, rabbits, foxes) leading to adverse environmental impacts. (Note: This risk addresses the incremental impact of environmental water deliveries on pest plant and animal populations, noting that even in the absence of environmental delivery actions these pests are likely to spread in waterways with adverse environmental impacts).	Possible	Minor	Low	• Adaptively manage flow to incorporate new knowledge from monitoring and research. • Monitor invasive species extent and control existing populations (e.g. opportunistic removal of carp in dry conditions). • Install physical barrier to prevent translocation (e.g. carp barriers). • Develop management agreements with landholders that include pest plant and animal control measures. • Communicate data from fish surveys etc. to inform the community on pest species and outcomes of control measures. • Seek additional funding for carp control activities.	CMA	Low	Dynamic

Risk category	Risk description	Pre-Mitigation Risk			Mitigation actions	Lead organisation for action	Residual Risk Rating	Risk type Static or Dynamic
		Likelihood	Consequence	Risk Rating				
Reputational	Inability to demonstrate that environmental water objectives have been achieved, which may lead to a loss of public/political support for activities.	Possible	Moderate	Medium	• Seek additional funding for and undertake targeted local monitoring (leveraging existing data sets where possible). • Invest in monitoring and research to address knowledge gaps and influence existing monitoring programs. • Share new knowledge to promote adaptive management. • Communicate monitoring results to local communities.	CMA VEWH/DEECA VEWH CMA	Low	Static
Legal	Environmental releases cause unauthorised inundation of private land, resulting in impacts on landowner activities and assets. *Includes unauthorised interference with delivery infrastructure during planned delivery action* Will only apply to some sites and requires active mitigation during delivery to monitor water levels.	Possible	Moderate	Medium	• Ensure the currency of any landholder agreements for environmental watering actions. • Ongoing communication with GWMWater and land managers in planning and delivery phases. • Consider weather forecasts when conducting environmental releases and reschedule deliveries if forecasts indicate potential for flooding. • Test and monitor delivery rate and respond to potential incidents. • Maintain and inspect infrastructure, including upgrading infrastructure where required before delivery occurs. • Identify likely areas of impact by understanding historical impacts and previous experience, and modify flow planning, or undertake works to reduce risk of inundation. • Install locks on infrastructure as necessary.	CMA GWMWater CMA GWMWater	Low	Static
Environment	Unauthorised interference with delivery infrastructure during planned delivery actions results in under delivery and failure to achieve environmental objectives Note: this will only apply to some sites and requires active mitigation during delivery to monitor water levels etc.	Possible	Minor	Low	• Ongoing communication with GWMWater and land managers in planning and delivery phases. • Monitor delivery rate and respond to potential unauthorised shutoff incidents • install locks on infrastructure as necessary	CMA GWMW/CMA GWMW/Land manager	Low	Static

Risk category	Risk description	Pre-Mitigation Risk			Mitigation actions	Lead organisation for action	Residual Risk Rating	Risk type Static or Dynamic
		Likelihood	Consequence	Risk Rating				
Reputational	Insufficient staff resources available to deliver all planned environmental watering actions, leading to cancellation or interruption of deliveries or impacts on ability to monitor and manage deliveries or to undertake water accounting, reporting and planning actions.	Likely	Moderate	Medium	• Continue to actively prioritise actions to match available resources and ensure priority actions are delivered. • Ongoing communication with GWMWater to understand constraints and develop a schedule of delivery to manage staff resources. (high priority for attention with staff turnover at GWMWater) • Implement remote monitoring to minimise staff time in the field, within available funding. (CMA to check progress with GWMWater) • Provide delivery plans with required lead time prior to target delivery date (usually 2 weeks). • Ensure timely approval of seasonal watering statements. • Upgrade infrastructure to reduce the need for manual operations. • Adjust delivery timing to avoid holidays, weekends and high-risk periods for resourcing. • Undertake operational review to confirm future operational roles for delivery of water to pipeline wetlands, including responsibility for operating outlets, monitoring and reporting delivery progress against orders.	CMA GWMWater CMA VEWH CMA VEWH	Low	Static
Business Costs	Volume delivered or released exceeds volume approved and/or ordered for use in the event or year. Requires active consideration and treatment during delivery	Unlikely	Moderate	Low	• Communicate seasonal watering statements to all partners. • Monitor delivery rate, provide delivery data to CMA/VEWH and respond to potential incidents. • Monitor water use against volume approved for use in seasonal watering statement and adapt water orders if required. • Monitor water use against volume approved and undertake regular communications with CMA and GWMWater as part of portfolio management activities. • Review and update established ordering processes with GWMWater, (as documented in Operating Arrangements document) at regular intervals.	VEWH GWMWater CMA VEWH	Low	Static

Risk category	Risk description	Pre-Mitigation Risk			Mitigation actions	Lead organisation for action	Residual Risk Rating	Risk type Static or Dynamic
		Likelihood	Consequence	Risk Rating				
Safety	Where delivery structures are unsafe and have limitations on their operation, planned environmental deliveries may expose operators to harm.	Unlikely	Extreme	Medium	• Upgrade or modify infrastructure to improve safety. • Modify method of operation to avoid unsafe work practices and update safety procedures to reflect this *(Note: safe work procedures will need to be communicated to community/volunteer resources as well as agency staff where they undertake structure operations).* • Clarify asset ownership of all "potentially unsafe" environmental water delivery structures	GWMWater	Low	Static
Environment	Target flow rate at environmental flow compliance point not achieved due to environmental conditions, (for example high losses at very dry sites, hot weather causing excessive evaporation, antecedent conditions and inflow rates) and environmental benefits not being achieved. *Note: lower volume events are most at risk and noting that target flows will be modified under dry scenarios* Includes tampering at compliance monitoring sites or equipment may limit ability to demonstrate achievement of planned flows.	Likely	Minor	Low	• Monitor flow rate and adjust delivery volume within approved volume. • Use flow forecasting tools/modelling to better understand and allow for losses • Arrange releases from weir pools to complement environmental deliveries • Consider adjusting delivery timing to avoid holidays, weekends and high-risk periods for system operations resourcing.	CMA GHCMA WCMA CMA	Low	Dynamic

Risk category	Risk description	Pre-Mitigation Risk			Mitigation actions	Lead organisation for action	Residual Risk Rating	Risk type Static or Dynamic
		Likelihood	Consequence	Risk Rating				
Environment	Target flow rate at environmental flow release or measurement point not delivered as ordered, leading to sub-optimal environmental outcomes.	Unlikely	Moderate	Low	• Monitor flow rate and adjust delivery to meet ordered flow rates. • Ongoing communication with all CMAs to manage ongoing or temporary infrastructure or maintenance constraints. • GWMWater to ensures planned maintenance and asset renewal needs are flagged and included in seasonal planning as part of development of SWP and sign-off.	GWMWater	Low	Static
Safety	Environmental releases create rapid or unexpected changes in flow conditions, resulting in injury to river user	Unlikely	Moderate	Low	• Communicate flow deliveries to communities and key stakeholders and avoid large flows or rapid changes in flow rate during periods of high river use. (e.g. using community SMS stock management updates services). • Erect signage where appropriate. • Consider safety management around relevant automated structures.	GWMWater/CMA	Low	Dynamic
Reputational	Changing seasonal conditions results in changes to previously announced watering plans, which leads to a loss of community confidence in environmental water management. (Note: These proposed mitigations are also relevant to risks 14, 15 & 16)	Possible	Moderate	Medium	• Ensure community is informed about intended watering objectives and the scenario planning process used. • Provide regular local, place-based updates on planned delivery actions and the current/changing situation in river systems leading to changed actions. • Undertake broader awareness programs focusing on the importance of e-watering, its complexity and the need for adaptive management. • Clarification of the triggers for moving between planning scenarios, to allow notification to community	CMA CMA VEWH VEWH/WRAG	Low	Dynamic

Risk category	Risk description	Pre-Mitigation Risk			Mitigation actions	Lead organisation for action	Residual Risk Rating	Risk type Static or Dynamic
		Likelihood	Consequence	Risk Rating				
Reputational	Community groups not supportive of environmental watering delivery. Generic wetlands risk/treatment (unless a known issue at a particular site)	Unlikely	Minor	Low	• Engage with the local community through a variety of avenues (e.g. workshops, forums, individually to communicate benefits of environmental watering. • Develop state-wide communication products and engage with peak bodies. • Each organisation will share their intended environmental water related communications plans with all partners. • Targeted communications with local landholders prior to and during delivery events.	CMA VEWH CMA/VEWH CMA		Dynamic
Environment	Inadequate monitoring of wetland water levels leads to over delivery to wetlands with local flooding and environmental impacts. (Note: Likelihood of this risk is decreased due to smaller delivery volumes under dry conditions)	Possible	Minor	Low	• Inspection of wetlands immediately prior to commencement of deliveries to confirm levels and water needs, with regular monitoring of levels during events. • Enlist the assistance of local interest groups and landholders to provide feedback on wetland levels during delivery events.	CMA	Low	Dynamic

Risk category	Risk description	Pre-Mitigation Risk			Mitigation actions	Lead organisation for action	Residual Risk Rating	Risk type Static or Dynamic
		Likelihood	Consequence	Risk Rating				
Environment	Constraints in the capacity of works used to supply some wetlands may limit the volumes delivered, leading to a failure to achieve planned environmental outcomes Mitigations may need to be tailored for individual wetlands via delivery plans Where relevant & active management required at site (mitigation actions just prior to and during delivery need to be specified in DP)	Possible	Minor	Low	• Undertake planning with GWMW to identify suitable starting times and schedules to maximise the chances of required deliveries being achieved.	CMA	Low	Static
Reputational	Growth in kangaroo numbers, including around wetlands near roads can pose a possible safety hazard, which may lead to negative perceptions of environmental watering. No need to consider in DPs - generic wetlands risk/treatment	Unlikely	Minor	Low	• Communication that kangaroos may be present around wetland areas, together with collaboration with local government on wider awareness programs around kangaroos and road safety.	CMA	Low	Dynamic

Risk category	Risk description	Pre-Mitigation Risk			Mitigation actions	Lead organisation for action	Residual Risk Rating	Risk type Static or Dynamic
		Likelihood	Consequence	Risk Rating				
Environment	Unauthorised stock access to wetlands can lead to damage to the site, negating the benefits of previous watering and limiting the ability to achieve environmental objectives. *Note: there are also reputational risks around non-compliance - similar risk rating*	Likely	Minor	Low	• Develop agreements with landholders for control of stock on privately owned wetland sites. • Review proposed watering sites on public land with land manager and identify fencing risks and potential solutions, including fencing upgrades or cancelling planned watering action if stock are not controlled. • Monitor and inspect wetlands during deliveries to identify stock issues and modify plans if required. • Consider reporting wandering stock to council rangers for action. • Improve information and awareness of the value of these wetlands and impacts of unauthorised grazing	CMA CMA/Land Manager CMA CMA CMA	Low	Dynamic
Environment	Land manager resources may be diverted to fire response, limiting opportunities for timely sign-off of wetland delivery plans, which prevents deliveries proceeding and impacts achievement of environmental outcomes. No need to consider in DPs - treated at program-level	Possible	Moderate	Medium	• Mitigation options to be further discussed between CMA and PV/DELWP staff • Ongoing communications between CMAs and land managers on development of watering proposals • Review delivery plan sign off processes with DEECA and PV to improve process - include escalation options if local staff are unavailable to sign-off. • Simplify the sign-off process with a clear list of the sites proposed and actions/responses required from land managers. • Consider bringing forward watering actions into current year where delays are anticipated	CMA/Land Manager	Low	Dynamic

Risk category	Risk description	Pre-Mitigation Risk			Mitigation actions	Lead organisation for action	Residual Risk Rating	Risk type Static or Dynamic
		Likelihood	Consequence	Risk Rating				
Environment	Environmental deliveries create improved conditions for non-native species (e.g. carp, invasive weeds, rabbits, foxes) leading to adverse environmental impacts. (Note: This risk addresses the incremental impact of environmental water deliveries on pest plant and animal populations, noting that even in the absence of environmental delivery actions these pests are likely to spread in waterways with adverse environmental impacts). Risk based on 24/25 conditions Should be considered in DPs where active management required at individual site (actions need to be specified in DP)	Likely	Moderate	Medium	• Adaptively manage flow to incorporate new knowledge from monitoring and research. • Monitor invasive species extent and control existing populations (e.g. opportunistic removal of carp in dry conditions). • Install physical barrier to prevent translocation (e.g. carp barriers). • Develop management agreements with landholders that include pest plant and animal control measures. • Communicate data from fish surveys etc. to inform the community on pest species and outcomes of control measures. • Seek additional funding for carp control activities. • Residual risk based on 24-25 conditions	CMA	Low	Dynamic

Risk category	Risk description	Pre-Mitigation Risk			Mitigation actions	Lead organisation for action	Residual Risk Rating	Risk type Static or Dynamic
		Likelihood	Consequence	Risk Rating				
Safety	A failure to share information regarding potential site-specific safety concerns in relation to negative community sentiment in relation to government decisions/actions creates a safety risk for staff involved in environmental watering actions **This is state wide risk, but may not apply in all systems - the risk rating will reflect local risk levels* No need to consider in DPs - generic wetlands risk/treatment (unless a known issue at a particular site)	Unlikely	Moderate	Low	• Share intelligence around any known instances of risky or aggressive behaviour at watering sites between partners. • Note: Accountability for individual staff safety lies with the employing agency via implementation of their own OHS safe work requirements and other associated policy and procedures. This risk is therefore not addressed within this assessment.	All	Low	Static
Environment	Planned or unplanned maintenance or construction works on water delivery infrastructure or constraints on operations due to poor asset condition results in planned/specified flows not being achieved, leading to a failure to achieve planned environmental outcomes. Risk may not require inclusion and tailoring in DPs, usually managed prior to DP development	Possible	Moderate	Medium	• Undertake early planning and communications between the CMA and storage operator (&/or land managers) to minimise likelihood of constraints, enable scheduling of maintenance outside of high demand periods or identify alternative environmental water delivery windows to avoid scheduled maintenance activities • As part of planning and communications, storage manager to consider opportunities to prioritise maintenance on assets required to support high priority planned watering actions where possible • Consider adding time contingencies to planned maintenance schedules to ensure works are completed prior to commencement of watering actions.	CMA and GWMW GWMW CMA	Low	Static

10. Approval

WATERWAY MANAGER APPROVAL OF THE SEASONAL WATERING PROPOSAL	
I, the authorised representative of the agency shown below approve the Seasonal Watering Proposal for the Wimmera Mallee Wetlands Pipeline system in 2025-26 and declare that: • the information provided in this proposal is true and correct, • all required approvals and endorsements from storage managers, land managers, Traditional Owners or other relevant party have been granted, and • unless otherwise stated, any consent/s required to use or reproduce Traditional Owner language and knowledge has been obtained for the purpose of Seasonal Water Planning.	
SIGNED FOR AND ON BEHALF OF MALLEE CATCHMENT MANAGEMENT AUTHORITY	
Signature of authorised representative:	
Name of authorised representative:	Jenny Collins
Position of authorised representative:	Chief Executive Officer
Date:	14/04/2024

11. References

Bureau of Meteorology website, accessed 31st January 2025, http://www.bom.gov.au/climate/data/index.shtml Rainfall - Totals that have a 75% chance of occurring for May to July - Climate Outlooks (bom.gov.au)

Grampians Wimmera Mallee Water (2024). *April 2024 Water Resource Assessment*. Grampians Wimmera Mallee Water

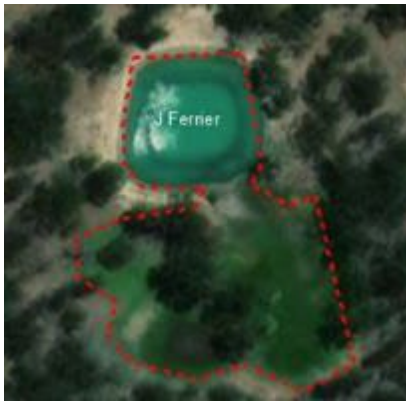
VEWH (2021). *Victorian Environmental Watering Program Risk Management Framework.* Victorian Environmental Water Holder.

Mallee CMA (2023) Environmental Water Management Plan Wimmera Mallee Pipeline, Mallee Catchment Management Authority, Mildura, Victoria.

12. Appendices

Appendix 1 - Site Maps


Homelea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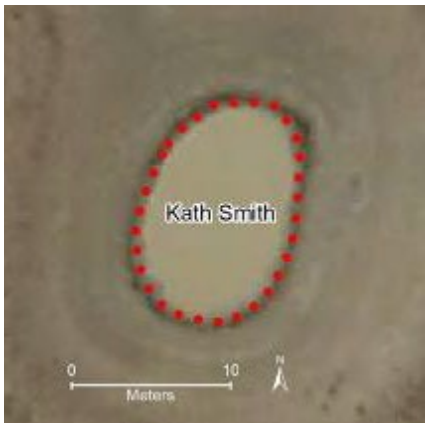
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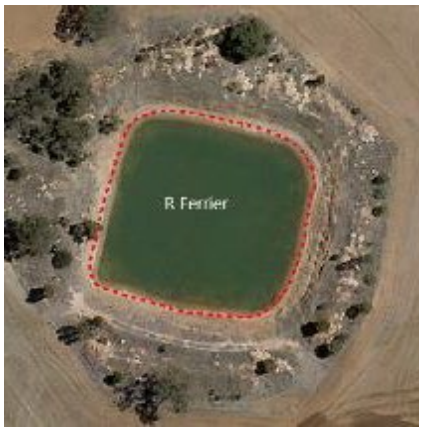
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Rickard Glenys


Roselyn Wetland


Round Swamp


Shannons Wayside


Tchum Lake Dam


Tchum Lake Wetland


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Appendix 2 - Acronyms, abbreviations and glossary

Acronyms and abbreviations

Abbreviation	Description
BGLC	Barengi Gadjin Land Council
CEWO	Commonwealth Environmental Water Holder
DEECA	Department of Energy Environment and Climate Action
EWMP	Environmental Water Management Plan
MCMA	Mallee Catchment Management Authority
MDBA	Murray Darling Basin Authority
ML	Megalitres
PV	Parks Victoria
VEWH	Victorian Environmental Water Holder
WMP	Wimmera Mallee Pipeline

Glossary

Term	Description
Australian Height Datum (AHD)	Height above sea level
Blackwater	A natural occurrence caused by the breakdown of plant matter causing the water to discolour. The water turns black and can have very low levels of dissolved oxygen, which can stress or kill fish and other animals that breathe underwater.
Carryover	Unused water of which entitlement holders are allowed to retain ownership into the following season, according to specified rules.
Consumptive water	Water owned by water corporations or private entitlement holders held in storages and actively released to meet domestic, stock, town and irrigation needs.
Drawdown	Water released from a dam or reservoir at the end of the irrigation season for the purposes of its operation and/or maintenance.
Environmental objectives	Measurable target outcomes for each environmental value in the system, to be achieved by ongoing implementation of one or more watering actions as well as complementary actions (such as controlling invasive species or installing fishways). Target outcomes may take years or several decades to achieve.
Environmental water management plan	A plan developed by a waterway manager setting long-term environmental objectives and based on consultation with key stakeholders, local community and advisory groups to inform the seasonal watering proposal for the particular system.
Expected watering effect	The physical, chemical, biological or behavioural effect expected from a potential environmental watering action. Each potential environmental watering action will have one or more expected watering effects.
Land manager	An agency or authority responsible for conserving natural and cultural heritage on public land including parks and reserves (such as Parks Victoria and DELWP).
Low flow	A relatively stable, sustained and low flow in a river, generally being its minimum natural level.
Megalitre	One million (1,000,000) litres.
Operational release	A release made from a major storage to enable the water distribution system to operate or to make water available to consumptive water users

Term	Description
Potential environmental watering action	An environmental flow component that has been identified for a particular system in a particular year.
Program partners	Are those organisations with a responsibility for delivering some part of the environmental watering program. It includes waterway managers, storage managers, land managers, environmental water holders. In some areas, Traditional Owners, scientists and community members may also be program partners.
Recruitment	The increase in plants or animals when they survive to the settlement or maturity stage.
Seasonal watering plan	The VEWH's annual operational document, that outlines potential environmental watering across the state in the forthcoming water year.
Seasonal watering proposal	This document. An annual proposal outlining the regional priorities for the use of water for the environment in each water year that is submitted by waterway managers to the VEWH for consideration in its seasonal watering plan.
Seasonal watering statement	A statement by the VEWH authorising a CMA to apply or use water from its water for the environment entitlements consistently with the seasonal watering plan.
Shared benefits	The many cultural, economic, recreational, social and Traditional Owner benefits of environmental watering.
Stakeholders	Are those organisations or individuals with a keen interest in the environmental watering program, who are engaged by one of the program partners during planning, delivery or reporting.
Storage manager	An organisation appointed by the Minister for Water to operate major water storages in a particular river basin, to deliver water to entitlement holders
Tier 1	Potential environmental watering actions that are required this year to achieve intended environmental objectives, given current environmental conditions and the planned environmental watering strategies under each climate scenario.
Tier 2	Potential watering actions that are generally not required every year to achieve intended environmental objectives but are needed over the long-term. At the time of developing a seasonal watering plan, tier 2 potential watering actions are not considered necessary to deliver in the current year under specific climate scenarios, but they are likely to be needed in coming years and may be delivered in the current year if environmental conditions change or to take advantage of operational circumstances.
Unregulated or Natural flow	A natural streamflow that cannot be captured in a major reservoir or storage.
Victorian Environmental Water Holder (VEWH)	The independent statutory body responsible for holding and managing Victorian water for the environment entitlements and allocations.
Water Act 1989	The legislation that governs water entitlements and establishes the mechanisms for managing Victoria's water resources.
Water entitlement	The right to a volume of water that can (usually) be stored in reservoirs and taken and used under specific conditions.
Water for the environment	Water available for environmental purposes including entitlements held by the VEWH, passing flows and unregulated flows.
Water year	The same as a financial year: from 1 July to 30 June the next year.
Waterway manager	The agency or authority (such as a CMA or Melbourne Water) responsible for the environmental management of a catchment or waterway.
Waterway or Wetland	A river, wetland, creek, floodplain, estuary or other body of water.

Appendix 4 - Guidance Material

Table 12.1 Risk likelihood rating table adapted from (DELWP, 2019)

Likelihood		Description	Probability
Almost certain	1	• The event is expected to occur in most circumstances and/or • Risk will occur within the next 6 months/or several times a year and/or • Controls associated with the risk are extremely weak and/or non-existent and without control improvement the risk will eventuate.	75-100
Likely	2	• The event is likely to occur in most circumstances and/or • Risk will occur in the next 12 months/or once or twice a year and/or • The majority of the controls associated with the risk are weak and without control improvement it is likely the risk will eventuate.	50-74
Possible	3	The event might occur and/or • Risk will occur in the next 24 months/or once in two years and/or • Some controls need improvement and if there is no improvement it is possible the risk will eventuate.	25-49
Unlikely	4	• The event could occur at some time and/or • Risk will occur in the next 60 months/or once in five years and/or • Controls environment is strong with few control gaps and requires assurance check to maintain control effectiveness.	0-24

Table 12.2 Risk Rating matrix (DELWP 2019)

Likelihood		Consequence			
		Minor	Moderate	Major	Extreme
		1	2	3	4
Almost certain	1	Medium (4)	High (8)	Extreme (12)	Extreme (16)
Likely	2	Low (3)	Medium (6)	High (9)	Extreme (12)
Possible	3	Low (2)	Medium (4)	Medium (6)	High (8)
Unlikely	4	Low (1)	Low (2)	Low (3)	Medium (4)

Table 12.1 Risk consequence (DELWP, 2019)

Rating Risk		Environment	Business Costs	People		Political/ Reputational	Legal	Service Delivery	Cultural Heritage
				Safety and Wellbeing	People and Culture				
Minor	1	• Limited effect on the natural and/or built environment and/or the environment suffers harm for up to 5 years. • Environmental recovery on a minor scale up to 5 years. • Mostly impacts environmental values at a single location in an individual system.	Cost impact on total budget of up to 5%.	• Minor injuries or illness (physical/ mental) requiring first aid or medical attention of staff, visitor, contractor, or member of the public.	• Staff complaints, passively upset, and uncooperative. • 10-15% staff turnover with minor loss of skills, knowledge, and expertise.	• Adverse localised public and political interest. • Limited attention on a single issue in local media over a short period.	Non-compliance with legislation or breach of duty of care, identified externally and either: • resolved internally with no further escalation; or • resulting in minor compensation, and/or negative precedent.	• Minor short-term impact on business unit's delivery of services/functions. • Customers/stakeholders/ communities slightly inconvenienced. • Up to 1 day impact on business unit's critical activities. • Minor impact (up to 10% delay) on project or program milestones.	• Limited potential impact on heritage sites/artefacts • Exposure of previously unknown cultural heritage items
Moderate	2	• Moderate effect on the natural and/or built environment and/or environment suffers harm for 5-10 years. • Environmental recovery on a small scale and/or over a period 5-10 years. • Impacts environmental values at multiple locations in an individual system.	• Cost impact on total budget between 5- 10%.	• Significant injury or illness (physical/ mental) requiring inpatient hospitalisation of staff member, visitor, contractor, or member of the public.	• Low morale, disengagement, increased absenteeism, and workplace conflict. • 15-25% staff turnover with loss with resignations of some key staff.	• Adverse localised negative public and political attention. • Short term negative local media attention. • Local community concern on a single issue over a sustained period.	Non-compliance with legislation or breach of duty of care resulting in: • external investigation or report to responsible authority; and/or • prosecution or civil action, with one of moderate level of compensation or moderate level of negative precedent.	• Moderate impact on business unit's delivery of services/functions. • Customers/stakeholders/ communities inconvenienced. • Up to 3 days impact on business unit's critical activities. • Significant impact (10-20% delay) on project or program milestones.	• Moderate potential impact on heritage sites/artefacts • Damage to previously unknown cultural heritage items or values
Major	3	• Major effect on the natural and/or built environment and/or environment suffers harm for 10-20 years. • Environmental recovery on a large scale and/or over a period of 10-20 years. • Impacts regional environmental values or affects connected systems.	• Cost impact on total budget between 10- 20%.	• Extensive and/or permanent injury or illness (physical/ mental) of staff member, visitor, contractor, or member of the public.	• Major morale issues, high absenteeism. • 25-50% staff turnover with resignations of key staff. • Staff are not skilled to meet priorities.	• Serious adverse public attention at State/National level. • Negative State/National media on one or more issues over a prolonged period. • Repeated displeasure by the Minister. • Medium-term negative public interest (correspondence and phone calls) and political interest (in Parliament).	Non-compliance with legislation or breach of duty of care resulting in: • external investigation or report to responsible authority; • public inquiry (i.e. Royal Commission/ Parliamentary Committee); • prosecution or civil action with high level compensation and high-level negative precedent; and/or • sanctions imposed by external regulator.	• Ongoing difficulties in delivering the business unit's services/functions. • Major impact on customers/ stakeholders/ communities • Up to 10 days impact on business unit's critical activities • Major impact (20-50% delay) on project or program milestones	• Major potential impact on heritage sites/artefacts • Damage to known cultural heritage items or values
Extreme	4	• Very serious effect on the natural and/or built environment and/or environment suffers long term harm (20+ years). • Environmental recovery on a very large scale and/or over a long period (20+ years). • Impacts environmental values state-wide.	• Cost impact on total budget between >20%.	• Single or multiple deaths or severe permanent disability or illness (physical/mental) of staff, visitor, contractor, or member of the public.	• Organisation wide morale issues and absenteeism. • >50% staff turnover. • Staff are not skilled to meet core corporate outputs.	• Very serious public outcry at State/National level. • Negative State/National media over a prolonged period. • Breakdown of public confidence in the Government / department / Minister or key project/program. • On-going or prolonged negative public interest (correspondence and phone calls) and political interest (in Parliament).	Non-compliance with legislation or breach of duty of care resulting in: • prosecution or civil action leading to imprisonment of an officer; • public inquiry (i.e. Royal Commission/ Parliamentary Committee) • uninsured compensation payments • negative precedent requiring very serious impact and major reform to the department; and/or • severe sanctions imposed by external regulator.	• Long term and severe impact on delivery of services/functions • Severe impact on customers /stakeholders/communities • More than 10 days impact on business unit's critical activities • Vital or very serious delays (>50% delay) to program/project delivery or project/program objective is not met	• Very serious potential impact on heritage sites/artefacts • Destruction of cultural heritage items or values

mallee
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