



Monument Hill Reserve Management Plan 2024/2034



Monument Hill Reserve Management Plan 2024-2034 Mitchell Shire Council

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1. Executive Summary

The aim of the Monument Hill Reserve Management Plan 2024-2034 is to protect and enhance the ecological and cultural values of the reserve over the next ten years. Recognising its' crucial role in conserving biodiversity in Mitchell Shire and providing a natural open space for passive recreation for the local community, the plan addresses opportunities as well as various management challenges that pose threats to these values.

These challenges include unauthorised motor vehicle access, unauthorised construction of BMX/mountain bike jumps and tracks, illegal rubbish dumping and firewood collection, the use of Monument Road as a walking track, erosion of walking tracks, domestic dogs, management of horse-riding activities, management of the local Eastern Grey Kangaroo population, invasive fauna, weeds, fire risk, degraded ecological components, climate change, and increased development and visitation.

In order to effectively manage Monument Hill Reserve, this plan establishes management goals. These goals directly address the challenges, focus on enhancing ecological and cultural values, and cater to the needs of the local community. The defined management goals are as follows:

Improve Ecological Monitoring and Data Collection: Gather information on the reserve's ecological health, biodiversity, and habitat conditions to evaluate management and inform conservation efforts.

Protect, Enhance, and Restore the Ecological Values of the Reserve: Undertake conservation and restoration initiatives to protect and enhance the reserve's ecological values.

Improve Accessibility and Safety in the Reserve: Improve accessibility for visitors and the visitor experience while ensuring their safety through appropriate infrastructure and facilities.

Implement Actions to Minimise Illegal Activities in the Reserve: Strengthen policies, regulations, and enforcement measures to address illegal activities and promote responsible use of the reserve.

Increase Project Collaboration, Education and Community Engagement Opportunities: Fostering collaboration, engagement, and education to address management challenges and nurture appreciation to safeguard the reserve's ecological and cultural values.

Increase Recognition of the Reserve's Historical Values: Safeguard the reserve's dual Indigenous and European historical heritage by increasing recognition of the heritage values and preserving of the historical significance of the reserve.

The management plan also includes an Action Plan that outlines specific management objectives and actions necessary to achieve the overarching management goals. Each management action is assigned a priority level and budget allocation, facilitating a systematic approach to guide decision-making over the next 10 years.

Furthermore, the plan emphasises the significance of regular monitoring and evaluation to ensure the ongoing effectiveness and relevance of the management strategies. By adopting this management plan, Mitchell Shire Council can support the long-term preservation of the Monument Hill Reserve's ecological and cultural significant assets, fostering a harmonious coexistence between nature and people for generations to come.

2. Vision

The primary management approach for the Monument Hill Reserve revolves around the conservation of the native vegetation and habitats for indigenous flora and fauna. Recognising its pivotal role in conserving regional biodiversity, ongoing management endeavours to preserve and enrich the reserve's ecological values while also considering and respecting its cultural significance within the local community.

“To protect and enrich the ecological values of the Monument Hill Reserve, acknowledging its role in preserving biodiversity within Mitchell Shire and beyond. We aim to promote sustainable land management practices that safeguard and enrich the reserve's ecological and cultural significance, while also recognising its value as a recreational destination for the local community and beyond. We aspire to establish a space where nature and people coexist harmoniously, providing a flourishing and resilient future for the Monument Hill Reserve.”

The vision is in accordance of the planning zone that applies to the Monument Hill Reserve, being Public Conservation and Resource Zone (PCRZ), which has the following purpose;

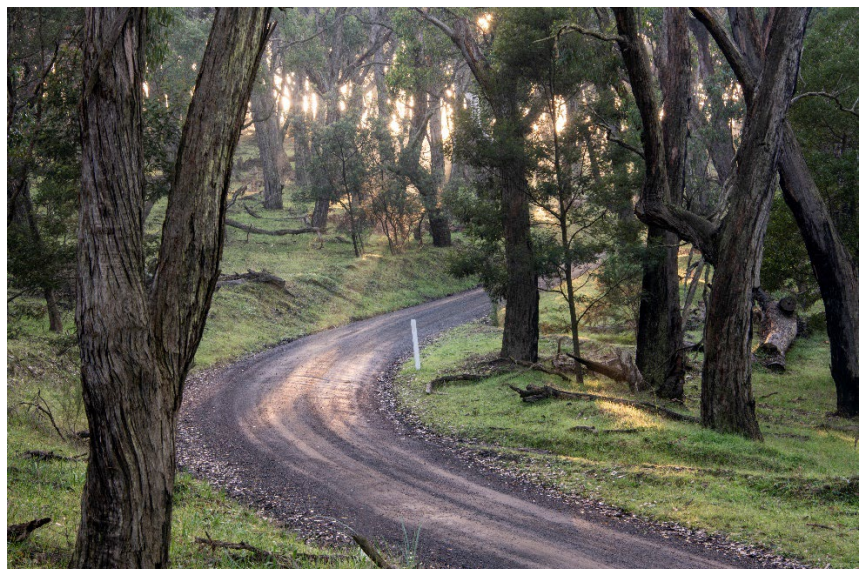
- To implement the Municipal Planning Strategy and the Planning Policy Framework.
- To protect and conserve the natural environment and natural processes for their historic, scientific, landscape, habitat or cultural values.
- To provide facilities which assist in public education and interpretation of the natural environment with minimal degradation of the natural environment or natural processes.
- To provide for appropriate resource-based uses.

By adopting this management plan, Mitchell Shire Council can support the long-term preservation of the Monument Hill Reserve's ecological and cultural significant assets, fostering a harmonious coexistence between nature and people for generations to come.



Echidna – *Tachyglossus aculeatus*.

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Monument Road, Monument Hill Reserve.

3. Introduction

Mitchell Shire Council engaged Practical Ecology to develop the Monument Hill Reserve Management Plan 2024-2034. This plan is informed by the *Monument Hill Reserve Management Plan – Background Report* (Practical Ecology 2023), as well as a series of engagement events involving Practical Ecology, Council, and relevant stakeholders, including the community.

The *Monument Hill Reserve Management Plan – Background Report* involved an extensive literature review encompassing policy documents, legislation, ecological assessments, databases, and other relevant materials. The primary goal of this review was to establish a comprehensive understanding of the ecological and cultural values of the reserve. The report emphasised the significance of preserving the reserve's unique features for biodiversity conservation and for the benefit of the community and future generations. Additionally, the report identified key management challenges within the reserve and explored opportunities for addressing them, taking into account the environmental, social, and economic context in which the reserve is situated.

3.1 Site Description

Situated to the east of Kilmore town centre, Monument Hill Reserve sprawls over 76 hectares within the Goulburn Broken Catchment, approximately 60 km north of Melbourne. This diverse reserve encompasses various habitats, including open woodlands, grassy slopes, and rocky outcrops, fostering a rich diversity of flora, fauna and fungi. Notably, some species within its boundaries are classified as threatened under the *Environment Protection and Biodiversity Conservation Act 1999* and the *Flora and Fauna Guarantee Act 1988*, underscoring the reserve's ecological significance.

The Monument Hill Reserve is within a landscape dominated by residential and agricultural land, where native vegetation has been largely removed and degraded. As one of the few large patches of native vegetation in the region, the reserve plays a critical role in maintaining the region's ecological integrity.

Beyond its ecological importance, the reserve holds deep cultural value as well. As traditional owners of the land, the Taungurung community maintains profound cultural connections to this area. Moreover, within the context of European heritage, the Monument Hill Reserve bears cultural importance, adding another layer of significance to its management and preservation.

The Monument Hill Reserve is also a component of the Kilmore Outdoor Historic Recreation Precinct, which also encompasses the Kilmore Hospital Reservoir Reserve, Kilmore Golf Course, and Kilmore Cricket and Recreation Reserve. The Precinct is predominantly characterised by its absence of paved areas, buildings, or other above-ground structures. It features a mixture of exotic and native vegetation, with both native and exotic trees planted throughout which hold significance within the Precinct.

The reserve attracts numerous outdoor enthusiasts, nature lovers, and curious individuals seeking to explore its diverse ecological and cultural values. It has become a highly popular destination, offering a wide array of recreational activities, including walking, hiking, jogging, horse riding, and cycling. With its expansive open spaces and an intricate network of trails and tracks, the reserve presents an ideal setting for immersing oneself in nature.

Map 1. Monument Hill Reserve



Map 1. Subject Site

Monument Hill Reserve, Kilmore

Legend

- Subject Site
- Parcels
- Natural watercourse
- Existing Bollards
- Car Park
- Roads
- Fire Tracks
- Walking Tracks
- Doolan's Water hole

Details
Mapping by: Ali Nia
Date: 4/23/2024
Version: 1
Aerial photography from Nearmap (Feb. 2023).
Data Source: Base layers courtesy of VicMap,
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3.2 Governance

The management of the Monument Hill Reserve is governed by various legislation, policies, strategies, and plans at the federal, regional, and local government levels as listed below. These frameworks play a significant role in guiding the management practices and decisions related to the reserve.

3.2.1 Land Title

The Monument Hill Reserve is classified as Crown Land and is therefore owned by the Victorian State Government under the *Crown Land Reserves Act (1978)*. As the deemed landowner, on behalf of the state government, the Department of Environment, Energy, and Climate Action (DEECA) have appointed Mitchell Shire Council as the Committee of Management to oversee the reserve, in accordance with the reserve purpose.

3.2.2 Taungurung Land Use Activity Agreement (2020)

The Recognition and Settlement Agreement (RSA), signed on 26 October 2018, includes the Land Use Activity Agreement (LUAA), which became legally effective on 11 August 2020. The RSA acknowledges the Taungurung people as the Traditional Owners of a specific area in Victoria encompassing the Monument Hill Reserve. The LUAA grants the Taungurung people procedural rights over proposed activities on Crown land, with the level of procedural rights increasing depending on the impact of the activities on Traditional Owner rights.

3.2.3 Victorian Environmental Assessment Council (VEAC)

The VEAC was established following the *Victorian Environmental Assessment Council Act 2001*, taking over from the Environment Conservation Council (ECC), which had previously replaced the Land Conservation Council (LCC). The VEAC's main job is to investigate, assess, and advise the Victorian Government on how to protect and sustainably manage the environment and natural resources on public land.

For the Monument Hill Reserve, the rules set by the LCC, known as Land Use Determinations, apply. Mitchell Shire Council, as the managers of this reserve, must oversee management in line with the reserve's purpose and the VEAC/LCC's approved land use guidelines. Specifically, the LCC's guidelines state that the Monument Hill Reserve Bushland Area must be preserved in any management plan and that only informal recreation is allowed on Monument Hill.

3.2.4 Mitchell Shire Planning Scheme (MSPS)

Under the MSPS, the reserve forms part of the Kilmore Historic Outdoor Recreation Precinct which also includes the lake, golfclub, and cricket ground. Under the MSPS, the management of the Monument Hill Reserve may be influenced by the following planning zones and overlays as defined below.

Zoning

The Monument Hill Reserve is zoned as Public Conservation and Resource Zone (PCRZ). The purpose of this zone is:

- To implement the Municipal Planning Strategy and the Planning Policy Framework;
- To protect and conserve the natural environment and natural processes for their historic, scientific, landscape, habitat or cultural values;
- To provide facilities which assist in public education and interpretation of the natural environment with minimal degradation of the natural environment or natural processes;
- To provide for appropriate resource-based uses.

Within PCRZ, permits are required for constructing buildings or undertaking specific management activities, including the installation of interpretive signage or the creation of new tracks. Nonetheless, as the land manager, Mitchell Shire Council has the discretion to grant permit exemptions for actions outlined within the management plan for the reserve.

Overlays

Bushfire Management Overlay (BMO)

The entire Monument Hill Reserve is covered by a BMO. The BMO applies to land that may be significantly affected by extreme bushfire and identifies areas where bushfire risk must actively be considered. The purpose of this overlay is:

- To implement the Municipal Planning Strategy and the Planning Policy Framework;
- To ensure that the development of land prioritises the protection of human life and strengthens community resilience to bushfire;
- To identify areas where the bushfire hazard warrants bushfire protection measures to be implemented;
- To ensure development is only permitted where the risk to life and property from bushfire can be reduced to an acceptable level.

Under the Mitchell Shire Planning Scheme, there is a specified list of buildings and works that necessitate a permit under this particular overlay. However, it is important to note that the current management objectives and practices within the reserve do not require a permit under this overlay.

Significant Landscape Overlay – Schedule 1 (SLO1)

The entire Monument Hill Reserve is covered by the SLO1- Kilmore Historical Outdoor Recreation Precinct.

The statement of nature and key elements of landscape in the Mitchell Shire Planning Scheme state that *“The Kilmore Historic Outdoor Recreation Precinct (the Precinct) is a culturally significant landscape that has been continuously used and developed for public outdoor recreation since 1853. It comprises the remnants of the Kilmore Reservoir, the 1924 Hume and Hovell Tower and associated Monument Hill, and remnant exotic and native vegetation associated with the development of this area as a public parkland from the Nineteenth Century onwards”*

The purpose of this overlay is to:

- To implement the Municipal Planning Strategy and the Planning Policy Framework;
- To identify significant landscapes;

- To conserve and enhance the character of significant landscapes.

With reference to the management of the reserve, this schedule describes a list of landscape character objectives to be achieved including:

- To recognise and protect the scientific importance of the Monument Hill area' as an objective of this schedule;
- To ensure the retention and conservation of the culturally significant cricket ground, lake golf course, walking tracks and the Hume and Hovell Monument and associated interpretative signs.

Under the Significant Landscape Overlay – Schedule 1, a permit is required for the removal, destruction, or pruning of any native or historically exotic vegetation, as well as for fence construction. However, there are exceptions to this permit requirement. These exceptions include emergency works, fire protection measures, land management activities related to the *Catchment and Land Protection Act 1994* (CaLP), the management of pest animal burrows, the removal of planted or regrowth vegetation, and activities carried out by Traditional Owners.

Vegetation Protection Overlay – Schedule 1 (VPO1)

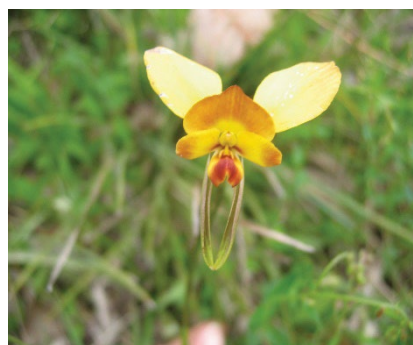
Within the Monument Hill Reserve, the vegetation on either side of Monument Road is covered by the VPO1 (Figure 1). The purpose of this overlay is:

- To implement the Municipal Planning Strategy and the Planning Policy Framework;
- To protect areas of significant vegetation;
- To ensure that development minimises loss of vegetation;
- To preserve existing trees and other vegetation;
- To recognise vegetation protection areas as locations of special significance, natural beauty, interest and importance;
- To maintain and enhance habitat and habitat corridors for indigenous fauna;
- To encourage the regeneration of native vegetation.

Under this overlay a permit is required to remove, destroy, or lop any native. However, there are exceptions to this permit requirement. These exceptions include emergency works, fire protection measures, land management activities related to the *Catchment and Land Protection Act 1994* (CaLP), the management of pest animal burrows, removal of planted or regrowth vegetation, and activities carried out by Traditional Owners.

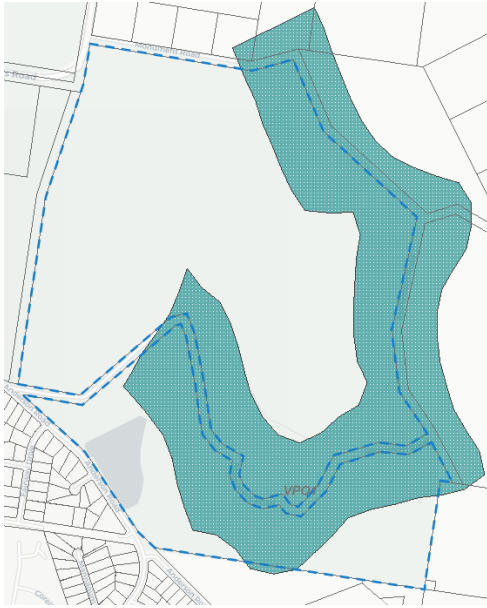


Wildflowers in Monument Hill Reserve.



Monument Hill information sign.

Figure 1. Vegetation Protection Overlay (teal). Reserve boundaries are represented by the blue dashed line. Sourced from VicPlan (2023)

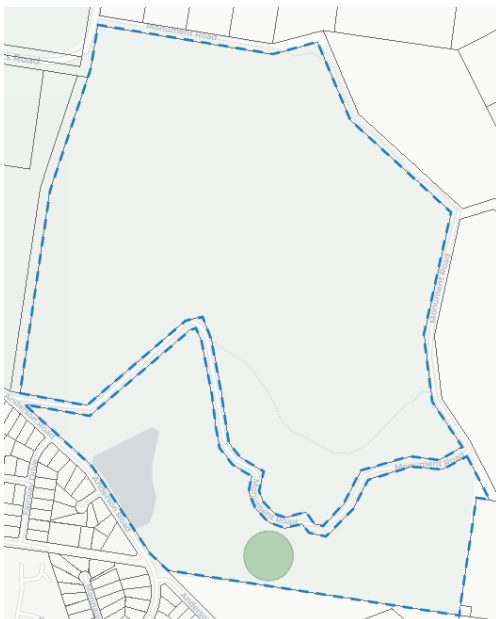


Aboriginal Cultural Heritage

The Aboriginal Heritage Regulations 2018 defines 'areas of cultural heritage sensitivity' as registered Aboriginal cultural heritage places and land form types that are typically more likely to contain Aboriginal cultural heritage. When a proposed 'high impact activity' falls within these areas, it triggers the requirement for a 'cultural heritage management plan' under the regulations.

Within the Monument Hill Reserve, a small area south of Monument Road is considered an area of cultural heritage sensitivity (Figure 2).

Figure 2. Area of Aboriginal Cultural Heritage (green). Reserve boundaries are represented by the blue dashed line. Sourced from VicPlan (2023)



Heritage Overlay

The Mitchell Shire Planning Scheme provides a framework for Council to apply a Heritage Overlay to specified heritage places. The purpose of this is to implement the Municipal Planning Strategy and the Planning Policy Framework. The aim of a Heritage Overlay is:

- To conserve and enhance heritage places of natural or cultural significance;
- To conserve and enhance those elements which contribute to the significance of heritage places;
- To ensure that development does not adversely affect the significance of heritage places; and
- To conserve specified heritage places by allowing a use that would otherwise be prohibited if this will demonstrably assist with the conservation of the significance of the heritage place.

A heritage place includes both the listed heritage item and its associated land. The Hume and Hovell Monument is covered by Heritage Overlay HO318. To carry out certain activities on a place covered by a Heritage Overlay a planning permit is generally required. These activities include subdivision of land, constructing or altering a building, or displaying signage.

3.2.5 Legislative and Policy Context

A list of additional relevant legislation, policies and strategies regarding the management of the reserve is provided below.

Federal Government

- *Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)*
- *Australia's Strategy for Nature (2019-2030)*

State Government

- *Flora and Fauna Guarantee Act 1988 (FFG Act)*
- *Land Act 1958*
- *Crown Land (Reserves) Act 1978*
- *Catchment and Land Management Act 1994 (CaLP Act)*
- *Wildlife Act 1975*
- *Planning and Environment Act 1987 (P and E Act)*
- *Aboriginal Heritage Act 2006*
- *Heritage Act 1995*
- *Land Conservation (Vehicle Control) Act 1972*

Regional

- *Goulburn Broken Regional Catchment Strategy (2021-2027)*

Mitchell Shire Council

- *Mitchell Shire Council Community Engagement Policy (2020)*
- *Kilmore Structure Plan (2016)*
- *Mitchell Shire Council Open Space Strategy (2013-2023) (currently under review)*

- *Mitchell 2050 Community Vision*
- *Mitchell Shire Council Plan (2021-2025)*
- *Municipal Emergency Management Plan (2021-2024)*
- *Mitchell Shire Council Environment Strategy (2014-2024)*
- *Mitchell Shire Council Environment Policy 2020*
- *Mitchell Shire Urban Forest Strategy 2023*
- *Mitchell Shire Climate Emergency Action Plan 2023*

3.3 Relevant Parties/Stakeholders

A summarised list of relevant parties and stakeholders and their involvement in the management of the Monument Hill Reserve is provided below (Table 1).

Table 1. Stakeholder groups concerning reserve management

Relevant Party/Stakeholder	Involvement
Mitchell Shire Council	Appointed Committee of Management. The reserve is managed by Mitchell Shire Council's Environment and Sustainability Department. However, the access roads are managed by Mitchell Shire Council Operations and Parks Department.
Taungurung Land and Waters Council (TLWC)	The representatives of the Traditional Owners of the land who have procedural rights over management activities within the Monument Hill Reserve.
Department of Environment, Energy, and Climate Action (DEECA)	Deemed landowners under the Crown Land Reserves Act (1978).
Neighbours	Both privately owned property, the Kilmore Cricket and Recreation Reserve, Kilmore Golf Course.
Mitchell Municipality Fire Management Planning Committee	Involved in the development and coordination of the reserves Fuel Management Plan (GHD, 2021).
Mitchell Shire Environment Advisory Committee (MEAC)	Provides advice and recommendations to the Council on matters related to environmental management within the reserve.
Mitchell Shire Heritage Advisory Committee	Provides advice and recommendations to Council on matters related to the management of European cultural heritage within the reserve.
Country Fire Authority (CFA)	Involved in the planning and implementation of fuel management practices within the reserve including planned burns.
Goulburn Broken Catchment Management Authority (GBCMA)	Statutory body responsible for the integrated management of land, water, and biodiversity across the Goulburn Broken Catchment region in which the reserve is situated.
Heritage Victoria	Provides advice and guidance on the conservation and management of cultural heritage values within the reserve.

Mitchell Shire Councillors	Represent the public when making decisions and defining policies that relate to the management of the reserve.
Local community groups including (but not limited to): <ul style="list-style-type: none"> ■ BEAM – Mitchell Environment Group ■ Southwest Goulburn Landcare Inc. ■ Kilmore and Districts Residents and Ratepayers Association (KADRRA) ■ Kilmore Historical Society ■ Australian Native Plants Society Mitchell Inc. 	Recreational use of the reserve and an invested interest in conserving its ecological and cultural values.
Broader community	Recreational use of the reserve and visits to the historical monument.

3.4 Ecological Values

Monument Hill Reserve is an ecologically significant patch of vegetation, playing a crucial role in safeguarding biodiversity and enhancing ecological resilience within the region. The reserve's grassy slopes, open woodlands, and rocky outcrops serve as critical habitats and refuges for wildlife. It provides a sanctuary for various flora and fauna, including several threatened species. A summary of the ecological values of the reserve is provided below and includes resources including regional databases and various recent ecological assessments of the reserve.

3.4.1 Geology and Soils

The Monument Hill Reserve showcases pre-Pliocene topography, which existed before the Newer Volcanics eruption, and comprises low to moderate relief areas situated in Palaeozoic siltstone. This landform is recognised by a well-developed dendritic drainage pattern that includes many valleys deeply incised, accommodating ephemeral streams.

The soil within the reserve primarily consists of shallow loamy sands, which extend to a depth of three meters. Beneath the topsoil is a thick layer of yellow clay subsoil that lies on the Palaeozoic siltstone. The subsoil, composed of ancient marine sediments, is dense and nutrient poor. Water has a limited capacity to permeate through the subsoil and moves laterally during the wet season before seeping to the mid-slope surface.

3.4.2 Bioregions

The Monument Hill Reserve is situated at the intersection of the Highlands Northern Fall (HNF) and the Central Victorian Uplands (CVU) Bioregions. The CVU covers approximately two-thirds of the site's

eastern portion, while the HNF covers the western third (Map 2). A general description of each bioregion is provided below.

Highlands Northern Fall (HNF)

The HNF bioregion is situated in the central part of eastern Victoria and constitutes the northern aspect of the Great Dividing Range. The terrain is characterized by dissected uplands with moderate to steep slopes, high plateaus, and alluvial flats along the main valleys. The geology is mainly composed of Palaeozoic deposits, which result in predominantly sedimentary and granitic rocks. The upper reaches are covered by porous brown and red earths (Dermosols), while the valleys feature yellow and red texture contrast soils (Chromosols and Kurosols).

The vegetation is diverse and comprises of various ecosystems. Herb-rich Foothill Forest and Shrubby Dry ecosystems dominate large areas of the lower slopes, while Montane Dry Woodland and Heathy Dry Forest ecosystems are present on the upper slopes and plateau. Grassy Dry Forest and Valley Grassy Forest ecosystems are associated with major river valleys. The resulting landscape is a mosaic of different vegetation types.

Central Victorian Uplands (CVU)

The CVU bioregion is in central Victoria and is characterised by Lower Palaeozoic deposits that have resulted in dissected uplands at higher elevations. The terrain is predominantly composed of granitic and sedimentary rocks, including Tertiary colluvial aprons, with metamorphic and old volcanic rocks forming steep peaks and ridges. The less fertile hills are home to Grassy Dry Forest and Heathy Dry Forest ecosystems, while the more fertile outwash slopes support Herb-rich Foothill Forest and Shrubby Foothill Forest ecosystems.

The granitic and sedimentary terrain is dominated by Grassy Woodlands much of which has been cleared. Lower-lying valleys and plains are primarily covered by Valley Grassy Forest and Plains Grassy Woodland ecosystems.

3.4.3 Ecological Vegetation Classes

Ecological Vegetation Classes (EVCs) provide a systematic method of organising plant communities into common types found in similar environmental conditions throughout Victoria. Each vegetation type is identified based on its floristic composition, which refers to the plant species present, as well as its vegetation structure, such as woodland, grassland, or saltmarsh.

In addition to floristic composition and vegetation structure, EVCs also consider the landform of the area, such as whether it is a gully, foothill, or plain, as well as the environmental characteristics, such as soil type and climate. This approach allows for a comprehensive understanding of the vegetation types found in a given area and their relationship to the local environment.

Using DEECA mapping of current (2005) and pre-European (1750) EVCs, the ecological composition of the Monument Hill Reserve can be classified into two EVC types, Grassy Dry Forest, and Herb-rich Foothill Forest. However, on-ground assessments conducted by Abzeco (2021) have revealed the presence of a third EVC, Swampy Riparian Woodland as shown in Map 2 below.

The Grassy Dry Forest and Herb-rich Foothill Forest EVCs are well-preserved and adequately represented within the two bioregions. By contrast, the occurrence of the Swampy Riparian Woodland in good condition is infrequent in either bioregion and typically limited to gullies where agricultural dams and grazing activities are established. Consequently, the presence of this example of

the Swampy Riparian Woodland on public land holds significance and warrants focused management efforts to mitigate the loss of this vegetation type, which is prevalent in the privately owned land dominating the Shire.



View from Monument Hill Reserve towards Broadford.

Map 2. Distribution of Bioregions and Ecological Vegetation Classes (Abzeco 2021).

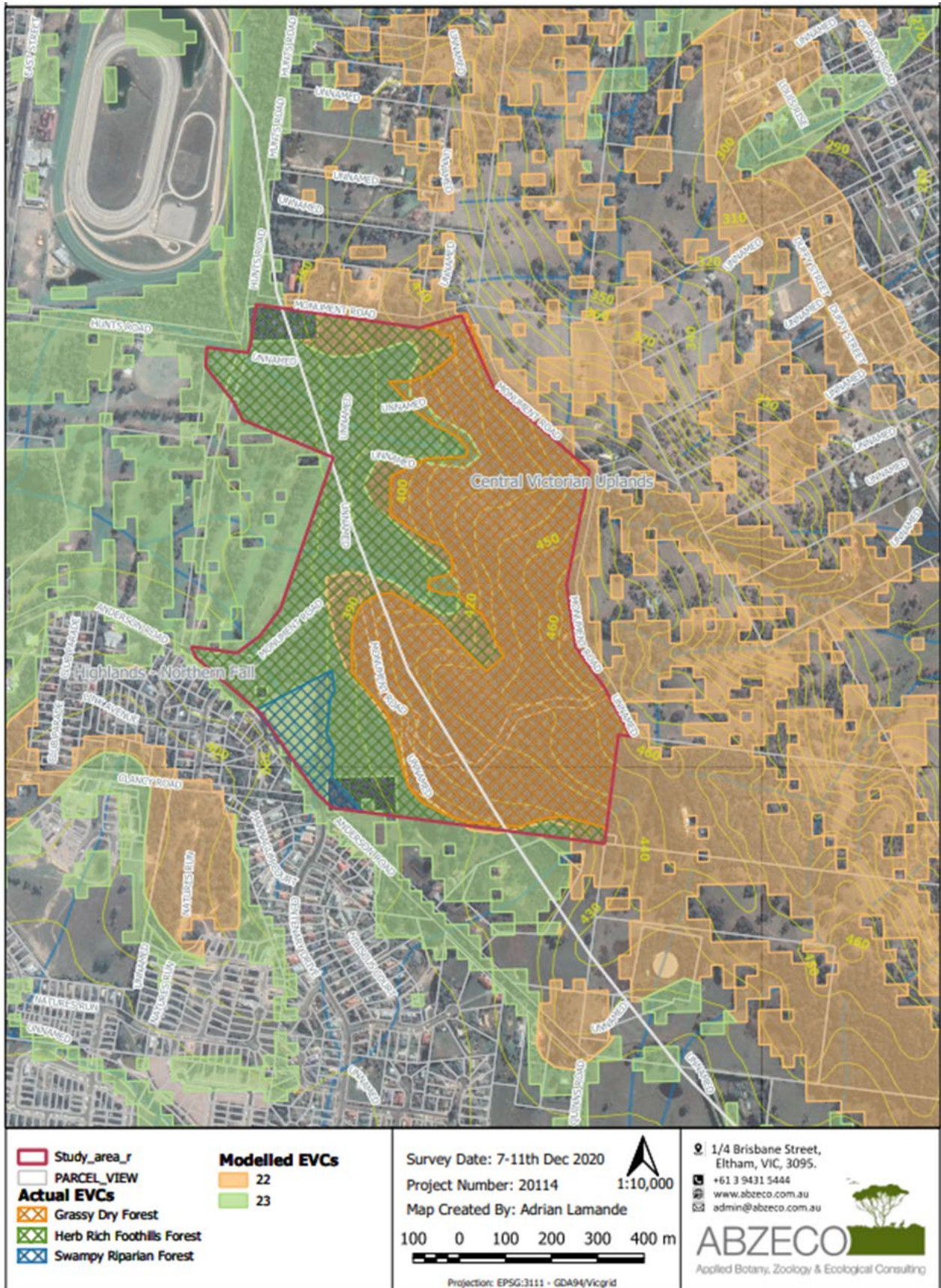


Table 2. Ecological Vegetation Classes present within the Monument Hill Reserve**Conservation Status within each bioregion**

LC = Least Concern

D = Depleted

V = Vulnerable

En = Endangered

EVC no.	EVC name	Conservation Status		General description	Description within the Monument Hill Reserve
		CVU	HNF		
22	Grassy Dry Forest	D	LC	<p>Occurs on a variety of gradients and altitudes and on a range of geologies. The overstorey is dominated by a low to medium height forest of eucalypts to 20m tall, sometimes resembling an open woodland with a secondary, smaller tree layer including several Acacia species.</p> <p>The understorey usually consists of a sparse shrub layer of medium height. Grassy Dry Forest is characterised by a ground layer dominated by a high diversity of drought-tolerant grasses and herbs, often including a suite of fern species.</p>	<p>The Grassy Dry Forest EVC occurs at higher altitudes, typically above the 400m contour line, in the eastern two thirds of the reserve. It is characterized by an intact eucalypt canopy composed primarily of Broad Leaf Peppermint <i>Eucalyptus dives</i> and Long Leaf Box <i>Eucalyptus gonicalyx</i>, along with pockets of other eucalypt species such as Grey Box <i>Eucalyptus microcarpa</i>, Yellow Box <i>Eucalyptus melliodora</i>, and Narrow Leaf Peppermint <i>Eucalyptus radiata</i> in lower altitudes and areas that integrate with Herb-rich Foothills Forest EVC.</p> <p>Although few large old trees still occur within this EVC in the reserve, several mature specimens are present and contain hollows and other habitat features. The canopy is accompanied by few large to medium shrubs and trees such as Sifton Bush <i>Cassinia sifton</i>, Silver Wattle <i>Acacia dealbata</i>, and Blackwood <i>Acacia melanoxylon</i>.</p> <p>The understory is composed of shrubs and herbs, including Creeping Bossiaea <i>Bossiaea prostrata</i>, Common Hovea <i>Hovea hetrophylla</i>, and Grey Parrot-pea <i>Dillwynia cinerascens</i>, and various grasses and lilies and orchids such as Chocolate Lily <i>Arthropodium strictum</i>, Nodding Chocolate Lily <i>Arthropodium fimbriatum</i>, Pale Vanilla Lily <i>Arthropodium milleflorum</i>, Early Nancy <i>Wurmbea diocea</i>, and Slender Onion Orchid <i>Microtis parvifolia</i>. However, in several places exotic grasses dominate, suppressing the recruitment and growth of indigenous herbs.</p>
23	Herb-rich Foothill Forest	D	LC	<p>Occurs on relatively fertile, moderately well-drained soils on an extremely wide range of geological types and in areas of moderate to high rainfall. Occupies easterly and southerly aspects mainly on lower slopes and in gullies. A medium to</p>	<p>The Herb-rich Foothill Forest EVC represents the western third of the Reserve, located below the 400m contour line. The canopy is dominated by Messmate <i>Eucalyptus obliqua</i>, with pockets of Manna Gum <i>Eucalyptus viminalis</i>, Narrow Leaf Peppermint, and Yellow Box. In areas where this EVC intergrades with Grassy Dry Forest, Long Leaf Box and Grey Box are also present.</p> <p>Mid-storey species in this EVC include Silver Wattle and Blackwood which are common in southern areas, while Black Wattle <i>Acacia mearnsii</i> is found in northern areas. In some</p>

				<p>tall open forest or woodland to 25m tall with a small tree layer over a sparse to dense shrub layer. A high cover and diversity of herbs and grasses in the ground layer characterise this EVC.</p>	<p>instances, a mix of semi-mature and juvenile Acacia's have formed dense thickets, likely a result of past disturbances.</p> <p>Hop Bitter-pea <i>Daviesia latifolia</i> is relatively abundant just east of the reserve's western boundary. In other areas, the shrub layer is generally sparse but occasionally thick, with species such as Sifton Bush, Cherry Ballart <i>Exocarpus cupressiformis</i>, and Burgan <i>Kunzea leptospermoides</i>.</p> <p>The ground layer is comprised of a range of small shrubs such as Slender Rice Flower <i>Pimelea linifolia</i>, and herbs such as Hairy Pennywort <i>Hydrocotyle hirta</i>, Common Raspwort <i>Gonocarpus tetragynus</i>, Kidney Weed <i>Dichondra repens</i>, and Tall Sundew <i>Drosera auriculata</i>.</p> <p>A diverse mix of Wallaby Grasses <i>Rytidosperma species</i> occur in the ground-storey, along with Weeping Grass <i>Microlaena stipoides</i> and Wheat Grass <i>Anthosachne scabra</i> and areas where both Spear Grasses <i>Austrostipa rudis subspecies. nervosa</i> and <i>Austrostipa rudis subspecies. rudis</i> occur. The lily and orchid diversity are also high, with species such as Milkmaids <i>Burchardia umbellata</i>, Early Nancy, Chocolate Lily, Yellow Rush Lily <i>Tricoryne elatior</i>, Twining Fringe-lily <i>Thysanotus patersonii</i>, and Black-anther Flax-lily <i>Dianella admixta</i> occurring throughout. While the flora diversity is generally high, the exotic grasses dominate the understorey, suppressing indigenous herb recruitment and growth.</p>
83	Swampy Riparian Woodland	En	V	<p>Woodland to 15 m tall generally occupying low energy streams of the foothills and plains. The lower strata are variously locally dominated by a range of large and medium shrub species on the stream levees in combination with large tussock grasses and sedges in the ground layer.</p>	<p>The Swampy Riparian Woodland EVC is found in gully areas located south of the Monument Hill dam. The canopy is formed by semi-mature to juvenile Manna Gum <i>Eucalyptus viminalis</i> and Swamp Gum <i>Eucalyptus ovata</i>, supporting an open grassland environment. Many of the structural elements, such as small shrubs and herbs, are largely absent.</p> <p>The ground layer vegetation is sparse, with exotic grasses such as Yorkshire Fog <i>Holcus lanatus</i> and Sweet Vernal Grass <i>Anthoxanthum odoratum</i> dominating the understory. While some indigenous grasses, such as Weeping and Wallaby Grass, can also be found, they are less plentiful. The herb layer is similarly sparse, with only a few scattered species like Common Raspwort and Kidney Weed <i>Dichondra repens</i> present.</p> <p>The lack of structural elements in this EVC results in lower diversity and less structural complexity compared to other vegetation types found in the reserve.</p>

3.4.4 Federally Protected Communities

Table 3 below lists the federally protected ecological communities identified by the *EPBC Act* - Protected Matters Search Tool (PMST) as potentially occurring within the Monument Hill reserve. These communities are marked in the PMST as 'known to occur', or 'likely to occur' within the surrounding landscape. Based on the vegetation assessment conducted by Mitchell (2011) and Abzeco (2021) it can be inferred that neither ecological community is represented by the vegetation present within the reserve.

Table 3. EPBC listed ecological communities' potential occurring on site

Community	Status	Description	EPBC Act PMST Report Status	Present within the reserve?
Grey Box (<i>Eucalyptus microcarpa</i>) Grassy Woodlands and Derived Native Grasslands of South-eastern Australia	Endangered	The Grey Box (<i>Eucalyptus microcarpa</i>) Grassy Woodlands and Derived Native Grasslands of South-eastern Australia (Grey Box Grassy Woodlands for short) is an endangered ecological community listed under national environment law. It mostly occurs from central NSW, through northern/central Victoria into eastern South Australia. The ecological community occurs in two forms, a grassy woodland form and as a derived native grassland.	Community may occur within the area	No The vegetation on site does not meet the Key Diagnostic Criteria for this Community
White Box-Yellow Box-Blakeley's Red Gum Grassy Woodland and Derived Native Grassland	Critically Endangered	This ecological community can occur as either a woodland or derived grassland. It has a ground layer of native tussock grasses and herbs, and a sparse, scattered shrub layer. White Box <i>Eucalyptus albens</i> , Yellow Box <i>Eucalyptus melliodora</i> or Blakeley's Red Gum <i>Eucalyptus blakeleyi</i> dominate where a tree layer still occurs.	Community likely to occur within the area	No The vegetation on site does not meet the Key Diagnostic Criteria for this Community

3.4.5 Flora

A compilation of species from various records and scientific databases has identified a total of 277 vascular plant species within the Monument Hill Reserve (Appendix 2). Among them, 211 species are indigenous, 57 are introduced, and 9 are Australian native species that are not indigenous to the reserve. The reserve is known for its abundance of wildflowers, including several rare and threatened

orchid species. Several species within the reserve are listed as threatened under the *EPBC Act* and/or *FFG Act* (Table 4).

Table 4. Threatened flora listed under the EPBC or FFG Act present within the Monument Hill Reserve.

Scientific Name	Common Name	EPBC Act	FFG Act
<i>Acacia howittii</i>	Sticky Wattle ¹	-	Vulnerable
<i>Caladenia concolor</i>	Crimson Spider-orchid	Vulnerable	Endangered
<i>Comesperma polygaloides</i>	Small Milkwort	-	Critically Endangered
<i>Dipodium pardalinum</i>	Spotted Hyacinth-orchid	-	Endangered
<i>Eucalyptus yarraensis</i>	Yarra Gum	-	Critically Endangered
<i>Lachnagrostis semibarbata</i> var. <i>semibarbata</i>	Purple Blown-grass	-	Endangered
<i>Podolepis linearifolia</i>	Basalt Podolepis	-	Endangered
<i>Rytidosperma monticola</i>	Small-flower Wallaby-grass	-	Endangered

Weeds

A total of 66 weed species are present within the Monument Hill Reserve, of which 11 are listed as noxious weeds under the *Catchment and Land Protection Act 1994* (CaLP Act) and are designated as either 'Controlled' or 'Restricted' within the Goulburn region of Victoria (Abzeco, 2021) (Table 5).

Table 5. Noxious weeds present within the Monument Hill Reserve

Scientific Name	Common Name	CaLP Act status
<i>Carduus tenuiflorus</i>	Slender thistle	Restricted
<i>Cirsium vulgare</i>	Spear Thistle	Restricted
<i>Crataegus monogyna</i>	Hawthorn	Controlled
<i>Echium plantagineum</i>	Paterson's Curse	Controlled
<i>Genista monspessulana</i>	Cape Broom	Controlled
<i>Oxalis pes-caprae</i>	Sour Sob	Restricted
<i>Rosa rubiginosa</i>	Briar Rose	Controlled
<i>Rubus fruticosus</i> spp. <i>agg.</i>	Blackberry	Controlled
<i>Salix cinerea</i>	Pussy Willow	Restricted
<i>Ulex europaeus</i>	Gorse	Controlled
<i>Watsonia meriana</i> var. <i>bulbillifera</i>	Wild Watsonia	Restricted

Under the *CaLP Act*, a 'Controlled' weed is considered widespread within the region, and landowners are responsible for containing the spread of controlled weeds on their land. By contrast, a 'Restricted' weed

¹ Sticky Wattle plants found within the Monument Hill Reserve are considered outside of their natural range and therefore not protected under the FFG Act.

poses a serious threat to ecosystem functioning and primary production. Therefore, trade in these weeds and their propagules, either as plants, seeds, or contaminants in other material, is strictly prohibited.

Additionally, several non-indigenous flora species within the reserve are also considered environmental weeds by Mitchell Shire Council and DEECA (DEWLP 2018) including:

- Yorkshire Fog *Holcus lanatus*
- English Ivy *Hedera helix*
- Cape Ivy *Delairea odorata*
- Holly *Ilex aquifolium*
- Radiata Pine *Pinus radiata*
- Sweet Briar Rose *Rosa rubiginosa*
- South African Weed-orchid *Disa bracteata*
- Spanish Heath *Erica lusitanica*
- Cootamundra Wattle *Acacia baileyana*

3.4.6 Fauna

The Monument Hill Reserve is home to a number of habitat features, such as hollow-bearing trees, rocks and boulders, and logs, which provide essential habitats for a diversity of fauna species. A total of 78 native and 6 invasive fauna species have been recorded within the reserve, including 49 bird species, 15 invertebrate species, 14 mammal species, 3 reptile species, 2 amphibian species, and 1 fish species (Appendix 3). Among the fauna species identified, several are listed as threatened under the *EPBC Act* and/or the *FFG Act* (Table 6).

Table 6. Threatened fauna under the EPBC or FFG Acts present within the Monument Hill Reserve.

Scientific Name	Common Name	EPBC	FFG
<i>Phascogale tapoatafa</i>	Brush-tailed Phascogale	-	Vulnerable
<i>Sminthopsis murina</i>	Common Dunnart	-	Vulnerable
<i>Ninox connivens</i>	Barking Owl	-	Critically Endangered
<i>Ninox strenua</i>	Powerful Owl	-	Vulnerable
<i>Callocephalon fimbriatum</i>	Gang-gang Cockatoo	Endangered	Endangered

The presence of these species within the Monument Hill Reserve highlights its ecological value and underscores the importance of conserving and protecting the reserve's ecological integrity. It also serves as a testament to the success of the reserve's ongoing conservation efforts.

Pest Animals

The Monument Hill Reserve is home to several pest animals, including the European Hare *Lepus europaeus*, European Rabbit *Oryctolagus cuniculus*, Red Fox *Vulpes vulpes*, Feral Cat *Felis catus*, Feral Deer *Cervidae* spp., and European Perch *Perca fluviatilis*. Although the impact of invasive species on the ecological values of the reserve has not been measured, it is crucial to take action to manage these species and support the survival of several threatened flora and fauna species within the reserve. The potential impact these species are having on the reserves ecological values is discussed in the Table 7 below.

Table 7. Potential impact of pest animals on the Monument Hill Reserve's ecological values

Pest Animal	Potential Impact on the reserve's ecological values
Rabbits, Hares, and Deer	The grazing and browsing habits of the European Hare, European Rabbit, and Feral Deer can lead to a reduction in biomass, the degradation of indigenous flora, and alterations to ecological communities through selective grazing, negatively affecting the survival of native fauna. The European Rabbit alone is considered such a threat to native ecosystems, the species is identified as a 'key threatening process' under the EPBC Act. Both Mitchell (2011) and Abzeco (2021) indicated that the invasive herbivores in the reserve may be causing the low recruitment rate of canopy species.
Red Fox and Feral Cats	Red Fox and Feral Cats have caused significant and ongoing harm to native species throughout Australia by preying on a wide range of animals and competing with native predators for food and territory. The impact has been particularly devastating for ground-dwelling and burrowing species, contributing to population declines and extinctions nationwide. The presence of these species is particularly concerning given the presence of two vulnerable mammals within the reserve: the Brush-tailed Phascogale and the Common Dunnart.
European Perch	The European Perch is present within the Monument Hill Dam and was recently photographed by Mitchell Shire Council Staff during the most recent flooding event in 2022. This species predated on native fish species and is a known carrier of the Epizootic Haematopoietic Necrosis Virus (EHNV), further threatening native species. Although an assessment of fauna within the Monument Hill Dam has not been conducted, the need to manage this species should be considered.

3.4.7 Fungi

Fungi play a crucial role in terrestrial ecosystems, supporting their ecological functionality and resilience. Fungi primarily contribute to organic matter recycling, and many plant species engage in mutually beneficial partnerships with fungi. Additionally, fungi serve as significant sources of habitat and food for native fauna.

The Monument Hill Reserve hosts a total of 114 species of fungi, spanning multiple groups such as *Ascomycetes*, *Basidiomycetes*, and *Zygomycetes*. Among them, several species are recognised as indicator species, as they offer valuable insights into the overall ecological well-being of the ecosystem.

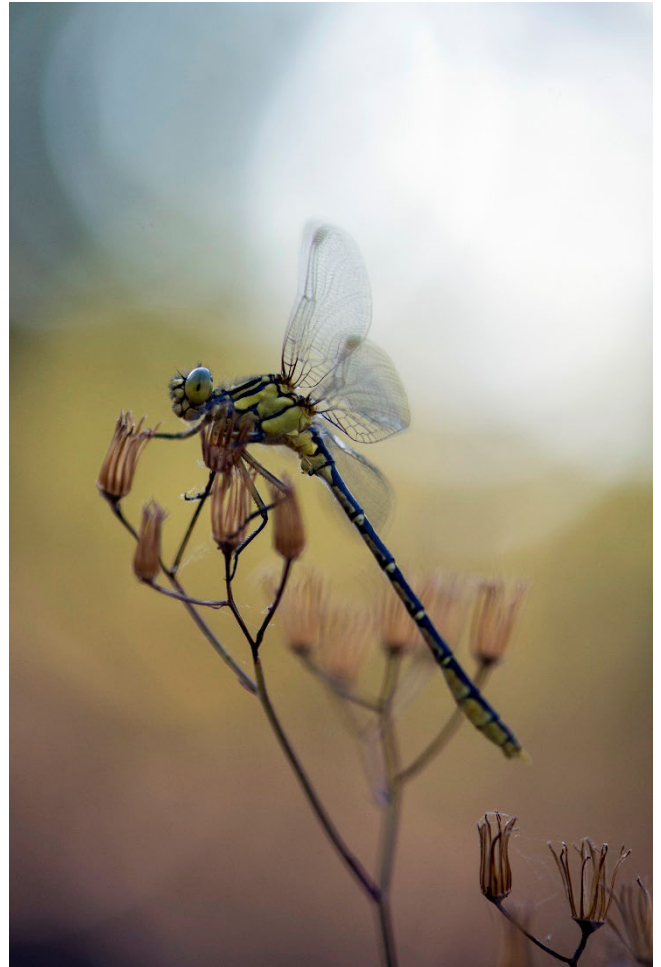
3.4.8 Habitat Connectivity within the Broader Landscape

The Monument Hill Reserve is within a landscape dominated by residential and agricultural land, where native vegetation has been largely removed and degraded. As one of the few large patches of native vegetation in the region, the reserve plays a critical role in maintaining the region's ecological integrity.

Within the surrounding landscape, the remaining patches of native vegetation are mostly confined to roadsides, property boundaries, Crown land surrounding the Kilmore Racecourse, Kilmore Golf Club, and the significant patches of native vegetation along the nearby Kilmore Creek and Dry Creek. Combined, this collection of patches of vegetation within the surrounding landscape act as ecological

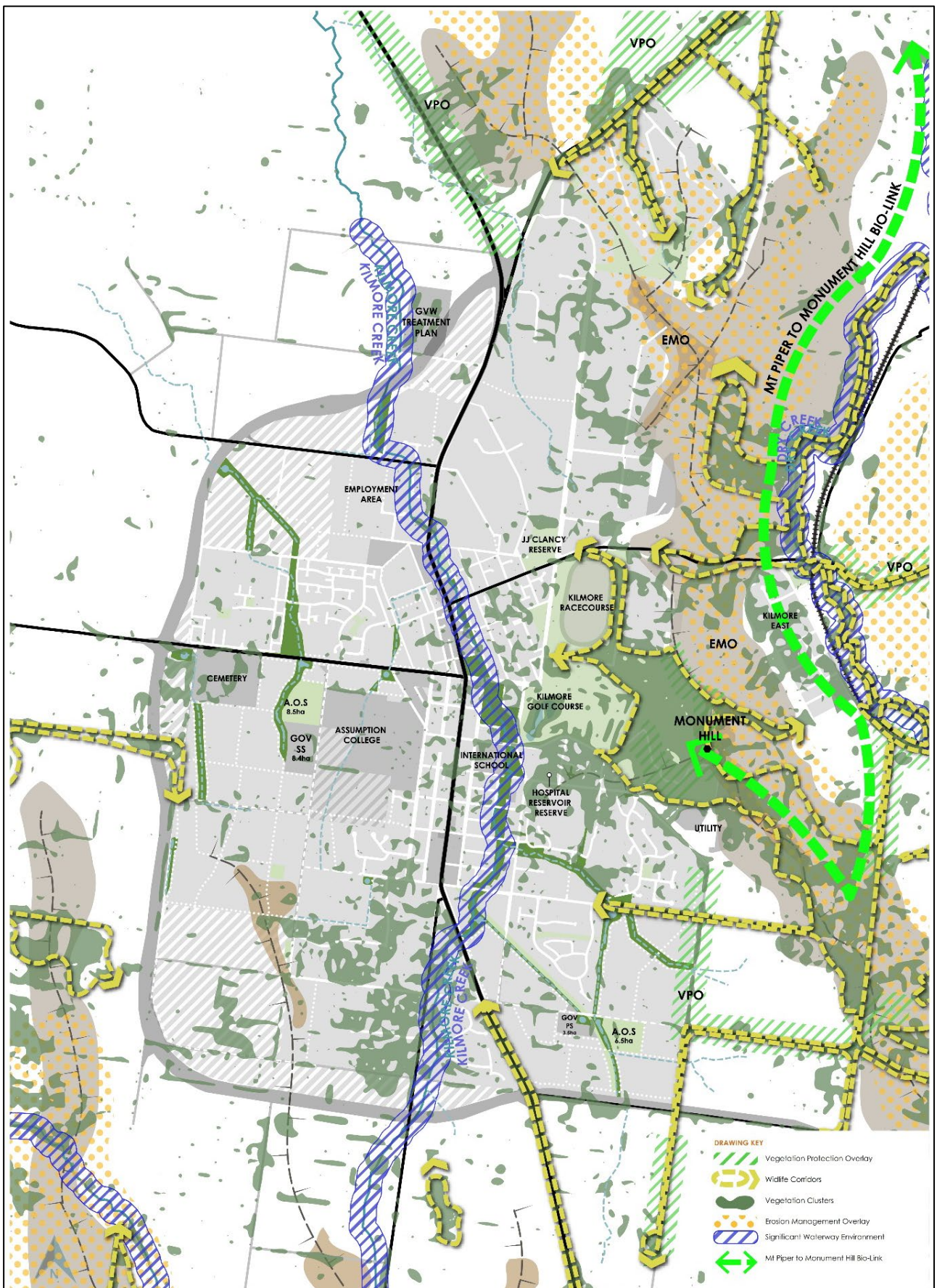
corridors for fauna, connecting the Monument Hill Reserve to other large patches of native vegetation nearby (Figure 3).

The Mt Piper – Monument Hill Bio-link is considered the most significant habitat corridor in the landscape. Initially established by the South West Landcare Group in collaboration with the GBCMA, the Mt Piper – Monument Hill Bio-link project has involved the revegetation and fencing of native vegetation on farmland and along the Dry Creek between Mt Piper and the Monument Hill Reserve. The conservation and further enhancement of the Mt Piper – Monument Hill Biolink should be an objective of any future municipality and catchment wide management plan.



Thysanotus patersonii and Dragonfly *Austrogynacantha heterogena* in Monument Hill Reserve. © Alison Pouliot.

Figure 3. Habitat corridor within the surrounding landscape (Mitchell Shire Council 2016).



3.5 Historical Values and Uses

3.5.1 Indigenous

The Monument Hill Reserve has significant cultural and spiritual importance to the Taungurung people, who used the area for a variety of purposes including food and resource gathering, as well as cultural, spiritual, and ceremonial practices. The Taungurung people were the earliest settlers in the Kilmore area and held strong cultural values for many of the native flora and fauna present in the reserve. While one mapped area of Aboriginal Cultural Heritage Sensitivity exists near the southern boundary of the reserve (Figure 2), no formal indigenous cultural heritage surveys have been conducted in the reserve.

3.5.2 European

The Monument Hill Reserve also has a rich history that dates from the early days of European settlement in the Kilmore area. It is one of the oldest known lookouts in Victoria, and has been highly valued as such for generations. The reserve was assigned as a public park in 1911.

During the exploration of inland Australia in 1824, the Hume and Hovell expedition passed through the Kilmore area. This expedition, led by explorers Hamilton Hume and William Hovell, played a vital role in the exploration of the Australian continent. In 1924, the Hume and Hovell monument was erected on Monument Hill to commemorate this historic expedition.

The monument is a rectangular tower structure approximately 7.8m tall, of coarse quarry faced bluestone ashlar with subtle quoining at the corners and simple rectangular viewing openings in the upper walls and roof. The stone was reused from a demolished watchtower at the Kilmore Gaol (1859). Set into the exterior of one of the walls is a smooth white marble plaque with finely crafted black lettering that is surrounded by a mixture of roughly tooled, and quarry-faced, bluestone ashlar. A red brick interior wall supports a winding staircase, constructed of bluestone steps, leading to the top of the tower. The top of the monument is finished with concrete (replaced in 1999) and is accessed via a metal ladder set in concrete sides, and then through a rectangular opening in the concrete. The black painted metal balustrade was restored in 1999 to resemble the balustrade design illustrated in early photographs and further modifications have since been made. There is a Geodetic Survey Victoria Triangulation Station marker set into the concrete.

While the monument is widely believed to exist along the route traversed by Hume and Hovell, recent research has questioned this belief. At the time of writing Heritage Victoria is assessing this new information in light of their inclusion of the Monument in the Victorian Heritage Register in 2015.

The monument at Monument Hill Reserve has become a recognisable landmark in the Kilmore region, drawing many visitors to the reserve. Its unique design and construction have given it significant historical value, making it a vital cultural highlight of the reserve. Furthermore, the monument represents the largest monument dedicated to the Hume and Hovell expedition in Victoria. As a tribute to the exploration of inland Australia and the rich history of the Kilmore region, the monument serves as a symbolic reminder and a crucial cultural and historical destination for the local community, offering a tangible link to the past and a vital focal point for the reserve.

Former Pine Plantations

During the mid-twentieth century, the reserve contained pine plantations associated with Wandong Primary School and Kilmore Primary School, situated adjacent to Hunts Road and Andersons Road, that were established for commercial purposes. These plantations were under the management of the Forests Commission Victoria. In the 1970s, the land was returned to the reserve and periodic removal of the pines has since taken place, including a large-scale pine removal project accomplished by Mitchell Shire Council in 2018. Despite this, pine saplings continue to regrow. The sites of former pine plantations have undergone natural regeneration and are now dominated by acacia species and shrubs including *Cassinia sifton*, which are indicative of the early stages of woodland succession following a disturbance. These regenerated areas are vital habitats within the reserve, providing essential foraging and refuge habitat for the native fauna.



Chocolate Lilies (*Anthropodium strictum*) in bloom at Monument Hill Reserve.

3.6 Threats and Challenges to the Reserve

Several management challenges persist within the Monument Hill Reserve that threaten the ecological and cultural values of the reserve. A summary of these challenges is provided below.

Unauthorised Motor Vehicle and Trail bike Access

Unauthorised 4WD vehicles and motorised trail bikes within the reserve has detrimental effects on the environment, causing soil erosion, habitat fragmentation, degradation of native vegetation, and contributes to the spread of weeds. Additionally, these activities pose a safety hazard to other reserve visitors. To date, measures such as installing bollards, boulders, signs, surveillance cameras, and increased enforcement have been implemented to deter these behaviours with some success.

Under the *Land Conservation (Vehicle Control) Act 1972* and the associated Land Conservation (Vehicle Control) Regulations 2013 it is an offence to drive motorised vehicles off-road within the reserve.

Unauthorised Construction of BMX/Mountain Bike Tracks and Jumps

The unauthorised construction of BMX/mountain bike tracks and jumps negatively impacts the reserve's ecological values by causing the loss of native vegetation, soil erosion, habitat fragmentation, and disturbs wildlife. The use of these tracks and jumps also poses a significant safety concern to both riders and visitors walking through the reserve. Ongoing efforts to discourage these activities include removing jumps and revegetating areas, blocking tracks, and installing signs and surveillance cameras. Under the *Land Conservation (Vehicle Control) Act 1972* and the associated Land Conservation (Vehicle Control) Regulations 2013, it is an offence to ride unmotorised vehicles off designated tracks.

Illegal Rubbish Dumping and littering

The illegal dumping of rubbish and littering in the reserve can contaminate the soil and water, harm wildlife, introduce invasive species, decrease the reserve's aesthetic value and in some cases poses a risk to fauna and park users. Surveillance cameras have been installed to deter this behaviour, and visitors are encouraged to take their rubbish home with them. Regular litter patrols are currently undertaken in the reserve and illegally dumped waste is collected when reported.

Illegal Firewood Collection

Unauthorised gathering of firewood intermittently takes place within the reserve, posing a significant threat to critical habitats for indigenous fauna. Logs and branches, often referred to as "coarse woody debris" by ecologists, serve as vital shelter for native fauna and contribute to erosion prevention within the reserve. Signs and surveillance cameras have been installed to discourage this behaviour, and collecting firewood without permission remains an offense under Councils Local Law.

Use of Monument Road as a Walking Track

Monument Road is a popular route for visitors to explore the reserve, but the lack of dedicated pedestrian paths along the roadside pose safety risks for pedestrians and drivers. While there is a network of walking trails throughout the reserve, and pedestrian warning signs have been installed along Monument Road, this behaviour persists, necessitating further efforts to address the risks.

Erosion of Tracks

Erosion of tracks is a significant problem in the reserve, caused by factors such as inappropriate 4WD and motorised trail bike use, unauthorised BMX/mountain bike activities, increasing foot traffic, topography, soil type and drainage. This degradation of walking tracks negatively impacts visitor access, and nearby vegetation and water quality. Spoon drains have been implemented on certain tracks to mitigate erosion. However, further work to minimise erosion is required throughout most of the

reserve's track network. The trail network has been earmarked for upgrade commencing in 2024. Part of the track/trail network also requires maintenance vehicles and emergency vehicle access.

Domestic Dogs

Off-leash dogs within the reserve can disturb and harm native wildlife, damage vegetation, and pose a safety risk to other visitors. While dogs are allowed off-leash under effective control, leashing dogs is strongly recommended to ensure that the ecological values of the reserve including native fauna are protected. A review of laws is necessary to enforce leashing requirements. This review can only be conducted following a gazettal by the Victorian State Government, as stipulated under the *Domestic Animals Act of 1994*.

Management of Horse-riding Activities

Horse-riding is a popular recreational activity within the reserve, which contributes to its community value. However, this activity can cause soil compaction, erosion, damage vegetation, impact fauna habitat and contribute to the spread of weeds through manure deposits. It is a requirement under *Community and Environment Local Law 2022*, Section 4.4 Removal of Animal Excrement, that owners must collect and appropriately dispose of all pet waste. Moreover, while horse-riding along Monument Road is permitted under law, it poses a potential safety risk to drivers, horse riders, and other visitors.

Management of the local Eastern Grey Kangaroo (EGK) Population

Human-wildlife interactions with the resident EGK population poses a safety risk to visitors and their pets. Additionally, through the overgrazing of native vegetation, EGK can alter the plant community structure, leading to soil erosion, loss of habitat for other wildlife, and a decline in floristic community and species diversity. At present, the density and size of the local EGK population remain unknown, and their impact on the reserve is poorly understood.

Invasive Fauna

The presence of invasive species including European Hare *Lepus europaeus*, European Rabbit *Oryctolagus cuniculus*, Red Fox *Vulpes vulpes*, Feral Cat *Felis catus*, Feral Deer *Cervidae spp.*, and European Perch *Perca fluviatilis* has a significant impact on the reserve's ecological values. These species outcompete native species, alter habitats, and disrupt ecological processes. Active management of invasive fauna is currently lacking, and the extent of their impact is unknown.

Weeds

There are a number of declared noxious and environmental weeds within the reserve that are threatening the ecological integrity by out-competing native vegetation, reducing biodiversity, and impacting soil health and nutrient cycling. While noxious and environmental weeds are actively managed, the management of exotic grasses including Sweet Vernal Grass *Anthoxanthum odoratum* is necessary and will need to be implemented strategically to ensure the best possible ecological outcomes considering resource constraints.

Fire Risk

The reserve is at risk of bushfires due to the presence of flammable vegetation, such as species with fibrous bark and dense grass cover. The reserve represents the largest continuous area of vegetation near Kilmore. A fire originating in the reserve could escalate to levels and speeds that emergency services may not be able to control.

In May 2021, GHD, in collaboration with Mitchell Shire Council, DEECA, CFA, and TLaWC, developed the *Monument Hill Reserve Fuel Management Plan* (GHD 2021) to manage fuel loads within the reserve.

Considering the high risk of fire and the ongoing community concern about fire risk, it is crucial that the Fuel Management Plan be implemented.

Degraded Ecological Components

Recent assessments of the vegetation in the reserve have shown that several degraded components are not meeting the expected standards compared to the established benchmarks for the specific Ecological Vegetation Classes (Mitchell, 2011; Abzeco, 2021). The identified degraded components include:

- Insufficient recruitment of canopy species;
- Limited abundance and diversity of understory trees and shrubs;
- Low abundance of herbaceous species;
- Low abundance of graminoids including grasses and sedges; and
- Inadequate abundance of logs.

Ecological assessments of the reserve have also highlighted the relative absence of large hollows throughout the reserve (TREC Consulting, 2021). These deficiencies indicate opportunities for enhancing the ecological value of the reserve through conservation and restoration efforts, necessitating conservation and restoration as a management goal within this plan.

Considering resource limitations, it becomes imperative to prioritise conservation and restoration initiatives in ecologically significant areas. For example, the regional significance of the Swampy Riparian Woodland within the reserve, necessitates focused management efforts to conserve and improve this area. Moreover, the Monument Hill Reserve dam should be recognised as an ecological asset, providing vital habitat for various fauna species within the reserve.

Climate Change

The reserve's cultural and ecological values are at risk due to the impacts of climate change. Rising temperatures and shifting precipitation patterns may disturb the delicate balance of ecosystems, affecting the distribution and behavior of plant and animal species. Additionally, there may be an increase in the frequency and intensity of extreme weather events, such as storms, which could cause damage to infrastructure and habitats within the reserve. Mitchell Shire Council is currently developing a Climate Emergency Action Plan to assist both Council and the community to address the impacts of climate change.

Increased Residential Development and Visitation

The growing residential development in the surrounding landscape is expected to increase pressure on the ecological and cultural values of the reserve, due to both increased visitation and fragmentation of surrounding habitats. As such, it becomes essential to carefully consider how to accommodate this heightened visitation in a way that preserves the reserve's ecological and cultural values during future management decisions, whilst also enhancing the visitor experience and increases opportunities to connect to nature.

Additionally, as development increases, the importance of the reserve for conserving the biodiversity of Mitchell Shire also increases. It is crucial to conserve the reserve and maintain existing ecological corridors connecting it to the surrounding landscape. This interconnectedness is crucial for sustaining robust populations of flora and fauna, maximising habitat values in nodes of habitat such as Monument Hill Reserve and enhancing the overall ecological resilience of the region.



Sticky Everlasting (*Xerochrysum viscosum*) in Monument Hill Reserve. © Alison Pouliot.



4 Goals and Objectives

The Monument Hill Reserve requires a clear and comprehensive set of goals that serve as a guiding framework for effective management.

These goals provide direction and purpose, outlining the desired outcomes that need to be achieved within the reserve. By establishing specific goals and objectives, defined actions can be developed that are aimed at addressing the various management challenges. Moreover, these goals and objectives go beyond mitigating challenges; they also aim to enhance the ecological and cultural values of the reserve. Simultaneously, they cater to the needs and aspirations of the local community.

Goal 1: Improve Ecological Monitoring and Data Collection

Monitoring and data collection play a critical role in understanding and safeguarding the Monument Hill Reserve's ecological values. By increasing ecological monitoring and data collection, several knowledge gaps can be addressed, including:

- Assessing the population size and distribution of endangered species within the reserve;
- Mapping the spread of invasive plant species;
- Determining the abundance and distribution of tree hollows;
- Evaluating the impact of the local EGK population; and
- Investigating the abundance, distribution, and impact of invasive fauna.

By bridging these knowledge gaps and enhancing understanding of the reserve's ecological values, comprehensive baseline data will be established. This data will enable changes in biodiversity to be monitored and assist to evaluate the effectiveness of management actions over time.

Objectives

To the following management objectives will assist in achieving this goal:

- Encourage community data collection/reporting;
- Identify 'high priority' zones to inform management actions;
- Conduct regular ecological assessments; and
- Engage with academic institutions and research organisations.

The objective of *identifying 'high priority' zones to inform management actions* will provide valuable inputs for effective conservation measures. These zones can be defined if one of the following criteria are met:

1. Does the zone contain threatened flora populations?
2. Does the zone contain critical habitats supporting the breeding and feeding of threatened fauna?
3. Does the zone contain a high or above EVC benchmark for a particular ecological component or possess a high rapid habitat assessment score?

Adopting this approach will enable resources to be strategically allocated to protect and enhance the ecological significance of these specific areas within the reserve. Over time, this approach will expand efforts beyond these core areas, increasing their size and ecological resilience.



Hop Bitter Pea (*Daviesia latifolia*) at Monument Hill Reserve. © Alison Pouliot.

Goal 2: Protect, Enhance and Restore the Ecological Values of the Reserve

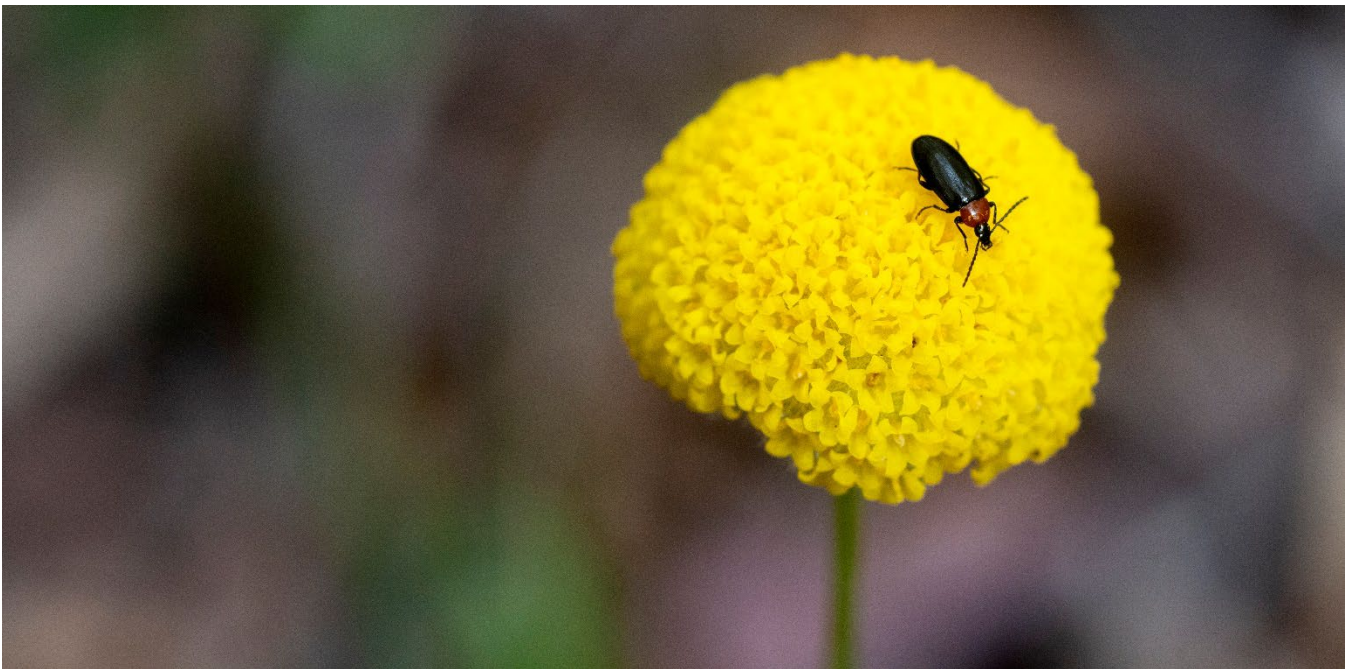
The presence of threatened flora and fauna and degraded ecological components within the Monument Hill Reserve necessitates efforts to enhancing the ecological value of the reserve through conservation and restoration works. Considering resource limitations, it becomes imperative to prioritise conservation and restoration initiatives in ecologically significant areas. These include designated 'high priority' zones (as described above), the Swampy Riparian Woodland, and the Monument Hill Reserve dam.

Additionally, it is essential to protect and enhance existing ecological corridors between the reserve and other significant patches of native vegetation throughout Mitchell Shire to mitigate habitat fragmentation, sustain robust populations of native flora and fauna, and to enhance the overall ecological resilience of the reserve and the broader region.

Objectives

The following management objectives will assist in achieving this goal:

- Conserve and enhance the quality of the Swampy Riparian Woodland (EVC83) within the reserve;
- Mitigate the impacts of invasive flora and fauna on the reserve's ecological values;
- Increase the ecological value of the Monument Hill Reserve Dam;
- Enhance available habitat for native fauna;
- Conserve and enhance the quality of identified 'high priority' zones; and
- Maintain and enhance the quality of existing wildlife corridors connecting the reserve to other significant native vegetation patches.



Common Billy Button (*Craspedia variabilis*) at Monument Hill Reserve. © Alison Pouliot.

Goal 3: Improve Accessibility and Safety in the Reserve

Improving accessibility and safety within the Monument Hill Reserve is necessary to ensure a positive and sustainable experience for visitors while safeguarding the integrity of the natural environment. Implementing effective management strategies to address this goal, will assist to provide a safe and accessible environment for all.

Furthermore, exploring opportunities to improve pedestrian and cycling links to connect the reserve with the Kilmore Township, particularly through the Kilmore Creek walking trail and the Kilmore Racecourse and recreational reserve track, will enhance accessibility for both the local community and visitors. This enhanced connectivity is expected to attract more people to visit and explore the reserve and its facilities, encouraging active lifestyles and contributing to the overall well-being of the community.

Prioritising accessibility and safety, will enhance visitor experiences, protect the delicate ecosystems, and help to foster a stronger sense of stewardship among the community.

Objectives

The following management objectives will assist in achieving this goal:

- Maintain and enhance existing formalised walking tracks and increase accessibility between town and the reserve;
- Upgrade interpretive signage to be educational and informative;
- Discourage inappropriate BMX/mountain bike access;
- Discourage inappropriate 4WD and trail bike access;
- Manage fuel loads within the reserve; and
- Maintain and enhance accessibility of management vehicles to the Monument Hill Reserve dam.



Track signage at Monument Hill Reserve.

Goal 4: Implement Actions to Minimise Illegal Activities in the Reserve

As aforementioned, various illegal activities persist within the Monument Hill Reserve, degrading its ecological values and posing safety concerns for visitors. Addressing illegal activities is essential to enhance the safety and enjoyment of the reserve for the public and its visitors, thereby creating a more welcoming and secure environment for outdoor recreation.

Furthermore, the preservation of the reserve's ecological integrity depends on maintaining a secure and regulated environment. Activities such as illegal firewood collection, off-road vehicle usage, and the improper disposal of waste represent immediate threats to the reserve's delicate ecosystem. Taking active measures to address these illegal activities is essential to ensure the conservation of rare and threatened species, the safeguarding of critical habitats, and the overall health of the ecosystem within the reserve.

As such, providing a stronger response to illegal activities occurring in the reserve is necessary to minimise the degradation of ecological values in the reserve and ensure public safety.

Objectives

The following management objectives will assist in achieving this goal:

- Utilise available enforcement measures to discourage illegal behaviours;
- Review appropriateness of dogs on/off lead within the reserve; and
- Review the effectiveness of enforcement strategies.



Hume and Hovell Monument at Monument Hill Reserve.

Goal 5: Increase Project Collaboration and Community Education and Engagement Opportunities

Cultivating a sense of interconnectedness among the Monument Hill Reserve and its diverse stakeholders, including the local community, through collaborative efforts, engagement, and educational initiatives, establishes a robust network of relationships and partnerships essential for addressing the multifaceted management challenges within the reserve. Promoting collaboration and engagement nurtures a shared sense of ownership, responsibility, and appreciation, empowering individuals and stakeholders to actively safeguard the ecological and cultural values held by the reserve.

Moreover, emphasising the reserve's role as an educational resource is pivotal in fostering an understanding and appreciation of its ecological and cultural significance. By actively encouraging local schools, community groups, and visitors to explore the reserve's ecosystem, history, and cultural importance, we empower them to become custodians. Education has the power to turn visitors into advocates, igniting their passion to preserve and conserve the reserve.

The pursuit of increased collaboration, education, and engagement is pivotal in ensuring the ongoing conservation of the reserve for both present and future generations.

Objectives

The following management objectives will assist in achieving this goal:

- Increase community awareness of the ecological and cultural values of the reserve and activities that can degrade these values;
- Foster engagement through the provision of volunteer opportunities;
- Promote and facilitate the use of the reserve as an educational resource;
- Maintain and improve passive recreational and educational infrastructure in the reserve to elevate its tourism appeal and make it a regional destination;
- Liaison with DEECA to discuss the gazettal of the reserve; and
- Continue educational activities to raise community awareness and understanding of fire risk and action to reduce fire risk.



View from the top of the Hume and Hovell Monument at Monument Hill Reserve.

Goal 6: Increase Recognition of the Reserve's Historical Values

This goal underscores the commitment to safeguarding the rich cultural history embedded within the Monument Hill Reserve, acknowledging and celebrating the reserve's dual Indigenous and European history. Monument Hill Reserve is a repository of diverse cultural narratives. By increasing recognition of the historical values of both Indigenous and European communities, this goal contributes to the enduring preservation of the historical significance of the reserve.

Collaboration and engagement with traditional custodians of the land, including the TLaWC is a crucial component of this goal. Such collaboration is essential for respecting and preserving Indigenous cultural heritage and facilitates further engagement between the reserve management and Indigenous communities. Integrating cultural heritage into decision-making processes through this collaborative effort ensures that Indigenous perspectives are not only acknowledged but also actively considered, leading to more effective and culturally sensitive management practices.

Additionally, education and awareness of cultural heritage values also plays pivotal roles in this endeavour. Initiatives such as educational programs, interpretive displays, and awareness campaigns are essential and can ensure that residents and visitors gain a deeper understanding and appreciation of the reserve's cultural heritage. This, in turn, promotes responsible visitation and safeguards the reserve's cultural values.

Objectives

The following management objectives will assist in achieving this goal:

- Recognise the European heritage of the reserve;
- Increase community engagement and education of Taungurung culture; and
- Increase engagement with the TLaWC beyond what is expected under the Land Use Activity Agreement.



Historical plaque on Hume and Hovell Monument at Monument Hill Reserve.

5 Action Plan

To achieve tangible results based on the defined management goals and objectives, a comprehensive implementation and action plan is essential. Presented in Appendix 1, this plan outlines a framework for accomplishing the desired goals within a ten-year period through targeted management actions. By clearly assigning responsibilities, establishing priorities, and estimating costs, the plan ensures a systematic and effective approach to meet the management goals for the Monument Hill Reserve. Moreover, this approach enables efficient resource allocation and ensures alignment with the conservation and community-oriented management goals.

5.1 Management Zones

To guide the management of the Monument Hill Reserve, the reserve has been separated into distinct management zones. These zones reflect the current state of the reserve, taking into account ecological values, cultural heritage, and existing infrastructure. Management zones are illustrated in map 3 below, and they are described as followed:

Conservation Zones (CZ)

Designated areas with significant ecological value, where management is focused on addressing degrading factors and preserving and enhancing existing ecological values.

Asset Protection Zones (APZ)

Aligned with the *Monument Hill Reserve Fuel Management Plan*, these zones encompass existing infrastructure and fuel management areas. The primary focus of management within these zones is asset protection and maintenance.

Bushfire Management Zone (BMZ)

As per the Monument Hill Reserve Fuel Management Plan, the BMZ aims to reduce the speed and intensity of bushfires and is designed to protect nearby assets.

Track Management Zone (TMZ)

Encompassing all tracks within the reserve, management within this zone is dedicated to maintaining accessibility throughout the reserve.

Monument Road Management Zones (MRMZ)

Encompassing Monument Road, this zone includes both the registered road and the fire access track. The primary objective of management within this zone is to ensure ongoing access for both regular and emergency vehicles into the reserve.

Aboriginal Cultural Heritage Zone (ACHZ)

Encompassing the 'area of cultural sensitivity' identified as registered Aboriginal cultural heritage places or land form types likely to contain aboriginal cultural heritage values. Management within this zone is focused on avoiding impacts to these values.

European Cultural Heritage Zone (ECHZ)

This zone aligns with the Victorian Heritage Register and encompasses the Hume and Hovell Tower. The primary focus of management within this zone is the preservation of the monument.

Where applicable, Management Zones have been further subdivided to address distinct management requirements. Detailed descriptions of these subdivisions are provided in the table below.

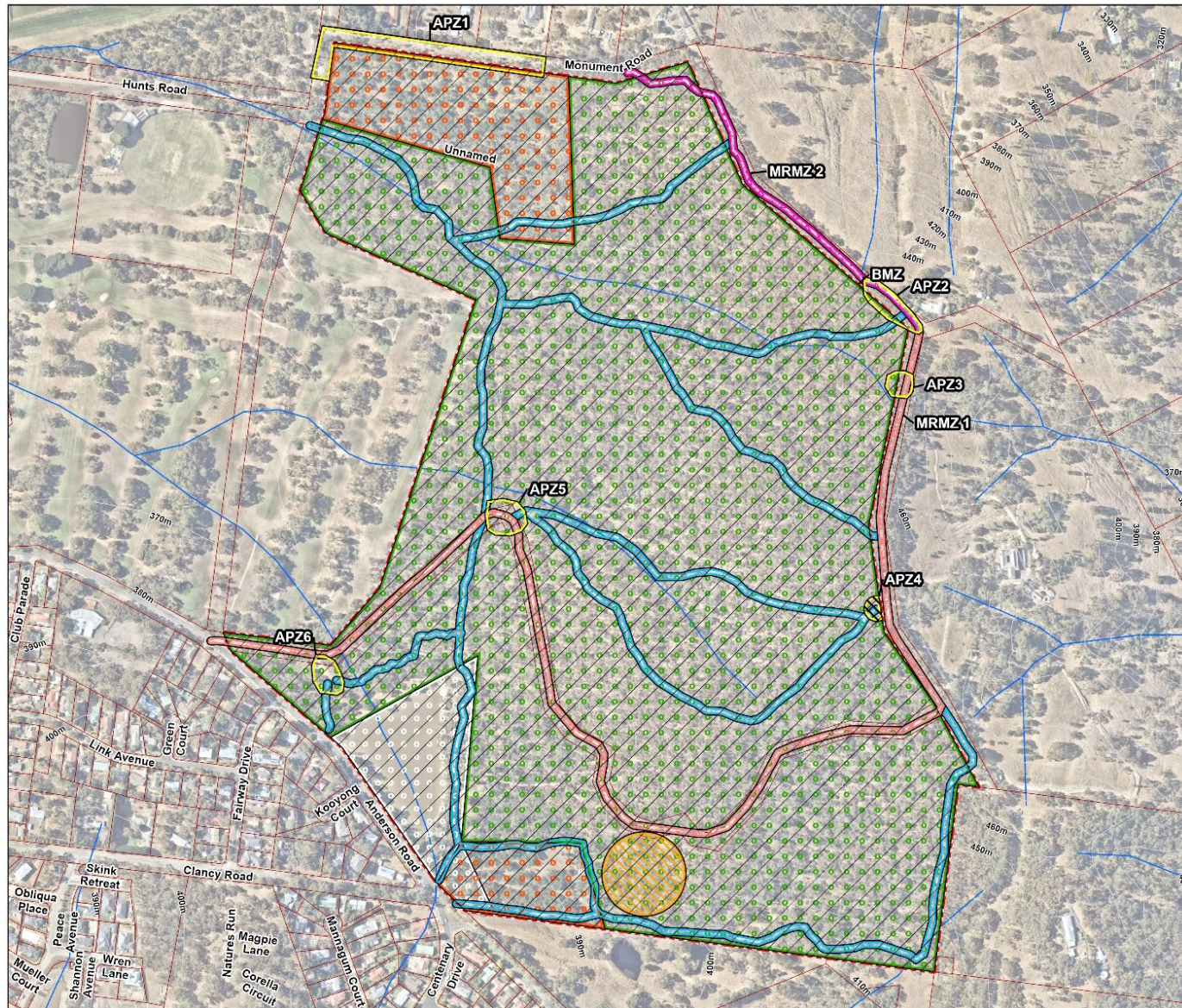
Table 8. Description of subzones

Conservation Zones	
CZ1	Area representative of Swampy Riparian Woodland (EVC83), encompassing the Monument Hill Dam.
CZ2	Areas of former pine plantations.
CZ3	Encompassing the remainder of the reserve.
Asset Protection Zones	
APZ1	Monument Road residences and access to the reserve from the north.
APZ2	Above ground powerline easement and adjacent residence.
APZ3	Telecommunication tower within a fenced compound, located to the east of the reserve's boundary.
APZ4	Hume and Hovell Monument, Lower carpark, picnic table, and interpretive signage 1.
APZ5	Mid Carpark and interpretive signage 2.
APZ6	Monument Carpark, picnic table, and interpretive signage 3.
Monument Road Management Zones	
MRMZ1	Monument Road
MRMZ2	Fire access track



Russula clelandii at Monument Hill Reserve. © Alison Pouliot.

Map 3. Management Zones



Map 3. Management Zones
Monument Hill Reserve, Kilmore

Legend

- Subject Site
- Parcels
- Contours (10m)
- Natural watercourse

Management Zones

- Aboriginal Cultural Heritage Zone
- European Cultural Heritage Zone
- Asset Protection Zone
- Conservation Zone 1
- Conservation Zone 2
- Conservation Zone 3
- Monument Road Management Zone 1
- Monument Road Management Zone 2
- Track Management Zone
- Bushfire Moderation Zone

Details

Mapping by: Ali Nia
 Date: 4/23/2024
 Version: 1
 Aerial photography from Nearmap (Feb. 2023).
 Data Source: Base layers courtesy of VicMap,
 Copyright © State of Victoria.

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Disclaimer
 Practical Ecology bears no responsibility for the accuracy and completeness of this information and any decisions or actions taken on the basis of the map. While information appears accurate at publication, nature and circumstances are constantly changing.

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5.2 Prioritisation

The proposed management actions have been categorised based on a set of priority levels for Monument Hill Reserve. Prioritisation plays a crucial role in effective management planning as it enables resource use efficiency and targeted efforts on the most pressing and impactful management actions. By identifying priority categories, critical actions can be addressed promptly. The defined priority categories are:

Current/Ongoing Actions – defined as currently implemented and ongoing management actions. These actions are recommended to continue without any additional resource requirements.

High Priority Actions – These actions are of the highest importance for one of the following reasons:

- The action is critical to the safety of the community and visitors within the reserve.
- The action is necessary to maintain the ecological balance and health of the reserve's ecosystem.
- The action involves the preservation of cultural values.
- The action is the first stage leading to subsequent management actions, forming a foundation for further improvements.

Medium Priority Actions - These actions contribute to enhancing the ecological value of the reserve and addressing specific management challenges. While not crucial for ensuring public safety, they play a significant role in overcoming obstacles and improving the overall efficiency of reserve management.

Low Priority Actions – While not essential for preserving the ecological and cultural values of the reserve, these actions offer the potential to enhance the reserve in numerous ways including providing additional amenities, improving visitor experiences, and complementing existing management efforts. They can be pursued when resources are available.

5.3 Resource Allocation and Timeframes

For the purpose of budgeting, the resources required for implementing each proposed management action have been categorised as follows:

IR - Internal staff resource

\$ - \$0 - \$5,000

\$\$ - \$5,001 - \$10,000

\$\$\$ - \$10,001 - \$20,000

\$\$\$\$ - \$20,001+

Note: all budget estimates provided in Appendix 1 are estimates only.

The proposed actions have also been categorised by timeframe to direct the management actions for the next ten years:

Short: Less than 3 years

Medium: Less than 5 years

Long: More than 5 years

Ongoing: Actions to be sustained throughout this management period.

6 Monitoring and Evaluation

Regular ongoing monitoring and evaluation of the action plan are essential for assessing the effectiveness and relevance of all actions. An effective monitoring and evaluation framework:

- Determines if the management goals and objectives are being achieved;
- Facilitates the early detection of management issues;
- Evaluates resources;
- Evaluates the effectiveness of the implemented actions; and
- Ensures that the plan remains relevant to the current needs and priorities of the Council and the community.

With the information gathered, an adaptive management approach can be implemented, to ensure that management is adapted to changing social, economic, and environmental conditions over the next ten years.

6.1 Monitoring

Monitoring serves as a vital first step in the evaluation process, involving the collection of information to assess the effectiveness of management actions and the overall plan. To ensure comprehensive evaluation, monitoring must prioritise data collection on environmental, economic, and social impacts. This data-driven approach fosters informed decision-making, adaptive strategies, and a thorough understanding of the Monument Hill Reserve's influence on its surroundings.

To evaluate the plans environmental impact, continuous gathering of ecological data is essential. Regular surveys of flora and fauna, identified as actions under Goal 1: Ecological Monitoring and Data Collection in Appendix 1, are crucial for this purpose. Through these surveys, changes in the ecosystem can be monitored over time, providing valuable insights into ecological trends within the reserve.

Furthermore, it may be necessary to conduct an ecological impact assessment for any proposed management actions defined within this plan or other management documents including the *Monument Hill Reserve Fuel Management Plan Accompanying Report* (GHD 2021). This ensures that any development or usage considers sensitive habitats, endangered species, and important ecological processes.

To evaluate the economic impacts, systematic data collection on financial aspects is crucial. Maintaining detailed records of resource expenditures for specific management actions enables cost-benefit analyses and ensures efficient resource use.

Assessing social impacts necessitates systematic data collection on community interactions and perceptions. Conducting regular surveys to gauge community attitudes and keeping detailed records of community complaints to the council regarding the reserve are essential components of this assessment. A 'User Survey' will be conducted every five years to assess how visitors utilise the reserve, gauge community perceptions, and identify emerging challenges. This data-driven approach helps cultivate positive community relations and supports effective engagement strategies.

6.2 Evaluation

To assess the effectiveness and relevance of the Monument Hill Reserve Management Plan, it is essential to define key evaluation questions (KEQ) that will focus on evaluating the ecological, social, and economic

impact of the plan over time. The evaluation process relies on the data gathered through ongoing monitoring efforts. By using this continuously collected data, the evaluation can effectively measure the ecological, social, and economic impact of the plan over time, ensuring that it is based on up-to-date and accurate information.

Below are the recommended KEQ to assess the achievement of the management goals:

- To what extent have the management actions and objectives been successfully accomplished?
- Are stakeholders and the local community adequately engaged and actively involved in the management process?
- Has community perception regarding the current management practices changed?
- How efficiently are the resources being utilised, and are there any additional resource required for effective management?
- Have there been any significant changes in circumstances that require adaptations or updates to the current management plan?
- Have the occurrences of illegal activities within the reserve changed, and what measures have been taken to address them?
- In what ways has the management plan positively influenced the ecological values and biodiversity of the conservation reserve?
- Is the monitoring process effectively collecting the necessary information to inform decision-making and improve management practices?

It is recommended that the management plan be evaluated using these KEQ annually (where possible), with the results informing management in the upcoming year.



Information sign at Monument Hill Reserve.

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Appendix 1: Action Plan

The resource allocation represents the approximate amount require to undertake the action within the Monument Hill Reserve. For actions that are recommended to be repeated, denoted by (*), the resource allocation represents the cost of implementing the action for a single occurrence.

(-) refers to actions stated within another Council Plan, and have not been allocated resources within this plan.

(RW) Signifies actions applicable to all management zones, while (+) denotes actions unrelated to a specific management zone or are actions to be implemented outside the reserve.

Goal	Objective	Action	Priority	Responsible Parties	Resource Allocation	Applicable Management Zone	Timeframe	
Improve Ecological Monitoring and Data Collection	Encourage community data collection/reporting	Create citizen science projects for the reserve including e-bird, frog ID, nest box monitoring and a dedicated iNaturalist project for the reserve.	Low	Council	IR	+	Short	
		Promote citizen science programs within the reserve through signage, local schools and community groups and via the Council's website	Low	Council	IR	+	Ongoing	
		Further develop the communications materials for the reserve, especially regarding the values of the reserve and how to use the citizen science programs and apps.	Low	Council	IR	+	Medium	
	Identify 'high priority' zones to inform management	Perform a habitat hectare assessment to identify zones of higher ecological value that support State and/or Commonwealth listed flora, and key threatening/degrading processes that require management.	High	Council	\$\$	CZ3	Short	
	Conduct regular ecological assessments	Conduct bird surveys every five years using the 20min/2ha survey method.	High	Council /Volunteers	\$	CZ1-3	Ongoing	
		Conduct an assessment of natural and artificial hollows within the reserve to determine the need for additional artificial nest boxes and hollows.	Medium	Council	\$\$	CZ1-3	Medium	
		Conduct spotlighting surveys every five years in spring and autumn, targeting native and invasive fauna.	High	Council	\$*	CZ1-3	Ongoing	
		Conduct Fungi surveys every 5 years during autumn in optimal conditions following the methodology outlined by Lindsay et al. (2013).	High	Council	\$\$*	CZ1-3	Ongoing	
		Conduct an acoustic survey every 5 years targeting bats and birds.	High	Council	\$\$*	CZ1-3	Ongoing	
		Conduct a tile survey every 5 years in spring, targeting reptiles and amphibian.	High	Council	\$\$*	CZ1-3	Ongoing	
		Conduct a vegetation quality assessment every 5 years using the habitat hectares method, noting and mapping significant indigenous species and noxious and environmental weeds.	High	Council	\$\$\$*	CZ1-3	Ongoing	
	Engage with academic institutions and research organisations	Create a research and development document aimed at conveying the Council's research priorities and identifying gaps in knowledge	Low	Council	IR	+	Long	
		Foster collaboration and engage with academic institutions and research organisations that may be interested in addressing these gaps and distribute the research development document to them to conduct research projects and scientific studies that fill data knowledge gaps and contribute to the management of the reserve.	Low	Council	IR	+	Long	
	Protect, Enhance, and Restore the Ecological Values of the Reserve	Conserve and enhance the quality of the Swampy Riparian Woodland (EVC83) on site.	Implement habitat enhancement projects, including planting and targeted weed control, to improve the ecological value of this EVC.	Medium	Council/Volunteers	\$\$\$\$	CZ1	Medium
		Mitigate the impacts of invasive flora and fauna on the reserve's	Continue to control woody weeds within the reserve including removing any pine saplings in the vicinity of the former pine plantation as a priority.	Current Action	Council	-	CZ1-3	Ongoing

Goal	Objective	Action	Priority	Responsible Parties	Resource Allocation	Applicable Management Zone	Timeframe
	ecological values	Annually guard significant flora species using plastic guards or wire exclusion fencing to encourage natural recruitment and to protect against native and invasive herbivores.	High	Council/Volunteers	\$	CZ1-3	Ongoing
		Engage with adjoining land managers to encourage implementation of complementary weed control and invasive fauna management works.	Medium	Council	IR	+	Ongoing
		Investigate opportunities to assess the impact and control pest animals throughout the reserve	High	Council	IR	CZ1-3	Ongoing
		Conduct weed control works at the Anderson Road entrance to the reserve to increase biodiversity and aesthetic values.	Medium	Council	IR	CZ3, APZ6, and MRMZ-1	Ongoing
	Increase the ecological value of the Monument Hill Reserve Dam	Introduce rocks and logs into, and around the fringes of the dam to increase fauna habitat.	Medium	Council	\$\$	CZ1	Medium
		Establish indigenous vegetation species along the fringes of the dam, selecting species capable of tolerating fluctuating water levels and periods of inundation and drying. This may require modification of the dam and the addition of richer soils as a substrate to support plantings.	Medium	Council/Volunteers	\$\$\$	CZ1	Medium
		Conduct supplementary planting within the inflow areas of the Dam to reduce sediment runoff and increase biodiversity values	Medium	Council/Volunteers	\$\$	CZ1 and CZ3	Short
	Enhance available habitat for native fauna	Create more artificial hollows, catering to a variety of species including microbats, larger birds and water birds, if deemed necessary following a detailed assessment of hollows.	Medium	Council/Volunteers	\$\$	CZ1-3	Long
		Develop and implement an annual monitoring and management action plan for the existing nest boxes and artificial hollows to ensure their proper maintenance and usage by fauna.	High	Council/Volunteers	\$\$	CZ1-3	Ongoing
		Introduce large logs to the reserve to achieve EVC Benchmark Standards using repurposing felled trees from elsewhere in the Shire.	Medium	Council	\$*	CZ1-3	Medium
	Conserve and enhance the quality of identified 'high priority' zones	Develop and implement a targeted weed management strategy for 'high priority' zones that includes a focus on exotic grasses including Sweet Vernal Grass.	High	Council	\$\$\$\$	CZ3	Ongoing
		Undertake enrichment plantings to reinstate missing and degraded components based on the EVC benchmark standards and habitat hectare assessment results.	High	Council/Volunteers	\$\$*	CZ3	Medium
		Maintain and enhance the quality of existing ecological corridors connecting the reserve to other significant native vegetation patches	Develop a municipality-wide management plan for the ecological corridors throughout the region to improve the connectivity of the Monument Hill Reserve to other native vegetation patches and to ensure that future developments are planned in a way that retains these corridors	Medium	Council	\$\$\$\$	CZ1-3
Improve Accessibility and Safety in the Reserve	Maintain and enhance existing formalised walking tracks and increase accessibility between town and the reserve	Map all designated tracks and ensure they all classified within the Council's mapping system and update educational/promotional materials.	High	Council	IR	TMZ	Short
		Assess all tracks against the Australian Walking Track Grading System (AWTGS) and DELWP (2019) Class 5e Standards (as per the Mitchell Shire Council Monument Hill Reserve Fuel Management Plan) and include on signage and promotional materials.	High	Council	IR	TMZ	Short
		Upgrade tracks if necessary to meet Grade 3-4 AWTGS standards and DELWP (2019) Class 5e Standards.	High	Council /TLaWC	\$\$\$\$	TMZ	Medium
		Perform six monthly inspections, monthly within the fire season and after significant weather events and undertake necessary maintenance on walking tracks to meet CFA and Grade 3-4 AWTGS standards.	High	Council	IR	TMZ	Ongoing

Goal	Objective	Action	Priority	Responsible Parties	Resource Allocation	Applicable Management Zone	Timeframe	
		Name all walking tracks in the in collaboration with the TLaWC to incorporate cultural perspectives.	Medium	Council/TLaWC	IR	TMZ	Medium	
		Improve directional signage to define tracks and encourage usage.	High	Council	\$\$\$	TMZ	Short	
		Address erosion issues by installing additional drainage solutions where required.	High	Council/ TLaWC	\$\$\$\$	TMZ	Short	
		Install signs with distance makers for trails.	Medium	Council	\$\$	TMZ	Short	
		Explore opportunities to improve pedestrian and cycling links between the reserve and Kilmore Township, particularly through the Kilmore Creek Walking Trail and the Kilmore Racecourse and Recreational Reserve Track.	Medium	Council	IR	TMZ	Long	
		Investigate opportunities to reduce the speed limit of Monument Rd to 40km/h	High	Council	IR	MRMZ1-2	Short	
	Upgrade interpretive signage to be educational and informative	Once the placement of all bollards is confirmed, install a reserve map on the reverse of interpretive sign #2	Low	Council	\$	APZ5	Long	
		Pending clarification on the significance of the Hume and Hovell Monument from Heritage Victoria, update the sign adjacent to the carpark to conform with Council’s signage template.	Medium	Council	\$	APZ4 and ECHZ	Short	
		Install additional signage to inform visitors of the reserve’s ecological values	Low	Council	\$	RW	Medium	
		Install signage to deter the use of Monument Road as a pedestrian track	High	Council	\$	MRMZ1-2	Short	
		Install additional signage to discourage use of the reserve during days of elevated fire danger and during storm events.	High	Council	\$\$	TMZ and MRMZ1-2	Short	
	Discourage inappropriate BMX/mountain bike access	Continue to maintain designated tracks to a safe level and rehabilitate any disturbed areas.	High	Council	IR	RW	Ongoing	
		Increase knowledge and promotion of BMX/mountain bike-friendly areas within the Shire.	Medium	Council	IR	+	Ongoing	
		Collaborate with local BMX/mountain bike groups and users to prevent the unauthorised construction of tracks and jumps in the reserve.	High	Council	IR	+	Ongoing	
		Unauthorised off-road trails and jumps to be removed and revegetated as soon as possible	High	Council	IR	RW	Ongoing	
	Discourage inappropriate 4WD and trail bike access	Continue to install bollards, boulders, and logs across unauthorised 4WD tracks.	Current Action	Council/Contractors	-	RW	Ongoing	
		Maintain signage indicating restricted areas and penalties for unauthorised access.	Current Action	Council	IR	RW	Ongoing	
	Manage fuel load within the reserve	Implement actions defined within the Monument Hill Fuel Management Plan in partnership with DEECA, CFA, TLaWC and adjoining landholders.	Current Action	Council/ CFA/TLaWC	-	RW	Ongoing	
	Maintain and enhance the accessibility of management vehicles to the Monument Hill Reserve Dam	Implement actions defined within the Monument Hill Dam Safety/Surveillance report.	Current Action	Council/ CFA/TLaWC	-	CZ1	Medium	
	Implement Actions to Minimise Illegal Activities in the Reserve	Utilise available enforcement measures to discourage illegal behaviours	Collaborate with local law enforcement officers and police to ensure regular patrols and presence within the reserve.	Current Action	Council	IR	+	Ongoing
			Promote Council’s online reporting platform for community members and visitors to report illegal activities, including inappropriate pet waste disposal, rubbish dumping and unauthorised access.	Medium	Council	IR	+	Ongoing
Record incidents of illegal dumping of rubbish in the reserve and review options for prevention;			Medium	Council	IR	RW	Ongoing	
Review appropriateness of dogs		Engage with the community to highlight the impacts of dogs off-leash within the Reserve.	High	Council	IR	+	Ongoing	

Goal	Objective	Action	Priority	Responsible Parties	Resource Allocation	Applicable Management Zone	Timeframe
	on/off lead within the reserve;	Work towards designating the reserve as a dog on lead area, in conjunction with promotion of suitable nearby alternatives for off-leash use.	High	Council	IR	RW	Short
	Review effectiveness of enforcement strategies.	Maintain detailed records of illegal activities.	Medium	Council	IR	+	Ongoing
		Seek feedback from stakeholders, law enforcement agencies, and the community on the effectiveness of enforcement efforts to date.	Medium	Council	IR	+	Short
		Review the effectiveness of enforcement measures and identify areas for improvement based on the feedback received.	Medium	Council	IR	+	Medium
		Adjust enforcement strategies based on evaluation results to enhance the protection of the reserve and effectively deter illegal activities.	Medium	Council	IR	RW	Medium
Increase Project Collaboration and Community Education and Engagement Opportunities	Increase community awareness of the ecological and cultural values of the reserve and activities that can degrade these values;	Strategically place interpretive signage within the reserve, including at the main entrance along Anderson Road and in the reserve's carparks, to inform visitors about prohibited activities and associated penalties, including illegal firewood collection.	Medium	Council	\$\$	TMZ and MRMZ1-2	Short
		Develop a community awareness campaign that explains how illegal activities impact the reserve;	Medium	Council	IR	+	Short
		Create a QR code with a direct link to the Monument Hill webpage on Council's website and introduce it on signage within the reserve.	Low	Council	IR	APZ4-6	Short
	Foster engagement through the provision of volunteer opportunities	Organise community events and workshops to raise awareness and engage community members in conservation efforts.	Low	Council	IR	RW	Ongoing
		Explore collaborative funding opportunities and grant programs to bolster conservation and restoration initiatives within the reserve.	Low	Council	IR	+	Long
		Establish a Friends of Monument Hill Reserve group	Low	Council	IR	+	Medium
		Promote youth engagement through educational programs and volunteer opportunities to foster respect, appreciation, and a sense of responsibility in managing the reserve.	Medium	Council	IR	RW	Ongoing
	Promote and facilitate the use of the Reserve as an educational resource	Engage with schools and universities to understand their specific needs and preferences regarding education and discuss how those needs can be effectively addressed to encourage use of the reserve.	Low	Council	IR	+	Ongoing
		Coordinate field trips and guided tours for students and community members to explore and learn about the reserve's ecological features, cultural significance, and conservation efforts.	Low	Council	IR	RW	Ongoing
		Maintain open communication channels with schools and universities to ensure ongoing collaboration and identify opportunities for further educational engagement within the reserve.	Low	Council	IR	+	Ongoing
		Host environmental engagement events in the reserve such as 'walk and talk', bird watching, wildflower walks and spotlighting events.	Low	Council/Volunteers	IR	CZ1-3	Ongoing
	Maintain and improve passive recreational and educational infrastructure in the reserve to elevate its tourism appeal and make it a regional destination	Develop a marketing strategy to regularly advertise the reserve's viewpoints and ecological and cultural values through the Council's website and social media accounts.	Low	Council	IR	+	Long
		Develop an Asset Management Plan that defines a set of annual maintenance requirements for all infrastructure including picnic facilities, tracks and fencing and identifies the location and specifications for any additional facilities that may be required in the future.	High	Council	IR	APZ1-6	Short
	Liaison with DEECA to discuss the	Advocate for a change to the gazettal purpose from Parks and Gardens Reserve to Flora and Fauna	Medium	Council/DEECA	IR	+	Medium

Goal	Objective	Action	Priority	Responsible Parties	Resource Allocation	Applicable Management Zone	Timeframe
	gazettal of the reserve	Reserve under the Crown Land (Reserves) Act 1978					
	Continue educational activities to raise community awareness and understanding of fire risk	Annual distribution of bushfire awareness and guidance material to reserve users and the neighboring community to raise awareness of fire prevention, safety protocols, and emergency evacuation procedures.	Current Action	Council with CFA support	IR	+	Ongoing
		Implement an engagement campaign with adjacent landowners to communicate how fire risk can be reduced on their properties.	High	CFA	IR	+	Ongoing
Increase Recognition of the Reserve's Historical Values	Recognise the European heritage of the reserve	Advocate to Heritage Victoria to make a determination on the significance of the monument.	High	Council	IR	ECHZ	Short
		Develop and implement a Conservation Management Plan for the Hume and Hovell Tower.	High	Council	\$\$\$	ECHZ	Ongoing
		Install interpretive signage relating to the European history of the reserve and specifically the Hume and Hovell Monument.	Medium	Council	\$\$	APZ3 and ECHZ	Medium
	Increase community engagement and education of Taungurung culture	Collaborate with the TLaWC to install interpretive signage throughout the reserve, highlighting cultural heritage sites, practices, and stories as considered appropriate by the TLaWC.	Low	Council/TLaWC	\$\$	RW	Medium
		Incentivise guided walks and cultural events led by Taungurung representatives to share cultural knowledge and foster community appreciation.	Low	Council/TLaWC	\$\$	RW	Medium
		Develop educational materials and programs for schools and community groups to learn about the cultural significance of the reserve.	Low	Council/TLaWC	\$\$	+	Medium
	Increase engagement with the Taungurung Land and Waters Council (TLaWC) beyond what is expected under the Land Use Activity Agreement	Develop a communication and engagement framework to facilitate increased engagement with the Taungurung Land and Waters Council (TLaWC) to integrate traditional ecological knowledge into management strategies.	High	Council	IR	+	Short
		Conduct cultural mapping exercises to identify culturally significant sites and incorporate their protection into future management plans, with a particular focus on the identified Aboriginal cultural heritage area.	High	Council/TLaWC	\$\$\$	ACHZ	Short

Key

Resource Allocation

IR	Internal staff resource
\$	0 - \$5,000
\$\$	\$5,001 - \$10,000
\$\$\$	\$10,001 - \$20,000
\$\$\$\$	\$20,001+

Note: all budget estimates provided in Appendix 1 are estimates only.

The proposed actions have also been categorised by timeframe to direct the management actions for the next ten years.

Timeframes

Short:	Less than 3 years
Medium:	Less than 5 years
Long:	More than 5 years
Ongoing	Actions to be sustained throughout this management period.

Appendix 2: Flora Species List

Origin	Scientific Name	Common Name	Source	FFG	EBPC
	<i>Acacia aculeatissima</i>	Thin-leaf Wattle	ABZECO		
#	<i>Acacia baileyana</i>	Cootamundra Wattle	MSC		
	<i>Acacia dealbata</i>	Silver Wattle	ABZECO		
#	<i>Acacia floribunda</i>	White Sallow-wattle	ABZECO		
#	<i>Acacia howittii</i>	Sticky Wattle	ABZECO	V	
	<i>Acacia implexa</i>	Lightwood	ABZECO		
	<i>Acacia mearnsii</i>	Black Wattle	ABZECO		
	<i>Acacia melanoxylon</i>	Blackwood	ABZECO		
	<i>Acacia paradoxa</i>	Hedge Wattle	ABZECO		
	<i>Acaena echinata</i>	Sheep's Burr	ABZECO		
	<i>Acaena novae-zelandiae</i>	Bidgee-widgee	ABZECO		
*	<i>Acetosella vulgaris</i>	Sheep Sorrel	ABZECO		
	<i>Acrotriche serrulata</i>	Honey-pots	ABZECO		
	<i>Adiantum aethiopicum</i>	Common Maidenhair	ABZECO		
*	<i>Agrostis capillaris</i>	Brown-top Bent	ABZECO		
*	<i>Aira caryophylla</i>	Hair Grass	ABZECO		
	<i>Allocasuarina verticillata</i>	Drooping Sheoak	ABZECO		
	<i>Amphibromus nervosus</i>	Common Swamp Wallaby-grass	ABZECO		
	<i>Amyema pendula</i>	Drooping Mistletoe	ABZECO		
	<i>Anthosachne scabra</i>	Common Wheat Grass	ABZECO		
*	<i>Anthoxanthum odoratum</i>	Sweet Vernal-grass	ABZECO		
*	<i>Arctotheca calendula</i>	Capeweed	ABZECO		
	<i>Arthropodium fimbriatum</i>	Nodding Chocolate-lily	ABZECO		
	<i>Arthropodium milleflorum</i>	Pale Vanilla Lily	ABZECO		
	<i>Arthropodium minus</i>	Small Vanilla Lily	ABZECO		
	<i>Arthropodium strictum</i>	Chocolate Lily	ABZECO		
	<i>Asperula conferta</i>	Common Woodruff	ABZECO		
	<i>Asplenium flabellifolium</i>	Necklace Fern	ABZECO		
	<i>Asplenium subglandulosum</i>	Blanket Fern	ABZECO		
	<i>Atriplex semibaccata</i>	Berry Saltbush	ABZECO		

Origin	Scientific Name	Common Name	Source	FFG	EBPC
	<i>Austrostipa bigeniculata</i>	Kneed Spear-grass	ABZECO		
	<i>Austrostipa densiflora</i>	Dense Spear-grass	ABZECO		
	<i>Austrostipa mollis</i>	Soft Spear-grass	ABZECO		
	<i>Austrostipa rudis subsp. nervosa</i>	Spear-grass	ABZECO		
	<i>Austrostipa rudis subsp. rudis</i>	Spear-grass	ABZECO		
*	<i>Avena fatua</i>	Wild Oat	ABZECO		
	<i>Bauera rubioides</i>	Wiry Bauera	ABZECO		
	<i>Bossiaea prostrata</i>	Creeping Bossiaea	ABZECO		
*	<i>Briza maxima</i>	Large Quaking-grass	ABZECO		
*	<i>Briza minor</i>	Lesser Quaking-grass	ABZECO		
*	<i>Bromus diandrus</i>	Great Brome	ABZECO		
*	<i>Bromus hordeaceus</i>	Soft brome	ABZECO		
*	<i>Bromus rubens</i>	Red brome	ABZECO		
	<i>Brunonia australis</i>	Blue Pincushion	ABZECO		
	<i>Bulbine bulbosa</i>	Bulbine Lily	ABZECO		
	<i>Burchardia umbellata</i>	Milkmaids	ABZECO		
	<i>Bursaria spinosa subsp. spinosa</i>	Sweet Bursaria	ABZECO		
	<i>Caesia calliantha</i>	Blue Grass Lily	ABZECO		
	<i>Caesia parviflora</i>	Pale Grass Lily	2014		
	<i>Caladenia catenata</i>	White/Pink Fingers	2014		
	<i>Caladenia clavigera</i>	Plain-lip Spider-orchid	VBA		
	<i>Caladenia concolor</i>	Crimson Spider-orchid	2014	En	V
	<i>Caladenia dilatata</i>	Charming Spider-orchid	2014		
	<i>Calochilus paludosus</i>	Red Beard-orchid	2014		
	<i>Calochilus robertsonii</i>	Purple Beard-orchid	2014		
*	<i>Carduus tenuiflorus</i>	Slender Thistle	2014		
	<i>Carex appressa</i>	Tall Sedge	ABZECO		
	<i>Cassinia aculeata subsp. aculeata</i>	Common Cassinia	ABZECO		
	<i>Cassinia longifolia</i>	Shiny Cassinia	ABZECO		
#	<i>Cassinia sifton</i>	Drooping Cassinia	ABZECO		

Origin	Scientific Name	Common Name	Source	FFG	EBPC
*	<i>Cenchrus clandestinus</i>	Kikyku Grass	ABZECO		
*	<i>Centaureum erythraea</i>	Common Centaury	ABZECO		
	<i>Centella cordifolia</i>	Centella	ABZECO		
	<i>Cheilanthes austrotenuifolia</i>	Green Rock-fern	ABZECO		
	<i>Chiloglottis valida</i>	Common Bird-orchid	ABZECO		
	<i>Chloris truncata</i>	Windmill Grass	ABZECO		
	<i>Chrysocephalum apiculatum</i>	Common Everlasting	ABZECO		
	<i>Chrysocephalum semipapposum</i>	Clustered Everlasting	ABZECO		
*	<i>Cirsium vulgare</i>	Spear Thistle	ABZECO		
	<i>Clematis microphylla s.l.</i>	Small-leaved Clematis	ABZECO		
	<i>Comesperma polygaloides</i>	Small Milkwort	2014	Cr	
	<i>Comesperma volubile</i>	Love Creeper	VBA		
	<i>Coronidium scorpioides</i>	Button Everlasting	ABZECO		
	<i>Correa reflexa</i>	Common Correa	2014		
	<i>Cotula australis</i>	Common Cotula	ABZECO		
	<i>Craspedia glauca</i>	Common Billy-buttons	ABZECO		
*	<i>Crassula sarcocaulis</i>	Bonsai Crassula	ABZECO		
*	<i>Crataegus monogyna</i>	Hawthorn	VBA		
	<i>Cyanicula caerulea</i>	Blue Fairy	2014		
	<i>Cynogeton procerum</i>	Water Ribbons	ABZECO		
	<i>Cymbonotus preissianus</i>	Austral Bear's-ear	ABZECO		
*	<i>Cynodon dactylon</i>	Common Couch	ABZECO		
*	<i>Cyperus eragrostis</i>	Drain Flat-sedge	ABZECO		
*	<i>Dactylis glomerata</i>	Cocksfoot	ABZECO		
	<i>Daviesia latifolia</i>	Hop Bitter-pea	ABZECO		
*	<i>Delairea odorata</i>	Cape Ivy	ABZECO		
	<i>Dianella admixta</i>	Black-anther Flax-lily	ABZECO		
	<i>Dianella longifolia</i>	Pale Flax-lily	ABZECO		
	<i>Dianella tasmanica</i>	Tasman Flax-lily	VBA		
	<i>Dichelachne hirtella</i>	Plume Grass	ABZECO		
	<i>Dichondra repens</i>	Kidney-weed	ABZECO		

Origin	Scientific Name	Common Name	Source	FFG	EBPC
	<i>Dillwynia cinerascens</i>	Grey Parrot-pea	ABZECO		
	<i>Dillwynia glaberrima</i>	Smooth Parrot-pea	ABZECO		
	<i>Dillwynia sericea</i>	Showy Parrot-pea	ABZECO		
*	<i>Dimorphotheca fruticosa</i>	South African Daisy	ABZECO		
	<i>Dipodium pardalinum</i>	Spotted Hyacinth Orchid	MSC	En	
	<i>Dipodium punctatum</i>	Blotched Hyacinth Orchid	ABZECO		
	<i>Dipodium roseum</i>	Hyacinth Orchid	ABZECO		
	<i>Diuris chryseopsis</i>	Golden Moths	VBA		
	<i>Diuris orientis</i>	Wallflower Orchid	2014		
	<i>Diuris pardina</i>	Leopard Orchid	MSC		
	<i>Diuris sulphurea</i>	Tiger Orchid	2014		
	<i>Drosera aberrans</i>	Scented Sundew	2014		
	<i>Drosera auriculata</i>	Tall Sundew	ABZECO		
	<i>Drosera macrantha subsp. planchonii</i>	Climbing Sundew	2014		
*	<i>Echium plantagineum</i>	Paterson's Curse	ABZECO		
*	<i>Ehrharta longiflora</i>	Annual Veldt-grass	ABZECO		
	<i>Eleocharis acuta</i>	Common Spike-sedge	ABZECO		
	<i>Epacris impressa</i>	Common Heath	ABZECO		
	<i>Epilobium billardioreanum subsp. billardioreanum</i>	Smooth Willow Herb	ABZECO		
*	<i>Erica lusitanica</i>	Spanish Heath	ABZECO		
	<i>Eucalyptus dives</i>	Broad-leaf Peppermint	ABZECO		
	<i>Eucalyptus goniocalyx</i>	Bundy	ABZECO		
	<i>Eucalyptus melliodora</i>	Yellow Box	ABZECO		
	<i>Eucalyptus microcarpa</i>	Grey Box	ABZECO		
	<i>Eucalyptus obliqua</i>	Messmate Stringybark	ABZECO		
	<i>Eucalyptus ovata</i>	Swamp Gum	ABZECO		
	<i>Eucalyptus radiata</i>	Narrow-leaf Peppermint	ABZECO		
	<i>Eucalyptus rubida</i>	Candlebark	ABZECO		
	<i>Eucalyptus viminalis</i>	Manna Gum	ABZECO		
	<i>Eucalyptus yarraensis</i>	Yarra Gum	VBA	Cr	

Origin	Scientific Name	Common Name	Source	FFG	EBPC
*	<i>Euphorbia lathyris</i>	Caper Spurge	ABZECO		
	<i>Euchiton involucratus</i>	Common Cudweed	ABZECO		
	<i>Exocarpos cupressiformis</i>	Cherry Ballart	ABZECO		
*	<i>Galium aparine</i>	Cleavers	ABZECO		
	<i>Galium gaudichaudii</i>	Rough Bedstraw	ABZECO		
	<i>Gastrodia sesamoides</i>	Common Potato Orchid	ABZECO		
*	<i>Genista monspessulana</i>	Montpellier Broom	ABZECO		
	<i>Geranium potentilloides</i>	Soft Crane's-bill	ABZECO		
	<i>Geranium solanderi</i>	Austral Crane's-bill	ABZECO		
	<i>Geranium sp.</i>	Crane's Bill	ABZECO		
	<i>Glossodia major</i>	Wax Lip Orchid	2014		
	<i>Glycine clandestina</i>	Twining Glycine	ABZECO		
	<i>Gompholobium huegelii</i>	Common Wedge-pea	VBA		
	<i>Gonocarpus tetragynus</i>	Common Raspwort	ABZECO		
	<i>Goodenia elongata</i>	Lanky Goodenia	2014		
	<i>Goodenia geniculata</i>	Bent Goodenia	ABZECO		
	<i>Goodenia ovata</i>	Hop Goodenia	ABZECO		
	<i>Hardenbergia violacea</i>	Purple Coral-pea	ABZECO		
*	<i>Hedera helix</i>	English Ivy	ABZECO		
*	<i>Helminthotheca echioides</i>	Ox-tongue	ABZECO		
	<i>Hibbertia fasciculata</i> var. <i>prostrata</i>	Bundled Guinea-flower	2014		
*	<i>Holcus lanatus</i>	Yorkshire Fog	ABZECO		
	<i>Hovea heterophylla</i>	Common Hovea	ABZECO		
	<i>Hydrocotyle hirta</i>	Hairy Pennywort	ABZECO		
	<i>Hydrocotyle laxiflora</i>	Stinking Pennywort	ABZECO		
	<i>Hypericum gramineum</i>	Small St John's Wort	ABZECO		
	<i>Hypericum japonicum</i>	Matted St John's Wort	VBA		
*	<i>Hypochaeris radicata</i>	Flatweed	ABZECO		
	<i>Hypoxis glabella</i> var. <i>glabella</i>	Tiny Star	NSC		
*	<i>Ilex aquifolium</i>	Holly	ABZECO		

Origin	Scientific Name	Common Name	Source	FFG	EBPC
	<i>Indigofera australis</i> subsp. <i>australis</i>	Austral Indigo	ABZECO		
	<i>Juncus australis</i>	Austral Rush	ABZECO		
	<i>Juncus subsecundus</i>	Finger Rush	ABZECO		
	<i>Kennedia prostrata</i>	Running Postman	ABZECO		
	<i>Kunzea leptospermoides</i>	Burgan	ABZECO		
	<i>Lachnagrostis semibarbata</i> var. <i>semibarbata</i>	Purple Blown-grass	ABZECO	En	
	<i>Lachnagrostis filiformis</i>	Common Blown-grass	ABZECO		
	<i>Lagenophora stipitata</i>	Blue Bottle-daisy	ABZECO		
*	<i>Lagurus ovatus</i>	Hare's-tail Grass	ABZECO		
*	<i>Leontodon saxatilis</i>	Hairy Hawkbit	ABZECO		
	<i>Lepidosperma laterale</i>	Variable Sword-sedge	ABZECO		
	<i>Leptorhynchus squamatus</i>	Scaly Buttons	ABZECO		
	<i>Leptorhynchus tenuifolius</i>	Wiry Buttons	ABZECO		
	<i>Leucopogon virgatus</i>	Common Beard Heath	ABZECO		
	<i>Lobelia gibbosa</i>	Tall Lobelia	ABZECO		
	<i>Lobelia pratioides</i>	Poison Lobelia	ABZECO		
*	<i>Lolium perenne</i>	Perennial Ryegrass	ABZECO		
	<i>Lomandra filiformis</i> subsp. <i>filiformis</i>	Wattle Mat-rush	ABZECO		
	<i>Lomandra longifolia</i>	Spiny-headed Mat-rush	ABZECO		
	<i>Luzula meridionalis</i>	Field Woodrush	ABZECO		
	<i>Lycopodiella lateralis</i>	Slender Clubmoss	2014		
	<i>Lycopodium deuterodensum</i>	Bushy Clubmoss	2014		
*	<i>Lysimachia arvensis</i>	Pimpernel	ABZECO		
	<i>Lythrum hyssopifolia</i>	Lesser Loosestrife	ABZECO		
*	<i>Medicago polymorpha</i>	Burr Medic	ABZECO		
	<i>Melicytus dentatus</i>	Tree Violet	ABZECO		
	<i>Microlaena stipoides</i> var. <i>stipoides</i>	Weeping Grass	ABZECO		
	<i>Microseris walteri</i>	Yam Daisy	ABZECO		
	<i>Microtis arenaria</i>	Notched Onion-orchid	2014		

Origin	Scientific Name	Common Name	Source	FFG	EBPC
	<i>Microtis parviflora</i>	Slender Onion-orchid	ABZECO		
	<i>Microtis oblonga</i>	Sweet Onion-orchid	2014		
	<i>Montia australasica</i>	White Purselane	ABZECO		
	<i>Opercularia varia</i>	Variable Stinkweed	ABZECO		
	<i>Oxalis exilis</i>	Yellow Wood-sorrel	ABZECO		
	<i>Oxalis perennans</i>	Grassland Wood-sorrel	ABZECO		
*	<i>Oxalis pes-caprae</i>	Soursob	ABZECO		
	<i>Ozothamnus ferrugineus</i>	Tree Everlasting	ABZECO		
	<i>Pauridia glabella</i> var. <i>glabella</i>	Tiny Star	ABZECO		
	<i>Pelargonium australe</i>	Austral Stork's-bill	2014		
	<i>Pelargonium rodneyanum</i>	Magenta Storks Bill	ABZECO		
*	<i>Phalaris aquatica</i>	Toowoomba Canary-grass	ABZECO		
	<i>Pheladenia deformis</i>	Blue fairies	2014		
	<i>Phragmites australis</i>	Common Reed	ABZECO		
	<i>Pimelea curviflora</i>	Curved Rice-flower	ABZECO		
	<i>Pimelea humilis</i>	Common Rice-flower	ABZECO		
	<i>Pimelea linifolia</i>	Slender Rice Flower	ABZECO		
	<i>Pimelea octophylla</i>	Woolly Rice Flower	2014		
*	<i>Pinus radiata</i>	Radiata Pine	VBA		
#	<i>Pittosporum undulatum</i>	Sweet Pittosporum	ABZECO		
*	<i>Plantago coronopus</i>	Buck's-horn Plantain	ABZECO		
*	<i>Plantago lanceolata</i>	Ribwort	ABZECO		
	<i>Plantago varia</i>	Variable Plantain	ABZECO		
	<i>Platylobium montanum</i>	Platylobium	ABZECO		
*	<i>Poa annua</i>	Annual Meadow Grass	ABZECO		
	<i>Poa labillardierei</i>	Common Tussock-grass	ABZECO		
	<i>Poa morrisii</i>	Soft Tussock-grass	ABZECO		
	<i>Poa sieberiana</i>	Grey Tussock-grass	ABZECO		
	<i>Podolepis linearifolia</i>	Basalt Podolepis	2014	En	
	<i>Podolobium procumbens</i>	Trailing Podolobium	2014		
	<i>Polycalymma stuartii</i>	Poached-eggs Daisy	2014		
	<i>Poranthera microphylla</i>	Small Poranthera	ABZECO		

Origin	Scientific Name	Common Name	Source	FFG	EBPC
	<i>Pteridium esculentum subsp. esculentum</i>	Austral Bracken	ABZECO		
	<i>Pterostylis alpina s.l.</i>	Alpine Greenhood	VBA		
	<i>Pterostylis curta</i>	Blunt Greenhood	2014		
	<i>Pterostylis melagramma</i>	Tall Greenhood	2014		
	<i>Pterostylis nana</i>	Dwarf Greenhood	2014		
	<i>Pterostylis nutans</i>	Nodding Greenhood	2014		
	<i>Pterostylis pedunculata</i>	Maroonhood	2014		
	<i>Pterostylis plumosa</i>	Bearded Greenhood	2014		
	<i>Ranunculus lappaceus</i>	Australian Buttercup	ABZECO		
*	<i>Romulea rosea</i>	Onion-grass	ABZECO		
*	<i>Rosa rubiginosa</i>	Sweet Briar	ABZECO		
*	<i>Rubus anglocandicans</i>	Blackberry	ABZECO		
	<i>Rumex brownii</i>	Slender Dock	ABZECO		
*	<i>Rumex crispus</i>	Curled Dock	ABZECO		
	<i>Rytidosperma caespitosa</i>	Common Wallaby Grass	ABZECO		
	<i>Rytidosperma duttonianum</i>	Brown-back Wallaby Grass	ABZECO		
	<i>Rytidosperma eriantha</i>	Hill Wallaby Grass	ABZECO		
	<i>Rytidosperma monticola</i>	Small-flower Wallaby Grass	2014	En	
	<i>Rytidosperma pallidum</i>	Silvertop Wallaby Grass	ABZECO		
	<i>Rytidosperma racemosum var. racemosum</i>	Slender Wallaby-grass	ABZECO		
	<i>Rytidosperma tenuius</i>	Wallaby Grass	ABZECO		
*	<i>Salix cinerea</i>	Pussy Willow	ABZECO		
	<i>Schoenus apogon</i>	Common Bog-sedge	ABZECO		
	<i>Selaginella gracillima</i>	Tiny Selaginella	ABZECO		
	<i>Senecio glomeratus</i>	Annual Fireweed	ABZECO		
	<i>Senecio hispidulus</i>	Rough Fireweed	ABZECO		
	<i>Senecio linearifolius</i>	Fireweed Groundsel	ABZECO		
	<i>Senecio minimus</i>	Shrubby Fireweed	VBA		
	<i>Senecio odoratus</i>	Scented Groundsel	2014		
	<i>Senecio quadridentatus</i>	Cotton Fireweed	ABZECO		

Origin	Scientific Name	Common Name	Source	FFG	EBPC
	<i>Solanum laciniatum</i>	Large Kangaroo Apple	2014		
*	<i>Solanum nigrum</i>	Blackberry Nightshade	ABZECO		
	<i>Solenogyne dominii</i>	Smooth Solenogyne	ABZECO		
*	<i>Sonchus asper</i>	Rough Sow-thistle	2014		
*	<i>Sonchus oleraceus</i>	Common Sow-thistle	ABZECO		
	<i>Stackhousia monogyna</i>	Creamy Stackhousia	2014		
	<i>Stylidium armeria</i>	Common Triggerplant	ABZECO		
	<i>Stylidium graminifolium</i>	Grass Triggerplant	ABZECO		
	<i>Styphelia humifusa</i>	Cranberry Heath	ABZECO		
*	<i>Taraxacum officinale</i> spp. agg.	Garden Dandelion	ABZECO		
	<i>Tetradlea ciliata</i>	Pink-bells	ABZECO		
	<i>Thelymitra antennifera</i>	Rabbit Ears	2014		
	<i>Thelymitra aristata</i>	Great Sun-orchid	2014		
	<i>Thelymitra ixioides</i>	Spotted	2014		
	<i>Thelymitra pauciflora</i>	Slender Sun-orchid	2014		
	<i>Thelymitra rubra</i>	Salmon Sun-orchid	VBA		
	<i>Themeda triandra</i>	Kangaroo Grass	ABZECO		
*	<i>Thinopyrum ponticum</i>	Tall Wheatgrass	ABZECO		
	<i>Thysanotus patersonii</i>	Twining Fringe-lily	2014		
	<i>Thysanotus tuberosus</i>	Common Fringe-lily	ABZECO		
	<i>Tricoryne elatior</i>	Yellow Rush-lily	ABZECO		
*	<i>Trifolium repens</i> var. <i>repens</i>	White Clover	ABZECO		
*	<i>Trifolium subterraneum</i>	Subterranean Clover	ABZECO		
	<i>Veronica gracilis</i>	Slender Speedwell	ABZECO		
	<i>Veronica plebia</i>	Trailing Speedwell	ABZECO		
*	<i>Vicia sativa</i>	Commo Vetch	ABZECO		
	<i>Viola betonicifolia</i>	Showy Violet	ABZECO		
	<i>Viola hederacea</i>	Ivy-leaf Violet	ABZECO		
	<i>Vittadinia cuneata</i> var. <i>cuneata</i>	Fuzzy New Holland Daisy	VBA		
*	<i>Vulpia bromoides</i>	Squirrel-tail Fescue	ABZECO		
	<i>Wahlenbergia gracilis</i>	Sprawling Bluebell	ABZECO		

Origin	Scientific Name	Common Name	Source	FFG	EBPC
	<i>Wahlenbergia stricta</i> subsp. <i>stricta</i>	Tall Bluebell	ABZECO		
	<i>Walwhalleya proluta</i>	Rigid Panic	VBA		
*	<i>Watsonia meriana</i> var. <i>bulbillifera</i>	Bulbil Watsonia	ABZECO		
	<i>Wurmbea dioica</i>	Common Early Nancy	ABZECO		
	<i>Xerochrysum viscosum</i>	Shiny Everlasting	ABZECO		

Source:

ABZECO = 2021 Vegetation Assessment

2014 = Monument Hill Reserve Management Plan 2014

VBA = Victorian Biodiversity Atlas record

MSC = Staff or Resident of Mitchell Shire Council

NSC = Nature Stewards Class 2024

FFG Listing:

V = Vulnerable

En = Endangered

Cr = Critically Endangered

EPBC Listing:

V = Vulnerable

En = Endangered

Appendix 3: Fauna Species List

Origin	Scientific Name	Common Name	Source	FFG	EBPC
MAMMALS					
*	Cervidae spp.	Feral Deer	TREC		
*	Lepus europaeus	European Hare	TREC		
	Macropus giganteus	Eastern Grey Kangaroo	TREC		
*	Oryctolagus cuniculus	European Rabbit	TREC		
	Petaurus breviceps	Sugar Glider	TREC		
	Phascogale tapoatafa	Brush-tailed Phascogale	TREC	V	
	Pseudocheirus peregrinus	Common Ringtail Possum	TREC		
	Sminthopsis murina murina	Common Dunnart	TREC	V	
	Tachyglossus aculeatus	Short-beaked Echidna	TREC		
	Trichosurus vulpecula	Common Brushtail Possum	TREC		
	Microbat sp.	Microbat Species	TREC		
	Vombatus ursinus	Common Wombat	TREC		
*	Vulpes vulpes	Red Fox	TREC		
	Wallabia bicolor	Swamp Wallaby	TREC		
BIRDS					
	Acanthiza chrysorrhoa	Yellow-rumped Thornbill	TREC		
	Acanthiza lineata	Striated Thornbill	TREC		
	Acanthiza nana	Yellow Thornbill	TREC		
	Acanthiza pusilla	Brown Thornbill	TREC		
	Acanthiza reguloides	Buff-rumped Thornbill	TREC		
	Aegotheles cristatus	Australian Owlet-nightjar	TREC		
	Alisterus scapularis	Australian King Parrot	TREC		
	Anas superciliosa	Pacific Black Duck	TREC		
	Anthochaera carunculata	Red Wattlebird	TREC		
	Aquila audax	Wedge-tailed eagle	MSC		
	Cacatua galerita	Sulphur-crested Cockatoo	TREC		
	Cacatua sanguinea	Little Corella	TREC		
	Cacomantis flabelliformis	Fan-tailed Cuckoo	TREC		
	Callocephalon fimbriatum	Gang-gang Cockatoo	TREC		En

Origin	Scientific Name	Common Name	Source	FFG	EBPC
	<i>Calyptorhynchus funereus</i>	Yellow-tailed Black-cockatoo	TREC		
	<i>Chenonetta jubata</i>	Australian Wood Duck	TREC		
	<i>Colluricincla harmonica</i>	Grey Shrike-thrush	TREC		
	<i>Corcorax melanorhamphos</i>	White-winged Chough	TREC		
	<i>Cormobates leucophaea</i>	White-throated Treecreeper	TREC		
	<i>Corvus coronoides</i>	Australian Raven	TREC		
	<i>Corvus mellori</i>	Little Raven	TREC		
	<i>Gymnorhina tibicen</i>	Australian Magpie	TREC		
	<i>Cracticus torquatus</i>	Grey Butcherbird	TREC		
	<i>Dacelo novaeguineae</i>	Laughing Kookaburra	TREC		
	<i>Daphoenositta chrysoptera</i>	Varied Sitella	TREC		
	<i>Eolophus roseicapilla</i>	Galah	TREC		
	<i>Falco berigora</i>	Brown Falcon	TREC		
	<i>Grallina cyanoleuca</i>	Magpie-lark	TREC		
	<i>Caligavis chrysops</i>	Yellow-faced Honeyeater	TREC		
	<i>Nesoptilotis leucotis</i>	White-eared Honeyeater	TREC		
	<i>Melithreptus brevirostris</i>	Brown-headed Honeyeater	TREC		
	<i>Microeca fascinans</i>	Jacky Winter	TREC		
	<i>Ninox boobook</i>	Boobook Owl	TREC		
	<i>Ninox connivens</i>	Barking Owl	VBA	Cr	
	<i>Ninox strenua</i>	Powerful Owl	VBA	En	
	<i>Nycticorax caledonicus</i>	Nankeen Night Heron	MSC		
	<i>Pachycephala pectoralis</i>	Golden Whistler	TREC		
	<i>Pachycephala rufiventris</i>	Rufous Whistler	TREC		
	<i>Pardalotus punctatus</i>	Spotted Pardalote	TREC		
	<i>Petroica boodang</i>	Scarlet Robin	TREC		
	<i>Phalacrocorax carbo</i>	Great Cormorant	TREC		
	<i>Phaps chalcoptera</i>	Common Bronzewing	TREC		
	<i>Platycercus elegans</i>	Crimson Rosella	TREC		
	<i>Podargus strigoides</i>	Tawny Frogmouth	TREC		
	<i>Ptilotula penicillata</i>	White-plumed Honeyeater	TREC		
	<i>Rhipidura albiscapa</i>	Grey Fantail	TREC		

Origin	Scientific Name	Common Name	Source	FFG	EBPC
	<i>Strepera graculina</i>	Pied Currawong	TREC		
	<i>Strepera versicolor</i>	Grey Currawong	TREC		
	<i>Trichoglossus molucannus</i>	Rainbow Lorikeet	TREC		
*	<i>Turdus merula</i>	Common Blackbird	TREC		
	<i>Vanellus miles</i>	Masked Lapwing	TREC		
REPTILES					
	<i>Lampropholis guichenoti</i>	Common Garden Skink	TREC		
	<i>Notechis scutatus</i>	Tiger Snake	MSC		
	<i>Pseudonaja textilis</i>	Eastern Brown Snake	TREC		
	<i>Saproscincus mustelinus</i>	Weasel Skink	TREC		
AMPHIBIANS					
	<i>Crinia signifera</i>	Common Eastern Froglet	TREC		
	<i>Litoria ewingii</i>	Southern Brown Tree Frogs	TREC		
FISH					
*	<i>Perca fluviatilis</i>	European Perch	MSC		
INVERTERBRATES					
	<i>Anax papuensis</i>	Australian Emperor Dragonfly	TREC		
	<i>Anthela varia</i>	Variable Anthelid	TREC		
	<i>Austrolestes analis</i>	Slender Ringtail Damselfly	TREC		
	<i>Dolichoderus scabridus</i>	Dolichoderus Ant	TREC		
	<i>Fletchamia quinquelineata</i>	Five-lined Flatworm	TREC		
	<i>Hednota</i> sp.	Diurnal Moth Species	TREC		
	<i>Heteronympha merope</i>	Common Brown	TREC		
	<i>Miturga gilva</i>	Large-sacked Spider	TREC		
	<i>Myrmecia nigriceps</i>	Black-headed Bull ants	TREC		
	<i>Myrmecia pilosula</i>	Jack Jumper Ants	TREC		
	<i>Panesthia australis</i>	Australian Wood Cockroach	TREC		
	Unknown species in the family Anthicidae	Ant-like Flower Beetle	TREC		
	<i>Vanessa itea</i>	Yellow Admiral	TREC		
	<i>Vanessa kershawi</i>	Australian Painted Lady	TREC		
	<i>Yoyetta grandis</i>	Red-eyed Firetail Cicada	TREC		

Origin:

* = Exotic

Source:

TREC = 2020 Fauna Assessment

VBA = Victorian Biodiversity Atlas record

MSC = Staff or Resident of Mitchell Shire Council

FFG Listing:

V = Vulnerable

En = Endangered

Cr = Critically Endangered

EPBC Listing:

En = Endangered

Notes





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