Mildura Planning Scheme Review



Key Issues Overview and Responses, Final Report

For: Mildura Rural City Council

December 2025

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This report is the Mildura Planning Scheme Review, Preliminary Key Issues Overview and Responses Final Report for the Mildura Rural City Council (Council). It has been prepared with expertise, advice and inputs from Plan2Place Consulting using background reports and information provided by Practical Ecology, Wayfarer Consulting and Council for this project.

The report issue date is December 2025.

Every reasonable effort has been made to validate information provided by the client in the preparation of this report throughout the project during January 2024 to December 2025.

The report has been prepared in conjunction with Council and is based upon up-to-date information provided at the time of report preparation and finalisation.

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Version	Date of issue	Notes
V1	28/3/2024	Draft Prepared for Council Officer review
V2	30/6/2024	Revised Draft Prepared for Council Officer review
V3	6/8/2024	Revised Final Report Prepared for Council
V4	24/12/2024	Revised Final Report Prepared for Council
V5	2/5/2025	Final Report Prepared for Council (Word Preliminary Removed)
V6	17/9/2025	Final Report Prepared for Council
V7	18/12/2025	Final Report Adopted by Council

Acknowledgement of traditional land owners

We respectfully acknowledge that every project enabled or assisted by Plan2Place Consulting in Victoria exists on traditional aboriginal lands which have been sustained for thousands of years.

We honour their ongoing connection to these lands and seek to respectfully acknowledge the traditional custodians in our work.

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ABBREVIATIONS AND LEGISLATION

Abbreviations

BAO	Buffer Area Overlay
BPEM	Best Practice Environmental Management Guidelines
Council	Mildura Rural City Council
C	Council Amendment
DTP	Department of Transport and Planning
DEECA	Department of Energy, Environment and Climate Action
DELWP	Department of Environment, Land, Water and Planning
DCPs	Development Contribution Plans
EGMs	Electronic Gaming Machines
EPAV	Environment Protection Authority of Victoria
ESO4	Environmental Significance Overlay – Schedule 4
FZ	Farming Zone
GRZ	General Residential Zone
IN1Z	Industrial 1 Zone
ISA	Inner Safety Area
IWM	Integrated Water Management
LGA	Local Government Area
MHFs	Major Hazard Facilities
MiPS	Mildura Planning Scheme
MUSIC	Model for Urban Stormwater Improvement Conceptualisation
MPS	Municipal Planning Strategy
OSA	Outer Safety Area
PPF	Planning Policy Framework
PPNs	Planning Practice Notes
PUZ1	Public Use Zone – Schedule 1
PSR or Review	Mildura Planning Scheme Review
RGP	Loddon-Mallee Regional Growth Plan
SAS	Salinity Action Statement
SEIFA	Socio-Economic Indexes for Areas
SMO	Salinity Management Overlay
STORM	Stormwater Treatment Objective - Relative Measure
VC	Victoria and Council Amendment
VPP	Victoria Planning Provisions
VGCCC	Victorian Gaming and Casino Control Commission
WSUD	Water Sensitive Urban Design
WSV	WorkSafe Victoria

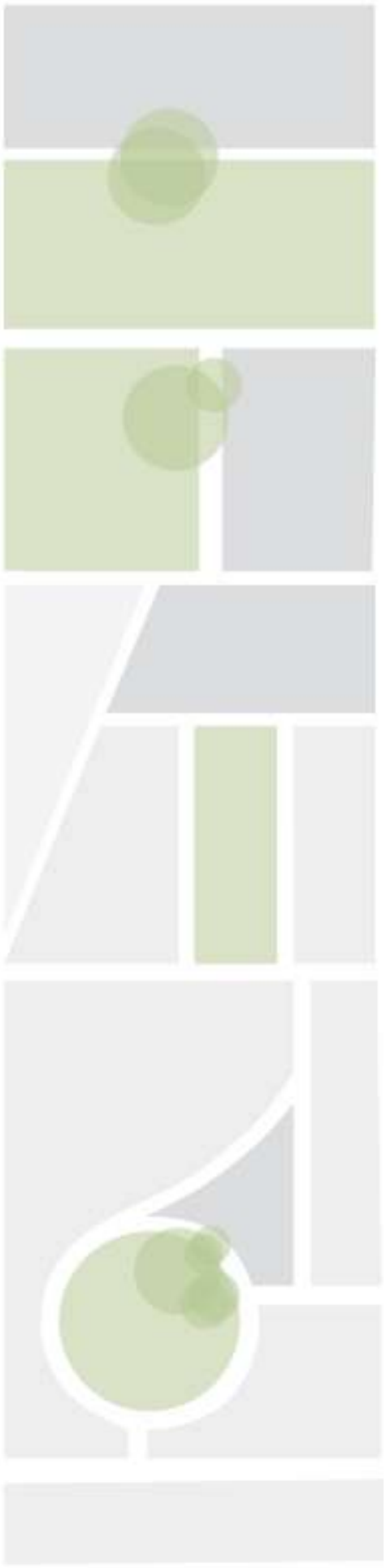
Numeric Abbreviations

ha	hectare
ML	Megalitres
m	metre
mbgl	metres below ground level
m^2	metres squared
%	percent
sqm	square metres

Related Legislation and Regulations

Environment Protection Act 2017 (EP Act 2017)
Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)
Dangerous Goods (Explosives) Regulations 2011
Dangerous Goods (Storage and Handling) Regulations 2012.
Dangerous Goods (HCDG) Regulations 2016
Flora and Fauna Guarantee Act (FFG Act)
Occupational Health and Safety Regulations 2017
Planning and Environment Act 1987 (P&E Act)
Wildlife Act 1975 and Wildlife Regulations 2013

INTRODUCTION



1 INTRODUCTION

Plan2Place Consulting has been engaged by the Mildura Rural City Council (Council) to prepare the Mildura Planning Scheme Review. The outputs of this project include preparing a review of the Mildura Planning Scheme that will provide the foundation for an effective and efficient planning scheme.

The objectives of this project are to provide:

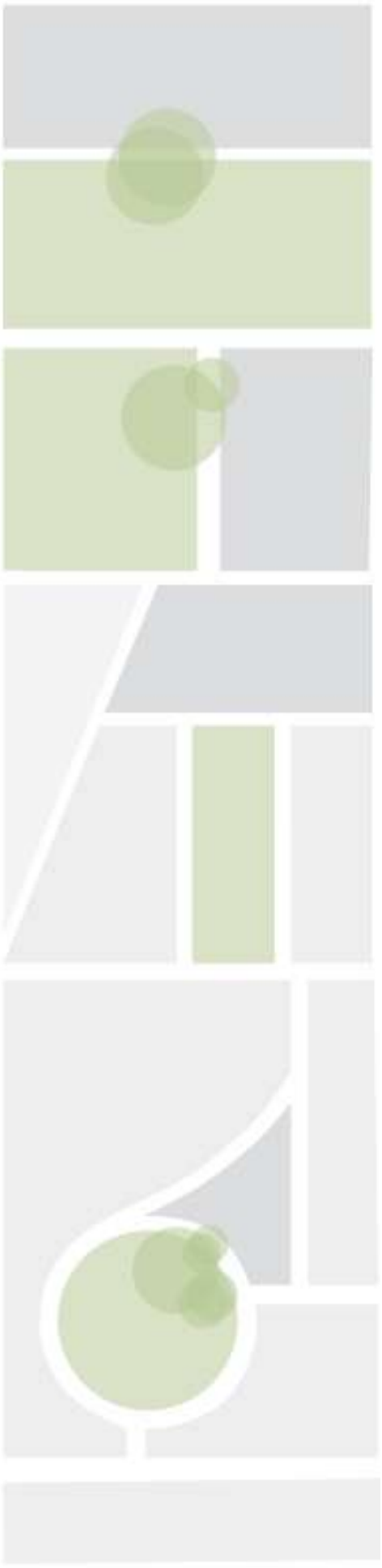
- A review and advice on next steps for outstanding matters identified in previous Mildura Planning Scheme review and other subsequent issues.
- A 4 yearly review of the Mildura Planning Scheme for submission to the Minister for Planning as per the requirements of the Planning and Environment Act 1987 (the Act).
- An updated policy framework for introduction into the planning scheme via a planning scheme amendment.

This report provides background and scope on seven policy areas for review with key findings and recommended responses. These seven policy areas include:

- Cumbungi.
- Salinity Management Overlay.
- Public Open Space Contributions.
- Gambling.
- Koorlong Landfill.
- Environmental Significance Overlay – Schedule 4.
- Water Sensitive Urban Design and Integrated Water Management.

The outputs from this review will be incorporated into this Preliminary Key Issues Review Report summarising the outstanding issues from the previous review, background on key contemporary policy and strategic issues and recommendations on next steps for the planning scheme review.

BACKGROUND AND CONTEXT



2 BACKGROUND AND CONTEXT

2.1 Overview

Mildura Rural City Council is the largest regional municipality in Victoria by geographical area covering an area of 22,083 square kilometres. Situated in the far north-west of the state, on the Murray River, it shares borders with both New South Wales to the north and South Australia to the west.

The city population has doubled in the past four decades, to about 32,700. Its current and anticipated future importance in servicing populations across the Sunraysia region, extending across borders into neighbouring states, means key growth areas have been identified to its south and east.

The main urban centre of the municipality is the regional city of Mildura, surrounded by the satellite towns of Irymple, Red Cliffs and Merbein. Ouyen is the major town in the south of the municipality and there are a number of other smaller settlements throughout the rural areas including Meringur, Werrimull, Cullulleraine, Koorlong, Cardross, Nangiloc, Colignan, Walpeup, Underbool and Murrayville.

The Local Government Area (LGA) population is currently estimated at 57,156, which is expected to expand to approximately 62,500 by 2036.

The review of the planning scheme for the municipality provides Council with an opportunity to further develop a planning framework to implement Council's strategic vision, better manage the land use and other relevant changes occurring and facilitate the outcomes valued by Council and the community. This is particularly important given changes and influences facing the Shire such as climate change, housing and tourism growth, fluctuating populations due to holiday homes, need for affordable housing, rising house prices, increasing employment and protecting primary industries.

State planning policy requires Council to identify a sufficient supply of land available for residential, commercial, retail, industrial, recreational, institutional and other community uses and to protect environmental features, manage agricultural land, water catchments, and coastal environments and manage heritage assets. Council can use the Planning Scheme Review to ensure that land use and development in the municipality is appropriately planned and managed through evidence-based planning.

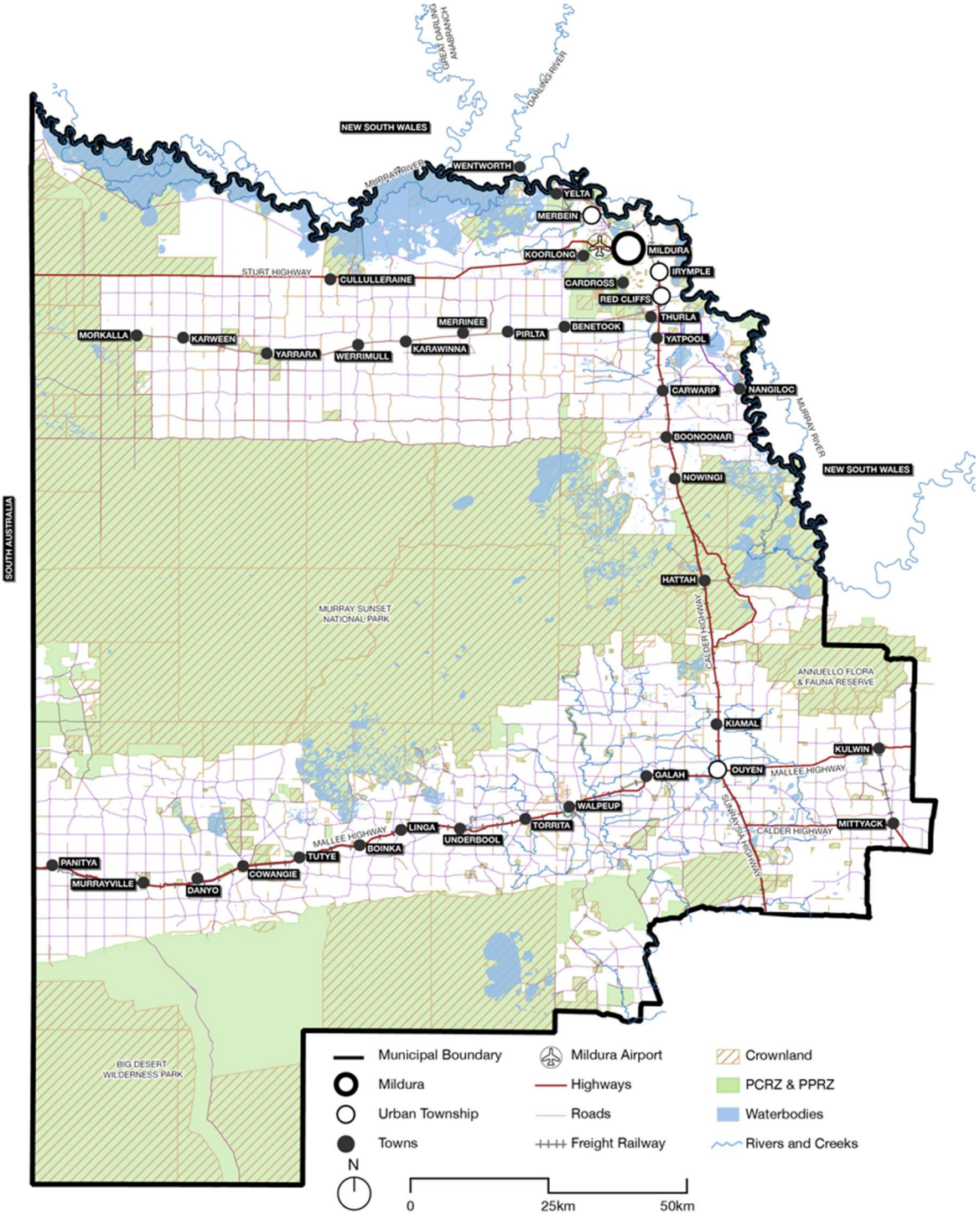
Over the last two decades there have been significant changes to the planning and infrastructure landscape, and pressures of growth and development, impacting Mildura. Mildura is located in the far north-west of Victoria but has extensive connections with nearby towns and regions in the adjoining states. The Mildura LGA is subject to temperature and climatic extremes like almost no other region in Victoria and this has an appreciable impact on the appropriate planning response for a range of factors.

The Mildura LGA contains important environmental, agricultural, irrigation and tourism and other natural resources and many of the municipality's townships retain significant heritage value. While retaining highly prized landscapes and townships, the municipality nevertheless will experience major growth pressures. A revised planning scheme will be better able to anticipate change and put in place measures to adequately respond to pressures with greater adaptability, while potentially reducing the cost and complexity of planning administration. Planning policy issues need to be understood through this lens and by anticipating future issues of influence and strategic response.

This context provides an important foundation and influence for the Mildura Planning Scheme Review (the Review, or PSR).

The municipality's context is shown in **Figure 1**.

Figure 1: Mildura Rural City Council Context



2.2 Specific Policy Areas for Review

The following seven policy areas have been assessed and reviewed in this report:

- Cumbungi.
- Salinity Management Overlay.
- Environmental Significance Overlay – Schedule 4.
- Public Open Space Contributions.
- Gambling.
- Koorlong Landfill.
- Water Sensitive Urban Design and Integrated Water Management.

2.2.1 Cumbungi

A review of relevant literature regarding Cumbungi including Council information was undertaken. This was followed by a review of existing planning provisions and potential planning scheme responses applicable to Cumbungi removal, including exemptions under Clause 52.17. A meeting was also held with Department of Energy, Environment and Climate Action (DEECA) representatives on the 24 June 2024 (Tim Norden, Hannah Nicholas, Adrian Martins, Matthew Cameron) to further understand the applicability of exemptions under Clause 52.17 of the Mildura Planning Scheme and identify which approaches would be most acceptable. The text below provides a succinct summary of background, and key findings. A Cumbungi discussion paper has also been prepared separately to this document, which can be referred to for further details.

Background

It is understood that past community feedback identified the abundance of Cumbungi as an issue, primarily at Lake Cullulleraine, dating back to 2005 (Maunsell Australia Pty Ltd 2006). This is primarily regarding conflicts with recreation use of the lake, particularly access to stretches of the lake (previously accessible) for boats and swimmers, and a desire for Cumbungi to be monitored and controlled. Council officers also identified Cumbungi as an issue at two of its constructed wetlands, Etiwanda Wetlands and Mildura South Wetlands.



Image 1: Cumbungi at the Southern Shoreline of Lake Cullulleraine, May 2024 / Source: Plan2Place Consulting

Cumbungi (Typha spp.) is a common native and emergent plant found in many aquatic ecosystems, widespread across the Murray-Darling basin. It is a tall, rigid, perennial, emergent aquatic plant, with considerable below ground rhizomatous roots, that can live in water (up to 2 metres deep) and water-logged areas. There are three species in Victoria, two are native and one introduced:

- Narrow-leaf Cumbungi *Typha domingensis.*
- Broad-leaf Cumbungi *Typha orientalis.*
- Lesser Reed-mace **Typha latifolia* – introduced.

Cumbungi often occurs in dense, species poor stands in habitats that suit its ecological adaptations. It thrives in relatively stable, shallow, nutrient rich water, sunny conditions, and is tolerant of water logging.

Cumbungi and the Tall Marsh community it commonly forms a part of, provide a range of important ecological roles including habitat for foraging, nesting and refuge for waterbirds, rails ducks, frogs, tadpoles, fish, turtles, and invertebrates. This includes threatened species such as the Australian Reed Warbler, Australasian Bittern, and Growling Grass Frog.

However, in some circumstances, where water regimes have been altered from those that would have naturally occurred to conditions favouring Cumbungi, stands may spread rapidly and dominate to such an extent that it poses problems for recreational uses, water infrastructure and in some cases may also threaten other flora and fauna values. This is particularly the case in shallow, stable water-bodies lacking natural wetting and drying events, and that contain high nutrient and sediment loads. Cumbungi stands also entrap sediment, which can encourage their further colonisation into deeper water.

Once it dominates a wetland, site control may simply be a short-term solution if the basic conditions that encourage its establishment are not or cannot be addressed. In this case, ongoing control will likely be required to maintain the "service" needed in a water body. Control options include changed water regime, excavation (small scale or larger scale with machinery), herbicide application (Cut and dab, Wick and wipe, or broad spraying), Cutting and drowning, and burning. As discussed in the discussion paper, each have their benefits and drawbacks, and the most appropriate approach should be considered case by case, and will be dependent on the specific local context. It is understood that herbicide was applied in 2015 to control Cumbungi at priority areas at Lake Cullulleraine shown in **Figure 2**, under a permit granted by DEECA for an approved management plan between 2014-2019.

Figure 2: Lake Cullulleraine Approved Management Plan, 2014-2019

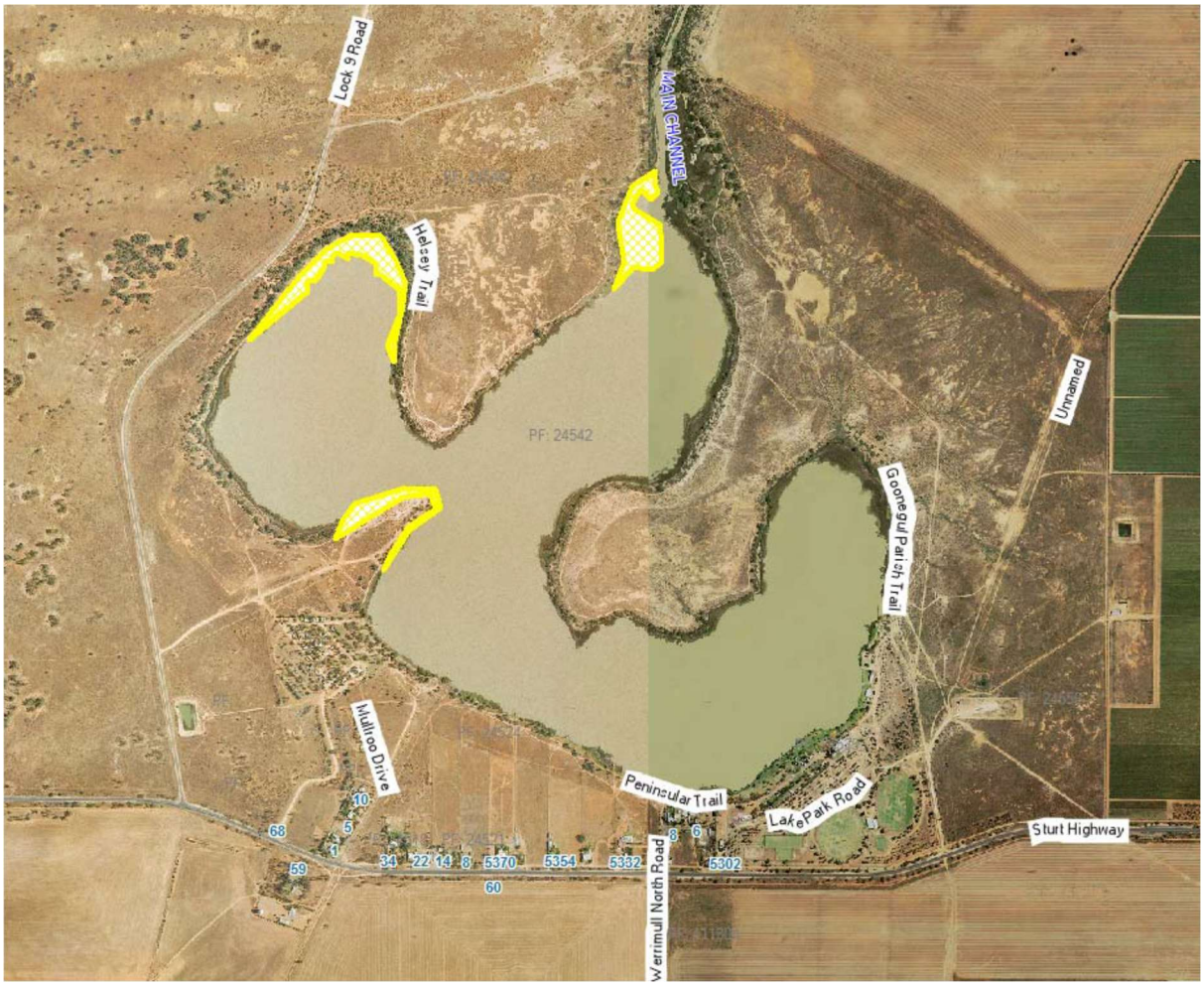


Image 2: Lake Cullulleraine Aerial / Source: Approved management plan operating between 2014- 2019, Mildura Rural City Council, 2014

Key Issues and Findings

Planning Scheme – Clause 52.17

The purpose of Clause 52.17 is to ensure no net loss to biodiversity as a result of removal or loss of native vegetation using the three-step approach:

- Avoid the removal, destruction or lopping of native vegetation,
- Minimise impacts from the removal where native vegetation cannot be avoided and,
- Provide an offset to compensate for the biodiversity impact if a permit is granted.

The removal of native vegetation, including native Cumbungi species, requires a permit under Clause 52.17 of the Mildura Planning Scheme on sites greater than 0.4 hectares (exemptions can apply). There are several exemptions that can apply in certain contexts to the removal of Cumbungi (e.g., regrowth exemption, utility installations exemption, and weed exemption). Clause 52.17 also provides the opportunity to list native species as weeds within the two sections of the schedule to Clause 52.17. The applicability of these exemptions and options are summarised in **Table 1**.

Table 1: List of exemptions and their applicability to Cumbungi removal[1]

	Possible Approach/Exemption	Applicable situations/Context
1	**<u>Permit applied for on a case-by-case basis & regrowth exemption</u>** The Regrowth exemption applies to: *"Native vegetation that is to be removed, destroyed or lopped that has naturally established or regenerated on land lawfully cleared of naturally established native vegetation, and is:* • *less than 10 years old; or* • *bracken (Pteridium esculentum); or* • *within the boundary of a timber plantation as indicated on a Plantation Development Notice or other documented record, and has established after the plantation; or* • *less than ten years old at the time of a property vegetation plan being signed by the Secretary to the Department of Environment, Land, Water and Planning (as constituted under Part 2 of the Conservation, Forests and Lands Act 1987), and is:* • *shown on that plan as being 'certified regrowth'; and* • *on land that is to be used or maintained for cultivation or pasture during the term of that plan.* *This exemption does not apply to land on which native vegetation has been cleared or otherwise destroyed or damaged as a result of flood, fire or other natural disaster."*	**Most appropriate approach for most situations** This was deemed the most appropriate approach for Cumbungi management. It allows appropriate consideration of the local circumstances and ecological implications of any proposed Cumbungi removal. To justify the removal of Cumbungi at Lake Cullulleraine, DEECA advised that further information and ecological studies would be required, given that that the last Management Plan was developed over several decades ago in 2005. Given Cumbungi's propensity to re-colonise cleared areas, ongoing control of Cumbungi is typically needed. This can be exempt under the "regrowth exemption" as long as less than 10 years has lapsed since it was last, lawfully removed.
2	**Utility installations exemption** *"Native vegetation that is to be removed, destroyed or lopped to the minimum extent necessary:* • *to maintain the safe and efficient function of a Minor utility installation; or* • *by or on behalf of a utility service provider to maintain or construct a Utility installation in accordance with written agreement of the Secretary to the Department*	**May apply where removal is needed to maintain utility function** **Not for recreational purposes** This exemption would not apply to Cumbungi removal for recreational purposes. However, it could apply to management of constructed wetlands to ensure their ongoing operation in regards to stormwater treatment. DEECA advised that Mildura Rural

[1] *Text in italics is taken directly from DELWP (2017) Exemptions from requiring a planning permit to remove, destroy or lop native vegetation - Guidance. Available online: https://www.environment.vic.gov.au/native-vegetation/native-vegetation-removal-regulations/exemptions-from-requiring-a-permit*

	of Environment, Land, Water and Planning (as constituted under Part 2 of the Conservation, Forests and Lands Act 1987)" The purpose of the first part of the exemption is to enable the removal of native vegetation to undertake maintenance of a Minor utility installation. Anyone can undertake these maintenance activities, without the need to obtain a planning permit.	City Council would need apply to become a signatory to the Utility Exemption.
3	**<u>Conservation Works</u>** *"Native vegetation that is to be removed, destroyed or lopped to the minimum extent necessary to enable the carrying out of conservation work:* • *which provides an overall improvement for biodiversity; and* • *with written agreement of the Secretary to the Department of Environment, Land, Water and Planning (as constituted under Part 2 of the Conservation, Forests and Lands Act 1987)."*	**May apply where Cumbungi removal is for conservation purposes** **Not for recreational purposes** The purpose of this exemption is to not require a permit to remove native vegetation where the removal is required to do work that will clearly improve outcomes for biodiversity. This exemption is only applicable where there is a clear biodiversity conservation outcome. It requires approval from the Secretary to DEECA, and needs to meet a range of biodiversity focused criteria, including ongoing monitoring. For example, this exemption may apply where works are proposed to remove Cumbungi to prevent its continued encroachment into important mud-flats or other ecological communities, particularly if they provide habitat for listed flora and fauna, and migratory species. This exemption **is not** applicable, where the primary purpose for Cumbungi removal is for recreational purposes.
4	**<u>Crown Land</u>** *"Native vegetation that is to be removed, destroyed, or lopped to the minimum extent necessary to manage Crown land:* • *by or on behalf of the Secretary to the Department of Environment, Land, Water and Planning (as constituted under Part 2 of the Conservation, Forests and Lands Act 1987), or Parks Victoria, and in accordance with the Procedure for the removal, destruction or lopping of native vegetation on Crown land; or* • *with written permission from the Secretary to the Department of Environment, Land, Water and Planning (as constituted under Part 2 of the Conservation, Forests and Lands Act 1987)."*	**Not applicable to Lake Cullulleraine** DEECA advised that as Council is a Committee of Management for Lake Cullulleraine, this exemption does not apply.
5	**<u>Schedules to Clause 52.17</u>** If native vegetation is proclaimed as a noxious weed, it can be exempted by a planning authority by listing it in one of two Schedules to Clause 52.17. This provides for locally specific noxious weeds to be identified. **1.0 Scheduled area** This can define the area and a description of the native vegetation or weeds, for which no permit is required to remove, destroy or lop. **2.0 Scheduled weed**	**This was not supported by DEECA. Instead, Option 1 was encouraged, which allows a more adaptive approach as circumstances change.** Extreme care should be taken when listing indigenous weeds in Schedule 2, as this exempts its removal across the whole municipality within both private and public land. This is considered inappropriate for a Cumbungi as it could easily have unintended consequences for biodiversity.

	Listing a species under this schedule precludes it from requiring a permit across the entire municipality, on both private and public land	Schedule 1 allows for a somewhat more nuance approach. It could allow for removal of Cumbungi at Lake Cullulleraine at specific locations as documented in a listed Master Plan. However, this is not DEECA's preferred option.
6	**Existing buildings** *"Native vegetation that is to be removed, destroyed or lopped to the minimum extent necessary to enable the use or maintenance of a building constructed in accordance with a planning permit or building permit issued before 15 September 2008.* *This exemption does not apply to:* • *the operation or maintenance of a fence; or* • *native vegetation located more than 10 metres from the outermost point of the building."*	**Not applicable to removal for recreational purposes** DEECA advised this did not apply to recreational assets such as jetties, boat ramps, slip ways.

Following discussions with DEECA, the most appropriate approach for Cumbungi removal in regards to conflicts with recreational assets is to apply for a permit is Option 1, where a permit is applied on a case-by-case basis. This ensures that the specific context and ecological implications can be considered appropriately, and is the approach taken previously. It also allows greater flexibility should circumstances change into the future. Ongoing control of Cumbungi regrowth can be exempted by application of the *regrowth exemption.* As mentioned above, Cumbungi has a propensity to recolonise cleared areas, needing ongoing management. The regrowth exemption, allows such regrowth to be legally removed as long as long as less than 10 years has lapsed since it was last, lawfully removed.

DEECA advised that additional information and studies would likely be required to support a permit for Cumbungi removal at Lake Cullulleraine given the dated 2004 Management Plan. While there is a recent report regarding vegetation at Lake Cullulleraine, there appears to be little recent reporting on fauna values regarding Lake Cullulleraine. This is a current knowledge gap that will need to be addressed if future permit applications are made for Cumbungi removal.

Two other exemptions could apply where the purpose of the Cumbungi removal is for Conservation purposes (*Conservation Works* exemption) or maintenance of utilities (*Utility Installations* exemptions). It is stressed that neither of these exemptions apply where Cumbungi removal is for recreation purposes. In regards to the *Conservation Works* exemption, the vegetation removal must facilitate work that will clearly improve outcomes for biodiversity. It requires approval from the Secretary to DEECA, and needs to meet a range of biodiversity focused criteria, including ongoing monitoring. In regards to the *Utility Installation* exemption, DEECA advised that Mildura Rural City Council would need apply to become a signatory to the Utility Exemption.

The addition of Cumbungi at Schedules 1 or 2 of Clause 52.17 was not supported by DEECA, with a case-by-case approach preferred as discussed above.

Other Legislative Obligations

In addition to Clause 52.17 of the Mildura Planning Scheme, approvals under the following legislative acts may also be required in relation to the removal of vegetation and potential impacts to listed species and ecological communities:

- Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act).
- Flora and Fauna Guarantee Act 1988 (FFG Act).
- Wildlife Act 1975 and Wildlife Regulations 2013.

A preliminary search of fauna records on the Victorian Biodiversity Atlas was undertaken of Lake Cullulleraine including a 5 km buffer. Based on this preliminary search, at least five species, listed under either the FFG Act and EPBC Act, were identified with potential to use Tall Marsh and Cumbungi as habitat

in the local area. These species and legislative implications under the above acts are discussed in greater detail within the Cumbungi Discussion report.

Proposed Recommendations and Response

It is recommended that:

- Permits for proposed Cumbungi removal in regards to recreational assets and use, are considered on a case-by-case basis, as advised by DEECA. Ongoing control of regrowth in areas where Cumbungi has been legally cleared, can be exempted under the "regrowth exemption" where less than 10 years has lapsed since it was last legally cleared/controlled.
- Regarding proposed Cumbungi removal at constructed wetlands for the purpose of maintaining their storm water treatment capacity, consider if it is beneficial to become a signatory to the Utility Exemption.
- Consider application of the Conservation Works exemption, where Cumbungi removal is proposed to facilitate a clear biodiversity outcome.
- Regarding Lake Cullulleraine, consider developing a new management plan/master plan, especially if Cumbungi issues become a community priority into the future and funding is available. The management plan should consider ecological, cultural and recreational values at Lake Cullulleraine, to determine if/where Cumbungi removal may be justified, and the most appropriate removal and control methods. A knowledge gap identified is the lack of current information available regarding fauna values at Lake Cullulleraine. The management plan should also consider obligations under other environmental state and national legislation such as the Victorian State Flora and Fauna Guarantee Act (FFG Act) and the National Environmental Protection and Biodiversity Conservation Act (EPBC Act).
- Discuss Cumbungi issues with Lower Murray Water who manage Lake Cullulleraine for its water storage.

2.2.2 Salinity Management Overlay

A review of relevant background information was undertaken regarding salinity management with a focus on the Mildura region. This included a review of existing guidelines, planning provisions and potential planning scheme responses applicable to the Salinity Management Overlay (SMO).

Background

Urban salinity can, and has in the past, caused significant economic, environmental, and social costs with impact to both residents and Councils. Urban salinity can cause deterioration of a range of infrastructure including housing foundations, paths, roads, and underground services, significantly reducing their lifetimes, as well as leading to the loss of vegetation. Salts stored within soils can come from a range of sources such as ancient sea-beds. When these stored salts become dissolved in groundwater, they can become mobilised, in turn damaging urban infrastructure it encounters, especially when groundwater rises.

Two groundwater sources contribute to salinity issues within Mildura. The first is the ***Regional Groundwater*** system that occurs within the Parilla Sands aquifer. Secondly, shallower, ***Perched Groundwater*** can also form within the overlying Woorinen Formation, where lower-permeability clay horizons can be present, trapping water above it. The Parilla sands layer and Woorinen formation are separated by the low permeability, confining, Blanchetown Clay layer.

Land-use changes and management can have a significant impact on these groundwater levels. Removal of vegetation (reduced uptake of water) and increased irrigation for horticulture (increased recharge of groundwater), are two key factors that have led to groundwater rise and increased salinity issues. In regards to residential land use, there is potential for increase recharge, through over-watering of lawns and gardens, as well as insitu recharge of stormwater and onsite disposal of household grey water. In Mildura, degraded land in low-lying areas, such as adjacent to Lake Ranfurly and Lake Hawthorn are an ongoing reminder of the effects of saline groundwater.



Image 3: Salinity and other impacts at Kings Billabong / Source: Plan2Place Consulting

Given the damaging and insidious effects of salinity, and the known presence of saline soils and groundwater across Mildura, the Site Salinity Guidelines and Salinity Management Overlay (SMO) were developed between 2004 and 2009, to ensure urban growth in the Mildura region manages salinity risks.

Overview of the SMO and its Operation

The SMO is used to ensure that ***new growth areas***, with a greater urban density, are designed with consideration to salinity risk in the area, particularly in relation to the subdivision stage as shown in **Figure 3**. An application for subdivision or buildings and works in an area covered by the SMO1, triggers the need to respond to the permit requirements under Clause 44.02 and Schedule 1 to the overlay (exemptions apply). **Table 2** summarises the requirements for subdivision, and building and works, based on the wording in this Clause and Schedule. Fundamental to the operation of the SMO1, is the Site Salinity Management Guidelines document developed in 2009 (SKM 2009).

Figure 3: Site Salinity Management Guidelines and Areas Proposed for Urban Development, 2009

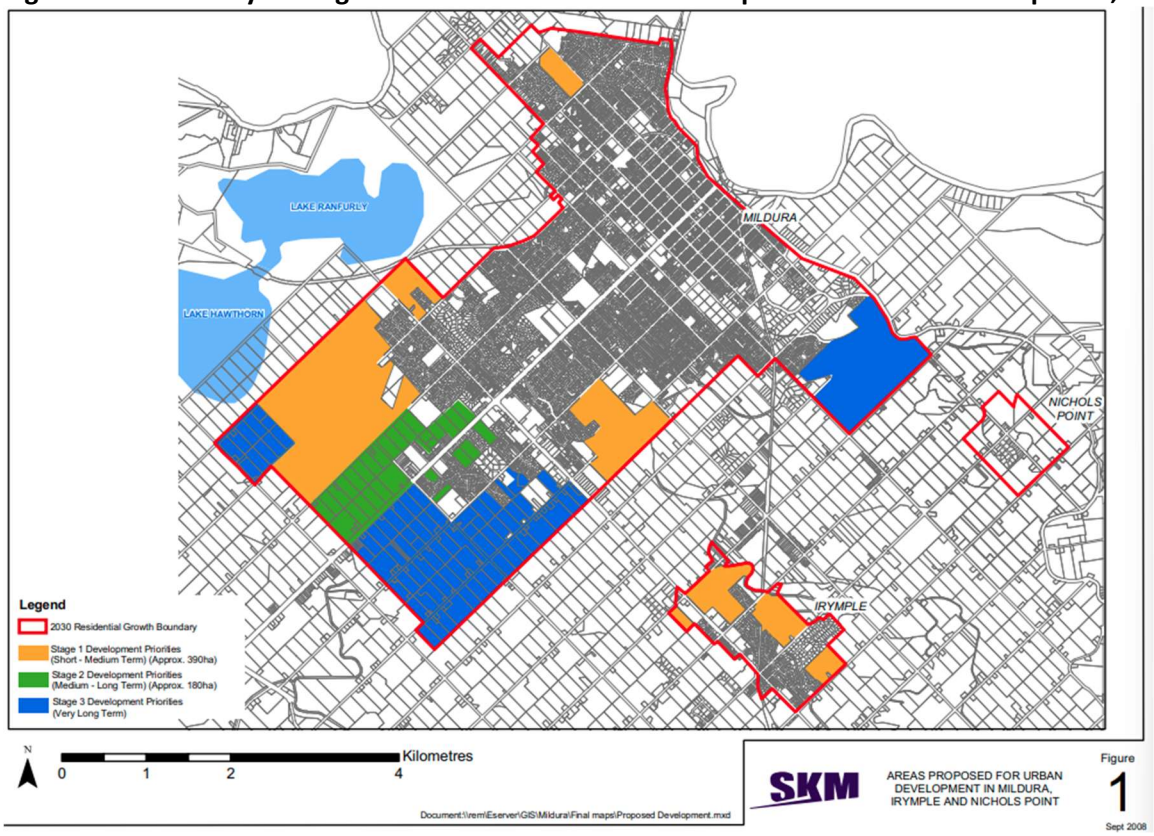


Table 2: SMO1 Permit requirements - Subdivision, Buildings and Works

	Application Requirements	Exemptions
SMO – Schedule 1	Subdivision, or Building and Works • Application to include a Site Capability Report addressing the Salinity Management Guidelines. • Any Permit must include a condition requiring the applicant to provide a "Salinity Action Statement" for land identified as Moderate to Very High Risk (inclusive). This requirement does not apply to an application for a two-lot subdivision to excise an existing dwelling.	A permit is not required for: • Buildings and works or subdivision which is undertaken on land with an approved "Salinity Action Statement" as required in accordance with the Salinity Management Guidelines (2009), or subsequent versions thereof. • A single dwelling or buildings and works associated with or ancillary to a single dwelling.
44.02-6 SMO Parent Provision	An application must be accompanied by the following information, as appropriate: • The source of water supply. • Water use requirements and effluent or water disposal provision. • Any existing vegetation proposed to be removed. • Details of the species, location, and density of any proposed landscaping. • The water balance under the current land use and any proposed land use. • Title and ownership details. • Topographic information including natural contours of the land, highlighting significant ridges, hill tops and crests, slopes in excess of 25 percent (1:4), low lying areas, drainage lines, waterways, springs, dams, lakes, wetlands and other environmental features on or in close proximity to the subject area. • Geology types. • Location and area of outcropping bedrock. • Soil types.	

	• Size and location of high recharge areas and discharge areas from the site inspection, soil types, soil depth, and soil percolation rates/infiltration. • Size and location of discharge areas and areas of high salinity risk from the site inspection, including the identification of shallow watertable within 3 metres of the surface (depth to watertable), and soil salinity from soil tests or vegetative indicators. • Area of land and the proportion of the development site identified as high recharge or discharge areas. • Location, species and condition of existing vegetation (both native and exotic species). • Existing degraded areas and recommendations for land management practices and remedial works required to overcome any existing or potential land degradation. • Any other application requirements specified in a schedule to this overlay.

The Site Salinity Management Guidelines outlines a four-step approach to managing salinity risk and is based around five defined levels of risk (Low to Very High – See **Table 3**). These risk levels are based on two key factors:

- The potential for a perched ground water table to develop (i.e. low permeable clay layer within 4 metres below ground level (mbgl)).
- The presence of a shallow regional groundwater table.

Perched ground water can be controlled through the installation of a sub-surface drainage system; however, the regional groundwater is more difficult to managed locally due to its regional nature, being influenced by land-use and management across a broader area.

Table 3: Urban Salinity Risk Matrix

		Groundwater Depth (mbgl*)		
		<2m	2m – 4m	>4m
Clay Layer Depth (mbgl)	>4m	Very High	High (a)	Low
	<4m	Very High	High (b)	Moderate

* Metres below ground level

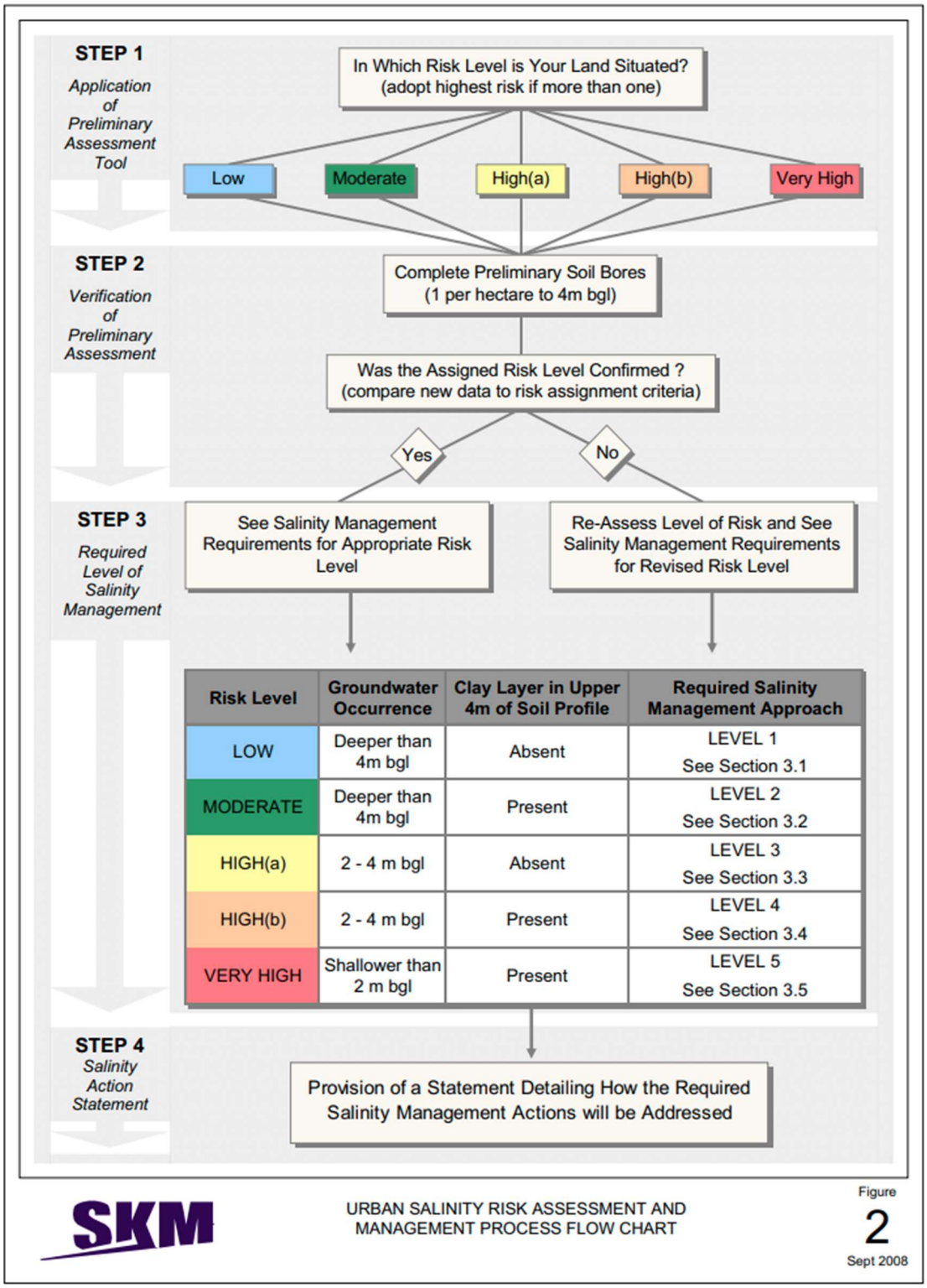
Source: GHD 2005

Figure 4 outlines the flow chart of the urban salinity risk assessment and management process (Taken from the Guidelines).

The first step involves consulting the preliminary urban salinity risk level map (see Figure 4) which indicates the likely salinity risk for a particular site. The preliminary salinity risk mapping is based on a field study consisting of soil bores and groundwater monitoring wells at a regional level across the growth areas undertaken as identified in 2004 (Resource & Environmental Management Pty Ltd 2004). The preliminary risk level is then verified (Step 2) through additional site-specific soil tests to determine lithology, ground water level and flow direction, presence of perched groundwater, and salinity. These soil studies are also important in designing strategies to manage the identified salinity risk at the site level.

For each level of risk, the guidelines propose appropriate management actions (Step 3). This culminates, where the salinity risk is moderate or higher, in the preparation of a Salinity Action Statement (Step 4), which is reviewed by Council or a proxy, and if approved included as a permit condition. The Salinity Action Statement (SAS) lists the appropriate actions to manage salinity for the specific site. Implementation of the actions is needed prior to a statement of compliance/certificate of occupancy being issued for the site.

Figure 4: Flow Chart of Urban Salinity Risk Assessment and Management Process



Key Issues and Findings

The SMO and Site Salinity Management Guidelines appear to be a logical and effective approach to managing salinity across Mildura and protecting built infrastructure from premature degradation from exposure to salty water. Based on limited conversation with Council officers, this overlay also appeared to be operating well.

The sections below discuss some of the key findings and observations from reviewing the SMO, summarised under key themes – (i) literature review, (ii) coverage of the SMO, and (iii) planning considerations.

(i) Literature Review

A search of recent literature was undertaken regarding urban salinity and groundwater. While there is a lot of information regarding salinity management in the Murray Darling Basin, this was generally directed at improved farming and irrigation practices, salt interception schemes, and improved groundwater models, with little discussion of implications for urban areas and infrastructure impacts.

The Visualising Victoria's Groundwater website provides ground water mapping based on data from 2007, and hence has not been updated since the introduction of the 2009 Salinity Guidelines (Resource & Environmental Management Pty Ltd 2004; SKM 2009). The Mallee Catchment Management Authority is currently updating its groundwater mapping for the Murray River corridor data using helicopter airborne electromagnetic systems (MCMA 2024). Once available, it would be useful to explore the implications of this data for urban salinity management.

There is a network of ground water monitoring bores across Victoria as documented on various websites with historic monitoring data (BoM 2024; DEECA 2024; VVG 2024). A preliminary review of some of these bores indicated varying trends across areas, although many indicated declining ground water trends. If funding was available, it would be useful to undertake a comprehensive study of historical ground water data across current and potential growth areas to better understand current groundwater trends and typical responses to climatic conditions. Ideally, this would be complemented by a study to consider how projected land-use, urban growth and climate change could interact to impact groundwater and affect urban salinity into the future. Such studies would give confidence regarding current and longer-term salinity risk, appropriate mitigation responses, and where best to direct future growth locations, and in turn possibly justify changes to the SMO.

In the absence of the studies discussed above and given the previous serious salinity issues and high costs of reduced infrastructure life cycle involved with salinity remediation in the urban environment, continued expansion of the SMO to new growth areas appears justified and a precautionary approach, and is discussed further in Section 3.2.

(ii) Coverage of the SMO and the preliminary urban salinity risk level mapping

Several growth areas mentioned in the Project Brief are not currently covered by the SMO such as the Mildura East Growth area, Mildura South Growth area, Mildura marina and riverfront and parts of Lake Hawthorn precinct. There are also areas covered by Development Planning Overlays (DPOs) but no SMO - DPO6 (Nichols Point), DPO4 and DPO5 (Lake Hawthorn). The Vic Plan website also indicated areas of proposed "parcels' and 'properties' although it is not clear if these relate to subdivision or single dwellings. These could be assessed to determine if they should be covered by the SMO.

There is potential for additional growth areas added since 2009, to be impacted by salinity. In regards to regional groundwater, the new growth areas in Red Cliffs and Koorlong are in areas with groundwater levels 10-20 mbgl (well below 4mbgl), indicating a likely low salinity risk from Regional Ground Water. However, other growth areas such as the Mildura East growth area, extend over areas with a shallow ground water (< 5 mbgl) indicating this could be a higher salinity risk. As mentioned above, further studies regarding past, current and future groundwater trends, would give greater confidence regarding the risk from regional groundwater.

Regarding the potential for perched groundwater to develop, we were unable to find available mapping. However, most areas across the region fall within the Woorinen Formation. Given this, and the documented propensity for clay horizons to occur in this formation (see Resource & Environmental Management Pty Ltd (2004)), it seems reasonable that this could also occur within the newer growth areas. This adds further support to the recommendation that the SMO is extended to all growth areas,

unless there is clear evidence that the areas are of low salinity risk (ground water and clay layers < 4m bgl).

The 2009 salinity guidelines provide a map showing preliminary urban salinity risk across the growth areas of the time. The first step of the guidelines involves accessing this map to determine the likely salinity risk of the development site. Since 2009, the SMO coverage has increased to encompass further areas beyond this initial mapping, such as neighbouring townships of Red Cliffs and Koorlong. The preliminary urban salinity risk map is valuable in that it provides an early indication to potential buyers/developers of salinity risk and hence the potential for additional requirements and associated costs. However, the Guidelines can still operate effectively without this framework, given that its second step requires site specific soil investigations to verify the present salinity risk. Hence this should not be an obstacle to extending the coverage of the SMO to new growth areas.

Having said this, there are clear benefits to having updated regional mapping of salinity risk. Such an update would require a field study similar to that done to inform the 2009 preliminary mapping, which involved soil bores and groundwater monitoring wells across the growth areas (Resource & Environmental Management Pty Ltd 2004), providing a better regional understanding around groundwater/perched water, its interaction and direction of flow. Another important advantage of a further study at this scale, is that it could inform the choice of areas for future urban growth, directing these away from identified high risk areas right from the start. This could also provide Council with information to justify the extension or removal of the SMO from areas rather than apply it cautiously without clear data, creating what might be considered unnecessary planning obligations.

(iii) Planning considerations and exemptions

Currently, under the SMO, a permit is not required for "buildings and works or subdivision which is undertaken on land with an approved "Salinity Action Statement" as required in accordance with the Salinity Management Guidelines (2009), or subsequent versions thereof."

This seems appropriate so long as any required salinity actions determined at the subdivision stage carry over, as appropriate, to future owners/developers of individual lots and compliance ensured. It is not clear how requirements around construction of sub-surface drainage, landscaping design, water efficient use (garden), and ongoing ground water monitoring of wells, are carried across to future owners/developers (e.g. s173 agreements, development plans).

Currently a single dwelling or buildings and works associated with or ancillary to a single dwelling, does not require a permit under the SMO. Presumably, most single dwellings within the growth areas, would occur in land recently subdivided, and therefore be associated with an approved SAS, or reside in an area of low salinity risk, and hence not have an associated SAS. However, this exemption could allow some single dwellings to be constructed in an area of moderate or higher risk, without appropriate salinity measures to prevent future damage to the dwelling and associated infrastructure from possible saline high-water table/perched tables, encourage the dwelling to be undertaken in a manner which reduces recharge of groundwater.

This situation may be currently addressed though some other mechanisms (e.g. building permit process). If not, this exemption could be adjusted such that a permit is not required under the SMO for a single dwelling or buildings and works associated with or ancillary to a single dwelling, where:

- There is documented low salinity risk, as defined by the Salinity Management Guidelines (2009) or similar resource of later date, and
- The works are not required as part of remedial works for salt- or high-water table damage.

An SAS is required for subdivision of land identified as Moderate to Very high risk (inclusive), except for the application for a two-lot subdivision to excise an existing dwelling. It is assumed that this exemption typically relates to a land owner excising an existing dwelling to potentially sell the second lot. The second lot could then potentially be:

- Further subdivided by a developer - in which case an SAS will be required as part of this process; or
- A single dwelling could be built - which would currently be exempt from a permit under the SMO as discussed above.

It is not clear why this exemption was introduced, perhaps to avoid upfront costs related to the development of an SAS to an existing land owner, and the potential for further subdivision? However, soil investigations would have been required as part of a Site Capability Report addressing the Site Salinity Management Guidelines, and likely already represents an upfront investment. This exemption could potentially lead to some single dwellings being built in areas of moderate or high risk, without appropriate measures to minimise and deal with salinity damage. This could potentially be avoided by only exempting single dwellings from a permit in areas of low salinity risk (see dot point above).

Proposed Recommendations and Response

If funding becomes available, it is recommended that a comprehensive study is undertaken of:

- Historical groundwater data from bores across current and potential growth areas to better understand trends and responses to climatic conditions. This could include the new ground water mapping currently underway by the MCMA when available.
- Potential groundwater responses into the future from projected land-use change, urban growth and climate change.
- These studies would give greater confidence regarding salinity risk trends now and into the future, so that the salinity actions can respond appropriately. A current limitation of the SMO Guidelines is that risk is measured at the time of site development, but ideally would consider past and potential future risk where possible.
- If funding becomes available, consider undertaking a detailed soil and groundwater investigation across potential growth areas to update the preliminary urban salinity risk mapping provided in the SMO Guidelines. An important advantage of a study at this scale, is that it could inform the placement of future urban growth, directing this away from identified high risk areas right from the start. It could also provide Council with information to justify the extension or removal of the SMO from areas rather than apply it cautiously without clear data, creating what might be considered unnecessary planning obligations.
- In the absence of the above information and studies and given the previous serious salinity issues and high costs of reduced infrastructure life cycle involved with salinity remediation in the urban environment, continued expansion of the SMO to new growth areas is considered justified and a precautionary approach.
- Two of the current exemptions, provide the possibility that some single dwellings could be constructed in areas of salinity risk without appropriate measures to minimise and deal with salinity damage. The wording of the exemptions could be modified to avoid this situation as discussed in Section 3.3. For example, the exemption could apply only to areas of demonstrated low salinity risk and where works are not required as part of remedial works for salt- or high-water table damage.
- Typo: Schedule 1 to the SMO states “A permit application is to address the requirements at Clause 44.02-5, as appropriate”. This should refer to Clause 44.02-6.

2.2.3 Public Open Space Contributions

A review of the findings and recommendations of the Mildura Public Open Space Strategy 2021 related to public open space contributions and the nexus from development to varying the schedule to Clause 53.01 of the Mildura Planning Scheme (MiPS) has been undertaken. This has examined the types of open space contributions that could be levied on residential, commercial and industrial developments consistent with the *MRCC Public Open Space Strategy 2021*. The review has:

- Considered the different mechanisms currently requiring the contribution of public open space (such as Development Contribution Plans (DCPs)) and their relative effectiveness.
- Evaluate the effectiveness of Council’s existing policies and procedures to levy contributions.

The review has been cognisant about the investment of resources from Council required to enable contributions or vary the schedule to Clause 53.01 needing to be justified against the potential benefit derived from an increased rate of public open space provision. Nexus and increased density related to urban change are also primary considerations for the recommended approach in the review.

Background

The *MRCC Public Open Space Strategy, 2021* provides an overarching plan for the development of a cohesive and connected public open space network to meet the needs of the region's communities.

The Strategy seeks to integrate open space planning with other planning initiatives and to provide a prioritised action plan for the progressive development of public open space across the municipality. The strategy has six overarching objectives and then a range of strategic objectives, strategies and actions to help achieve the strategy's vision.

There is some discussion in the document about existing facilities and their future demands from changing community demographics and population change. However, the municipality's public open space demands and needs and existing and future provision of active and passive recreational areas and facilities is not sufficiently explored.

The strategy does not provide enough of a planning focus for planning scheme purposes on town based open space interventions that are required for improved open space provision based on community needs. The strategy should determine the specific community needs for open space provision at the town/locality level and then how open space contributions from residential, commercial and industrial subdivision will support that open space provision or improvement.

The strategy discusses challenges and opportunities for public open space in the municipality addressing some areas of gaps including:

- Quantity, Design and Function.
- Connectivity Accessibility.
- Quantity and Distribution.

There are 14 gaps identified with overall findings in various precincts.

Where a clear nexus has been established through a public open space strategy, Clause 53.01 enables Council to include a specific percentage of open space contribution either via land and/or cash contribution(s). This can be specified for residential, commercial and industrial land subdivision. Clause 45.06 related to a Development Contributions Plan (DCP), also enables Council to specify infrastructure and an open space contribution amount in newly developing areas such as a growth areas.

Key Issues and Findings

Strategy F3, related to funding strategies, seeks to develop a strategic and cohesive approach to funding open space enhancement and developments. This is ideally what an open space strategy should do. However, there is not a sufficient nexus established between the future open space needs of the community to the different classes of development. What should be clearly specified is how residential, commercial and industrial subdivision impacts on the open space network and provision and the need for increased and improved open space in different locations resulting from population growth and change. The open space strategy should be strengthened to provide this nexus for development locationally throughout urban areas of the municipality.

Proposed Recommendations and Response

It is recommended that:

- The MRCC Public Open Space Strategy 2021 should be strengthened to provide a clear nexus between future open space provision and improvements related to subdivision for urban areas of the municipality.

- The MRCC Public Open Space Strategy 2021 should be revised through an addendum to the strategy to provide a clearer nexus established between the future open space needs of the community related to residential, commercial and industrial subdivision.
- A draft project brief as shown in **Appendix A** is progressed through future strategic work.

2.2.4 Gambling

A review of gambling in the municipality has been undertaken to better understand the impact of gambling on the City's residents and what measures can be implemented to reduce that impact. The review has:

- Conducted a desktop review of the impacts of gambling on the local community broadly, specific locations and gambling venues.
- Conducted interviews with groups who work directly with people impacted by gambling losses or with the results of those loses (financial aid, family violence etc.).
- Outlined the impact of gambling, locations of concern and cohorts who are particularly impacted.
- Scoped the key areas that a strategy should address to ensure that any policies are useful and enforceable.

Background

Gambling includes a range of activities including lotteries, scratch cards, online and sports betting and electronic gaming machines (EGM). In Victoria the greatest losses come from EGMs, in the financial year 2022-2023 there were losses of over $3 billion in Victoria alone from EGMs[1]. In comparison losses from sports and race betting were $2.58 in 2023-2023[2].

Research conducted by the Victorian Responsible Gambling Foundation found that 70.1% of people in Victoria gamble and of those over 80% show no signs of harm from their gambling. However, of those who do experience harm from gambling, the impacts can be serious for the gambler and the people around them. Gambling related harm can impact family relationships, health, work and finances.

In Victoria all gambling is regulated by the Victorian Gaming and Casino Control Commission (VGCCC)[3]. This includes the placement and numbers of EGMs that can be licenced in a Local Government Area (LGA). Councils have some capacity to influence where EGMs are placed through their planning schemes and associated policies.

The number of EGMs in a LGA is governed by either a municipal limit or a regional cap. Mildura LGA is not a capped region and as a result the number of EGMs is controlled by a municipal limit.

The State Government will enact changes to EGM use in 2024. This will require all machines to have pre-commitments, reduce the load up limits and slow the spin speed. This is designed to reduce losses for individuals. It is likely that this will reduce the takings for clubs and venues.

LGA's can influence the impacts of gambling in their municipality through harm reduction policies and programs. In addition, the planning scheme can be used to control the placement of EGMs within the LGA.

Gambling in the Mildura LGA

Mildura LGA has had the third greatest EGM losses in Victoria for the past two years. In the financial year 2022-2023 there were losses of $38,482,548.47 in the Mildura LGA. This equates to $861 per adult per year (compared to the Victorian average of $543). There are six EGM per adult in the Mildura LGA (compared with the Victorian average of 5)[1].

Mildura LGA has a municipal limit of 419 EGMs. There are currently 281 EGMs in venues in the Mildura LGA and 138 non allocated entitlements. There have been no applications for additional EGMs in the past three years.

Losses from EGMs in the Mildura LGA increased in the year from 2021/22 to 2022/23 by almost 25 percent. The figures for the current year (2023/24) are not yet available but the 10 months to April 2024 show that high levels of losses are continuing. **Table 4** shows the losses over the last three years.

Table 4: Gambling Losses in the Mildura LGA

July 2021 - June 2022	July 2022 - June 2023	June 2023 – April 2024 (10 months)*
$29,180, 379	$38,482,548	$28, 048, 930*

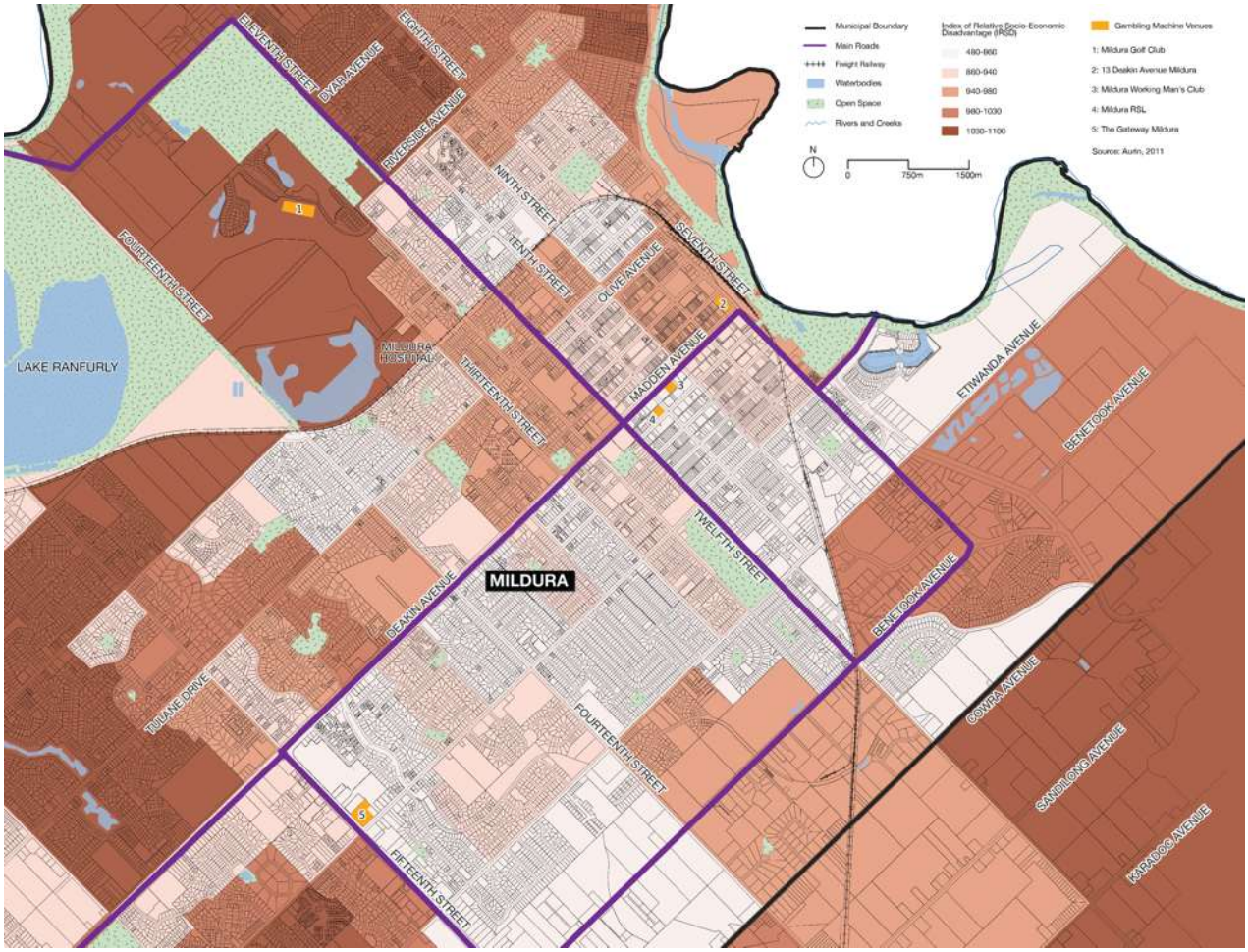
**data for 10 months*

Given the location of the Mildura LGA on the NSW border it is likely that losses also occur in NSW venues in addition to the loses recorded by the VGCCC.

Gambling locations

There are currently eight EGM venues in the municipality. Four are located within the City of Mildura, one in Red Cliffs, one in Merbein and one in Ouyen. The venues in the Mildura LGA are predominantly located in the lower socio-economic areas (as measures by the Socio-Economic Indexes For Areas) SEIFA index of disadvantage). The Mildura Gateway Tavern is the largest venue and accounts for almost half of all losses in the Mildura LGA, with the Mildura RSL and Mildura Working Man's Sport and Social Club accounting for a further 40 percent of losses. These venues all sit within the areas of greatest disadvantage in Mildura city. The map in **Figure 5** shows the location of EGM venues in relation to SEIFA Index of Relative Disadvantage scores. The lighter areas indicate a lower SEIFA score (NB: The map relates to 2011 Census results, the 2016 results provide less detail and the 2021 results are not yet available).

Figure 5: EGM Locations in Mildura Mapped Against SEIFA Index of Relative Disadvantage



The table below shows the most recent data on losses from EGMs in Mildura LGA for the six months from June 2023-December 2023.

Table 5: Current Venues, Allocations and Losses

Venue	Address	Machines	Losses July 23 – December 23
Grand on Deakin Sportsbar	13 Deakin Avenue, Mildura	15	$869,454
Merbein Citizens Club	108 Commercial Street, Merbein	20	$644,020
Mildura Gateway Tavern	Cnr 15th Street and San Mateo Avenue, Mildura	75	$7,819,676
Mildura Golf Club	Twelfth Street, Mildura	20	$385,549
Mildura RSL	130 Madden Avenue, Mildura.	45	$3,266,276
Mildura Working Mans Sport & Social Club	90-124 Deakin Avenue, Mildura	67	$3,873,138
Ouyen Club	9 Pickering Street, Ouyen	5	$158,816
Red Cliffs Club	11 Heytesbury Avenue, Red Cliffs	34	$1,472,856
Total		**281**	**$18,489,788**

Harm from Gambling

A 2016 study classified harm from gambling into seven types being:

- Relationship difficulties.
- Health problems.
- Emotional or psychological distress.
- Financial problems.
- Issues with work or study.
- Cultural problems.
- Criminal activity.

Interviews with agencies working with families in the Mildura LGA found that this research holds for Mildura. Agencies indicated that those who sought help were more likely to present with issues such as bankruptcy or family breakdown and that gambling was a factor in these issues.

One agency indicated they were particularly concerned over children being exposed to gambling. They suggested that it was important that gambling is not normalised. The location of gambling venues in high profile areas increases visibility and can impact on how it is perceived. It is important to keep gambling away from areas where children and families are likely to congregate.

Both agencies indicated that EGMs were not the only easily available gambling options with online gambling being of particular concern. There was also a concern that the stigma attached to gambling was unhelpful as is likely to impact people seeking help. Approaches to reduce the harm from gambling need to avoid stigmatising the gambler.

It was also noted that for some community members gambling venues provide places to meet, often with access to relatively cheap food. It is important that these meeting spaces are not lost.

Managing gambling and the harm from gambling needs to be part of a broader, state wide policy that takes into account the multifaceted challenges and a range of local and state wide solutions.

Other council responses to gambling

A number of LGAs have sought, or are seeking, to manage the impact of gambling through strategies, policies and planning scheme amendments. Where planning scheme amendments are used these are part of a broader strategy which outlines the specific issues for the municipality and a range of ways to it can be addressed.

The planning scheme can be one lever to assist LGAs to manage the harm from EGMs. The City of Melton have included an amendment in their planning scheme to “address a policy gap and aid decision-making

in relation to the use and installation of electronic gaming machines (EGMs) in the municipality[1]". Other LGA's including the City of Port Phillip, Merri-bek and Ballarat have undertaken or are in the process of undertaking a planning scheme amendment process.

While planning scheme amendments can be an important tool, they require considerable policy work and engagement with the local residents and stakeholders to achieve. Planning scheme amendments need to be seen as part of a broader strategic approach to minimising the harm from gambling.

Mildura LGA current approach to minimising harm from gambling

In December 2023 Council adopted their first Harm Minimisation from Gambling Policy outlining their position on gambling, with a focus on EGMs.

The policy states:

"Council recognises that gambling has a harmful impact on community health and wellbeing and will consider how to minimise this impact through:

- *Considering gambling within the context of public health.*
- *Promoting alternatives to EGM gambling.*
- *Recognising the leadership role that Council can play in minimising gambling-related harm including through planning controls.*
- *Advocating to other levels of government to reduce opportunities to gamble."*

This policy provides an important step in developing an integrated approach to managing gambling and the harm caused by gambling. The policy articulates what Council wants to achieve and sets out a framework for the strategic work that is needed to realise the aims outlined.

The strategic work required will include engagement with residents and stakeholders to understand local attitudes to gambling and build momentum for change.

Key Issues and Findings

- The Mildura LGA has had the third greatest loss, from EGM's, per adult in Victoria for the past two years.
- In the 2022/23 financial year $38,482,548 was lost on EGMs in the LGA. This equates to $861 per adult (Victorian average $543).
- The municipal limit for EGM's is 419 and there are currently 281 EGMs in the municipality. This is 67 per cent of the allowable machines which provides for a potential increase of 138 machines.
- There have been no applications for additional machines in the past three years.
- The State government will enact significant changes to the use of electronic gaming machines in mid 2024 limiting the spin rate and load up limits. This has the potential to reduce takings from clubs and venues and might lead to a desire to increase numbers of machines.
- Venues where gambling occurs provide meeting and gathering spaces that are essential for community wellbeing.
- Planning scheme amendments provide an opportunity to manage the visibility and potential growth in EGM venues.
- Any changes to the approach to gambling in the Mildura LGA will need to be part of broader strategic work which includes extensive community and stakeholder engagement.

A broad strategic response is required to manage the current and potential harm from gambling in the Mildura LGA. This strategic response should provide a range of methods to minimising the harm caused by gambling. A planning scheme amendment to manage the placement of EGMs is likely to be part of that response.

Proposed Recommendations and Response

It is recommended that Mildura City Council develop a comprehensive gambling strategy and that this strategy includes:

- A review of the current level of EGM and their placement in relation to their location in areas of low socio-economic households. This may include areas where additional EGMs will not be supported or should be reduced.
- A review of the current municipal limits with a view to reducing them.
- Community engagement with residents from across the LGA to understand the role gambling venues play and their appetite for greater restrictions.
- Engagement with key support agencies to understand the harm caused by gambling and how this can be reduced.
- The development of a planning scheme amendment that provides additional controls of the placement and number of EGMs in the Mildura LGA.
- A draft project brief as shown in **Appendix A** is progressed through future strategic work.

2.2.5 Koorlong Landfill

A review of the Koorlong Landfill has been undertaken to understand interface issues around landfills and evaluate the option of the Buffer Area Overlay. The review has:

- Summarised the findings of relevant reports regarding the BAO.
- Considered Planning Practice Note 92 - Managing buffers for land use compatibility.
- Considered the Victorian EPA Guidelines 2024.
- Confirmed the findings or recommended alternative or additional measures to be implemented.

Background

In July 2016, the Major Hazard Facilities Advisory Committee (the committee) provided its final report to the Victorian Government. This was in response to perceived deficiencies with how planning for, and around, Major Hazard Facilities (MHFs) was undertaken. The committee recommended that in addition to improving State planning policy, the planning advisory area approach developed by WorkSafe Victoria (WSV) be extended on a priority basis to other MHFs and then implemented in planning schemes through the application of the Environmental Significance Overlay (ESO) and schedules. The Committee identified an initial list of 15 MHFs that should be prioritised.

In response, the Victorian Government implemented the following initiatives:

- Strengthened state planning policy at Clause 13.07-2S of the Planning Policy Framework (PPF) through Amendment VC152 to:
  - Recognise the state significance and overall importance of MHFs to the Victorian economy.
  - Outline the need to manage land surrounding major hazard facilities to avoid sensitive uses, and/or uses that could increase the number of people who live and work close to an MHF.
  - Identify how threshold distance requirements should be managed for existing and new MHFs.
- A new Ministerial Direction No. 20 which requires planning authorities to seek and have regard to the views of WSV and the Minister for Industry and Employment, when preparing a planning scheme amendment for, or within, the threshold distance of an MHF.
- Updated threshold distances for industries and revised operation of Clause 52.10 (now 53.10) for Uses and Activities with Potential Adverse Impacts.
- A new Buffer Area Overlay (BAO) instead of application of the Environmental Significance Overlay (ESO) to provide a mechanism that:
  - Identifies buffer areas where there is potential for off-site impacts on human health or safety from industry, warehouse or other uses.
  - Ensures that use and development within buffer areas is compatible with potential off-site impacts.

WSV have updated their advice for land use near major hazard facilities since the release of the final report by the Major Hazard Facilities Advisory Committee, which now refers to an Inner Safety Area (ISA) and an Outer Safety Area (OSA) rather than planning advisory areas.[2] It is important to note that the BAO has potential to be applied to important areas identified by WSV for MHFs including the ISA and OSA. However, the BAO has potential to be applied to other areas of identified risk from industrial and associated activities such as landfills, not just safety areas.

The Environment Protection Authority of Victoria (EPAV) have also prepared guidelines related to landfills and industrial activity emissions (EPA publications 1518 and 788.3) and are now subject to new legislation in the EP Act 2017.

Ministerial Directions and Related Guidance

Ministerial Directions influence the preparation of any planning controls proposed as part of a planning scheme amendment and the amendment process including around landfill. As for any amendment, a planning authority must have regard to the Ministerial Directions. Key directions are:

- *Ministerial Direction 1 – Potentially Contaminated Land*, which requires planning authorities and responsible authorities to take a cautious and risk based approach to assessing contaminated land or potentially contaminated land.
- *Ministerial Direction 11 – Strategic Assessment of Amendments*, which requires a comprehensive strategic evaluation of a planning scheme amendment and the outcomes it produces.
- *Ministerial Direction 15 – The Planning Scheme Amendment Process*, which establishes set times for completing steps in the planning scheme amendment process.
- Ministerial Direction 19 – *Preparation and Content of Amendments That May Significantly Impact the Environment, Amenity and Human Health*, which requires planning authorities to seek the views of the EPAV in the preparation of planning scheme reviews and amendments that could result in use or development of land that may result in significant impacts on the environment, amenity and human health due to pollution and waste. The Direction applies to any strategic plan or its review that forms the basis of a planning scheme amendment relating to the use or development of land within a buffer area or separation distance of industry and specified industrial uses.
- *Ministerial Direction 20 – Major Hazard Facilities,* which aims to minimise potential human and property exposure from the risk of incidents that may occur at a major hazard facility and ensure their ongoing viability. The Direction requires planning authorities to seek and have regard to the views of WorkSafe Victoria and the Minister for Economic Development (or equivalent) when preparing a planning scheme amendment which rezones land for, or is within the threshold distance of, an MHF.
- *Ministerial Direction on the Form and Content of Planning Schemes*, which provides the schedule template for zone and overlay schedules and how local planning schemes are to be prepared based on the VPP. It includes requirements and parameters about how State provisions can be applied at the local level and how local provisions can be given effect.

These directions need to be carefully considered in the preparation, authorisation, exhibition and approval of any amendment that implements the findings of the Mildura Planning Scheme Review, particularly in relation to planning provisions affecting a landfill and their required separation distances and buffer areas.

Guidelines and Other Documents

There are a range of documents and information that give direction to planning authorities on how to manage an amendment and assess planning permit applications through Planning Practice Notes (PPNs) and guidelines as shown in **Table 6**. PPN92 provides specific direction for land management for industrial type facilities such as a landfill and its relationship to sensitive uses, although the PPN is more specific to the management of MHFs and sensitive uses.

[2] Land use planning near a major hazard facility - WorkSafe Victoria

Table 6: Relevant Planning Practice Note or Guideline

Planning Practice Note/Guideline	Summary of Document
A Practitioner's Guide to Victorian Planning Schemes, March 2024 (Version 6) https://www.planning.vic.gov.au/guide-home/a-practitioners-guide-to-victorian-planning-schemes	The guide applies to the preparation and application of a planning scheme provision in Victoria. It is primarily intended for use by practitioners considering or preparing a new or revised provision for a planning scheme. The guide sets out and explains: • The principles that should underpin the creation, selection and application of a planning scheme provision. • How a planning scheme relates to the VPP. • Rules and advice about how the various components of a planning scheme operate. • How to select, write and apply various elements of a planning scheme.
Strategic Assessment Guidelines (Planning Practice Note 46) https://www.planning.vic.gov.au/resource-library/planning-practice-notes	Planning Practice Note 46 – *Strategic Assessment Guidelines*, requires a planning authority to evaluate and determine how an amendment addresses strategic considerations and what should be considered as part of the Ministerial Direction 11. The PPN outlines a consistent framework for preparing and evaluating a proposed planning scheme amendment and its outcomes. The appropriate application of these outcomes is a requirement of the authorisation process for a planning scheme amendment.
Managing buffers for land use compatibility (Planning Practice Note 92) https://www.planning.vic.gov.au/resource-library/planning-practice-notes	The PPN provides guidance about planning for land use compatibility and the PPF and planning requirements relating to the management of buffers such as Clause 53.10 Uses and activities with potential adverse impacts and Clause 44.08 Buffer Area Overlay. The BAO supports implementation of the objective and strategies in Clause 13.07-1S - Land use compatibility. The BAO complements Clause 53.10 to help ensure that industry establishes appropriately and addresses the reverse situation so that land use and development around existing industry is appropriate. Buffers can be used to manage both land use and development and should be applied to address different issues of risk and land use compatibility.
EPA Landfill buffer guidelines 2024 https://www.epa.vic.gov.au/landfill-buffer-guidelines	The EPA 2024 guidelines provide advice on recommended separation distances between industrial land uses that emit odour or dust and sensitive land uses. They include new separation distances and risk management approaches for a range of uses, including landfills.
EPA Supporting information for separation distance and landfill buffer guidelines 2024 Separation distance and landfill buffer guidelines | Environment Protection Authority Victoria	This report outlines the Separation Distance and Landfill Buffer Guidelines, providing a comparison of separation distances with other jurisdictions, methods for measuring odour and dust impacts, and data from EPA investigations on priority areas. It also summarises key changes to separation distances, offering clear information on the basis for these guidelines and ensuring they align with current environmental management practices.

Buffer Area Overlay

In 2020, following the Government Response to the Major Hazard Facilities Advisory Committee, the then DELWP (now DTP) proposed and consulted on a new overlay to:

- Identify buffer areas where there is potential for off-site impacts on human health or safety from industry, warehouse or other uses.
- Ensure that use and development within buffer areas is compatible with potential off-site impacts.

Application of the Buffer Area Overlay (BAO) is intended to demonstrate the types of potential land use impacts, the spatial extent of those impacts (the buffer area) and land use and development requirements providing clearer direction to landowners within the buffer area. It works in conjunction with environmental legislation and regulations and Clause 53.10 (Uses with Potential Amenity Impacts) which

provides recommended buffer distances that can be varied. The BAO provides a greater level of certainty to landowners and stakeholders based on the licenced requirements and level of risk to be mitigated.

The BAO is now included at Clause 44.08 of the Victoria Planning Provisions (VPP) as an available planning tool. The overlay could be applied around the Koorlong landfill (and other industrial facilities) to reflect licences issued under the now repealed section 20 of the Environment Protection Act (EPA) Act 1970 (now section 74 of the EP Act 2017). The purpose of the BAO is to identify areas where there is potential for off-site impacts on safety or human health, or significant off-site impacts on amenity, from industry, warehouse, infrastructure or other uses. The BAO also ensures that use and development within buffer areas is compatible with potential off-site impacts. The BAO can be used in certain circumstances to prevent future encroachment and intensification of incompatible use and development within the buffer areas of industry, warehouse, infrastructure or other uses with potential off-site impacts.

BAO schedules will require regular review to ensure they still reflect the risk profile of the land use. Review of schedules could involve changes to mapping, ordinance or both, and could form part of regular planning scheme reviews or more specific strategic reviews conducted by planning authorities.

Scientific and technical expertise about issues that form the basis for a risk profile to be determined from a particular industrial land use will usually reside in organisations such as the EPAV, DTP and potentially WSV as opposed to local government authorities. Local government has an important supporting role to play in helping to establish an appropriate buffer to protect industrial operations and community safety.

This state-led responsibility is demonstrated by the recent draft BAO template that has been prepared by DTP with a standard set of permit requirements and contents. The standard type of BAO schedule is anticipated to derive from a set template in the *Ministerial Direction on the Form and Content of Planning Schemes* with an ability to tailor a statement of risk to specific sites and circumstances.

Under Clause 66.02 Use and Development Referrals, an application for industrial land use or development must be referred to the person or body specified as the referral authority including:

- The EPAV as a determining referral authority for a use or development requiring or amending a Development Licence or Operating Licence in accordance with Part 4.4 of the Environment Protection Act 2017 (EP Act 2017).
- The relevant electricity transmission authority as a determining referral authority for buildings or works on land within 60 metres of a major electricity transmission line (220 Kilovolts or more) or an electricity transmission easement.
- The EPAV as a determining referral authority to use land for industry, utility installation or warehouse for a purpose listed in the table to Clause 53.10 with no threshold distance specified or if the threshold distance is not to be met.
- The Victorian WorkCover Authority as a determining referral authority to use land or increase development by more than 25% for industry, utility installation or warehouse if:
  - A fire protection quantity is exceeded under the Dangerous Goods (Storage and Handling) Regulations 2012.
  - A notification is required under the Occupational Health and Safety Regulations 2017.
  - A licence is required under the Dangerous Goods (Explosives) Regulations 2011.
  - A licence is required under the Dangerous Goods (HCDG) Regulations 2016 and the use is not associated with agriculture.

These referral mechanisms require that the views of the EPAV and the Victorian WorkCover Authority must be considered for various industrial uses and developments. However, the overarching strategic objectives for better managing risk and amenity expectations for the Koorlong Landfill could be made more transparent in the Mildura Planning Scheme.

Planning tools have changed significantly since the new format Mildura Planning Scheme was gazetted in 1999. This includes substantial strengthening of state planning policy for industrial and commercial land,

industrial zone land use changes, Smart Planning reforms to VPP tools, new or revised planning practice notes and guidance and the new BAO being developed.

Environmental Assessments for the Landfill

The Koorlong Landfill has been closed since the year 2000. Since that time, there have been no issues arising from the landfill after its decommissioning and capping, with a low groundwater risk and no landfill gas detected.

Previous environmental assessments have been undertaken for the landfill including a section 53V audit report several years ago. No further audits are required and environmental issues at the former landfill are continually monitored by Council. There are no signs of any minor or significant management issues with the site which has involved liaison and input from the EPA Victoria. The site had a post-closure pollution abatement notice issues and now has a site management order under the new Environment Protection Act 2017.

There is no pressing need for any additional specialist environmental assessment work to be undertaken by Council to inform a BAO around the landfill site as it appears from preliminary assessment to be well-capped and managed. However, activities on site could potentially cause nuisance to neighbouring land and application of the BAO could be beneficial to help manage this in future.

Other landfills may need a similar approach but they should be assessed on a case by case basis in future. For example, the Murrayville Landfill is now closed but operating as a transfer station with further guidance being sought from the EPA Victoria. More monitoring may be required in future for this site, but Council has a clear management framework in place.

There is currently no allocated budget for Council to undertake any further work to apply the BAO to this any landfill sites.

EPA Closed Landfills and Risk-Based Approach 2024

The EPAV's Landfill Buffer Guidelines 2024 provide detailed guidance for assessing risks associated with closed landfills, particularly focusing on landfill gas migration. The guidelines introduce a scoring system that evaluates both the type of development (e.g., subdivisions or developments involving below-ground structures) and the landfill's characteristics (e.g., size, waste type, and age of closure). This scoring system ensures that developments within the buffer zone undergo further investigations, such as landfill gas risk assessments or environmental audits, as necessary. Applying this scoring system to future planning proposals around the Koorlong Landfill will help to maintain the site's environmental safety by identifying the need for risk assessments before any land use changes, such as rezoning, are approved. This will ensure that all risks are comprehensively managed, making the land use within the buffer zone safe for future developments.

These new guidelines support the application of a BAO as recommended in the audit report for the Koorlong Landfill. The BAO would incorporate the Section 9 scoring system from the EPA guidelines. By integrating this into the Mildura Planning Scheme, the BAO can serve as a tool for triggering further environmental assessments or permits for any proposed developments around the landfill, ensuring alignment with both statutory and strategic planning objectives. The BAO schedule would account for any changes in the landfill's risk profile, ensuring that developments within the buffer zone are managed in line with current environmental and safety regulations.

Key Issues and Findings

One of the key changes to the planning framework in the last few years for industrial sites and landfills has been the development of the BAO. This new planning tool has not been extensively applied in Victorian planning schemes but has potential to be applied around the Koorlong landfill and other industrial sites, budget permitting.

Buffer areas are influenced by a range of factors, but primarily around managing population levels and development that may cause land use conflicts around industrial uses such as landfills and transfer stations to minimise exposure to potential incidents that could harm people. Buffer areas are also about

ensuring that these industrial uses can continue to operate and not be placed under pressure from encroaching incompatible land uses.

Work was undertaken by Council for the Koorlong landfill informed by specialist environmental assessment work including a section 53V audit report several years ago, a post-closure pollution abatement notice and a site management order under the new Environment Protection Act 2017.

This work could be used to inform a BAO around the Koorlong landfill.

No further audits are required and environmental issues at the former landfill are continually monitored by Council. There are no signs of any minor or significant management issues with the site which has involved liaison and input from the EPA Victoria.



Image 4: Former Koorlong Landfill / Source: Plan2Place Consulting



Image 5: Former Koorlong Landfill / Source: Plan2Place Consulting

Proposed Recommendations and Response

The following recommendations are made in relation to the Koorlong Landfill:

- Council to continue to monitor and manage the Koorlong Landfill.
- Consider application of the BAO and a specifically tailored schedule into the Mildura Planning Scheme for the Koorlong landfill but not as a high priority as it appears to be well managed with no significant environmental impacts to the surrounding area at this stage. The application of the BAO would also consider the new EPAV guidelines and the Section 9 scoring system to ensure future developments or rezonings comply with the updated risk management framework for closed landfills.

2.2.6 Environmental Significance Overlay – Schedule 4 (ESO4)

A review of relevant information related to the ESO4 and other and provisions such as the BAO has been undertaken. The review has considered:

- All land within the ESO4 and its immediate surrounds.
- All land with industries/activities under consideration for inclusion into the ESO4 or other buffer protection overlays, principally within the Main Urban Area and older irrigated areas.
- Identified additional industries/activities within Mildura that would benefit from the creation of a buffer distance around their existing operation and include them into ESO4 where appropriate.
- Calculated appropriate buffer distances for each type of activity, with reference to guidelines from the EPA and Clause 53.10 of the Mildura Planning Scheme which outlines minimum threshold distances.
- Identified the need and opportunity to expand the list of uses and activities with potential adverse impacts within the Mildura Planning Scheme.

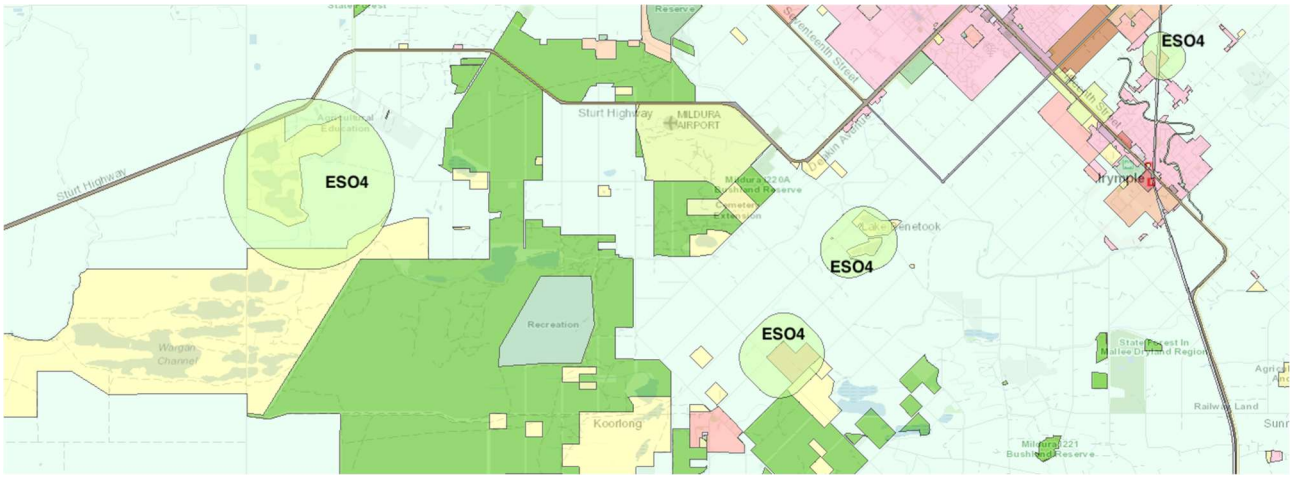
Background

The existing ESO4 schedule in Mildura Planning Scheme relates to the following land:

- Merbein Mushrooms, Lot 2, LP75386, 1210 Sturt Highway, Merbein South.
- Abattoir, Lot 1 LP 221865, being part of Crown Allotment 1 Section 89, Block F, Parish of Mildura, Gordon Avenue, Mildura South.
- Concrete Batching Plant, Part Crown Allotment 19 of Section 114, Block F, Parish of Mildura, Sandilong Avenue, Irymple.
- Asphalt and Crushing Plant, Crown Allotments 8, 9 and 10, Section 114, Block F, Parish of Mildura, corner Benetook Avenue and Twentieth Street, Koorlong.

This application of the ESO4 shown in **Figure 6**.

Figure 6: Application of the ESO4



The purpose of the overlay is to minimise the potential for future land use conflict. The overlay requires a permit for buildings and works, subdivision and for the removal, destruction or lopping of any vegetation. Dwellings within the overlay area are discouraged. There are a range of exemptions for dwellings not exceeding 50 square metres, outbuildings and stables, and subdivision where lot numbers are not increased and minimum size requirements in the underlying zone are met.

There are a range of existing landfills and transfer stations found at the following locations:

- Landfill locations: Mildura Landfill (Ontario Avenue), Mildura, Ouyen Landfill, and Koorlong Landfill (Solid Waste Service).
- Transfer station locations: Cullulleraine Transfer Station, Lindsay Point Transfer Station, Murrayville Transfer Station, Nangiloc Transfer Station, Underbool Transfer Station, Walpeup and Werrimull Transfer Station.

These sites have no specific overlay controls such as the ESO4 applied to them. The BAO is a potential planning control that could be utilised for these facilities to prevent the encroachment of sensitive uses and to better manage unintended offsite impacts such as odour, dust, noise and landfill gas. These impacts could be better managed by applying a BAO around the facilities but their precise extents would be subject to further detailed environmental assessments. These types of sites require careful management and planning responses to ensure a responsible outcome for towns and their communities.

The new EPAV Publications *Landfill Buffer Guidelines 2024* and *Supporting information for separation distance and landfill buffer guidelines 2024* provides recommended separation guideline distances for industrial residual air emissions on different industrial types of uses including landfills and transfer stations.

For discussion about the BAO more generally, refer to the section regarding the Koorlong landfill for details about the BAO and EPAV requirements and guidelines.

Clause 53.10 - Uses and Activities with Potential Adverse Impacts of the Mildura Planning Scheme specifies separation distances for a range of different industrial uses as shown in **Table 7**. The purpose of this particular provision is to identify those types of uses and activities, which if not appropriately designed and located, may cause offence or unacceptable risk to the neighbourhood.

Table 7: Specific Uses and Activities with Potential Adverse Impacts – Threshold Distances

Use/Activity	Threshold Distance (metres)
Abattoir (Animal processing)	1000
Asphalt and Crushing Plant (Bitumen batching plant)	1000
Concrete batching plant, with a production rate exceeding 5,000 tonnes per year	300
Food production (other than those specifically listed) exceeding 200 tonnes per year	250
Food production (other than those specifically listed) including frying, drying or roasting, exceeding 200 tonnes per year	500
Landfill	Case by case, none specified
Mushroom farm	Case by case, none specified
Transfer station (including accepting organic wastes)	500

Key Issues and Findings

The ESO4 is applied primarily within areas zoned as Farming Zone (FZ), Public Use Zone (PUZ1) and Industrial Zone (INZ1). Along Sandilong Avenue, the ESO4 is surrounded by land designated as General Residential Zone (GRZ) and Farming Zone (FZ) potentially raising additional concerns related to hazards and land use conflicts.

Clause 53.10 in Mildura Planning Scheme specifies a threshold distance in the table of Clause 53.10-1 to land zoned in Commercial 1 Zone, a residential zone or the Rural Living Zone or land used for a hospital, an education centre or land in a Public Acquisition Overlay to be acquired for a hospital, an education centre or a corrective institution. These thresholds could be reviewed for uses specified in Table 5, or alternatively a BAO could be examined for these sites.

Land used for existing or former landfills and transfer stations could also be examined for the ESO4 or now more appropriately for the BAO. Zoning for these sites should also be examined, consistent with Council's draft Industrial Land Use Strategy.

The ESO4 is currently listed as being applied to the Merbein Mushrooms site at 1210 Sturt Highway, Merbein South (2\LP75386 on VicPlan). However, the overlay is actually mapped further south of the Sturt Highway at 1471 Meridian Road, Merbein South (6C~C\PP3102) and the associated site at 1435 Sturt Highway, Merbein South (6~C\PP3102). It is understood that composting and the mixing of organic materials to provide soil materials for the growing of the mushrooms is prepared primarily on land south of Sturt Highway and that the growing of the mushrooms and their packing and distribution occurs primarily from the premises at 1210 Sturt Highway.

A radius of 1,500 metres is currently applied to the mapping of the ESO4 for the composting facilities site from the source of potential odour and dust impacts but the ESO4 is not mapped to the site at 1210 Sturt Highway. This should be revised by applying the ESO4 with a 250 metre radius to the site at 1210 Sturt Highway, Merbein South. The ESO4 schedule should also be revised to refer to all sites that are utilised as

part of the Merbein Mushrooms business operations to ensure that this industry is adequately protected in the planning scheme.

The new EPA guidelines require a case by case basis for the application of separation distances to a mushroom farm and it is understood that further work by the business owner is being undertaken with the EPAV to determine this in greater detail.



Image 6: Merbein Mushroom Site / Source: Plan2Place Consulting

Proposed Recommendations and Response

The following recommendations are made in relation to the ESO4:

- Review the ESO4 provisions and consider whether they are fit for purpose or should be translated into a BAO at a future stage.
- Examine the implications of Clause 53.10 threshold distances for various land uses where the ESO4 is applied and whether the application of the ESO4 is consistent with that clause.
- Consider whether existing and former landfills and transfer stations sites should be subject to the ESO4 or the BAO.
- Consider zonings of these sites consistent with Council's draft Industrial Land Use Strategy.
- Map the ESO4 correctly to identified industrial sites requiring protection and reference them appropriately in the ESO4 schedule.

2.2.7 Water Sensitive Urban Design and Integrated Water Management

Water Sensitive Urban Design (WSUD) and Integrated Water Management (IWM) approaches for Mildura Rural City Council has been assessed and reviewed, including a review of the Water Sensitive Urban Design Guidelines prepared for Council in 2005 and planning approaches used by both Melbourne Water and the Victorian Government. Through these approaches we have:

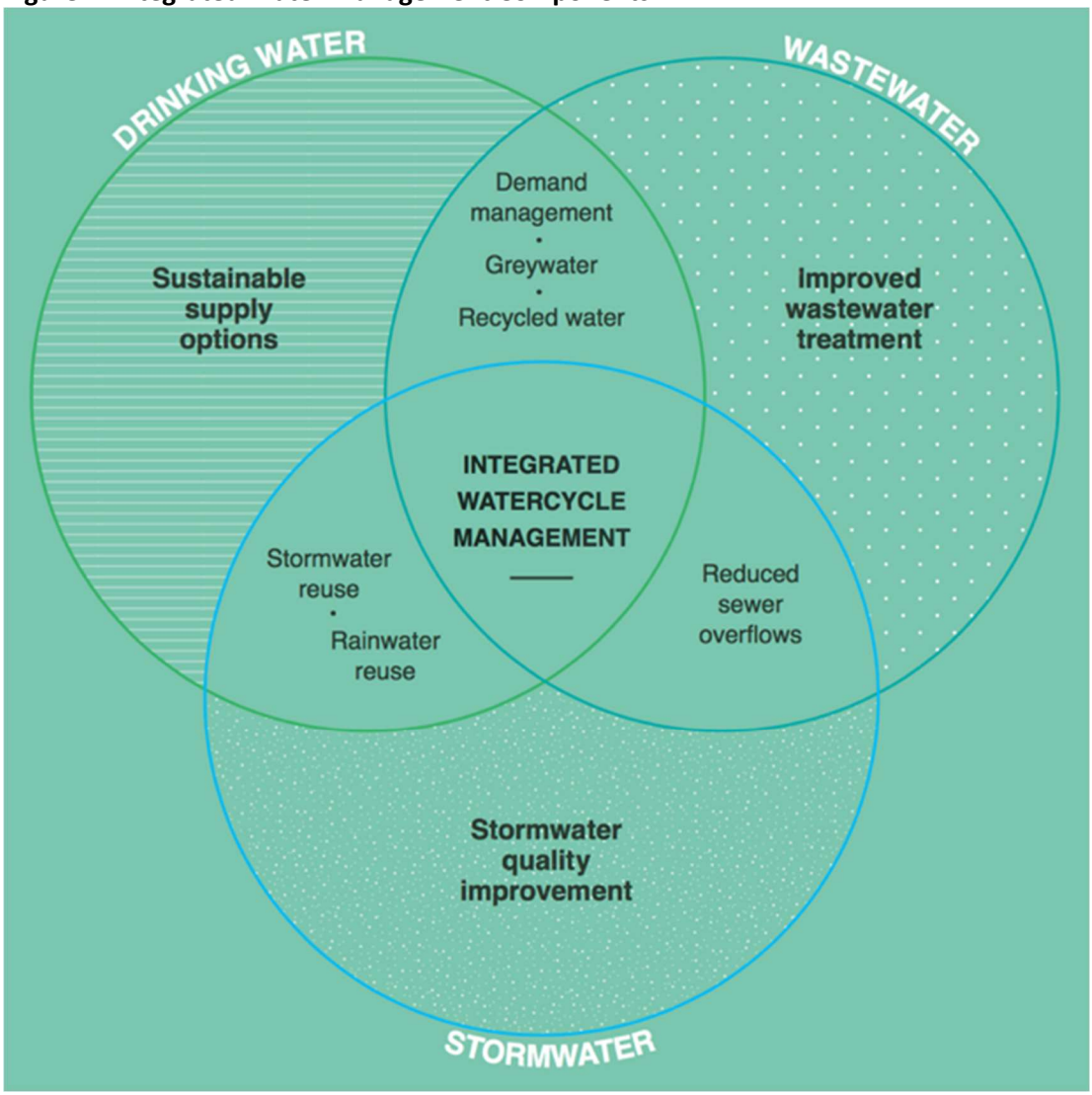
- Identified relevant issues and parameters for further work including guidance on sources of contemporary technical data for verification.
- Considered the delivery of appropriate stormwater management areas with public open space including guidance on specified drainage outcomes and the appropriate level of usable POS and the measure to achieve and delineate the areas required.

- Prepared a comprehensive scoping document for preparation of a project brief for a subsequent project.

Background

A common understanding about what is meant by the terms integrated water management, stormwater management and water sensitive urban design is important for the Mildura Planning Scheme Review. **Figure 7** shows the intersection between these concepts.

Figure 7: Integrated Water Management Components



Source: City of Casey Integrated Water Management Plan

Integrated Water Management

Integrated water management (IWM) promotes collaborative planning and management of water, land and related services to maximise economic, social and ecological benefits to the community. IWM supports preparedness to extreme events and challenges from climate change and population growth. It aligns water and land use planning and investment decisions that take into account beneficial outcomes, and is key to meeting challenges associated with urban stormwater.

IWM planning is already being used to varying extents. There is an opportunity to use it more systematically in the municipality to enhance the resilience and liveability of Mildura and surrounding towns and guide place-based decisions by supporting 'green and blue infrastructure' such as parks, wetlands, streams and urban vegetation in a whole of water cycle approach. It can deliver multiple benefits including flood mitigation, urban cooling, clean air, healthy streams and increased biodiversity, as well as contributing to recreation and amenity. These should be developed at the catchment level and based on identified regional climatic conditions, variability and issues.

Through improved planning at the catchment and sub-catchment levels, IWM can help to better manage the water cycle and reduce overall high nutrient and high flow water runoff, recycle and reuse water resources, improve water quality and reduce demand for potable water supply. IWM is a key focus for the future planning of land use and development integrated with water services and for IWM solutions to be better integrated. IWM Plans are the product of the documented analysis of an IWM opportunity, using a collaborative IWM management approach which emanates from The Victorian Government's IWM Framework.

There is an opportunity for Council to prepare an IWM plan that demonstrates the benefits and outcomes from adopting an integrated water cycle management approach to the delivery of water services, with all sources and uses of water considered holistically. If undertaken, this should be prepared in association with the Mallee Catchment Management Authority.

Stormwater Management and WSUD

As a component of IWM, stormwater and its management are important components. Stormwater is defined at Clause 73.01 of the MiPS as *"the net increase in run-off from urban development due to water not being able to seep into the ground because of impervious surfaces, such as roofs and roads"*. The management of stormwater refers to better managing this type of water from urbanisation to reduce contaminants such as sediments, litter, oils, detergents, heavy metals, nutrients, pathogens and other toxicants.

Increased development to provide for Mildura's growth brings additional hard surfaces. Rainwater that would previously have been absorbed and evapo-transpired by the landscape instead rushes into rivers and creeks as stormwater. This introduces larger volumes and velocities of water reaching receiving waterways compared to that in a pre-development context. These altered flows undermine the structural integrity of waterways thereby reducing aquatic diversity and threatening ecosystems.

SEPP (Waters of Victoria) requires measures to be implemented to control the environmental impact of stormwater pollution. The Best Practice Environmental Management (BPEM) Guidelines (CSIRO, 1999) provide best practice performance objectives for urban stormwater to assist in determining the level of stormwater management necessary to meet the SEPP (Waters of Victoria) requirements.

The best available science indicates that maintaining the current flow regime, and hence waterway condition, equates to around 4.4 ML/y harvested and 1.1 ML/y infiltrated respectively for every hectare of development or approximately 70 - 90% of the stormwater generated.[3]

As regional cities such as Mildura continue to grow, urban expansion and densification will introduce new impervious surfaces, generating greater volumes of stormwater. Stormwater impacts from these areas can then be exacerbated by increased frequency and ferocity of storm events as anticipated through climate change predictions. Impacts of this have recently been experienced in the Mildura LGA. Improved stormwater harvesting and infiltration can better manage the likely detrimental impacts of development and increased hard surface areas on urban areas and waterways.

For planning applications, those considered under Clause 53.18 and for residential subdivision at Clause 56 of the MIPS as well as in Clauses 55.03 and 55.07 require that urban stormwater management systems for all new subdivisions and most developments other than single dwellings and developments less than 50 m^2 are designed and managed to meet the current BPEM Guideline objectives. Various tools such as the Model for Urban Stormwater Improvement Conceptualisation (MUSIC) and the Stormwater Treatment Objective - Relative Measure (STORM) are tools provided to help assess the stormwater impacts from the development and to waterways.

In seeking to better manage stormwater, water sensitive urban design (WSUD) is an approach to planning and designing urban areas to make use of stormwater as a valuable resource and reduce the harm that poorly managed stormwater disposal can cause to rivers and creeks. WSUD uses better urban planning

[3] Duncan et al., 2014, Soil Strength and Slope Stability

and design to reuse stormwater, preventing it from reaching waterways by mimicking the natural water cycle as closely as possible.[4]

Mildura Rural City Council - Water Sensitive Urban Design Guidelines, 2005

WSUD Technical Guidelines (including design specifications) were prepared for Council by Parsons Brinkerhoff in 2005. These guidelines were prepared for Council but also to be applicable to the wider region in north-western Victoria, south-western New South Wales parts of South Australia. The Guidelines explain how best to incorporate and design WSUD measures into urban developments through provision of best management practice design specifications for WSUD measures and provide guidance on water quality or quantity targets.

The Guidelines are almost 20 years old and utilise Chapter 3 of the Melbourne Water Draft WSUD Engineering Procedures dated June 2004. WSUD measures include bio-retention swales, bio-retention basins, sand filters, vegetated swales / filter strips, constructed wetlands and rainwater tanks. These WSUD measures have an engineering emphasis and were chosen to represent the key fundamental WSUD measures currently used in best management WSUD practices in both building and subdivision designs within the Mildura region. Other treatment techniques could also be considered in the appropriate context with sufficient information to prove the long term viability of the treatment system on a case-by-case basis. There is no discussion in the Guidelines about the role of how appropriate stormwater management areas could be delivered with public open space including guidance on specified drainage outcomes and the appropriate level of usable public open space and the measure to achieve and delineate the areas required. Design of open space is also critical to provide better interfaces and integration of public open space into residential areas, rather than as drainage reserves with no other public function.



Image 7: Unencumbered land: Drainage Reserve with Poor Interface and Relationship to Residential Area / Source: Plan2Place Consulting

There is a need to further explore how WSUD outcomes can be delivered within an IWM framework that relates to the different water cycle in Mildura which involves water being taken out of the Murray River,

[4] Introduction to WSUD | Melbourne Water

used on land, and then discharged back to the river, often via Lake Hawthorn. For grey/black water (from sewer), this resource is treated and sold by Lower Murray Water to protect the irrigation water resource.

In terms of generally flat terrain, Mildura poses challenges for the storing of water. There is a need for a contextual approach to design urban areas with less of a focus on engineering approaches and more on integrated water management.

As a closed water cycle in Mildura, water and stormwater treatment is a key issue and very different, particularly compared to Melbourne. It requires different management responses in terms of open space, public reserves, drainage reserves and roads.

Given the 20 years that have elapsed since the preparation of the WSUD Guidelines and advancements in product manufacturing and technical measures, as well as greater WSUD capability and expertise in the planning and development sectors, there may now be other WSUD treatment techniques that could be provided. These may also be more appropriate based on the region's anticipated climate change scenarios and extreme climatic conditions (ones that are not comparable to the Melbourne region's climatic responses and the application of Melbourne Water's guidelines and WSUD Engineering Procedures). Due to the age of the Mildura WSUD Guidelines, some of the climatic data in Appendix A does not factor in the data during and after the Millennium drought of between 1997-2010 or more recent climatic and storm events and anticipated climate change scenarios. Updated data would influence the range and type of WSUD measures that are tailored appropriately for the existing and future Mildura contexts.

Key Issues and Findings

The Mildura WSUD Guidelines were prepared almost 20 years ago and are in need of an update in terms of the data and evidence that informs the guidelines and the WSUD techniques that are appropriate to the Mildura context.

Proposed Recommendations and Response

It is recommended that:

- Further strategic work be undertaken to prepare an Integrated Water Management Plan for the Mildura LGA in association with the Mallee Catchment Management Authority and Lower Murray Water.
- Ensure that new urban development includes improved integrated water management responses better suited to the Mildura LGA context.
- Future strategic work be undertaken to prepare updated WSUD Guidelines for the Mildura LGA to apply to planning applications for subdivision and new buildings.
- A brief be prepared for an updated set of WSUD Guidelines for the Mildura LGA that consider new WSUD measures and those that are tailored appropriately to the Mildura existing and future contexts as shown in **Appendix A** to be progressed through future strategic work.
-

POLICY AREAS AND SUMMARY OF PROPOSED RECOMMENDATIONS



3 POLICY AREAS AND SUMMARY OF PROPOSED RECOMMENDATIONS

3.1 Policy Areas for Review and Summary of Proposed Recommendations

Seven policy areas have been reviewed with key findings and recommended responses provided. These seven policy areas include:

- Cumbungi.
- Salinity Management Overlay.
- Public Open Space Contributions.
- Gambling.
- Koorlong Landfill.
- Environmental Significance Overlay – Schedule 4.
- Water Sensitive Urban Design and Integrated Water Management.

A summary of the recommendations for each policy area are provided below.

Cumbungi

It is recommended that:

- Permits for proposed Cumbungi removal in regards to recreational assets and use, are considered on a case-by-case basis, as advised by DEECA. Ongoing control of regrowth in areas where Cumbungi has been legally cleared, can be exempted under the "regrowth exemption" where less than 10 years has lapsed since it was last legally cleared/controlled.
- Regarding proposed Cumbungi removal at constructed wetlands for the purpose of maintaining their storm water treatment capacity, consider if it is beneficial to become a signatory to the Utility Exemption.
- Consider application of the Conservation Works exemption, where Cumbungi removal is proposed to facilitate a clear biodiversity outcome.
- Regarding Lake Cullulleraine, consider developing a new management plan/master plan, especially if Cumbungi issues become a community priority into the future and funding is available. The management plan should consider ecological, cultural and recreational values at Lake Cullulleraine, to determine if/where Cumbungi removal may be justified, and the most appropriate removal and control methods. A knowledge gap identified is the lack of current information available regarding fauna values at Lake Cullulleraine. The management plan should also consider obligations under other environmental state and national legislation such as the Victorian State Flora and Fauna Guarantee Act (FFG Act) and the National Environmental Protection and Biodiversity Conservation Act (EPBC Act).
- Discuss Cumbungi issues with Lower Murray Water who manage Lake Cullulleraine for its water storage.

Salinity Management Overlay

If funding becomes available, it is recommended that a comprehensive study is undertaken of:

- Historical groundwater data from bores across current and potential growth areas to better understand trends and responses to climatic conditions. This could include the new ground water mapping currently underway by the MCMA when available.
- Potential groundwater responses into the future from projected land-use change, urban growth and climate change.
- These studies would give greater confidence regarding salinity risk trends now and into the future, so that the salinity actions can respond appropriately. A current limitation of the SMO Guidelines is that risk is measured at the time of site development, but ideally would consider past and potential future risk where possible.

- If funding becomes available, consider undertaking a detailed soil and groundwater investigation across potential growth areas to update the preliminary urban salinity risk mapping provided in the SMO Guidelines. An important advantage of a study at this scale, is that it could inform the placement of future urban growth, directing this away from identified high risk areas right from the start. It could also provide Council with information to justify the extension or removal of the SMO from areas rather than apply it cautiously without clear data, creating what might be considered unnecessary planning obligations.
- In the absence of the above information and studies, and given the previous serious salinity issues and high costs of reduced infrastructure life cycle involved with salinity remediation in the urban environment, continued expansion of the SMO to new growth areas is considered justified and a precautionary approach.
- Two of the current exemptions, provide the possibility that some single dwellings could be constructed in areas of salinity risk without appropriate measures to minimise and deal with salinity damage. The wording of the exemptions could be modified to avoid this situation as discussed in Section 3.3. For example, the exemption could apply only to areas of demonstrated low salinity risk and where works are not required as part of remedial works for salt- or high-water table damage.
- Typo: Schedule 1 to the SMO states "A permit application is to address the requirements at Clause 44.02-5, as appropriate". This should refer to Clause 44.02-6.

Public Open Space Contributions

It is recommended that:

- The *MRCC Public Open Space Strategy 2021* should be strengthened to provide a clear nexus between future open space provision and improvements related to subdivision for urban areas of the municipality.
- The *MRCC Public Open Space Strategy 2021* should be revised through an addendum to the strategy to provide a clearer nexus established between the future open space needs of the community related to residential, commercial and industrial subdivision.
- A draft project brief as shown in **Appendix A** is progressed through future strategic work.

Gambling

It is recommended that Mildura City Council develop a comprehensive gambling strategy and that this strategy includes:

- A review of the current level of EGM and their placement in relation to their location in areas of low socio-economic households. This may include areas where additional EGMs will not be supported or should be reduced.
- A review of the current municipal limits with a view to reducing them.
- Community engagement with residents from across the LGA to understand the role gambling venues play and their appetite for greater restrictions.
- Engagement with key support agencies to understand the harm caused by gambling and how this can be reduced.
- The development of a planning scheme amendment that provides additional controls of the placement and number of EGMs in the Mildura LGA.
- A draft project brief as shown in **Appendix A** is progressed through future strategic work.

Koorlong Landfill

The following recommendations are made in relation to the Koorlong Landfill:

- Council to continue to monitor and manage the Koorlong Landfill.
- Consider application of the BAO and a specifically tailored schedule into the Mildura Planning Scheme for the Koorlong landfill but not as a high priority as it appears to be well managed with no significant environmental impacts to the surrounding area at this stage. The application of the BAO would also consider the new EPA guidelines and the Section 9 scoring system to ensure future

developments or rezonings comply with the updated risk management framework for closed landfill.

Environmental Significance Overlay – Schedule 4 (ESO4)

The following recommendations are made in relation to the ESO4:

- Review the ESO4 provisions and consider whether they are fit for purpose or should be translated into a BAO at a future stage.
- Examine the implications of Clause 53.10 threshold distances for various land uses where the ESO4 is applied and whether the application of the ESO4 is consistent with that clause.
- Consider whether existing and former landfills and transfer stations sites should be subject to the ESO4 or the BAO.
- Consider zonings of these sites consistent with Council's draft Industrial Land Use Strategy.
- Map the ESO4 correctly to identified industrial sites requiring protection and reference them appropriately in the ESO4 schedule.

Water Sensitive Urban Design and Integrated Water Management

It is recommended that:

- Further strategic work be undertaken to prepare an Integrated Water Management Plan for the Mildura LGA in association with the Mallee Catchment Management Authority and Lower Murray Water.
- Ensure that new urban development includes improved integrated water management responses better suited to the Mildura LGA context.
- Future strategic work be undertaken to prepare updated WSUD Guidelines for the Mildura LGA to apply to planning applications for subdivision and new buildings.
- A brief be prepared for an updated set of WSUD Guidelines for the Mildura LGA that consider new WSUD measures and those that are tailored appropriately to the Mildura existing and future contexts as shown in **Appendix A** to be progressed through future strategic work.

CONCLUSION



4 CONCLUSION

Plan2Place Consulting was engaged by the Mildura Rural City Council (Council) to prepare the 2024-25 Mildura Planning Scheme Review. The outputs of this project include preparing a review of the Mildura Planning Scheme that will provide the foundation for an effective and efficient planning scheme.

As a first step, this report provides background and scope on seven policy areas for review with key findings and recommended responses. These seven policy areas include:

- Cumbungi.
- Salinity Management Overlay.
- Public Open Space Contributions.
- Gambling.
- Koorlong Landfill.
- Environmental Significance Overlay – Schedule 4.
- Water Sensitive Urban Design and Integrated Water Management.

A summary of the recommendations for each policy area have been provided in chapter 3.

The outputs from this report will be incorporated into a Planning Scheme Review Report for the project. This will summarise the outstanding issues from the previous review, background on key contemporary policy and strategic issues and recommendations on next steps for the planning scheme review.

Appendix A – Draft Project Briefs

The following project brief provides guidance in addressing gambling issues for the Mildura LGA.

Project Brief – Gambling

1. Purpose

The purpose of this RFQ is to engage a suitably qualified and experienced Service Provider to assist Mildura Rural City Council (MRCC) in developing a comprehensive gambling strategy. This strategy is intended to understand the impact of gambling on the City's residents and implement measures to reduce this impact. The strategy will set a strategic and statutory planning framework to minimise gambling venues and their locality to reduce potential harm caused by gambling, particularly Electronic Gaming Machines (EGMs), and will include recommendations for amendments to Clause 52.28 Gaming in the planning scheme.

2. Background

MRCC Gambling Profile

Mildura LGA has had significant losses due to EGMs, with the third highest EGM losses in Victoria over the past two years. In the financial year 2022-2023, losses amounted to $38,482,548.47, equating to $861 per adult per year (compared to the Victorian average of $543). The municipality has a limit of 419 EGMs, with 281 currently in operation and 138 non-allocated entitlements.

MRRC Current Approach to Minimising Harm from Gambling

In December 2023, Council adopted its first Harm Minimisation from Gambling Policy. This policy outlines Council's position on gambling, focusing on EGMs, and includes the following key points:

- Considering gambling within the context of public health.
- Promoting alternatives to EGM gambling.
- Recognising the leadership role that Council can play in minimising gambling-related harm, including through planning controls.
- Advocating to other levels of government to reduce opportunities to gamble.

This policy provides a broader foundation for an integrated approach to managing gambling and the associated harms. It sets the stage for further strategic work, including engaging with residents and stakeholders to understand local attitudes towards gambling and build momentum for change.

Issues with Current Approach

The current planning scheme lacks a strategic and statutory framework in the Planning Policy Framework (PPF) and the Municipal Planning Strategy (MPS) to effectively manage gambling impacts, especially considering MRCC's high percentage of gambling. Specifically:

- The existing Clause 52.28 Gaming in the planning scheme does not set any direction, schedules, or a table of prohibited places for EGMs.
- There are no specific provisions addressing the proximity of EGMs to different public use zones, backpacker accommodations, community gathering areas, high crime rate areas, and less-policed areas.
- The planning scheme does not adequately address the location and density of EGM venues, particularly in socio-economically disadvantaged areas.
- The absence of clear guidelines and policies limits Council's ability to control the placement of EGMs and implement harm reduction strategies through the planning scheme.

These gaps highlight the need for a comprehensive review and amendment of the planning scheme to incorporate effective gambling harm minimisation strategies based on evidence and strategic work.

3. Scope

The project requires the development of a comprehensive gambling strategy for the Mildura LGA to address the following key areas:

- Impact Assessment: Review the current level and impact of EGMs, particularly their placement in areas with low socio-economic households and issues of net community benefit.
- Municipal Limits Review: Assess the current municipal limits for EGMs with a view to reducing them.
- Community Engagement: Engage with residents across the LGA to understand the role gambling venues play and gauge their appetite for greater restrictions.
- Agency Collaboration: Collaborate with key support agencies to understand the harm caused by gambling and identify reduction strategies.
- Planning Scheme Amendment: Develop a planning scheme amendment providing additional controls on the placement and number of EGMs in the MRCC.

Deliverables

The output of this project will be a comprehensive report, including key issues identified for gambling and gaming undertaken in the Mildura Planning Scheme Review. The report will provide guidance and justification for a future planning framework on gambling and gaming and will include:

- Gambling Strategy: A detailed strategy addressing the impact of gambling, with specific focus on EGMs.
- Impact Assessment Report: An assessment of the current EGM levels and their placement relative to socio-economic conditions and the net community benefit.
- Municipal Limits Review: Recommendations for adjusting the municipal limits for EGMs.
- Community Engagement Plan: A plan for engaging with residents to understand their views on gambling and potential restrictions.
- Agency Collaboration Framework: A framework for working with support agencies to mitigate gambling harm.
- Planning Scheme Amendment: Recommendations for amendments to Clause 52.28 Gaming in the planning scheme to control EGM placement and numbers.
- Integration with Other Policies: Integrate Clause 52.28 Gaming with other provisions or planning controls, such as reducing the presence of gaming in high exposure localities close to sensitive uses such as residential uses, education facilities, core retailing facilities and other sensitive uses for people in particular localities.

This project brief outlines the essential requirements for updating the gambling strategy, providing a structured approach for future planning decision making.

The following projects brief provides guidance in the preparation of an addendum to the public space strategy for townships in the Mildura LGA (LGA).

Project Brief – Open Space Strategy Addendum

1. Purpose

The purpose of this RFQ is to engage a suitably qualified and experienced Service Provider to assist Mildura Rural City Council (MRCC) in reviewing and amending Clause 53.01 Public Open Space Contributions. This includes amending the existing schedule to Clause 53.01 or adding additional schedules based on relevant policies and strategies, such as the Mildura Public Open Space Strategy 2021. This review will address public open space contributions and establish a clear nexus between development and the recommendations for amendments to Clause 53.01 of the Mildura Planning Scheme (MPS), to establish different planning controls on MRCC towns and settlements and improve the operation of the planning scheme.

This review will be an addendum to the existing open space strategy and examine the types of open space contributions that can be levied on residential, commercial, and industrial developments, consistent with the MRCC Public Open Space Strategy 2021. It will consider the effectiveness of different mechanisms, such as Development Contribution Plans (DCPs), and evaluate Council's existing policies and procedures for levying contributions.

2. Background

Current Strategic Work

The MRCC Public Open Space Strategy 2021 provides an overarching plan for developing a cohesive and connected public open space network to meet the community's needs. The Strategy integrates open space planning with other initiatives and offers a prioritised action plan for progressive development.

Issues in Current Strategy

The existing strategy lacks sufficient planning focus on town-based open space interventions required for improved open space provision based on MRCC needs. It does not adequately explore the municipality's public open space demands, future provision, and the nexus between different types of developments and open space contributions.

Where a clear nexus is established through a public open space strategy, Clause 53.01 enables Council to specify a percentage of open space contribution via land and/or cash for residential, commercial, and industrial land subdivisions. Clause 45.06, related to a Development Contributions Plan (DCP), also allows specifying infrastructure and open space contributions in newly developing areas.

Additionally, it is often challenging for Council officers to implement and manage the open space contribution planning controls based on existing settings, leading to poor outcomes and less effective use of Clause 53.01 Public Open Space Contributions.

3. Scope

The project requires providing an addendum to the existing Mildura Public Open Space Strategy 2021 by reviewing and enhancing the Strategy's directions to address the following key areas:

- Establish a clear nexus between future open space provisions and planning controls in conjunction with development and subdivisions.
- Identify MRRC needs and issues such as climate change and rainfall for open space provision based on the town/locality needs.
- Determine how open space contributions from various developments and subdivisions will support open space provision or improvement in the planning scheme.
- Evaluate the effectiveness of existing policies and mechanisms for levying contributions, including DCPs.

- Clearly identify the percentage of open space required from different development scales based on the context.
- Provide the strategic basis for recommendations necessary to justify amendments to Clause 53.01 of the Mildura Planning Scheme to reflect the addendum's findings and improve planning controls for MRCC towns and settlements.

Deliverables

The output of this project will be a comprehensive report, including key issues identified during the MRRC planning scheme review. The report will provide guidance and justification for future planning decisions regarding public open space contributions and amendments to Clause 53.01. It will include:

- Findings of the review and assessment of existing public open space contributions.
- Recommendations for amendments to the MRCC Public Open Space Strategy 2021.
- Clear guidelines for implementing open space contributions based on the established nexus between increased development and open space need/provision.
- Prioritised action plan for the progressive development of public open spaces.
- Integration of Clause 53.01 recommendations with other aspects of the planning scheme, such as water sensitive urban design, to enhance overall cohesion of the planning scheme.

This project brief outlines the essential requirements for providing the addendum to, and reviewing, the public open space strategy and providing a structured approach for future planning and contributions.

The following project brief provides guidance for the preparation of new guidelines for WSUD/IWM tailored for townships in the Mildura LGA (LGA).

Project Brief – Water Sensitive Urban Design and Integrated Water Management Guidelines

1. Purpose

The purpose of this RFQ is to engage a suitably qualified and experienced Service Provider to assist Mildura Rural City Council (MRCC) in reviewing and updating the existing Water Sensitive Urban Design (WSUD) Guidelines and developing an Integrated Water Management (IWM) Plan. This includes updating relevant local clauses and policies such as 19.03-2L Infrastructure Design and Provision, 19.03-3L Integrated Water Management, and any other relevant clauses and local policies related to drinking water, wastewater, and stormwater management that impact sustainable wastewater treatment and stormwater quality improvement. This project aims to ensure that WSUD and IWM approaches are effectively integrated into the Mildura Planning Scheme to enhance resilience, liveability, and sustainable water management within the municipality.

2. Background

Current Strategic Work

Water Sensitive Urban Design (WSUD) and Integrated Water Management (IWM) approaches for Mildura Rural City Council have been assessed and reviewed, including a review of the WSUD Guidelines prepared for Council in 2005 and planning approaches used by both Melbourne Water and the Victorian Government.

Issues in Current Strategy

The existing WSUD Guidelines, prepared almost 20 years ago, require an update to reflect advancements in product manufacturing, technical measures, and the latest climatic data. The guidelines lack guidance on integrating stormwater management with public open space and how these areas can provide multiple benefits, such as urban cooling, biodiversity, and amenity. Additionally, the current strategy does not reflect the MRCC local climate change data and requirements. There is a need to explore how WSUD outcomes can be delivered within an IWM framework that addresses the unique water cycle and climatic conditions of the Mildura region.

3. Scope

The project requires the review of the existing WSUD Guidelines and the development of an IWM Plan to address the following key areas:

- WSUD Guidelines: Revise the existing WSUD Guidelines to incorporate contemporary WSUD measures, technical advancements, and updated climatic data. Ensure the guidelines are tailored to the Mildura context, considering unique water management challenges and opportunities.
- Develop an IWM Plan: Prepare an Integrated Water Management Plan for the Mildura LGA in association with the Mallee Catchment Management Authority and Lower Murray Water. The plan should demonstrate the benefits of a holistic water cycle management approach and provide strategic direction for integrating water management with land use planning.
- Enhance Stormwater Management: Identify opportunities to improve stormwater harvesting, infiltration, and management to mitigate the impacts of urbanisation and climate change on water quality and quantity.
- Integrate WSUD with Public Open Space: Provide guidance on integrating stormwater management areas with public open space to deliver multiple community benefits, such as recreation, urban cooling, and biodiversity enhancement.

- Collaborative Planning: Provide guidance on integrating stormwater management areas with public open space to deliver multiple community benefits, such as recreation, urban cooling, and biodiversity enhancement.

Deliverables

The output of this project will be a comprehensive report, including key issues identified during the MRRC planning scheme review. The report will provide guidance and justification for future planning decisions regarding WSUD and IWM approaches. It will include:

- Updated WSUD Guidelines: Revised guidelines that reflect contemporary WSUD measures and are tailored to the Mildura context.
- Integrated Water Management Plan: A comprehensive plan outlining strategic directions for integrated water management within the Mildura LGA.
- Stormwater Management Strategies: Recommendations for improved stormwater harvesting, infiltration, and management practices.
- Guidelines for Integrating WSUD with POS: Clear guidelines on how to integrate stormwater management with public open space to achieve multiple benefits.
- Collaborative Planning Framework: A framework promoting collaborative planning and management of water, land, and related services.
- Integration with Planning Scheme: Integration of WSUD and IWM recommendations with other aspects of the planning scheme, such as Water Sensitive Urban Design, to enhance overall cohesion.

This project brief outlines the essential requirements for updating the WSUD Guidelines and developing an IWM Plan, providing a structured approach for future planning and contributions.

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